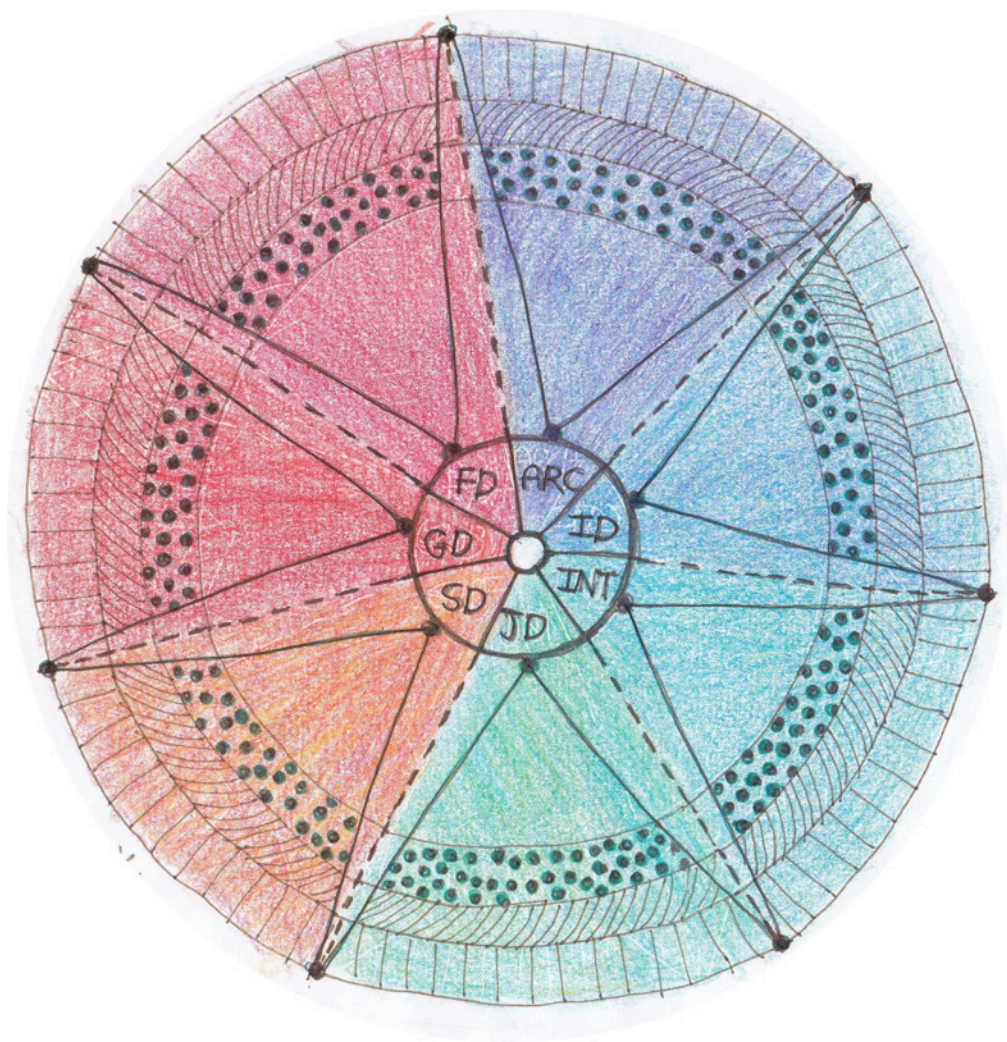# Towards a conceptual framework for an integrated, multidisciplinary foundation programme to educate critically aware and skilled designers in South Africa

Maria Constantine Lecanides Arnott

TOWARDS A CONCEPTUAL FRAMEWORK FOR AN INTEGRATED, MULTIDISCIPLINARY FOUNDATION PROGRAMME TO EDUCATE CRITICALLY AWARE AND SKILLED DESIGNERS IN SOUTH AFRICA

by

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DECLARATION

I, Maria Constantine Lecanides Arnott, declare that the contents of this thesis represent my own unaided work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

_____   _____
Signed   **Date**

ABSTRACT

Globally, and locally in South Africa, the call from design educators and the design industry is for knowledgeable, skilled, critically aware and versatile designers. Through the use of appropriate technology these designers should be able to meet the demands of a constantly changing and increasingly complex world with practical and sustainable design solutions. The proceedings of the ConnectED 2010 international design education conference in Sydney, 2010, and the Design Indaba, design industry conference in Cape Town, 2010, reflect these views. Foundation programmes in design at tertiary level should establish building blocks for lifelong learning, and provide grounding for further study in the field of design. Concepts such as critical awareness and versatility need to be applied to curriculum development, assessment methods and teaching approach at foundation level. Foundation education in design will be investigated in the context of the achievements and challenges of the culturally diverse, integrated, multidisciplinary Design Foundation Course (incorporating architectural technology, fashion, graphic, industrial, interior, jewellery and surface design) at the Cape Peninsula University of Technology (CPUT), in South Africa. Emphasis will be placed on studio-based design subjects, the concept of "learning to see", the integration of theory and practice and the transference of knowledge and skills from one design discipline to another. Specific consideration will be given to curriculum development, assessment methods and teaching approach towards the development of a conceptual framework in a foundation programme in design for educating knowledgeable, skilled, critically aware and versatile designers.

ACKNOWLEDGEMENTS

DEDICATION

The place of values in a world of facts
(Karl Popper, 1978:193)

For
Bruce, Ariane and Matthew

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GLOSSARY

Abbreviations	Explanation
CED	1998. *Collins English dictionary*. Glasgow: HarperCollins.
EB	Babbie, E. 2010. *The Practice of Social Research*. Belmont, California: Wadsworth.
EL-S	Lucie-Smith, E. 1984. *The Thames and Hudson Dictionary of Art Terms*. London: Thames and Hudson.
RB	Buchanan, R. 2006. Anxiety, wonder and astonishment: the communion of art and design. *Enhancing Curricula: meeting the challenges of the 21st century*: 13-22
RH	Hickman, Richard. 2008. *Research in Art & Design Education: Issues and Exemplars*. Bristol, UK: Intellect Books.
WLN	Neuman, WL. 2003. *Social Research Methods: Qualitative and Quantitative approaches (5th ed).* Boston: Pearson Education.

Acronyms	Explanation
CPUT	Cape Peninsula University of Technology
DHET	Department of Higher Education and Training
DOE	Department of Education
NBT	National Benchmark Test
NMMU	Nelson Mandela Metropolitan University
UCT	University of Cape Town

Terms	Definition
abstract art	"Art which is either completely non-representational, or which converts forms observed in reality into patterns which are read by the spectator primarily as independent relationships … " (EL-S: 9)
academy	"An institution whose origins lie in the many associations formed during the Renaissance as a revolt against the medieval guild system, with the aim of establishing painters and sculptors, hitherto regarded as artisans, as highly educated professionals equipped with a comprehensive theory of art as well as with technical skill. … " (EL-S: 10)
action research	"A type of research in which educators examine and reflect upon their own practice and evaluate strategies to improve

practice. It is a multi-stage type of research, in which a problem is researched, changes are made, the problem is researched again, more changes are made, and so on through a number of cycles, until the problem is solved. Most action research studies use descriptive research designs". (RH: 187)

aesthetic	"A coherent system of criteria … used for evaluating works of art". (EL-S:11)
aesthetics	"The philosophy of the beautiful in art … " (EL-S: 11)
applied art	"Art which is essentially functional, but which is also designed to be aesthetically pleasing … " (EL-S: 17)
artefact	"A man-made object" (EL-S: 21)
'Art for Art's Sake'	"Phrase taken over by the English Aesthetic Movement from Baudelaire and Gautier and used to imply that their artistic activities needed no moral or social justification" … (EL-S: 21)
Arts and Crafts Movement	"A movement promoting craftsmanship and a reform of industrial design [see also: Ruskin, Morris] … " (EL-S: 21)
artwork	"Drawings, photographs and typematter, or any combination of the three, made up into a form where they can be used for printing or other reproduction". (EL-S: 22)
avant-garde	"Seeming to be ahead of its time". (EL-S: 24)
balance	"The impression of equilibrium in a pictorial or sculptural composition" … (EL-S: 24)
Bauhaus	"Design school founded under the leadership of the architect Walter Gropius at Weimar in 1919" … (EL-S: 27)
Beaux-Arts	"Associated with the Ecole des Beaux-Arts in Paris (founded 1671) or with the French government's fine art department" … (EL-S: 28)
bias	"Bias is any influence that distorts the results of a research project, but particularly from the researcher." (RH:188)
case study	"A type of qualitative research which studies one or a few cases (a single person, entity or phenomenon) in great detail; it is a data collection method in which a case (for example, an art teacher or a particular child) is studied in depth over a sustained period of time and through a variety of means." (RH: 188)
Chicago School	"A group of architects working in Chicago from … 1871 to mid 1920s [see Louis Sullivan *et al*]" … (EL-S: 48)
cire perdue	"Lost wax [process]". (EL-S: 50)
classical	"1. Strictly, of the art and architecture of Greek and Roman

antiquity, especially Greek work of the 5th and 4th c. BC and faithful Roman copies. More generally, of art and architecture which conform to Greek and Roman models. 3. More generally still, of an art that aspires to a state of emotional and physical equilibrium, and which is rationally rather than intuitively constructed" ... (EL-S: 50)

coding	"A procedure for transforming raw data into a form suitable for data analysis. Involves the labelling of a piece of text or a statement, to make sense of it by summarizing it. Depending on the research question, one piece of text can be coded in various different ways." (RH: 188)
collage	"A technique invented by Picasso and Braque during their Analytical Cubist phase" … (EL-S: 52)
complementary colour	"A primary colour which, when placed opposite the secondary colour produced by the other two primaries on the colour circle, makes it seem brighter or stronger" … (EL-S: 56)
composition	"The combination of elements in a painting or other work of art so that they seem satisfactory to the artist" … (EL-S: 56)
Concrete Art	"Art composed of simple, non-representational visual forms, linked to the notion of structure as a continuous organizing principle (see Theo van Doesburg, *Manifesto of Concrete Art*, 1930)" … (EL-S: 56)
Constant comparative method	"A procedure used in grounded theory research which refers to data being continually compared with previously collected data in order to refine the development of theoretical categories." (RH: 188)
Constructivism	"An abstract art movement which manifested itself in Russia shortly before the Revolution. The Constructivists aimed to make art a detached, scientific investigation of abstract properties (picture surface, construction, line and colour). They also wished to apply this art to the social and industrial needs of the time, integrating it with architecture and experimenting with such things as the design of clothing. Outside Russia it exercised a great influence over institutions such as the Bauhaus". (EL-S: 57)
construct validity	"The degree to which a measure relates to other variables as expected within a system of theoretical relationships." (EB: G2)
content analysis	"A procedure for organizing narrative, qualitative data into emerging themes and concepts". (RH: 189)
content validity	"The degree to which a measure covers the range of meanings included within a concept". (EB: G3)
criterion-related validity	"The degree to which a measure relates to some external criterion. … Also called predictive validity". (EB: G3)

Critical Realism	"Critical Realism is a philosophical attempt within social science to argue for the material presence of the social and natural world outside of our knowledge of it. It is concerned with questions of ontology, and the deeper structures and relations that are not directly observable but lie behind the surface of social reality. It is seen as a pragmatic development arising from a reaction to positivism". (RH: 189)
decorative art	"Any of the applied arts (e.g. furniture, ceramics, glass, enamel, textiles, metalwork, etc) when found in a domestic context or contributing to interior decoration". (EL-S: 64)
design	"1. The general form or composition of any building or work of art. 2. In applied art, the shape given to any object of use and also the way in which it functions". (EL-S: 65)
Design: development as a movement [field bridging art and science]	"This began with a clearer identification of the purpose of design – not the aesthetic 'self expression' of art but a practical service directed towards enhancing the dignity of human beings in their daily lives with all this entails in social and economic matters. Then followed a growing clarification of the methods of design thinking with recognition of the need for designers to understand how their products function in contexts of use and, closely related to this, recognition of the need to understand the nature of human beings through research and careful observation" … (RB: 15)
disegno	"In Renaissance Italy, where the foundation of art was considered to be drawing, 'the conception of a work'. 2. By extension, the work of art in ideal or Platonic form …" (EL-S: 66)
drawing	"1. A representation by means of lines. 2. The arrangement of lines which determine a particular form … " (EL-S: 69)
Expressionism	" … art in which conventional ideas of realism and proportion seem to have been overridden by the artist's emotion, with resultant distortions of shape and colour". (EL-S: 78)
empirical research	"Empirical research seeks systematic information about something that can be observed in the real world. Empirical information is information based on something that can be observed. Students' achievements, observations of art teachers' use of their own work, and artists' interview responses are examples of empirical information in art education research". (RH: 190)
external validation	"The process of testing the validity of a measure, such as an index or a scale, by examining its relationship to other, presumed indicators of the same variable. If the index really measures prejudice, for example, it should correlate with other indicators of prejudice." (EB: G4)
face validity	"(1) the quality of an indicator that makes it seem a reasonable measure of some variable … (2) When your face looks like your driver's licence .." (EB: G5)

figurative art	"… representational art" (EL-S: 82)
fine art	"Architecture, sculpture and painting, as opposed to applied art or decorative art " … (EL-S: 82)
form	"The individual shapes and volumes, and their relationships, depicted in a work of art …" (EL-S:84)
formalism	"Art, and critical writing about art, which place the emphasis on the analysis of form and the use of formal elements rather than on content" … (EL-S: 84)
functionalism	"The theory that 'form follows function', first enunciated by the American architect Louis Sullivan at the end of the 19th c., but anticipated by the empiricist philosophy of the 18th c. According to this theory, only objects which function well and use material with economy are admissible in the domestic environment." (EL-S: 86)
genre	" … painting judged by its content or subject-matter, e.g. still-life, landscape, portraiture, history painting" … (EL-S: 88)
gesamtkunstwerk	"The idea of the complete integration of several art forms – painting, words, dramatic action, poetry, music – so that none is dominant" … (EL-S: 88)
Gestalt	"(Ger. 'configuration') A term imported into modern art criticism from psychology. Gestalt psychology … holds that the parts are determined by the whole, and that all experience, including aesthetic experience, is related to certain basic structures which cannot be subdivided" … (EL-S: 88)
Gobelins	"Originally, tapestry made at the Gobelins factory [in Paris]…" (EL-S: 90)
golden section	"Traditional proportion which is supposed to express the secret of visual harmony … roughly equivalent to 8:13." (EL-S: 90)
Gothic	"A word now used to describe all medieval art from the end of the Romanesque period (mid 12th c.) to the beginning of the Renaissance (early 15th c.)…" (EL-S: 91)
graphic art	"A form of artistic expression where the statement is made, usually on paper, through emphasis on lines, marks or printed letters … it includes everything from drawing, through print-making of all kinds, to typography" … (EL-S: 93)
guild	"In medieval times, an association of artists, craftsmen or tradesmen, organized along strictly hierarchical lines, so that a member began as an apprentice, became a journeyman and finally a master" … (EL-S: 96)
Hawthorne effect	"An effect of *reactivity* named after a famous case in which *subjects* reacted to the fact that they were in an experiment

more than they reacted to the *treatment*". (WLN: 190)

hermeneutics	"This used to refer to a method of Biblical criticism: interpreting the whole of a text in the context of its parts, and vice versa, Its meaning is now extended to refer to qualitative research which is concerned with analyzing transcripts of interviews and group discussions. It is research concerned principally with interpretation and could be seen as the art of interpreting texts". (RH: 191)
High Renaissance	"The culminating phase of Renaissance art, c. 1495-1520, typified by the work of Raphael, Michelangelo and Leonardo da Vinci." (EL-S: 99)
Ideal, the	"That which unites artistically in a single form all the excellencies found in nature in different individual forms of the same type or belonging to the same category" … [see also: Neo-Platonism; Neo-Classicism]. (EL-S: 102)
industrial design	"The reasoned application of aesthetic and practical criteria to the design of machine-made articles from the mid 19th c. onwards, in the hope of creating a successful marriage between the two." (EL-S: 103)
internal invalidity	"Refers to the possibility that the conclusions drawn from experimental results may not accurately reflect what went on in the experiment itself." (EB: G6)
International Style	Henry Russell Hitchcock and Philip Johnson applied this term "to avant-garde architecture which appeared in Europe between 1920 and 1930. Their criteria were that it was architecture which worked from the inside of the building outward to its facades, replacing the research for axial symmetry by one for logical planning, and that it eliminated all arbitrary decoration." (EL-S: 104)
journeyman	see **guild** structure (EL-S:96)
life drawing	"A drawing of a nude made from a living model." (EL-S: 112)
Likert scale	"A *scale* often used in *survey research* in which people express attitudes or other responses in terms of several *ordinal-level* categories (e.g., agree, disagree) that are ranked along a continuum". (WLN: 538)
maquette	"A small, three-dimensional sketch, usually roughly finished, for a sculpture." (EL-S: 117)
masterpiece	"Under the medieval guild system, the obligatory test-piece by which an apprentice showed that he had qualified as a master of his craft" … (EL-S: 118)
Minor Arts, the	"Visual arts other than fine art (i.e. any art which is not painting, sculpture or architecture)." EL-S: 121)
mixed media	"1. Art of the 20th c. which combines different types of

	physical material. 2. Art which draws on several disciplines, for example music, movement and environmental sculpture." … (EL-S:122)
modelling	" … The use of malleable material (e.g. wax or clay) to create a form which is three-dimensional." (EL-S: 122)
negative space	"An enclosed empty space in architecture, sculpture or painting which makes an essential contribution to the composition." (EL-S: 128)
non-objective	"… Containing no representation of recognizable figures and objects, i.e. the opposite of figurative art." (EL-S: 131)
objet d'art	"A piece of decorative art of small size and (generally) exquisite finish." (EL-S: 132)
perspective	"The method of representing a three-dimensional object, or a particular volume of space, on a flat or near flat surface." (EL-S: 145)
Post-Modern	"Term used to describe the attempt to modify and extend the tradition of Modernism in 20th c. architecture with borrowings from the Classical tradition", and related (often ironical) observations. (EL-S: 150)
quattrocento	"The period 1400-1500 in Italian art." (EL-S: 156)
reflexivity	"Reflexivity refers to researchers' reflections upon their research and their place within it; it requires an awareness of the researcher's contribution to the construction of meanings throughout the research process, and an acknowledgement of the impossibility of remaining outside of one's subject matter while conducting research. Personal reflexivity involves reflecting upon the ways in which our own values have shaped the research and involves thinking about how the research may have affected the researcher. Epistemological reflexivity on the other hand encourages researchers to reflect upon their assumptions about the world (and knowledge of it) that have been made in the course of the research, and about the implications of such assumptions for the study as a whole". (RH: 194)
relief	"1. A composition or design made so that all or part projects from a flat surface. 2. The impression or illusion of three dimensions given by a painting." (EL-S:159)
Renaissance	"The classically inspired revival of European arts and letters which began in Italy in the 14th c." … (EL-S: 160)
sculpture	"[A] work of art carried out in three dimensions." (EL-S: 168)
significant form	"A term coined by the English art critic Clive Bell in 1913 to describe what seemed to him the essence of true works of art: the forms, and relationships of forms, which they contain. According to this doctrine Form itself is the true content of the

	work of art, and other kinds of content (e.g. narrative and symbolic elements) are secondary." (EL-S: 172)
Symbolism	"An influential movement, both in European literature and in the visual arts, from c. 1885 to c. 1910. Symbolism rejected objectivity in favour of the subjective, and turned away from the direct representation of reality in favour of a synthesis of many different aspects of it, aiming to suggest ideas by means of ambiguous yet powerful symbols." (EL-S: 182)
tactile values	"Phrase coined by the art historian and connoisseur Bernard Berenson to explain the painter's attempt to convey sensations of weight, relief and texture by means of colour and line on a two-dimensional surface." (EL-S: 183)
texture	"1. In art and architecture, the nature of the surface of a painting, sculpture, building etc. 2. By extension the general material qualities of a work of art, such as the rhythm of the brush-strokes in a loosely handled painting (e.g. in the work of Velasquez)". (EL-S: 185)
Thurstone scaling	"A *scale* in which the researcher gives a group of judges many items and asks them to sort the items into categories along a continuum, then looks at sorting results to select items on which the judges are in agreement". (WLN: 546)
tint	"The dominant colour in an admixture of colours or in a mixture of colour and white, e.g. 'a bluish tint' or a bluish white'." (EL-S: 186)
tonal values	"The relative lightness or darkness of the various parts of a painting, irrespective of colour. The contrasts so produced are particularly extreme in *chiaroscuro*." (EL-S: 187)
typeface	"Any of the thousands of letter-forms, often very subtly differentiated, that are used in printing." (EL-S: 192)
typography	"1. The design of printed texts. 2. Printing considered as an applied art." (EL-S: 192)
vignette	"1. Foliage ornament around a capital letter in a manuscript. 2. Similar ornament filling space in a manuscript or printed book. 3. Any design or illustration which fades into the surrounding space without a definite border." (EL-S: 196)
Visual Arts	DoE usage: Fine Art, Design, Architecture, Film and New Media.
Weltanschauung	"Any general idea about the nature of the world, as expressed implicitly or explicitly in a work of art, which is also the vehicle for a system of moral or aesthetic value-judgments." (EL-S: 199)
Zeitgeist	"The spirit of the age … ". (EL-S: 205)

CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.1 The research problem

In South African universities of technology, the art and design foundation programmes vary according to geographical location and constitution of the art and design courses on offer at particular universities. Although many of the problems experienced in the different foundation programmes are similar, especially in the areas of curriculum development and teaching approach, such as the integration of theory and practice and the role of drawing in art and design, there appears to be no specific conceptual framework for the foundation education of knowledgeable, skilled, critically aware and versatile designers. The focus of this study has been on the investigation and analysis of curriculum development, assessment methods, and teaching approach in studio-based design subjects. Emphasis has been be placed on "learning to see", on the integration of theory and practice and the transference of knowledge from one aspect of design to another. This research is a specific investigation of successes attained and challenges facing the integrated, multidisciplinary Design Foundation Course, at the Cape Peninsula University of Technology (CPUT).

1.2 Research question

The question driving my research study is: what aspects of the curriculum, assessment methods and teaching approach of studio-based design subjects should be considered towards the development of a conceptual framework for an integrated, multidisciplinary foundation programme to educate knowledgeable, skilled, critically aware and versatile designers?

1.2.1 Sub-questions

The main question above will be investigated through the following sub-questions:

- To what extent can the emphasis on "learning to see" in the *curriculum structure*, *the assessment methods and the teaching approach* in a design foundation programme lead to the development of more knowledgeable, critically aware and versatile designers?
- To what extent can the foundation education of knowledgeable, critically aware and versatile designers be facilitated by the *transference of knowledge and skills* from one discipline to another in an integrated, multidisciplinary design foundation programme?
- To what extent is the *integration of theory and practice* essential for the foundation education of knowledgeable, aware and versatile designers?

1.3 Aims and contributions of the research

The aim of this research has been to investigate and evaluate curricular elements, teaching approach and methods of assessment of a design foundation programme. By extending the

debate, the intention of the research has been to contribute towards the development of a new conceptual framework for the grounding education of knowledgeable, skilled critically aware and versatile designers. Through the application of the principle of "transference of knowledge", similar art and design foundation programmes at other universities may also benefit from this research. The intention has been that the research should contribute to the establishment of benchmarking criteria at foundation level in a tertiary context in art and design education.

1.4 Background to the research study

In the background to the research study areas of concern were identified for further research about foundation programmes in art and design education. The areas of concern have been discussed under the following headings:

- The call for knowledgeable, skilled, critically aware and versatile designers
- Curriculum, assessment methods and teaching approach in art and design foundation/extended programmes at South African universities of technology
- Art and design education at secondary school

1.4.1 The call for knowledgeable, aware and versatile designers

Globally, and locally in South Africa, the call from the design industry (Design Indaba Conference 2006 – 2009) and design educators (DEFSA conference 2007) has been for knowledgeable, critically aware and versatile young designers who are able to meet the needs of a constantly changing world. Critically aware and versatile designers should be able to transfer knowledge and skills successfully from one context to another (Edwards, 2005:7-8). The nature of critical awareness and versatility has been investigated in the context of educating knowledgeable and skilled designers whose responses to problem solving need to go beyond function, technology and skill in pursuit of deep understanding and meaning. Foundation courses should establish the grounding for the successful further study of students in the field of art and design. Concepts of critical awareness and versatility need to be taken into account in the structuring and delivery of the curriculum at foundation level, and have been investigated in this study.

1.4.2 Curriculum, assessment methods and teaching approach in art and design foundation/extended programmes at South African universities of technology

What became clear during discussions at the Regional Extended Programmes Workshop Conference held at the Nelson Mandela Metropolitan University in November 2008 is the wide variety of art and design foundation courses/extended programmes on offer in South Africa, particularly at universities of technology (NMMU, 2008). Traditional universities, such

as the University of Cape Town, Free State University and Rhodes University, offer four-year degrees in fine art, usually with the first year of study functioning as a foundation course. Represented at the conference were art and design foundation courses/extended programmes from the Cape Peninsula University of Technology (CPUT), Nelson Mandela Metropolitan University (NMMU) and Central University of Technology (CUT).

These programmes vary according to the geographical location and the constitution of the art and design courses on offer at the particular universities. The programmes have different curricula based on their functions. Therefore, an extended programme that represents one design discipline only (CPUT, Bellville campus) is structured differently from one that represents fine art and two design disciplines (CUT), from one with fine art, photography and two design disciplines (NMMU), or a foundation course that represents seven design disciplines (CPUT, Cape Town Campus). There would be further permutations if one were to include all the art and design foundation/extended programmes in the rest of the country (Appendix H).

As highlighted in the statement of the research problem, areas of concern experienced by the art and design foundation programmes at the different universities of technology are similar, but there appears to be no conceptual framework for dealing with these problematic aspects of the curriculum, teaching approach and assessment methods (Appendix H).

1.4.3 Art and design education at secondary school

It is apparent from the Grade 12 learners who apply for entry to the first year of design at the Cape Peninsula University of Technology, that there are no consistent standards at secondary school level in the art and design field of study. The lack of standards is evident from the portfolios and the academic school results of the Grade 11 and 12 learners (Scott, Yeld & Hendry, 2007:31) particularly in art and design subjects. The ratings that are given in these subjects by private and government schools in middle class suburbs differ widely from those given to students in schools from disadvantaged communities. Furthermore, these ratings often also differ from the ratings that we apply in our first year selection process.

What therefore emerges from the selection process is a diverse group of students who need academic support (Scott, *et al*, 2007:39-40). The purpose of a foundation programme is to provide academic support to underprepared students. This academic support can be divided broadly into two categories, both of which are addressed through the curriculum and teaching approach in the integrated, multidisciplinary Design Foundation Course of the Cape Peninsula University of Technology. The two categories of academic support are discussed

under the headings of critical awareness and understanding of design; and academic literacy and numeracy.

1.4.3.1 Critical awareness and understanding of design

It is widely accepted that the main function of foundation courses in the field of art and design, originally addressed by the 'Vorkurs' (Preliminary Course) of the Bauhaus School of Design under Walter Gropius in the Weimar Republic and later at Dessau in Germany (1919 – 1933) (Ranjan, 2005:4), is to enable students to 'see', to give them the 'grammar' to become visually literate (Sonntag, 1969:391). Likewise, the main function of the Design Foundation Course of the Cape Peninsula University of Technology is to address the lack of historical and cultural awareness of design. Students are also given the means to gain an understanding of the necessary formal, conceptual and technical skills required for study in design. All of these aspects of the curriculum, and how they are taught, have been investigated and evaluated in this study.

1.4.3.2 Academic literacy and numeracy

The need for academic support in language and numeracy as a result of the poor schooling of previously disadvantaged communities, an inheritance of the apartheid era, is common to all fields of study in higher education institutions in South Africa and is well researched and documented (Volbrecht, & Boughey, 2004:57-79). However, the integration of this particular aspect of academic support into the design curriculum needs further research.

1.5 Context for this research study

Although the integrated, multidisciplinary, Design Foundation Course on the Cape Town Campus has been successfully developed over many years, there are still problematic aspects in the curriculum, the teaching approach and the assessment methods that need attention. This has been confirmed by feedback from the student course feedback questionnaire that students are given to complete at the end of each year, and from a pass rate summary of the Design Foundation Course taken over a period of five years. The pass rate summary (Appendix I) of past students, particularly in the second and third years of study of their diploma studies (completed over a minimum period of four years) for design, shows a significant failure rate in the theory subjects, in contrast to the practical subjects where there was a high pass rate. This could be because of a lack of integration between theory and practice or because of the low levels of literacy of the students or because there is perhaps not sufficient continuity from the foundation year into the regular first year of study in the different design disciplines. These are areas of concern which have been investigated and analysed with the aim to work towards establishing a conceptual framework for a foundation programme in design to educate critically aware and skilled designers.

1.5.1 The Design Foundation Course

The Design Foundation Course has developed and grown out of two previous models: the Basic Year of the 1980s and the Access Course of the 1990s at the Cape Technikon. The Cape Technikon and Peninsula Technikon merged in 2005 to form the Cape Peninsula University of Technology, (CPUT). The Design Foundation Course services seven design disciplines (fashion, surface, graphic, jewellery, industrial, interior design and architectural technology) represented on the Cape Town Campus and the Foreshore Campus of the Faculty of Informatics and Design, CPUT.

1.5.1.1 Composition of the student body

The Design Foundation Course consists of a diverse group of students (Scott, *et al*, 2007:39-40) who are underprepared, either academically or in design, or a combination of both of these:

- Students from socio-economically disadvantaged backgrounds, with inferior schooling (a legacy of apartheid and a closed education system, before the advent of democracy and an open society in South Africa in 1994 and the implementation of an outcomes based education system). Underprepared students from previously disadvantaged backgrounds are the target group as specified by the South African Department of Education, and for which funding provision was made so that this group could gain access to and receive academic support for successful further study at higher education institutions (South Africa. Department of Education, 2006; Department of Higher Education and Training, 2009);

- Students who show potential for study in design but who are academically underprepared for study at a university;

- Students who have neither art nor design as a Grade 12 subject (school-leaving credit) and who wish to enter into design as a field of study at tertiary level;

- Mature students who have completed a diploma/degree in another field of study and wish to change to design but have no background in art and design.

1.5.1.2 The curriculum structure, teaching approach and assessment methods

The curriculum, the teaching approach and assessment methods of the Design Foundation Course at the Cape Peninsula University of Technology, described in the 2011 study guide (Appendix L) have been developed to meet the needs of the diverse group of underprepared students to prepare them for further study in the design discipline of their choice.

The course has a complex, integrated, multidisciplinary curriculum that delivers the "foundational provision" of the extended first-year programmes for these disciplines. The generic (basic) principles of design are taught through the specific design disciplines. Generic design content is taught through specific subject content.

The intention is for students to gain the necessary conceptual, formal and technical skills for successful further study in the design discipline of choice. They also gain an overview of all the design courses on offer for study at the CPUT. This is a result of the integrated nature of the course structure, particularly in the sequence of the delivery of the practical subjects. The complexity of the conceptual, formal and technical aspects of practical projects is incremental as the year progresses.

Students who are on the extended programme/foundation course complete the national three-year diploma in a minimum of four years.

1.5.2 The role of the researcher

My education as a fine artist, the people who taught me, my years of experience as a teacher especially at foundation level in design, and the particular concerns that have been addressed in my creative work as a practising artist, have informed my approach to the development of the curriculum and have helped mould my teaching methods in the Design Foundation Course. My experience as an artist and design educator form an integral part of this research study (Edwards, 2005:7).

1.5.2.1 Fine art education

I hold a four-year degree in fine art from the Michaelis School of Fine Art, University of Cape Town (UCT). I studied there from 1977 to 1980 and was taught by well-known South African art educators and artists who have played an important role in my development as an artist and as a teacher, as described in the personal narrative (Appendix A). My fine art education was preceded by attending the High School for Art, Music and Ballet in Pretoria where I studied art, which included graphic design as one of my subjects.

At the time, Neville Dubow, the Director of the Michaelis School of Art (UCT), an architect by training, was responsible for re-conforming the first-year curriculum that functioned as a foundation course. Dubow's "Basic Design" component reflected the design principles of the "Preliminary Course" of the Bauhaus School of Design (Goldstein, 1996:261), which has had a profound influence on my teaching and my understanding of the function of a design foundation course (see Appendix A).

1.5.2.2 Teaching experience at foundation level

I taught in the Basic Year course at the Cape Technikon from 1982 until 1992. From 1993 until 2002 I practised professionally as a fine artist. In 2003, I resumed teaching at foundation level at the then Cape Technikon. Since 2005, I have co-ordinated and taught in the Design

Foundation Course. In 2006, I completed work on the Foundation Funding proposals for the three-year cycle (2007-2009), for which the Design Foundation Course receives funding from the Department of Education (the Department of Higher Education and Training from 2009) (South Africa, Department of Education, 2006). These years of experience in design foundation education give me an overview of the different versions of the foundation programmes.

1.5.2.3 Practising fine art professionally

From 1993 until 2002 most of my time was dedicated to the creative process of being a professional artist (solo shows: Cape Town 1996, France 1998). In my 1996 solo show, I investigated the relationship between design, the Arts and Crafts movement and fine art in my paintings, in order to gain a better understanding and awareness of these disciplines and to reconcile differences between them. For me this is an ongoing quest to better understand design, and is vital in terms of the transference of knowledge to the Design Foundation Course.

1.6 Literature review and the current status of the research area

The literature review and the investigation of the current status of the research area, together with the background to the research study, have helped to develop the statement of the research problem, the rationale, and to frame the main question and sub-questions for this research study about foundation education in design.

1.6.1 International and South African research and literature about (generic) foundation education

Research into the field of foundation and academic support is extensive both internationally and in South Africa, where it is essential to redress decades of poor schooling as a result of the previous Apartheid regime.

1.6.1.1 International research

At the national conference on foundation education *Conversations about Foundation* (Cape Town, 2007) issues as diverse as selection processes, teaching approaches, assessment methodology, extended curriculum design, funding and multilingualism were addressed.

As a result of growing urbanisation and globalisation because of unprecedented technological advances since the 1990s, research in foundation and academic support is extensive and ongoing especially in language and numeracy. Bernstein's work since the 1970s on the coding of language and particularly his work on horizontal and vertical discourse have helped enormously in the field of language study (Bernstein, 1999). In his

keynote address, David Rose (2007:15) from the University of Sydney introduced the *Scaffolding Academic Literacy* methodology that integrates the learning of academic skills with the subject specific content of a particular field of study. This programme has been adapted for use in universities internationally, including South Africa, Australia, Latin American countries and China.

1.6.1.2 South African research

Research into foundation and the development of funding structures to implement academic support for underprepared students has been undertaken since the 1980s by pioneers such as Tony Morphet from the University of Cape Town (Volbrecht & Boughey, 2004:64). Through ongoing research there has been a shift from academic support and bridging courses that functioned separately from the mainstream curriculum to an integrated approach which seeks to provide 'epistemological' access (Scott, 2000; Boughey, 2005:230).

Further research has led to foundational support becoming integrated into and specific to the field of study, not a generic 'add on' (Volbrecht & Boughey, 2004). This has led to emphasis being placed not only on access, but also on successful further study in the chosen field (Boughey, 2005).

More recently Ian Scott from the University of Cape Town (also a member of the national taskforce on foundation that advised the then Department of Education and now the Department of Higher Education and Training), highlighted the need for three-year degrees and diplomas to be converted to four-year degrees, as most students are not able to complete their studies within the allotted period of three years (Gower 2008:15).

This would allow for foundation/academic development as a field of study to be properly integrated into the mainstream curriculum and funded in the same way as all mainstream disciplines. This should enable academic development to properly fulfil the function of providing necessary academic skills to underprepared students within the context of their chosen field of study.

1.6.2 Literature review and status of the research area in the field of art and design, particularly in foundation education in design

It is hoped that this research study using data from the Design Foundation Course, together with the existing literature in the research area, will contribute towards the development of a new conceptual framework for use in grounding education in the field of design study. This should also assist towards the establishment of benchmarking criteria for design foundation education. The literature review is directly related to the headings below:

- Curriculum development
- Teaching approach
- Transference of knowledge and skills
- Integrating theory and practice
- Critical awareness and understanding of design
- Towards the development of a conceptual framework for educating critically aware and skilled designers

1.6.2.1 Curriculum development

Jane Tynan addresses the issue of "widening of access and participation" in the work-based Foundation degrees in Art and Design in the United Kingdom, and the educational needs of the "non traditional" culturally diverse student body from different socio-economic backgrounds. She demonstrates that the issue of "widening access and participation" is best addressed through the curriculum (Tynan, 2006: 39). Some of the issues Tynan (2006) deals with are similar to those dealt with by Boughey (2005) in the context of South African foundation/extended programmes, where Boughey states that it is not just about access but about participation and hence the need for academic skills and subject content to be integrated (Boughey, 2005: 240).

1.6.2.2 Teaching approach

Tynan (2006) also argues that the "vocational bias of art and design education makes it less traditionally academic" and as such the emphasis is greater on practice, unlike in traditional liberal arts degrees where there is a greater emphasis on theory. She goes on to recommend that "new directions for pedagogical practices in Art and Design" are needed to strengthen the relationship between theory and practice (Tynan, 2006: 40).

1.6.2.3 Transference of knowledge and skills

Linda Drew and Ezio Manzini, leading international design educators, were emphatic in their keynote addresses at the DEFSA Conference (2007) that research driven design education is essential for the training of aware and versatile designers to deal with issues like sustainable design in a constantly changing world.

David Boud (2001: 38) is also of the opinion that students in the workplace should not only receive further training that will help them to perform better in their existing jobs. He argues that further education should enable them to become more versatile, so that they can perform in other related positions beyond their present situation.

Maziar Raein (2004:163) argues that a holistic approach towards research driven design education is necessary, as it takes into account the overwhelming propensity of design students having a visual-spatial orientation with a high visual quotient (VQ). He states that the way to inculcate a culture of research in design education, and to integrate theory with practice, is for design students to develop research directly related to the practical work in design in which they are currently involved, as this is tangible and not merely working from abstractions, in other words a holistic approach. This approach will provide students with the necessary conceptual skills to transfer knowledge to other design contexts.

1.6.2.4 Integration of theory with practice

Carl Goldstein traces "the opening up of a dialectic between theory and practice" (Goldstein 1996:7) to the doctrine of the academy, and states that all academic programmes have their roots in the "academies of Paris and London" (Goldstein 1996:6). Thus, unlike design, fine art has a long-standing theoretical basis that should be investigated.

Kees Dorst is emphatic about the fact that design is too strongly orientated towards practice. He supports this view by stating that design research has an overwhelming "focus on enhancing the *efficiency* and *effectiveness* of design *processes*" (Dorst, 2008:5). He goes on to argue that " … our explanatory framework about the "why" of design activity is still weak, making it hard to build up a core scientific knowledge in our field" (Dorst, 2008:6).

1.6.2.5 Critical awareness and understanding of design

The orientation towards practice and emphasis on design processes has led to confusion in our understanding of design as a field of study and practice in its own right. This has been demonstrated, by articles such as that on business management entitled "Unleashing the Power of Design Thinking" (Clark & Smith, 2008) where the design/creative process used by designers and artists, is employed in the context of developing greater efficiency in a business management environment. The design process is therefore recognized in other fields as a means of solving problems. However, it should not be confused with design as a field of practice and study. Clark and Smith (2008) refer to "Emotional intelligence", "Integral intelligence' and "Experiential intelligence" but not once to the "Visual intelligence" that Raein (2004:163) refers to, and that most artists and designers have in abundance, because of their visual spatial orientation.

1.6.2.5.1 The relationship between design, fine art, craft and science

Carl Goldstein's treatise on art schools and academies (Goldstein 1996), from the Renaissance Florentine *Academia del Disegno* founded in 1563 to the modern era and the *Bauhaus School of Art* in the early twentieth century (1919-1933), is important because it

provides an overview of art education, placing it within the socio-economic context of each period that is under discussion. Furthermore, he attempts to define the meaning of fine art by relating fine art to science and craft. He looks closely at the relationship of theory and practice and the role of drawing, in particular figure drawing, in the making of art and how its function has changed in response to the socio-economic period within which a particular art academy or art school has functioned. Interestingly, both the integration of theory and practice and the role of drawing in design were also highlighted as problem areas at the *Regional Foundation Workshop Conference* (Port Elizabeth, 2008), (see Appendix H).

Most of the issues that Goldstein deals with are pertinent to issues around art and design education that are being addressed presently, especially the relationship between theory and practice and the role of drawing. By investigating the relationship between art, science and craft, he provides a *modus operandi* (framework) that can be used for the investigation of the relationship between design, art, science and craft that could lead to a better understanding of design.

1.6.2.6 Towards the development of a conceptual framework for educating critically aware and skilled designers

In order to be able to find sustainable design solutions for a complex and constantly changing world and to be able to make accurate assessments of design outputs it is necessary for designers to be knowledgeable, skilled, critically aware and versatile so that they can address the ever present dilemma of form and function and of aesthetics which was raised by Pirsig when grading creative outputs**:**

> But some things *are* better than others, that is, they have more quality … What else are the grades? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously some things are better than others … but what's the "betterness"?   (Pirsig, 1978: 178)

The development of a conceptual framework for a foundation programme to educate critically aware and skilled designers should be achieved through the consideration of aspects of curriculum development, assessment methods and teaching approach in the Design Foundation Course. Maizer Raein's view that a holistic approach to design education is necessary meets Karl Popper's scientific/creative method (Popper, 1978:132) which emphasizes the iterative process of refinement in problem solving, arguing that the dialectic triad offers an iterative tool of inquiry. The scientific/creative method has been specifically investigated in relation to the iterative process of design to ascertain whether it would be suitable in assisting with the establishment of a conceptual framework for the development

and refinement of the curriculum, teaching approach and assessment methods for foundation education in design.

Furthermore, in order to develop a conceptual framework in a foundation programme in design to educate knowledgeable, skilled, critically aware and versatile designers the successes gained and the challenges facing the Design Foundation Course need to be examined and evaluated, with the view that the building blocks for successful lifelong learning should be laid from the beginning. Institutional factors should also be considered, as Boughey argues:

> … locating Academic Development work within an overall framing of concern for quality would allow the tension between equity and efficiency … to be resolved since quality-related work is involved with both equity *and* efficiency in its quest for fitness of purpose, value for money and transformation (CHE, 2001) …
> (Boughey, 2007:10)

1.6.3 Rationale

Foundation courses should establish the grounding for the successful further study of underprepared students in the field of design. The grounding education of knowledgeable, critically aware and versatile designers should be provided through the curriculum, the teaching approach and the assessment methods in a foundation programme. The concepts of knowledgeability, skilled, critical awareness and versatility need to be taken into account in the structuring and the delivery of the curriculum in design foundation education. This forms the logical basis of this research study, the intention of which is to contribute towards the development of a conceptual framework and the establishment of benchmarking criteria for a foundation programme in design.

1.7 Research approach

The context for my studies is the Design Foundation Course which I co-ordinate, in which I am responsible for curriculum design, and in which I teach. From this practical involvement and direct experience, I have tried to develop theory and to integrate it with practice in design foundation education.

I began my research by writing a personal narrative. The personal narrative (Appendix A) is an experiential account of my development as a lecturer in the Design Foundation course, with an emphasis on comparing the present foundation course with the previous versions from which it evolved, in order to identify differences and similarities. After writing the narrative I extracted questions that I placed in comment boxes adjacent to the relevant text in

the narrative. The research questions and sub-questions arose from these questions, from the background study and the literature review.

As an emerging researcher in a field of study such as design, where research and research methodology are relatively new, I decided to apply grounded theory (Urquhart, 2002:51). However, the way I approached my research study and how I planned to approach the research design, fitted more closely with theory building from case studies as posited by Eisenhardt and Graebner (2007: 25).

1.7.1 Research design

The research design, with combined data collection methods, is based on a qualitative methodological framework. The design is based on the analysis and interpretation of the personal narrative, the literature review, my reflexive journal and the collection of varied data sources

A research design matrix (Table 3.1 in Chapter 3) supported by the argument advanced by Huberman and Miles (2002:7) that the use of combined data collection methods help to strengthen the grounding of theory by the triangulation of evidence, has been developed to help with the analysis of the data. "The evidence may be qualitative (e.g., words), quantitative (e.g., numbers) or both", (Huberman & Miles, 2002:9).

The data has been analysed by means of coding and pattern and used towards the development of a conceptual framework for the education of knowledgeable, skilled, critically aware and versatile designers in Chapter 4. The personal narrative and the interviews which are rich in descriptive data have appeared as appendices. In order to prevent the destruction of the meaning of data through intensive coding, certain techniques have been used, such as tables and graphs to present qualitative data (Huberman & Miles, 2002: 8).

1.8 Outline of the research document

In Chapter I, areas of concern in foundation programmes in design education emerged from the background study, the initial literature review, issues raised at recent conferences on design education and industry based design conferences, as well as from what I experience as a foundation teacher in design. This was followed by a search investigating what had been recently published on foundation education in design, after which the decision was taken about the topic of study as there was not much published on foundation programmes in art and design. The research question was established from my personal narrative, the literature, and my reflexive journal, after which various research approaches were investigated and grounded theory, which led to theory building from case studies, was chosen.

An in depth literature review will follow in Chapter 2, addressing the areas of concern highlighted in Chapter 1 and keeping the research question in mind with the view to the development of a conceptual framework for educating knowledgeable, skilled, critically aware and versatile designers.

In Chapter 3, the research approach and research design from which the research design matrix (Table 3.1) was developed will be described. The research design matrix will support the analysis of the data that has been collected, in order to investigate the challenges, and evaluate the successes of the design foundation Course in the Faculty of Informatics and Design at the Cape Peninsula University of Technology.

In Chapter 4, in order to meet the purpose of the research, the research design matrix (developed from a qualitative research approach that made use of combined data collection methods to enable greater validity and reliability) will be used for the findings and analysis of the data.

Keeping in mind the problem statement and the rationale of the study that has been addressed in Chapter 1, the results of the previous chapters will be summarised, followed by recommendations and a conclusion in Chapter 5.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Chapter 2 reviews recent literature from design education and design industry conferences. Scholarly journals on art, design and education have been sourced with particular reference to foundation programmes in design education. The investigation includes analysis of the views of classical and contemporary specialists in the field.

A long view has been taken in the literature review, as the field of visual arts, including design, is a complex field of study. Other than conducting a literature review through the method of comparative analysis, one can re-examine a specific body of work if necessary (Hart, 1998:22).

The literature review has been conducted in two phases. The first phase is a detailed chronological and thematic survey of art and design education and appears as Appendix B. The second phase is an in-depth study that addresses the research question and sub-questions, and forms this chapter.

In Appendix B, the relationship of design to art, craft and science is investigated, as is the relationship of theory and practice, which is an ongoing area of concern in the field of art and design. More specifically, the function of foundation programmes (curriculum, assessment methods, teaching approach) in art and design studies at tertiary level was researched. A comparative analysis (Bourdieu, 1967:346; Wöllflin, 1950:32-40) of selected design foundation programmes considered to be significant in the development of foundation education in design was made. Some of these foundation programmes were investigated and analysed in greater depth than others, as necessary. The information from Appendix B has been used extensively to develop Chapter 2, together with literature from the field of education on curriculum development, assessment methods and teaching approach, pertinent to foundation education in design.

2.2 Establishing the research question and delineating the area of study

The research question and its sub-questions arose out of inquiry into what should be provided by foundation education in design at tertiary level, with specific reference to the Design Foundation Course at the Cape Peninsula University of Technology (CPUT). Attention has been focused specifically on what is required in curriculum development, assessment methods and teaching approach in studio-based design subjects in a foundation programme.

The information for this chapter is an in-depth account of the literature about the following key areas in foundation education in design that were drawn from design education and design industry conferences as areas of concern needing investigation. The research question and sub-questions have been based on the following issues:

- The need for designers to be knowledgeable, skilled, versatile and to have a critical awareness of design.
- The gaining of versatility and critical awareness in design through "learning to see", and the transference of knowledge and skills from one subject area to another.
- The integration of theory and practice as an area of concern in curriculum development, assessment methods and teaching approach in design foundation education.
- The development of a conceptual framework for a foundation programme in design for educating knowledgeable, skilled, versatile and critically aware designers.

2.3 The call for knowledgeable, skilled, critically aware and versatile designers

The view that foundation programmes should establish building blocks for lifelong learning, and provide the grounding for successful further study of students in the field of art and design, is widely held (Sonntag, 1969; Ranjan, 2005; Tynan, 2006; Arens, 2010). In order to inculcate a culture of future learning, particular emphasis should be placed on curriculum development, assessment methods and teaching approach in the grounding (foundation) education of designers. The acquisition of knowledge and skills will be investigated, and consideration given to concepts such as critical awareness and versatility. What will follow is an examination of these qualities (critical awareness, knowledgeability, skill and versatility) which have been called for by design educators and design practitioners as being necessary for designers in order to find sustainable solutions in a complex, continually changing world (Dorst, 2010; Leifer, 2010; Sarkisian 2010).

2.3.1 Knowledge (information) and skills (handiwork and technology)

Art training and education has been re-investigated and re-assessed (see Appendix B) in order to be better informed (knowledgeable) about design. Particular attention has been paid to why and how the visual language of art and design has developed and changed. Focus is placed on the traditional skills (handiwork) needed by artists and designers as well as appropriate technological skills to deal with new technologies in the twenty-first century.

The investigation refers back to the time of the first academy founded by Vasari, the *Academia del Designo* (1563), in Florence in Italy in the early Renaissance, through to the widespread phenomenon of postmodern art and design education in the late twentieth century (Goldstein, 1996). For more recent developments particular reference has been made to the ConnectED 2010 design education conference (Sydney, 2010) and the Design

Indaba conference (Cape Town, 2010) industry-based conference presentations. Information that is directly related to the development of foundation programmes in design education and to further knowledge about design has been transferred from Appendix B into this section.

2.3.1.1 Design as a bridge between art and science

Design has been described as forming a bridge between art and science. Since the latter part of the twentieth century, design has largely been accepted as a field that is separate from art and science, but which is strongly related to both, especially when generating theory (Nelson & Stolterman, 2003:4; Buchanan, 2006:15; Cross, 2007:123). Design should be able to draw on the histories and traditions of art and science where appropriate, but essentially it should be able to build up its own "intellectual culture, acceptable and defensible in the world on its own terms" (Cross, 2007:124).

As mentioned in the introductory Chapter 1 of this thesis, Goldstein's (1996) treatise on art schools and academies is important because it provides an overview of art education, placing it within the socio-economic context of each period that is under discussion. Furthermore, he attempts to define the meaning of art by relating art to science and craft, thereby providing a framework for the investigation and analysis of design in relation to art, craft and science in the literature review for this thesis. He looks closely at the relationship of theory and practice and the role of drawing, in particular figure (life) drawing, in the making of art and how its function has changed in response to the socio-economic period within which a particular art academy or art school has functioned.

There are historical examples of design forming a bridge between art and science, significantly personified by Leonardo Da Vinci (1452-1519), who best exemplifies the great masters of the Italian High Renaissance.

2.3.1.2 Traditional knowledge and skills

Leonardo Da Vinci gained the necessary knowledge and technical skills traditionally required of an artist/designer (knowledge and skills that are still required by artists and designers), as an apprentice at the most famous workshop of the time, that of the sculptor and painter Andrea del Verrocchio (1435-1488) in Florence. It was here that he learnt to prepare paintings and sculptures, making careful studies of the nude and draped human figure and of animals. He worked in different metals and learnt about foundry technology. He also studied the laws of perspective and the optics of colour (Gombrich, 1984:221).

2.3.1.3 Knowledge and skills in the twenty-first century

Designers in the twenty-first century need to gain knowledge and skills that are comparable to those acquired by Leonardo during his apprenticeship. Drawing is still one of the primary means of developing ideas visually (Cross, 2007:108), using drawing as "seeing" which has been described as a cognitive rather than a retinal phenomenon (Tzonis, 2001:16). Le Cobusier defined drawing as a means to observe, to discover, to invent and to create (Tzonis, 2001:22). However, other than acquiring traditional knowledge and hand skills, designers need to be able to move comfortably from the real to the virtual world through the application of appropriate technological skills (Ranjan 2005; Manzini, 2009; Arens, 2010; Leifer, 2010). It is necessary for them to communicate within the global "networked knowledge society" with the ability to discuss design issues and to convey ideas visually.

Virtual communication within the global community of designers has implications for language usage and the need to develop a critical awareness (understanding) of different cultures. Confidence and a strong sense of self in designers as individuals are necessary qualities to enable design activity (Sonntag, 1969; McCoy, 1990; Nelson & Stolterman, 2003; Leifer, 2010, Garraway, 2010).

2.3.2 Critical awareness (deep understanding and meaning)

Designers need to be able to think (critically) about their premises, and to analyse their outputs with a deep understanding (awareness) of the economic, social and cultural contexts for which they design, in order to generate meaningful and sustainable design solutions.

More knowledge (gaining facts) does not necessarily lead to understanding (being critically aware). Deep understanding has to do with finding the meaning behind the information and then having the ability to transfer what has been learnt for use in solving problems in a variety of different contexts (Wiggins & McTighe, 2005:46). The term "critical awareness" will be used instead of deep understanding, as the word "understanding" is complex in meaning and is used in different and sometimes confusing ways (Wiggins & McTighe, 2005:35). The comparative table by Wiggins and McTighe (2005:38) presents a clear explanation of the difference between knowledge and understanding

Table 2.1: Knowledge versus understanding (Wiggins & McTighe, 2005:38)

Knowledge	Understanding
The facts	The meaning of the facts
A body of coherent facts	The "theory" that provides coherence and meaning to those facts
Verifiable claims	Fallible, in-process theories
Right or wrong	A matter of degree or sophistication
I know something to be true	I understand why it is, what makes it knowledge
I respond on cue with what I know	I judge when to and when not to use what I know

2.3.2.1 Design and science

The relationship of design to science lies in the essential connection between experimentation and innovative activity. Leonardo's approach to his art, of questioning, seeing, observing, analyzing and understanding through creative experimentation did not lead only to discoveries but to many of his inventions (Gombrich, 1984:221).

However, a significant distinction is made between design and science. The ability to invent is what distinguishes the designer from the scientist, "achieved through the manifestation and integration of creative concepts into the real world" (Nelson & Stolterman (2003:29). Design is seen to comprise "creative thinking" and "innovative activity", with a distinction being made between innovation and creative thinking, as innovation is action oriented.

2.3.2.2 Design and art

The relationship of design to science and the essential connection between experimentation and innovative activity have been analysed but the relationship of design to art still needs investigation. To help clarify the role of the humanities, and more specifically to establish how language and art develop critical awareness, a necessary attribute for designers, I have summarised my understanding of the educational theorist Tyler's analysis of the main educational functions of language, art and science as fields of study in the following table:

Table 2.2: The researcher's understanding of the key educational functions of language, art and science from Tyler (1949:28-33)

Main educational functions of language, art and science as fields of study		
Language and literature	**Art**	**Science**
Language is about the communication of ideas.	Art provides a visual language, a parallel medium to verbal media for communicating ideas and feelings.	Science contributes to the improvement of individual and public health.
Language and literature involve critical thinking and critical interpretation and are not only about the gaining of knowledge, skills and habits.	Art extends the student's range of perception through art production and art criticism.	Science develops an understanding of the use and conservation of natural resources.
Literature can extend the reader's understanding of the world (internally and externally) through vicarious experience.	Art leads to personal integration, through the use of symbolic expression.	Science leads to a clearer understanding of the world and the place of the world in the larger universe.
Two further educational functions have been attributed to art as field of study for which there were not parallel functions for language and science		
	Art encourages the development of interests and values, particularly the development of aesthetic values, which are seen as significant in the formation of high life values	
	Art develops technical competence (e.g. acquiring skill in drawing or music or dance), which can have meaning and significance to the student.	

Since the latter part of the twentieth century a greater emphasis has at times been placed on science to the detriment of the humanities (including the visual arts) because of advances in technology. This has resulted in design educators underscoring the need for basic design skills at post-graduate level, because design has become a "knowledge driven discipline", due to the widespread use of computers, which has led to the loss of basic hand skills (craftsmanship) (Ranjan, 2005:1-5). McCoy (1990:21) aptly states that, "Designers create culture and they should know the history and dynamics of their culture". Tyler's analysis is a reminder of the significant educational functions of the fields of language, art and science. There are academics, design practitioners and researchers who are raising awareness in regard to the significant relationship between the three different fields, in the process correcting the perception that science is of greater significance.

Professor Faust, the president of Harvard University warns against the "humanities being seen as the handmaidens of science", claiming that " studies in the humanities develop critical thinking" (Blaine, 2009:9). We acquire more information through vision than through a combination of all the other senses, therefore "critical visualization" should enable the ordering and understanding of the immense quantity of available data due to information technology (Hall, 2008:120-131). "Seeing comes before words" and "The child looks and recognizes before it can speak", were the two opening sentences of John Berger's book *Ways of Seeing* (1972) based on the BBC series of the same name. Berger goes on to say:

> But there is also another sense in which seeing comes before words. It is seeing which establishes our place in the surrounding world; we explain that world with words, but words can never undo the fact that we are surrounded by it. The relation between what we see and what we know is never settled. Each evening we *see* the sun set. We *know* that the earth is turning away from it. Yet the knowledge, the explanation, never quite fit the sight … The way we see things is affected by what we know or what we believe.
> (Berger, 1972:7-8)

In signage, the use of visual images, symbols and logograms are considered to be more effective than text and are understood by a greater audience, as the visual language is more accessible than the written language (M'Rithaa, 2009:97).

The advantages of visualization are identified in Ware's five-point case (Hall, 2008:122):
• It helps us comprehend huge amounts of data;
• It allows us to perceive emergent properties we might not have anticipated;
• It can reveal problems in the data itself;
• It facilitates our understanding of large-scale and small-scale features;
• It helps us form hypotheses.

However, it cannot be assumed that all visualization solutions will successfully convey or enhance meaning. For data to communicate meaning it has to tell a story and only then can a critical visualization be constructed backward from the story to reveal the purpose of the data (Hall, 2008:126; Wiggins & McTighe, 2005:319). This approach emphasises the importance of understanding the meaning (critical awareness) of a situation rather than just the acquisition of facts (knowledge) about the situation.

Colour, an important element of visualization cannot simply be regarded scientifically as an optical perception phenomenon, because colour also has symbolic value. From a scientific

position and based on research in the late twentieth and early twenty-first century, neurobiologist Margaret Livingstone (2002:10,37,137) discusses how artists are aware of the difference between colour (pigment) which can be used symbolically, to express emotions and luminance (colour values) which conveys form, shape, pictorial depth and three-dimensionality. She states that artists have made use of both colour and luminance in their artworks for centuries to convey emotion and form. Livingstone makes use of the work of famous painters like Leonardo Da Vinci, Rembrandt, Monet, Picasso and Matisse to demonstrate her findings. The view that colour bridges art and science, but that it is best defined through use by artists, and that it is about meaning, is described as follows by Gage:

> Colour is implicated in physics, in chemistry, in physiology and psychology, as well as in language and philosophy: yet it is visual art alone that has engaged simultaneously with most of all of these branches of knowledge and experience … largely through the practice of artists … This thought and these practices were and are inflected by the prevailing intellectual and social climate of the day
> (John Gage, 2006:7)
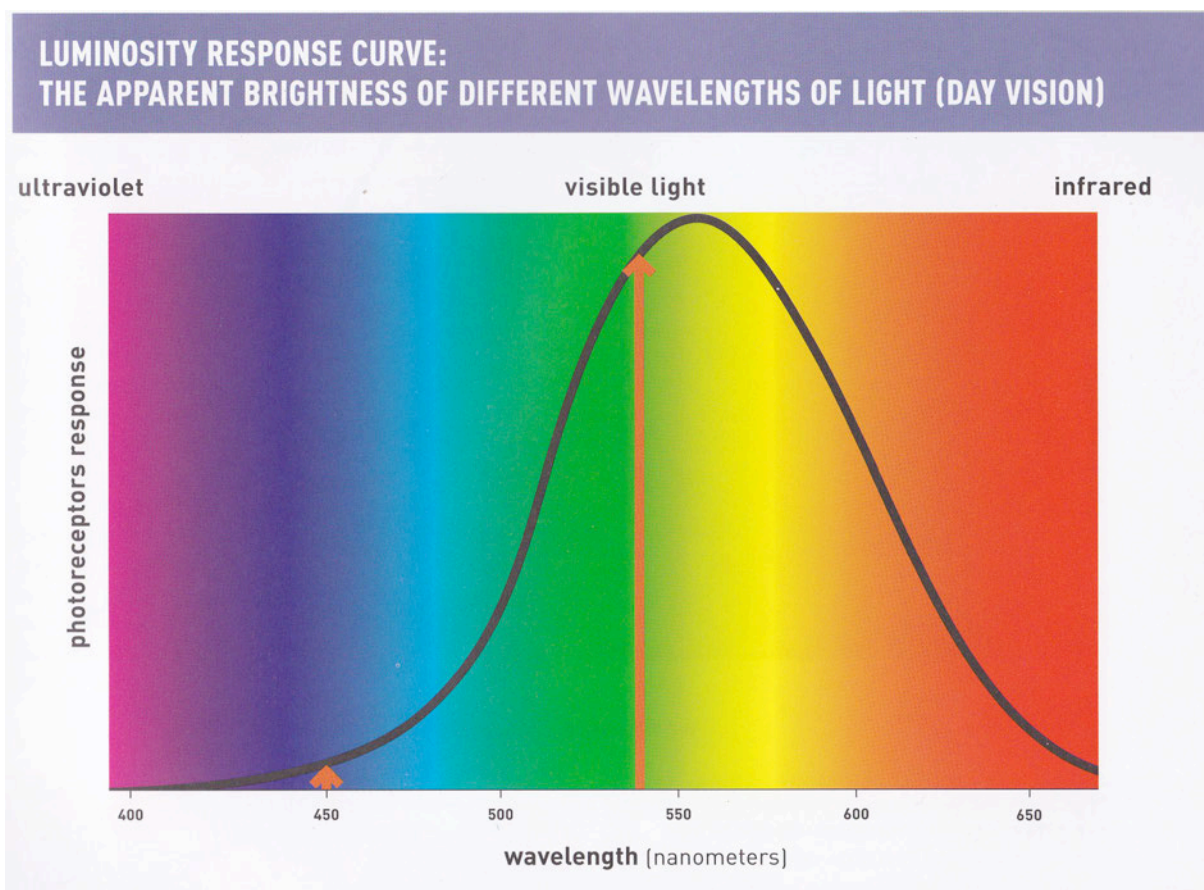
Fig. 2.1: Luminosity Response Curve (Livingstone, 2002:41)

It is necessary for there to be critical awareness of different cultures when colour is used to convey meaning, as the symbolism of a specific colour such as green might not be the same

in different cultures. Meaning might differ depending on the hue of green, as in the vernal green of new life (spring) or the pale green of death (jealousy) (Cooper, 1978:40). Hall cites an incident for designing a visualization system for a hard disk, where an Asian student used green for deleted entities and red for new entities, as in Asian culture green signifies death and red means good luck (Hall, 2008:126).

In discussing the relationship of art and design Buchanan refers to the art critic Harold Rosenberg who shifted attention "towards the problematic nature of art and away from art criticism that focuses merely on the final product" (Buchanan, 2006:17). Reflecting McCoy's view that design is about history and culture, Buchanan proposes a shift in design similar to that of Rosenberg's in art, where there is a balance between aesthetics, purpose and meaning:

> … a shift away from design competitions and museum exhibitions that merely celebrate the formal qualities of the final design product and a shift towards deeper understanding of the problematic situation of the product and the process of design thinking.
> (Buchanan, 2006:17)

In a complex and changing world, with significant advances in information technology, multicultural communication and design have become necessary, stressing the importance of creating a design culture, "one that promotes an understanding of design as transcendent of particular contexts, specific disciplines, or single concepts" (Nelson & Stolterman, 2003:4). A design culture that is "broad in its scope and deep in its meaning and utility" (Nelson & Stolterman, 2003:5). In this light the relationship of design and craft needs further investigation.

2.3.2.3 Design and craft: the role of patronage; use of the "human hand"; integrating art and life

The two essential components of design as " creative thinking" and "innovative activity" are interdependent and can be described as the "brainwork" (theory) and the "handiwork" (practice) of design. The relationship between theory and practice in art and design has historically been a difficult one that has affected the status of artists, designers and craftsmen, forcing an unnecessary hierarchical distinction between what is considered to be high-art "brainwork" and craftsmanship "handiwork" (please see Appendix B for a detailed chronological analysis). This dichotomy between theory and practice, and the social prejudice against artists can be traced back to Classical Greece, to Aristotle:

Aristotle codified the snobbishness of classical antiquity in distinguishing between certain arts that were compatible with a 'liberal education' (the so-called Liberal Arts such as grammar, dialectic, rhetoric or geometry) and pursuits that involved working with the hands, which were 'manual' and therefore 'menial' and thus below the dignity of a gentleman.

(Gombrich, 1984:223)

There have been incidents in the body of knowledge of art and design where the dichotomy between "brainwork" and "handiwork" diminished and instead gave rise to a more balanced and reciprocal relationship between theory and practice. This in turn led to imaginative experimentation and creative innovation. What follows is a discussion of three prominent historical examples from the literature that demonstrate the need for integrating theory and practice, and for art, design and craft to be seen as an integrated entity:

- The role of patronage: Neo-Platonism during the period of the great masters of the Italian High Renaissance.
- Use of the "human hand": Ruskin's theory and Morris's practice in the acknowledgement of the "human hand" in art and design.
- Integrating art and life: The inception of the Bauhaus school of Design (1919) and its pivotal idea of integrating art and life.

The role of patronage: Neo-Platonism during the period of the great masters of the Italian High Renaissance

A number of conditions helped to give rise to the phenomenon of the period of great masters during the Italian Renaissance (c.1420-1527), particularly during the High Renaissance (c.1500-1527) in which the social prejudice against artists receded.

The end of the twelfth century saw the growth of a new money economy, the gradual rise of new towns, and the emergence of a modern middle class in Europe. This growth and development was gradual, reaching a pinnacle in Italy in the 1500s, with its wealthy, independent cities, where the first western banking system was begun, as opposed to the less independent, feudal, guild based mediaeval cities of the North (Hauser, 1962:1-10).

The wealthy nobility who ruled over the city-states such as the Medici (Burckhardt, 1944: 131-132) in Florence, the Sforzas (Burckhardt, 1944:27) in Milan, as well as the wealthy, and at that time corrupt, Catholic Church (Burckhardt, 1944:75) competed with each other for the services of the most renowned artists such as Sandro Botticelli (*c*.1445-1510), Leonardo Da Vinci (1452-1519), Michelangelo Buonarroti (1475-1564), and Raphael (Rafaello Sanzio,1483-1520).

With the revival of Neo-Platonism in the fifteenth century (Flew, 1979:227), many of the wealthy nobility such as Lorenzo de Medici actively embraced Neo-Platonic doctrine, which "ascribed moral value to beauty, and therefore significantly encouraged the making of art" (Arnott, 2011:155). Patronage provided an incentive for the masters to compete for commissions. This led to a period of great discoveries, of artists having the means and being freed to do research, to turn to mathematics, to the study of the laws of perspective and of anatomy to gain an understanding of the human body. As Gombrich points out, there was a marked shift in the artist's status at this time:

> He was no longer a craftsman among craftsmen, ready to carry out commissions for shoes, or cupboards, or paintings, as the case may be. He was a master in his own right, who could not achieve fame and glory without exploring the mysteries of nature and probing into the secret laws of the universe.
> (Gombrich, 1984:218)

In the eighteenth century art academies, the responsibilities of artists were separated from those of the artisans, with the artists designing and artisans making decorative objects, in order to perpetuate the elevation of the artist's status (Goldstein, 1996:256-257). This attitude was supported by Sir Joshua Reynolds (1723-1792) and was challenged partly as a reaction to the ills of industrialization by the art critic John Ruskin (1819-1900) in the nineteenth century.

Use of the "human hand": Ruskin's theory and Morris's practice in the acknowledgement of the "human hand" in art and design

Ruskin's theories acknowledged the use of the "human hand" in the making of art and craft. Ruskin saw "handiwork" as being as important as "brainwork", as being noble, adding value and integrity to artwork and crafts, qualities that were seen to be lacking in machine mass produced objects. What is significant is that it was the work of William Morris (1834-96) that gave weight to Ruskin's theories. The idea of artist/designer as craftsman can be traced back to Morris, and his firm, Morris & Co., established in 1861, where "design and craft harmonized in the production of everything from furniture and stained glass to textiles, tapestries, and wallpaper" (Goldstein, 1996:257).

Morris's emphasis on the investigation of the qualities and uses of different materials were vital considerations in the design and production of his work which is confirmed in his writing on the subject:

> Never forget the material you are working with and try always to use it for doing what it can do best: if you feel yourself hampered by the material in which you are

working, instead of being helped by it, you have so far not learned your business …
The special limitations of the material should be a pleasure to you, not a hindrance
… it is the pleasure of understanding the capabilities of the special material, and
using them for suggesting (not imitating) natural beauty and incident, that gives the
raison d'être for decorative art.
 (Goldstein, 1996:258)

Morris's approach to the use of materials was of significance in the development of the
modern designer, and is corroborated by the historian of art and architecture, Sir Nikolaus
Pevsner (Goldstein, 1996:260). However, it is only at the Bauhaus that the modernist ideal of
'truth to material' was realised, as part of the modernist aesthetic of self-expression
and abstraction.

Integrating art and life: the inception of the Bauhaus school of Design (1919), and its pivotal idea of integrating art and life

It was precisely the tradition of 'seeing', discovering and inventing, of ''thinking and making"
that was emphasized at the Bauhaus School of Design (1919-1933) by its artist/designer
teachers, led by Walter Gropius the first director. "By tying artistic crafts to handicraft, he laid
the foundation for the development of the modern designer" (von Seckendorf, 2006:402).

The inception of the Bauhaus, in the Weimar Republic in Germany, at the end of World War
I, was at a time of devastation and great uncertainty. It was also a time of new beginnings
and hope and was affected by 'romantic' thought (Colin, 2006:20). The guiding principles of
the Bauhaus in the early Weimar years (initially funded by the Weimar government, before
the right wing National Socialists took power) were about integrating art and life, of creating a
modern Utopia. Gropius' intention was to create a community of artist-craftsmen
(apprentices, journeymen, masters) reminiscent of the guild system of the Middle Ages
(Haus, 2006:17). Weimar culture has been defined as a "culture of city dwellers" (Willet,
1984:111) with the city of Berlin as its centre. Significantly, many of the Bauhaus guiding
principles reflected the new phenomenon of modern urban culture. This resulted in many of
the Bauhaus staff (such as Moholy-Nagy and Schlemmer) having collaborated with outside
visual artists in the cultural activities of the city.

2.3.3 Versatility (flexibility and adaptability)

A strong connection between design education and design practice with a focus on urban
culture (as with the Bauhaus) is essential in contemporary society. In order for sustainable,
innovative design to be actualized, partnerships (such as the patronage of the arts in the
Italian Renaissance) with education, government, industry and local communities are
essential (McCoy, 1990; Sarkisian, 2010). An integrated, sustainable approach to design is

more necessary now than ever before as urbanization in the twenty-first century is a global phenomenon, with an unprecedented densification of cities.

2.3.3.1 Transference of knowledge, understanding and skills

Often issues that are dealt with in design education, and the development of theories, are transferred and concretized (made visible) by design practitioners. This is clearly seen in the way that Ruskin's theories found form in Morris's work (Goldstein, 1996:256-257) and how the new ideas of urban society in the USA were transferred and concretized by artists through the use of new technologies such as photography, thereby creating material culture (Haftmann, 1960:158-160).

The need for versatile designers, was dealt with through the concept of 'breaking down silos', the main theme of the Design Indaba conference (Cape Town, 2006), which was echoed by the architectural education theorist, Donald A Schön (2009:111). Schön identifies designing as a social process, using a building project to demonstrate the need for flexibility in the work place (Boud, 2001:38) and for designers to be able to work with and understand how other professionals from fields other than design (such as engineers, property developers, accountants) work. Designers have to be able to transfer knowledge, understanding and skills from one situation to another (Bruner, 1977:51-54). Integrating theory with practice in such instances becomes vital, as there are implications as to how one should investigate, analyse, assess and evaluate the work of designers in a field where the outcomes are largely practical.

2.3.3.2 Integrating theory with practice

At the *All Stars* Design Indaba conference (Cape Town, 2010) the presentations of many of the emerging and established design practitioners, from South Africa and other parts of the world, bore testimony to the fact that they were trying to address the global challenges of a fast changing world through innovative and sustainable design in particular contexts on a local level, with some having global impact. What was noteworthy was that from the presentations of many of the designers at Design Indaba it became clear that in their work they answered some of the challenges expressed as needing attention by the design theoreticians and educators. Their approach, manifest in practical design outcomes, gives a clearer idea of what is required of designers to be knowledgeable, skilled, critically aware and versatile.

The designers who were chosen to speak about design and in particular about their own design work at the annual Design Indaba conference, have been acknowledged by industry. Their products have been manufactured, often mass-produced and used in the real world.

However, presentations of their work were not ratified by the "double-blind, peer-review" process of conference papers presented at academic, education based conferences such as the DEFSA international conference in Cape Town (2007) and more recently the *ConnectED 2010, 2nd international conference in design education*, in association with DEFSA in Sydney (2010).

The dichotomy that exists between theory and practice in art and design is still being debated by scholars, educators and practitioners in the twenty-first century. The rigid approach to peer review of practical outputs in the visual arts is counter to the energy that has been identified as being necessary for creative experimentation (Nelson & Stolterman, 2003:22), referred to as intuitive thinking (Bruner, 1977:52; Cross, 2007:53), and which allows for imaginative leaps (Cross, 2007:78) to take place, both of which are necessary for design activity and for innovative design solutions.

In South Africa the Department of Higher Education and Training (DHET) has been consulting with tertiary education institutions throughout the country to work towards the development of a framework that will recognise creative outputs. Currently only textual outputs in scholarly journals, books and proceedings from education conferences are recognised as being peer reviewed. Although no final decisions have been reached about this issue, the DHET has drawn up draft documents for some of the visual arts sub-fields (see the DHET draft documents for the sub-fields of fine arts and design, Appendix C).

2.3.3.3 Funding and partnerships with local communities, industry and government

In the Italian Renaissance, the flourishing of the visual arts (particularly in architecture, painting and sculpture) was concomitant with the rise of the wealthy independent city-states and the patronage and support given to artists/designers by the ruling nobility. For similar reasons partnerships with education, government and industry are necessary in a contemporary context.

The relationship of theory and practice is of particular relevance to study in the field of the visual arts at traditional universities and universities of technology such as CPUT, as it affects funding from government and industry. Funding is essential for stimulating the appropriate education, research and experimentation that is required for "creative thinking" and "innovative activity" to take place. Partnerships with government and industry enable the process of theory and experimentation that has been generated from research to be transferred into practical outcomes for use in the real world. The visualization of McCoy's (1990:20) description of the education, research and practice cycle explains the necessity of partnerships with government and industry.

Support provided by government and industry to design education institutions, enables partnerships with local communities. In the case of the National Institute of Design (NID) (1966-), Ahmedabad, West India, this has led to a number of successful design initiatives for social development (Ranjan, 2005:10).
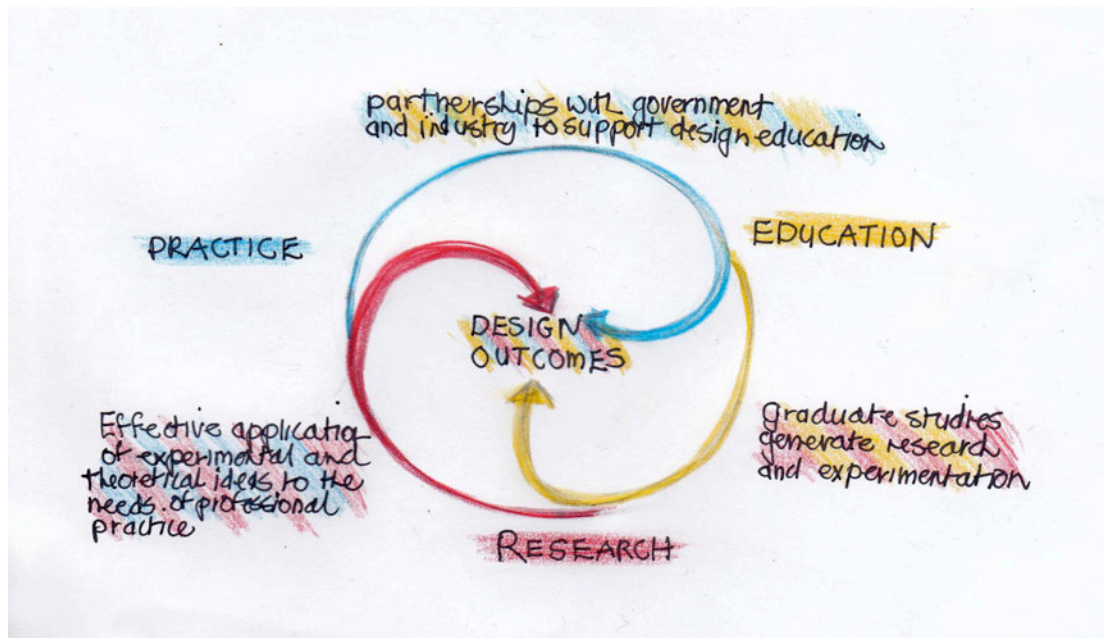
Fig. 2.2: Diagram by the researcher which visually describes McCoy's education, research and practice cycle (McCoy, 1990:20)

2.4 Towards the development of a conceptual framework for a foundation programme to educate knowledgeable, skilled, critically aware and versatile designers

It has been argued in the literature that designers should be critically aware of the role of design, and in their understanding of the world in which they live. They need to be flexible and versatile in their approach in order to meet the challenges to find sustainable solutions in a rapidly changing world. It is necessary for designers to possess breadth and depth of knowledge, skills and understanding to be able to adapt to different design situations.

Aspects of curriculum development, assessment methods and teaching approach need to be addressed from the beginning, from foundation level, in order to put the building blocks in place for lifelong learning. It is therefore appropriate to consider the development of a conceptual framework for a foundation programme in design, by analysing aspects of curriculum development, assessment methods and teaching approach (Tyler, 1949; Bruner, 1977; Wiggins & McTighe, 2005).

2.5 Foundation programmes in design

The visual field of art and design has a grammar and a vocabulary (Sonntag, 1969:392), as in any other field of knowledge and science (Tyler, 1949:28-33). The aim of foundation studies has been defined as enabling students to learn to "see", and to provide "a grammar and vocabulary for pictorial construction, an understanding of fundamental design ideas and the possibility of their expression and interpretation by tangible, visual means" (Sonntag, 1969:391). The aim of assignments in the foundation courses at both the Bauhaus and at Ulm, were to encourage individuality and to raise critical awareness through the understanding of fundamental principles of art and design (Ranjan, 2005:4).

A detailed comparative analysis of key foundation courses will be conducted, those of the Bauhaus, initiated in 1919 after World War 1 in Weimar, Germany, and the Institute of Design in Ulm, West Germany, after World 2 (1953-1968). How they have influenced the use and development of foundation programmes in art and design education in different parts of the world will be discussed, with specific mention to the development of the foundation course at the National Institute of Design (NID) in India. Sonntag's analysis of foundation education in the UK and Europe in the late 60s will follow. Newer developments impacting on foundation education from papers at the ConnectED2010 international conference on design education (Sydney, 2010) will be investigated. Specific attention will be paid to the aspects of knowledge, skills, critical awareness and versatility in curriculum development, assessment methods and teaching approach in foundation programmes.

As Pierre Bourdieu explains, in order to understand something one has to compare it to something else, preferably it's opposite. He demonstrates this through the comparative analysis of the opposing styles of Classical and Baroque painting (Bourdieu, 1967:346), the theory of which is based on Heinrich Wölfflin's study that outlines the difference between Classical and Baroque drawing, painting, sculpture, architecture and the decorative arts (Wölfflin, 1950). Comparative analysis as a method of critical investigation was used extensively in the Bauhaus foundation course to develop a critical awareness (understanding) of the visual language and basic principles of art and design.

2.5.1 The Bauhaus Foundation Course (1920-1933)

Many educators, theorists, art historians and critics in the field of the visual arts have acknowledged the Bauhaus for introducing the concept of the Foundation Course in art and design (Sonntag, 1969:393; Hughes, 1980:199; Gombrich, 1984:444; Goldstein, 1996:273, Ranjan, 2005:2-4; Schmitz, 2006:360; Filler, 2009:24; Arens, 2010:1). The contribution of the Bauhaus Foundation Course is defined concisely as, " a release from convention in favour of personal experiences and subjective knowledge" (Sonntag, 1969:393).

There are a number of factors that contributed to the development of the Bauhaus foundation course which have had a lasting effect on curriculum development, assessment methods and teaching approach in foundation education in design.

2.5.1.1 Integrating theory with practice: funding and partnerships with government and industry

The "Vorkurs" Preliminary (foundation) Course reflected the shifting ideology of the Bauhaus, which was affected by the political views and funding from the government and industry of the time. It moved from the self-expressionism and imaginative experimentation of the early Weimar period (1919-1924) to the aesthetic functionalism of the Bauhaus in the later years in Dessau (1924-1933), reflected in the approach of the successive leaders of the foundation course (Itten, Moholy-Nagy and Albers).

From its inception, the Bauhaus flourished because of the support it was given by the Weimar government. However there was an abrupt change in policy in 1923 when the authorities called for the Bauhaus to have closer ties to industry, with manufacturing processes and social housing. It was also about this time that the Bauhaus adopted an apolitical stance. A move to the right in the Weimar Republic finally led to the dissolution of the Bauhaus at Weimar in 1924. The Bauhaus re-opened in Dessau where it functioned until 1933 finally closing down when the National Socialists (the Nazis) came into power in Germany.

2.5.1.2 Consistent guiding principles, flexibility in teaching approach and developing theory from practice

The teachers at the Bauhaus practiced in their own fields and often collaborated with each other across disciplines. Itten, Klee and Kandinsky developed the curriculum based on their experience and findings from their own creative outputs, and from their teachings (Goldstein, 1996:273). Itten worked closely with Gertrud Grunow from 1919, using the results of her teachings for the development of the foundation course and its students. These teachings were based on harmonizing the personality by means of sound, colour and movement, which concurred with Itten's aim of forming integrated personalities (Ackermann, 2006:93).

Although the teaching styles of Itten, Klee and Kandinsky differed, the belief in the underlying metaphysical meaning of form, within the modernist aesthetic of abstraction, was the unifying principle in their own artwork and in their courses (Goldstein, 1996:273). Under Itten, the main purpose of the Preliminary Course was to familiarise students with the "basic principles which underlie all creative activity in the visual arts". In Itten's words, " The three basic forms, the square, the triangle, and the circle, are characterized by four different spatial directions.

The character of the square is horizontal and vertical; the character of the triangle is diagonal; the character of the circle is circular" (Goldstein, 1996:273).

Klee's methods were more systematic and he developed a theory of form based on his own work and teachings, conveying the same basic principles, "beginning with points and lines, activated to form the square, the triangle and the circle" (Goldstein, 1996:273).

Kandinsky expressed the same principles as Itten and Klee through the application of colour, "The cold-and-warmth of the square and its clearly plane nature immediately point to red, which represents a middle stage between yellow and blue and carries these cold-warm qualities with it …", (Goldstein, 1996:273) he went on to explain why the chromatic properties of the triangle are yellow, and those of the circle are blue.

2.5.1.3 The establishment of the principle of transference in the Bauhaus foundation course

It makes sense that many of the curriculum changes at the Bauhaus can be attributed to the foundation course, which developed a critical awareness through the fundamental principles of design that were then transferred and used in different contexts in the Bauhaus curriculum. Itten, an experienced teacher, established the Preliminary Course in 1920, developing it into an essential part of the Bauhaus curriculum (Schmitz, 2006:360).

An essential aspect of the foundation course curriculum was for the students to gain an understanding of, and "feeling" for materials. With this aim in mind "Grunow transferred the connection between color and music to the qualities of materials and integrated the development of a feeling for materials into the logical sequence of synaesthetic laws" (Ackermann, 2006:93). Synaesthesia is a neurological condition where stimulation of one sensory or cognitive pathway leads to automatic, involuntary experiences in a second sensory or cognitive pathway (Livingstone, 2002:198)

2.5.1.4 Assessment methods: the use of comparative analysis; the group critique; pre-assessment

The following methods of assessment will be discussed:
- The use of comparative analysis
- The group critique as formative assessment
- Pre-assessment and epistemological entry into the foundation course

The use of comparative analysis

Through the use of comparative analysis, with an emphasis on self-expression and intuitive experimentation, students were made aware of the fundamental differences between basic shapes (the square, triangle and circle), forms (the cube, cone and sphere), the quality (rough/smooth, soft/hard etc) and function (flexible/rigid) of different materials and qualities of colour (warm/cold, near/far, translucent/opaque) (Itten, 1961).

The group critique: formative assessment

Joseph Albers introduced and established the studio group critique in the Bauhaus foundation course as a means of formative assessment. Albers's method of assessing student work, has been described as a process of creative self-criticism achieved through comparative analysis:

> The preliminary course was like a group therapy. By looking at and comparing all the solutions that other students had found, we quickly learned to find the most promising solution to a problem. And we learnt to criticize ourselves, this was regarded as more important than criticism by others. (Schmitz, 2006:375)

Critical awareness and self-expression lead to certainty and security, which in turn promote healthy self-criticism and self-confidence, both needed for design action (creative thinking and innovative activity) to take place (Sonntag, 1969:393; Nelson & Stolterman, 2003:22, Yorke, 2003:479; Sims, 2008:17).

Pre-assessment: epistemological entry into the foundation course

Students who applied for entrance into the foundation course were accepted if they showed potential for study in the field of art and design. Moholy-Nagy's heuristic approach to curriculum development and assessment method is best expressed in his writings about the Bauhaus in Dessau:

> … everyone applying will be accepted as long as they show some talent and pass a test … The course will equip them with the basic elements of a diverse knowledge … Lessons will be given in observing the nature of colour, surfaces and shapes in materials, in function, proportion and space. Through exercises in manual skills, the study of materials and designs the student will become familiar with the basis of Bauhaus work … (Schmitz, 2006:368)

Showing potential for entry into a particular field of study has been identified as necessary for epistemological access into tertiary education (Boughey, 2005; South Africa, Department of Education, 2006). Assessment of student potential on entry into a foundation programme

also serves the important function of developing the curriculum and learning experiences to meet the needs of the students (Bruner, 40,54; Wiggins & McTighe, 2005:314).

2.5.1.5 Drawing as "learning to see": a perceptual/cognitive approach

The teaching of art in the traditional academies consisted solely of drawing (from engravings, the Renaissance masters' paintings, copies from plaster casts of classic sculptures of the nude and draped figure, animals, plants and occasionally from life), at the Bauhaus drawing was regarded as one of the ways of gaining an understanding of the "grammar" of the visual language. Life (figure) drawing was taught from the beginning at the Bauhaus, by Itten in the Preliminary Course, and by Oskar Schlemmer from 1921 until 1929. What is significant is the difference of the approach to drawing at the Bauhaus as opposed to drawing in the traditional art academies.

The contrast between the traditional academies and the Bauhaus is most clearly seen in the approach to working from the live model. The drawing of the nude figure in the traditional academies entailed making endless corrections in order to find "true beauty", which was a means of promoting a particular form of morality (Neo-Platonic doctrine) (Goldstein, 1996:159-185). For Itten, life drawing was about, "capturing the rhythmic movement of a pose, an exercise in gestural drawing carried out to the accompaniment of music" (Goldstein, 1996:274).

Schlemmer developed a synthetic course *On Man*, looking at the human form throughout history and in particular in relation to the machine age, using the same principles of abstraction as Itten, Klee and Kandinsky. Schlemmer's approach is best described in his own words, "the square of the chest, the circle of the stomach, cylinders of the arms and lower part of the legs, spheres of the joints at the elbow, knee …" (Goldstein, 1996:274).

2.5.1.6 Design bridging art and science: colour studies; the balance between aesthetics and form

At the Bauhaus the concept of design bridging art and science was applied to colour and in trying to find a balance between aesthetics (self expression) and form (technological functionalism) and will be discussed in more detail.

Colour studies

The students were exposed to colour theory based on expressive, symbolic values, and colour theory based on scientific optical colour effects. Itten, Klee and Kandinsky's approach to colour was derived from Goethe, Runge and Hölzel. Whereas in the advertising and wall painting workshops, Hinneke Scheper and Joost Schmidt's work in colour was based on the

schematic colour ordering of the chemist, Wilhelm Ostwald, a Nobel prize winner (Kaiser-Schuster, 2006:392).

Balance between aesthetics (self expression) and form (technological functionalism)

Gropius designed the modern Bauhaus buildings at Dessau. It was here that for the first time there was an architectural department headed by the functionalist Hannes Mayer (Gombrich, 1984:444). The development of modern architecture due to new technologies made a significant contribution to modern urban life.

The technological, functionalist, modernist style is from this period of the Bauhaus (eg. Marcel Breuer's tubular steel chairs, product designs to fit in with the new functionalist environments, such as desk lamps, by Marianne Brandt, commercially made pottery, wall paper designs and even built-in kitchen furniture that Gropius designed for his own house in Dessau (Willett, 1984:74-76)).

William Morris had shown that machine production lacked the sensitive craftsmanship of handmade artefacts, it therefore became important to discover what the machine could do and to design for it (Gombrich, 1984:444). It was necessary for craftsmanship to be an integral part of the design to ensure a balance between aesthetics and form in machine made design outputs. This is very much what was dealt with at the Bauhaus in Dessau, finding appropriate technologies and design for mechanized production.

2.5.1.7 Continuity and change through the use of the principle of iteration

Consistent guiding principles, with individual contributions from teachers (Bruner,1977:52), should enable the continuity and change necessary for further development in a curriculum. The principle of continuity and change was demonstrated in the foundation course, with the shift in Bauhaus policy, which became 'Art and technology, a new unity' (Willett, 1984:44), as apposed to the metaphysical expressionism of the early Weimar years.

The similarities and differences between Itten's "preliminary studies" during the Weimar period and Moholy-Nagy's "basic course" at Dessau indicate that the guiding principles were consistent but that the approach to curriculum development and teaching varied:

> These courses were the result of the belief that where art is not teachable, the command of medium is. They differed in that the former stressed an arriving at something and the latter at deriving from something. (Sonntag, 1969:391)

László Moholy-Nagy's approach has been analysed as being broader than that of Itten's, in that Moholy-Nagy was concerned with life and issues beyond the visual arts. The history of

the Bauhaus has been defined as " a period of incubation until 1923 [Itten's Preliminary Course], followed by a phase of practical realization and emanation until 1928 [Moholy-Nagy's Basic Course]" (Sonntag, 1969:392). Moholy-Nagy did not see a "problem between the world of mechanical production and the training of individual creativity" (Schmitz: 368). Like Itten he encouraged the students to work with contrast to gain a visual and tactile sensory understanding of materials, but his approach was more "scientific" in that (unlike Itten who emphasised the development of individual experience), Moholy-Nagy required his students to develop systematic charts which catalogued the different qualities of materials.

As with Moholy-Nagy, industrial as well as traditional materials were investigated when Albers took over the leadership in 1928. Having been a student of Itten's, and a trained teacher in the reformed teaching method, Albers's teaching approach was similar to Itten's but was used for different purposes, so there was continuity but also change in his approach. His teaching marked a shift from the values of the older masters, Klee and Kandinsky, to those of Breuer, Bayer and Schmidt, from "a modernized doctrine of art to an aesthetic education in applied design" (Schmitz, 2006:378). Unlike Itten, Klee and Kandinsky who saw their art making as being central to their teaching, Albers perceived his teaching as being central to his art making.

2.5.1.8 A lasting legacy: new ways of "seeing" and visual communication transferred to new and different design education contexts

Imaginative experimentation in the photographic medium was Moholy-Nagy's main contribution at the Bauhaus, which he transferred and developed in his teaching when in America at the New Bauhaus, and at the Institute of Design in Chicago. Initially photography was used for documenting activities in the Bauhaus, but through Moholy-Nagy's innovative experiments with this new way of "seeing" by "rotating images, diagonal compositions, tipped perspectives, bird's-eye views, and extreme close-ups, and using such techniques as the photogram, montage, and multiple exposure" photography was turned into an art form at the Bauhaus. Through his experimentation with recent photographic technology, he replaced existing pictorial conventions with a new reality, "… contributing to the creation of an authentically modern consciousness" (Goldstein, 1996:265, Berger, 1972).

The Bauhaus contributed to unprecedented developments that were made in print layout and typography in the early 1920s through the combination of photography, montage and typography. Moholy-Nagy with other "avant-gardists" such as Lissitsky, Schwitters and Burchartz contributed to the seminal 1925 issue of the Book Printers' Union's *Communications,* on 'elemental typography' (Willett, 1984:78).

Itten introduced the system of working with a grid for finding metaphysical meaning in colour and in the exploration of materials. Moholy-Nagy, and then Albers, adapted the use of Itten's grid system for investigating the properties of materials and colour, applying a positivist approach. Albers developed and refined the use of the grid as a means for the exploration of the properties of materials and colour in his teaching in the USA (at Black Mountain College and later at Yale University), after leaving the Bauhaus (Goldstein, 1996:277; Filler, 2010:24).

The grid system initiated by Itten was adapted and used in the 1970s in the first-year course at the Michaelis School of Fine Art, UCT (see Appendix A). The grid system, mainly in the exploration of colour, is still used in the Design Foundation Course and in colour studies in first-year in fashion design, industrial design, interior design and surface design at CPUT (by CPUT lecturers who completed the first-year course as part of their fine art education in the late 1970s at UCT).

2.5.2 The Institute of Design at Ulm, West Germany (1953-1968)

The Institute of Design at Ulm was founded on guiding principles of social reform. The initial inspiration for establishing the Ulm institute came from Inge Scholl a member of the anti-Nazi "White Rose" resistance group during the war. Scholl together with the graphic artist Otl Aicher hoped to create a new "crystallization point for a better Germany" where the "spirit of peace and freedom" would help "cultivate antifascist European culture" (Betts, 2006:74).

2.5.2.1 The guiding principle of design as social reform

The initial political direction of the school was given less prominence by de-emphasising courses such as sociology, media studies and political science and enhancing the teaching of art, architecture and design by the first director, a past Bauhaus student, the sculptor, painter and designer Max Bill. He argued that social reform began with "the very forms of the social environment" such as city planning, architecture and everyday objects (Betts, 2006:74). A compromise was reached, which reflected in the eventual development of departments, such as City Planning, Visual Design and Product Form.

2.5.2.2 Re-evaluation of the Bauhaus modern expressionist aesthetic and move to a more scientific, technological approach

The Bauhaus philosophy of experimentation through direct experience, of "learning through doing" was seen to be unscientific and not adequate in preparing students to deal with complicated post World War 2 industrialism. There was dissension amongst the staff, and disapproval of aesthetic criteria coming from modernist art. It was argued that the new industrial designer should have a better understanding of the industrial processes of mass

production. It was argued that if design was to "maintain any critical dimension, it needed to be reconfigured as a more scientifically based operation of product management and systems analysis" (Betts, 2006:75).

The rejection of the art-based heritage of design education led to the re-evaluation of the Bauhaus legacy and the restructuring of the curriculum (Betts 2006:76). The positive and negative consequences of this phase at Ulm are analysed by Ranjan as follows:

> Cybernetics, theory of information, systems theory, semiotics, ergonomics and disciplines such as philosophical theory of science and mathematical logic were explored to bring a solid methodological foundation to design thinking and action for the first time. The focus on science and methodology was a Pandora's box that literally swallowed design thinking and sensibilities at Ulm for quite some time and it took great effort from the inner group of designers Maldonado, Aicher and Gugelot to reassert the supremacy of design at Ulm
> (Ranjan, 2005:4).

The most positive outcome of the new scientific and methodological approach to design was that it led to engagement with industry and the designing of complex products, best exemplified by Ulm's collaboration with the Braun Company.

2.5.2.3 The significance of the Ulm Organization and Free Community teaching models for design education

One of the most significant legacies of the Institute of Design at Ulm were the Organization and Free Community teaching models that were established by Otl Aicher. I have tabulated Ranjan's (2005:5-6) summary of Aicher's models as a comparative analysis. The table illustrates the difference between lecture based conventional education and the "hands-on" experiential education that were used early on in the foundation course at Ulm.

The difference was that unlike the conventional (organization) model which was about information, the second (free community) model encouraged the development of critical thinking, which in turn encouraged individual growth, independent research and the development of theory from practice (Bruner, 1977:52-54; Wiggins & McTighe, 2005:314; Sims, 2008:18; Trowler & Trowler, 2010:19). The significance of the use of both teaching models has been acknowledged as being essential in meeting different educational needs with extensive recent research having been done to find a balance through the integration of the two teaching models (Cronje, 2005).

Table. 2.3: Summary of Otl Aicher's teaching models, table by researcher (Ranjan, 2005:5-6)

Model 1: Pedagogical principle **Organization**	Model 2: Pedagogical principle **Free Community**
Formal Lecture	Free form of instruction Discuss
Authority of teacher and of the material	Teachers only in auxiliary capacity From practice to theory
Mass processing Facts	Working independently Enjoying the work Going deeper Unfolding of personal talents
Examinations Supervisions	Independent critical judgement Personal interest incentive
Syllabus	Teaching framework Experimental learning

2.5.2.4 The foundation course: continuity, refinement and changes from the Bauhaus

- Initially the experiential approach that had been started at the Bauhaus in the foundation course was continued and developed by Max Bill.

- The foundation course became interdisciplinary and the assignments were simplified and made more precise by Maldonado.

- The emphasis on drawing changed with attention being placed on reflective visualization.

- All the assignments in the foundation course were abstract and non-object orientated without a practical basis. The reason for this was that it was thought that through abstract non-object based assignments " the focus was on the understanding of principles and not on immediate application of the concepts" (Ranjan, 2005:5).

2.5.2.5 Inconsistent guiding principles, rigid structures and lack of funding lead to closure of the Ulm Institute of Design

The following factors contributed to the final dissolution of the Institute of Design at Ulm by its staff:

- Instruction in colour was discontinued with the introduction of the new scientifically based curriculum because no agreement could be reached about which approach should be employed (Ranjan, 2005:4; Betts, 2006:76).

- Imaginative experimentation has been recognized as necessary for innovative design (Sonntag, 1969; Gombrich, 1984; Goldstein, 1996; Nelson & Stolterman, 2003; Ranjan, 2005). It was felt by many of the staff at Ulm that the curriculum had become too scientific at the expense of imaginative experimentation (Betts, 2006:77).

- It is widely accepted that art and design reflect the "time and place", the socio-economic, cultural and political circumstances from which they emanate (Wölfflin, 1950; Hauser, 1962; Hughes, 1980; Willett, 1984; and Goldstein, 1996). The perception of the curriculum as being too 'scientific' was reflected in the cultural waning of industrial rationalism, which led to functionalism being questioned in architecture and design circles (Betts, 2006:77).

- Support from government and industry are essential for design research, experimentation and the actualization of these in the real world (McCoy, 1991:1). When the regional government withdrew funding from Ulm because of the continued experimental approach to teaching and the emphasis on the development of critical design theory, the staff decided to close down the Institute (Betts, 2006:77).

2.5.3 The National Institute of Design (NID), Ahmedabad, West India, (1966-)

The scientific and technological approach to design in the curriculum at Ulm was further developed at NID without losing sight of the modernist Bauhaus art aesthetic and the approach of "thinking through doing". What is significant is that this was achieved through direct consultation and exchange of staff between the design schools of Ulm and NID (e.g. Max Bill, Otl Aicher) (Ranjan, 2005).

2.5.3.1 The development of the NID foundation course

The development of the foundation course at NID was strongly influenced by aspects of both the foundation courses at the Bauhaus and the Institute of Design at Ulm. NID developed its own foundation course in 1970 based on the theories developed by the Bauhaus and Ulm (Ranjan, 2005). The curriculum and teaching approach of the NID foundation course was further developed and adapted through the 1980s and 1990s in line with the socio-economic and cultural context in India (with thirty official languages and diverse belief systems and customs), which in some ways is comparable to the cultural and socio-economic context in South Africa.

2.5.3.2 Design as a social process, from user centred to active centred
strategic design

In Ulm an emphasis was placed on social reform through design, particularly in industrial design and architecture. The concept of design as social reform has been refined and continues to be developed at NID where design is seen as an ongoing social process. The development of design education at NID is crucial, in that after many years of experience, through experimentation and refinement of the curriculum, and the teaching approach, and of working in partnership with local communities, NID pedagogy has consciously attempted to deal with real social development issues through "design action". The use of strategic, action design has been identified as being essential for social development:

> … we are convinced of the need to use the power of this discipline [design] to further
> the real needs of a huge population desperately seeking solutions to many vexing
> problems in a very tight economic climate. (Ranjan, 2005:10)

In a different context, the concept of design as a social process is also recognized by Manzini (2009:448-449), and both he and Ranjan (1999:1-3) take it further, stressing the need for strategic design and the move from user centred design to active centred design, with the broader community of design specialists functioning within the global "networked knowledge society", designing sustainable socio-economic environments with local communities. With this in mind Ranjan advocates the need for basic design skills, of "thinking through making" as addressed in the foundation course, at postgraduate level in design education because of the recent perception that:

> … design thinkers are seen as an alternative to designers in a knowledge driven world and this is particularly worrisome since it is assumed that design thinkers can be trained without the burden of learning skills through the adoption of digital abilities in lieu of the analog capabilities that has been the historic vehicle for basic design education so far.
> (Ranjan, 2005:11)

2.5.4 Summing up of the Bauhaus, Ulm, and NID foundation programmes: the need for flexibility and the integration of theory with practice

Taking into account all the factors related to the development, and evolution of design foundation education, from its early roots in the Bauhaus Preliminary Course, through various iterations at Ulm and at NID, it is clear that design thinking (theory) and design skills (practice), have to be integrated in order to enable 'innovative action' for finding design solutions for complex situations (Nelson & Stolterman, 2003:22; Ranjan, 2005). The process of the integration of theory with practice, or "design thinking" and design skills is explained as manifesting when "the thinking processes of the designer seem to hinge around the relationship between internal mental processes and their expression and representation in sketches" (Cross, 2007:53). The essential integration of theory and practice in art and design is corroborated in Leonardo's words, "… whatever exists in the universe, in essence, in appearance, in the imagination, the painter has first in his mind and then in his hand" (Wray, 2005:23).

The final closures of the Bauhaus in Dessau and the Institute of Design at Ulm indicate that design, as a field of study, requires funding and positive support to encourage creative thinking and innovative action (Nelson & Stolterman, 2003:22). Furthermore the constraints of conventional education structures should not hinder flexibility and freedom of experimentation which are necessary for the development and refinement of the curriculum, assessment methods and teaching approach in educating confident, critically aware and versatile designers (Sonntag, 1969:393).

> Fertile ground had been prepared in Ulm but the harvest withered because
> of the inflexibility of a community which was unable to recognize creative
> spirit. These forces arose, on the one hand, from an entrenched belief in
> aesthetics for its own sake and, on the other, from intolerance of all but the
> functional.
> (Sonntag, 1969:396)

In educating designers, the appropriate use of the Organization and Free Community teaching models established by Aicher at Ulm demonstrated the necessity for a balance between artistic expression and rigorous scientific investigation (Bruner, 1977:52-54; Ranjan, 2005:5-6; Cronje, 2005; Wiggins & McTighe, 2005:314).

2.5.5 Foundation education in art and design in the UK and Europe in the late 1960s

At this time art and design education was in a state of turmoil in the United Kingdom, leading to student unrest which culminated in the second Coldstream report that was published in 1968. Sonntag (1969) responded by writing his seminal article about foundation studies in art. The National Advisory Committee on Art Education, under Sir William Coldstream was set up in 1959, it recommended, and the Ministry accepted, the introduction of the diploma in Art and Design (Dip A.D). (Sonntag, 1969:387-388).

Listed are some salient points that Sonntag makes, which have as much bearing on grounding (foundation) education in the 2000s (many of which were fundamental to the approach of the Bauhaus foundation course in the 1920s). These should be kept in mind when developing the curriculum, teaching approach and assessment methods for a design foundation course.

2.5.5.1 Foundation programmes should be developed within the diploma structure

Sonntag argues for the retention and continuation of the foundation programmes, for greater clarity as to how they are positioned and that they should be developed within the diploma structure. He goes on to state that the length of time in a foundation programme in art and design should not only be a year long but perhaps longer, although not lasting the duration of the four-year diploma as it had done in Ulm (Sonntag, 1969:397). This is comparable to issues we are currently confronting in higher education in South Africa at the CPUT, and which have been highlighted by Ian Scott (Gower, 2008:15) and Chrissie Boughey (2005:230) of the national taskforce on foundation education. Sonntag's argument should also be seen in the context of the development of the art and design foundation degrees that were established in the early 2000s in the United Kingdom (UK) in which Jane Tynan (2006:39) identifies the need for further integration of theory and practice in the curriculum.

In a discussion paper which addresses the issues of extending the current three-year degree into a four-year degree, Scott (2000) highlights the findings of research on foundation degrees in the UK and the community college two-year associate degrees in the United States (USA). There were problems experienced with the transference of these qualifications as a means of access and participation in the four-year degree colleges in the USA. It was found that students from more disadvantaged backgrounds were the ones who were most vulnerable and who struggled to adapt to the traditional degree structure and to complete the qualification.

In South Africa, the problem is complex because of the varied needs and capabilities of students from diverse backgrounds when entering into the higher education system. Changing the standard degrees into four year degrees is further compounded because of the existing four-year professional degrees and because progressively the standard three-year degrees are not seen to be sufficient qualifications for entering the workplace, with honours degrees becoming necessary in order to have sufficient "knowledge, skills, depth and breadth" to enter the workplace (Scott, 2000:4)

2.5.5.2 Establishing the guiding principle of design as a bridge between art and science

The challenge of integrating theory and practice, of a broad and deep approach to design is, if anything, more relevant now in the 2000s particularly because of the unprecedented rate of technological advancements and the need for sustainable innovative design solutions. Sonntag insightfully noted that:

> The challenge to art in our age cannot be avoided; both the creative and the communicative processes of art are inseparable from technical and scientific developments in the modern world. The perception theorists and the teachers at the Bauhaus in Germany in 1920 realized this fact.
> (Sonntag, 1969:390)

2.5.5.3 The foundation course at the core of teaching in an art [and design] school

The concept of the Bauhaus foundation course, of the integration of art and life, reinforces the view that "designers create culture" (McCoy, 1990: 22), as does the belief of the need for foundation studies (the first and second years of study) to be at the core of teaching in art [and design] (Sonntag, 1969:387).

> An environment should exist for art education which will make it possible for men and women to understand their world and to invent and create forms symbolizing that world
> (Sonntag, 1969:387).

Due to the complexity of contemporary society, foundation studies are as relevant for art and design education in the 2000s, (locally in South Africa and in a global context) as they were in the 1960s (Sonntag) and in the 1990s (McCoy).

2.5.5.4 The significance of the diagnostic function: foundation studies not only for remedial purposes

Due to the needs of a complex and constantly changing world, it is recommended that students interested in the study of the visual arts should participate in a foundation programme. The function of foundation courses should not be exclusively remedial for underprepared students. Foundation programmes (known as extended curriculum programmes (ECPs)) in all fields of study in tertiary institutions in South Africa are intended only for underprepared students from previously disadvantaged backgrounds (South Africa, Department of Education, 2006).

The main object of the foundation programme is to enable the student to decide which art or design specialization (discipline) they are best suited to for further study (Sonntag 1969:388). In order to facilitate the diagnostic function it is suggested that, "in all spheres of foundation studies the student should work in both two and three-dimensions" (Sonntag, 1969:394).

2.5.5.5 Basic design and the need for a balance between aesthetics and function

The balance of the relationship between aesthetics and function, which could be described as the relationship between art, design, science and technology, cannot be ignored. Sonntag points out that at the Bauhaus in Dessau there was an increasingly uncomfortable relationship between aesthetics and function as the pressure for design to meet industrial production requirements grew, eventually resulting in the move away from the modernist art aesthetic almost entirely at Ulm. The emphasis on scientific investigation and method at Ulm became so pronounced that the students complained (Betts, 2006:77). Significantly, the heavily weighted scientific approach at Ulm was identified as resulting in the stifling of creativity and was seen to be a major contributing factor to the dissolution of the school in 1968 (Sonntag, 1969:396; Ranjan, 2005:4).

The necessary balance of aesthetics and function in design is expounded by the English artist and architect Victor Pasmore (1908-1998) in a conversation with Sonntag, "Not only is it important how a chair is made and how it feels when one sits on it, it also matters how it looks" (Sonntag, 1969:396). This echoes both Gombrich and Hughes, in discussing Le Corbusier's *Villa Savoye* (see Appendix B), where both identify the need for 'imaginative' experimentation in order to find innovative, workable solutions through the integration of form (aesthetics) with function (technology).

2.5.5.6 Analysis, synthesis and contrast: continuity and change from the Bauhaus foundation course

The way to achieve an understanding of the visual language, and the principles of art and design, is through the methods of analysis and synthesis. Firstly, through the application of analysis (by taking pictorial elements in a composition apart in order to understand them), followed by synthesis, from a position of understanding and experimentation (by putting the pictorial elements together again in a personal and unique way). The process of analysis and synthesis is described by Sonntag (1969:393) as," … Pictorial elements, such as light and shade, material and structure, and colour are studied … followed by work with formal pictorial elements: plane, line and point".

Credence is given to the approach of Itten, Moholy-Nagy and Albers for the use of contrast in gaining an understanding of the similarities and differences of form, colour and materials. Sonntag thereby affirms the theoretical basis and methods employed in the foundation course in the Bauhaus. The views of Bourdieu (1967:346) and Wölfflin (1950:226-237), that the visual phenomena that we perceive exist only in relation to their opposite effect, are also hereby reinforced.

2.5.5.7 The significance of the artist and the object

The approach of giving attention to both the artist and the object as advanced by Sonntag (1969:392) is of particular significance for design because design outcomes are practical and functional. The design outcome (the object), and the designer (the artist) are integral to the design process. Sonntag makes an important distinction between his own approach and that of Moholy-Nagy's. He identifies the centre of Moholy-Nagy's work as being the artist and not the object, stating that in his experience in order to get satisfactory results, attention has to be given to both the artist and the object.

2.5.6 Summing up: foundation studies and the development of critical awareness, perception and confidence

Foundation studies where curriculum development, assessment methods and teaching approach are focused on developing an understanding of the visual language through a heuristic approach to teaching and learning should lead to self-belief and confidence in students, necessary for design action to occur. Sonntag (1969:393) explains that "intellectual comprehension and feeling promote certainty and security" and that the way to go about achieving these states is for students to participate in foundation studies.

> I envisage a curriculum which will provide a base for the creative activity of the
> student, i.e. prepare him through specific exercises in a way which will arouse his
> interest and promote diligence, clear thinking and enthusiasm for his work … All
> pictorial activity of man presupposes perception. Perception means to

comprehend an environment in its many manifestations. Without recognition and comprehension human activity is uncontrolled. Lack of clarity, conditioned by doubt and fear, marks the results of such activity. Learning to recognize and fight uncertainty, doubt and fear provides one solution for liberating the creative force of the student.

(Sonntag, 1969:392)

Almost forty years later Nelson and Stolterman (2003:22) reinforce Sonntag's view that critical awareness and self-expression (Sonntag, 1969:393) lead to certainty and security, which promote healthy self-criticism and self-confidence, both needed for design action (creative thinking and innovative activity) to take place. They understand design action to be intentional action that arises out of strength, hope, passion, desire and love as opposed to problem action, which is seen as being initiated out of need, fear, weakness, hate, pain and other reactive motives. Fear shuts down creative "thinking and doing".

2.5.7 Design Education conferences: ConnectED2010 (Sydney, 2010)

What was significant about the recent *ConnectED 2010, 2nd International Conference on Design Education*, which was hosted by the University of New South Wales (UNSW) in association with the Design Education Forum of South Africa (DEFSA), in Sydney, Australia (2010), was that it was evident from the issues addressed by the keynote speakers in the plenary sessions and in the conference papers in the parallel sessions, that design education is no longer merely skills based. Diversity of cultures and local and global issues are being dealt with in a variety of different ways. Design educators are involved in research about design and design education in the broader global context, as well as in specific local contexts. They are writing about their own creative work and teaching practices. They are discussing successes and challenges in curriculum development, teaching approach and assessment methods.

I will refer to some of the issues that were addressed at the *ConnectED 2010* conference (Sydney, 2010) that are pertinent to the development of aspects of curriculum development, assessment methods and teaching approach for foundation education in design in South Africa and which could be applied to comparable situations in the broader global context.

2.5.7.1 The evolution of "design thinking": framing, keeping the problem and solution space open and preserving "ambiguity" to allow for team creativity

The evolution of the concept of "design thinking" was emphasised by two of the keynote speakers, Kees Dorst, Professor of Design, University of Technology Sydney; and Larry Leifer, Professor in the Mechanical Engineering Department, Stanford. Both acknowledged

the use of "design thinking" in finding solutions to problems, not only in design but in many other fields.

> The notion of design thinking has gained popularity outside the core design professions – it is a buzzword in the business world, and we can find design thinking mentioned as an exciting new paradigm for dealing with problems in sections as far afield as education, IT and medicine.
> (Dorst, Sydney, 2010)

"Design thinking" as "co-evolution" of the problem and solution, where the problem and the solution are both in flux was discussed (Cross, 2008:102). Framing the problem was essential and was described as walking around a problem to see if it is solvable (Cross, 2007:115; Dorst, 2010). Comparably, the framing of the problem was also described as "in design, context is everything" and that the problem and solution space should be kept open, in a state of "ambiguity" to allow for team creativity to take place (Cross, 2008:78,114; Leifer, 2010).

Reframing, "professionalization" and creating a new practice

As innovation is about change (Nelson & Stolterman, 2003; Dorst, 2010), to change one's way of thinking, the idea of reframing, creating a new frame, of creating a new kind of design practice was advanced. The concept of reframing was explained by comparing the difference between individual designers and professional practices. Designers focus on projects, whereas in professional practices, such as an architectural practice (an environment which allows for creative experimentation and innovation through team participation), the focus is on the thinking of the team that goes on behind the projects. The thinking that goes on behind the projects in a practice was referred to as "professionalization", with different disciplines having their own terminology and way of functioning. Reframing was seen as a means to change one's thinking, using "professionalization" as a strategy in order to create a new design practice (Dorst, 2010).

"Design thinking" as "research in context"

"Design thinking" as "co-evolution" of the problem and solution, where the problem and the solution are both in flux was discussed (Cross, 2008:102). Framing the problem was essential and was described as walking around a problem to see if it is solvable (Cross, 2007:115; Dorst, 2010). Comparably, the framing of the problem was also described as "in design, context is everything" and that the problem and solution space should be kept open, in a state of "ambiguity" to allow for team creativity to take place (Cross, 2008:78,114; Leifer, 2010).

It was observed that students take cues from computers rather than the real world and that ninety-eight percent was design thinking, "research in context" and that two percent was design. Therefore communication becoming tangible was essential (Leifer, 2010). The emphasis on the making of things, by conducting experiments to see how things work, described as "thinking through making" was seen as being equally important (Ranjan, 2005:4).

Self-awareness and cultural awareness

Due to the growing phenomenon of design collaboration at a distance ("the global networked society" that Manzini (2009:448-449) and Ranjan (1999:1-3) refer to) the need for a project coach and a culture coach because of cultural differences, was identified. Self-awareness and cultural awareness are seen as essential qualities and the use of sustainability problems to engage students was suggested as a means of raising critical awareness of the needs of a complex and fast changing world (Leifer, 2010).

2.5.7.2 Curriculum development: hybrid design, a new form of versatile interdisciplinary curriculum

In order to deal with complex situations, diverse cultures and fast changing technologies there is a need for designers from different disciplines to collaborate more closely than ever before. This has seen the emergence of a new form of versatile integrated interdisciplinary design curriculum at undergraduate level, referred to as hybrid design.

Product Design Engineering: a hybrid, integrated, interdisciplinary curriculum

The successful development of the Product Design Engineering curriculum at Swinburne University of Technology in Melbourne is evidence of the need for design to create a balance between the opposing fields of art and science (Bourdieu, 1967:346) by forming a bridge between them (Nelson & Stolterman, 2003:29; Cross, 2007:124).

The mechanical engineering department at Swinburne University of Technology in Melbourne, identified the necessity for change in approach because of the greater focus on "sustainable design, socially responsible design and design for need" (de Vere *et al*, 2010: 1). In order to be more effective in product design and development environments, it was established that design engineers needed new skills which included "creative design ability and a more human-centred approach", both of which are not usually addressed in a traditional engineering curriculum (de Vere *et al,* 2010:1).

Through the collaboration of the design and engineering faculties, a new five-year integrated, hybrid design course, known as Product Design Engineering has been developed. The

curriculum is equally weighted with product design and mechanical engineering components. Many innovative, award-winning designs have come out of this particular Product Design Engineering course. The placement rate for graduates from this course is high and they are sought after by industry because of their interdisciplinary abilities as both designers and engineers (de Vere *et al,* 2010).

Addressing the "cultural user perception gap": integrating formalistic design with social design (knowledge of social behaviour for appropriate design)

To address the phenomenon known as the "cultural user perception gap" experienced in state owned buildings in Papua New Guinea, a hybrid design system has been proposed whereby current formalistic design can be integrated with the social design of human behaviour (Polin, 2010:1), thereby attempting a meaningful and cultural integration of form and function which goes deeper than meeting merely visual, practical and physical needs (Sonntag, 1969:396; McCoy, 1990:21; Goldstein, 1996:292).

> Cultural-user-perception gap is described to be the level of variance found between the indigenous cultural perception and the modern cultural perception of modern state-owned buildings being developed in Papua New Guinea … When there is little or no variance the more resolved a building becomes.
> (Polin, 2010:3)

One of the areas in existing state owned buildings which clearly demonstrates the 'cultural user perception gap', is the lobby space which has seen much wear and tear in existing buildings, as the lobby space, particularly in hospitals, is too small to accommodate the custom of group visitations of the extended family when a patient is taken to hospital.

Formalistic design in buildings is seen to put the emphasis on the form where buildings are seen to be like sculpture, without much regard for their practical or social function. In social design the relationship between the environment and human behaviour is seen as most important. Obtaining information about human behaviour is essential to the process of social design, after which this information needs to be " translated from the terminology of the human sciences to the language of design" (Polin, 2010:4). What is proposed is the integration of formalistic design with social design to form a hybrid design system.

2.5.7.3 Assessment methods: reflective self-criticism, formative assessment and the verbal group critique for a culturally diverse group of students

Based on different teachers' experiences in the design studio environment, different assessment strategies were proposed to facilitate teaching and to encourage active student

learning, through the development of reflective self-criticism during the design process of studio-based projects.

Monitoring student participation, development and achievement during the design process: encouraging reflective self-criticism

A means of formative assessment, the "passport system" was developed organically as an intuitive response to the practical results of the studio-based design projects in the architectural technology department at the CPUT, over a two-year period between 2007 and 2009. It was a response to counter the "increasing need to monitor students", due to the perceived "worsening staff-to-student ratios and diminishing readiness of students for tertiary study" (Morkel & Voulgarelis, 2010). It was initiated to ensure that students brought the necessary physical evidence of design work to the designated critique sessions that took place during the design process. The passport is described as an "integrated and graphically explicit instrument", a "project-specific matrix" which incorporates all the information that is on a project brief (Morkel & Voulgarelis, 2010).

The passport assessment system has achieved a number of positive outcomes. It provides evidence of the students' participation, their involvement and achievement related to key stages in the design process of the project and of the final outcomes, of the end product of the project. In the passport document there is space for written comments alongside the key assessment stages, which have been signed off by the lecturers and the student. It encourages the development of reflective self-criticism. Most importantly it is a record of the formative assessment dialogue, between the student, their work and their teachers which can be referred to at the summative portfolio examination at the end of the academic year.

The verbal group critique: strategies to meet the needs of a culturally diverse group of students, to enable critical self-judgement

The impact of verbal feedback on a culturally diverse group of international design students in the learning environment of the design studio in the UK was examined (Blair, 2010). The issues of self-awareness, cultural awareness, and appropriate language usage that have been identified as necessary in order to facilitate communication between designers within the "global networked knowledge society" are addressed in a specific learning context, which however is also relevant in a broader educational context (Sonntag, 1967; McCoy, 1991; Ranjan, 2005; Manzini, 2007; Leifer, 2010). The issues that are investigated are directly relevant to the culturally diverse nature of the student body in the Design Foundation Course at the CPUT.

The value of verbal feedback within the group critique situation during the design process is acknowledged (see Appendix B). However, attention is drawn to how students from different cultural backgrounds might not understand the purpose or the style of the critique situation that is conducted in the studio environment in the UK. Reference is made to Japanese students who perceive the robust style that British students are taught to debate in, as being confrontational (Blair, 2010:2).

Furthermore, cultural differences between the English students and their Japanese peers that affect meaning and understanding were identified. For many Asian students, seeking help was seen as a lack of ability. Japanese students do not necessarily understand the emphasis that is placed on originality, as in Japanese culture value is placed on memory, accuracy and detail and conforming to great masters. Critical and social awareness was required when making recommendations based on student feedback. It should be essential that staff and students avoid dangerous stereotyping when interacting with students of different cultures.

A recommendation was made for the transference of knowledge and skills by "recognizing existing diversity and adopting intercultural best practice from other fields of education" and to encourage "mutual understanding and adaptation by choice rather than assimilation" (Blair, 2010:4).

2.5.7.4 Teaching approach: critical awareness of design principles and knowledge of basic design skills to facilitate learning in undergraduate design courses

What became evident during the conference was that not only is "design thinking" essential for innovative action (Nelson & Stolterman, 2003:13) but that as a strategy "design thinking" is evolving (Dorst, 2010). If "design thinking" is seen as being "research in context" (Leifer, 2010) and essential for arriving at a workable design solution, "design thinking" needs to be encouraged and developed from foundation level and throughout the undergraduate years of study in order to educate critically aware and versatile designers.

Three papers demonstrated that design education at undergraduate level needs to be much more than just skills based (McCoy, 1990:21), but also that basic design skills cannot be ignored because of the extensive use of computers (Ranjan, 2005:4).

The need for basic design skills to close the gap between form perception in the real and virtual environments

A paper was presented based on a design workshop for second year students in the industrial design degree course at the Politecnico di Milano, Italy, which was inspired by the

Bauhaus Basic Design approach (Ferraris & Rampino, 2010) to aid with strengthening visual memory and visualization skills. The Bauhaus basic design approach was used as an underlying structure in a project, to determine the positive and negative aspects of working with a three-dimensional composition in a virtual environment as opposed to doing the same in a real environment. The fundamental forms of the sphere, the cube and the cone were used to develop compositions, relating forms to each other, in space.

The reason for setting this project was that it was found that students lacked basic compositional skills in industrial design courses that are based mostly on a functional, technical approach. In this approach much attention is given to basic user needs and technological aspects, so that when students are asked to solve complex design problems, they neglect the formal aspects of their designs. The other problem that was identified was that most students designed directly in three-dimensional software and that working in this way led to a lack of critical awareness, "that there is a consistent difference in form perception between virtual and real modelling techniques" (Ferraris & Rampino, 2010:1).

Making it easier to keep the emphasis on the design process, on the first day, the students were asked to model a composition using virtual tools working with tone, in black and white. The following day they were asked to construct the forms in white card and organize their composition incorporating shadows and light and dark. What became evident was that working in the real environment they were better able to identify strengths and weaknesses in their compositions that they were not able to do when modelling with virtual tools, as they were not always able to visualize what the composition would look like from a view other than that which was projected virtually.

The physically built working model as a "container" for the conceptual development of an idea during the design process

Similar to the second year industrial design students at the Politecnico di Milano, the third-year architectural technology students at CPUT lacked the ability to perceive something from another angle when designing with virtual tools. It has been found that the ease with which computer technology can be used, has resulted in students avoiding the use of physical models. It is believed that "physical models still allow the best exploration within the design process" (Voulgarelis & Morkel, 2010:1).

What is addressed is finding strategies to facilitate student understanding of the importance of working through the design process, to facilitate the transference of the design idea into a visual design, rather than the emphasis being placed on the end result and the finished product (Voulgarelis & Morkel, 2010). With this in mind, easily and relatively quickly

constructed working models are made from found materials as opposed to highly finished presentation models using expensive new materials. It is about the concretizing of ideas through, " 'thinking and doing", then "refining and questioning" (Leifer, 2010). "The model helps to retain the design idea in conceptual development", and it allows for "various possibilities within the main idea" (Voulgarelis & Morkel, 2010:3). Significantly, it works as a container for the idea "framing the problem" (Dorst, 2010) and it provides tangible sequential evidence of the development of the design idea into a workable design, encouraging reflective self-criticism during the learning process.

The influence of the Bauhaus foundation course: from basic design to architectural design, from 2D to 3D and the real to the virtual

The lasting influence of the Bauhaus on architectural education in the USA is acknowledged (Arens, 2010). In particular the influence of the Bauhaus foundation course and the curriculum for Basic Design is highlighted. Significantly attention is drawn to the fact that it took Walter Gropius eleven years from the time he began teaching at Harvard University, to implement a basic design course based on the Bauhaus principles of modernist abstraction. The implementation took so long because it was perceived that a foundation course would compromise specialist training in architecture, due to an "undue emphasis on abstract exercises and the allied arts at the expense of architectural issues such as space, community, construction and civic form" (Arens, 2010:1).

However the fear of specialist architectural design training being compromised by a basic design/foundation course was unfounded and there is still an emphasis on Bauhaus Basic Design abstraction, in the first-year of study at the California Polytechnic State University. A design studio course that takes place in the first quarter of the second-year in the architecture department is discussed. The course is an integrated and complex course which was designed to help reinforce the basic design principles learnt in the first-year through the use of abstraction but also to help the students make the transition into architectural issues such as "site, space, program and technology" (Arens, 2010:1).

The ten-week course is framed by seven related projects, which interlock conceptually and visually, moving sequentially from simple to complex, dealing with conceptual, formal and technical aspects, culminate in the final project which is a detailed, physical, to scale, sectional model for a poet's retreat. The seven projects can be viewed independently or as a sequential development forming a whole (Tyler, 1949:84).

The related themes of the projects are organized in such a way as to make the students alternate between 2D and 3D explorations, moving from the literal (realistic/object oriented)

to the abstract and back. The students are encouraged to work with appropriate technology, alternating from the virtual to the real, making use of different methods of visualizing in 2D, through drawing and constructing in 3D, using a variety of media and materials.

A number of significant outcomes were achieved through this ten-week course in helping students to make the transition from basic design in first-year to second-year architectural design. The author highlights three key areas that helped achieve this transition:

> First, that the space between objects is just as important as the objects themselves, and that objects must be reconciled to their context or white space. Second, that simple everyday objects hold many lessons for designers, but only if they take the time and develop the tools for understanding them. Lastly, that the ability to move nimbly between 2D and 3D explorations is a key skill for a young designer.
> (Arens, 2010:5)

2.5.7.5 Summing up: ConnectED2010 and the confirmation of the significance of the iterative nature of the design process

The ConnectED 2010 (Sydney, 2010) papers that have been discussed demonstrate a concerted attempt through aspects of curriculum development, assessment methods and teaching approach to raise critical awareness in design education in order to deal with complex constantly changing situations. From a postmodern perspective the fundamental principles of the visual language of art and design were investigated. The validity of the modern functionalist tradition of the Bauhaus was re-assessed, in the context of the need for sustainable design that takes into account the cultural, social and economic diversity of local and global communities.

The requirement for undergraduate design students to participate in foundation studies, in order to gain a fundamental understanding of design and design skills, identified as necessary for the development of critically aware and versatile designers, confirmed the lasting legacy of the Bauhaus foundation course. The aspects of the Bauhaus foundation course that were identified as being relevant were gaining an understanding of the visual language through self-expression, and obtaining design skills through exploration and experimentation with different materials. Gaining understanding of basic design and skills (handiwork and technological) is seen as being particularly necessary so that designers can make appropriate use of different technologies to move from the real to the virtual environments as required.

Design through research, exploration, experimentation, 'thinking and making', questioning and refining, demonstrate the need for the principle of continuity and change. The need for continuity and change to take place confirmed the significance of the iterative nature of the

design process in developing critical self-awareness and confidence, both needed for creative and innovative design action to take place.

2.6 Other related issues pertinent to the development of a conceptual framework in a foundation programme

It has been identified that foundation programmes in design should be addressing issues such as the education of knowledgeable, skilled, critically aware and versatile designers through curriculum development, assessment methods and teaching approach. It has also been identified that the integration of theory and practice and the need for partnerships between design education, research and government/industry (practice) are essential to enable innovative design outcomes to take place. With this in mind related issues that are pertinent to the development of a conceptual framework for foundation studies will be discussed as follows:

- Originality and creativity in art and design department in universities.
- The role of the design industry conference: *All Stars,* Design Indaba (Cape Town, 2010).
- The significance of criticism in art and design education.
- Summing up: appropriate positive design action at the right time.

2.6.1 Originality and creativity in art and design departments in universities

Originality and creativity have been identified as key aspects necessary for innovative design to take place (Nelson & Stolterman, 2003:4; Cross, 2007:107). The change in the nature of art education is a result of its location within the university environment, particularly prevalent from the mid-twentieth century in the USA, and more recently, equivalent to design being situated in universities of technology. Locating art and design education in the university environment and how this might have affected the making of original art and design needs investigation. Three key aspects will be briefly discussed (for an in-depth investigation see Appendix B) in order to ascertain if locating art in university art departments has affected originality and creativity in any way (Goldstein, 1996:280-295):

- Comparing university training to that of an artist's studio;
- Questioning if all art that comes out of university art departments is "academic";
- The university art and design department as the new academy of "pure research and discourse".

2.6.1.1 Comparing university training to that of an artist's studio: flexible structures; consistent guiding principles; intuitive thinking; continuity and change

The modernist approach to teaching art that took place in the painter, Hans Hoffman's (1880-1966) "studio" schools (in New York and Provincetown from the mid 1930s to 1958) and how modernism was taught in universities is compared by the art critic Harold Rosenberg (1906-

1966). The former as a method of teaching art, which was seen to accept "the individual gesture, the accident, and the mystery of creativity", unlike the systematic teaching in the university art department such as that of Albers' grid and checkerboard which was seen to be "the suicide of art" and therefore as "academic" art (Goldstein, 1996:280). Rosenberg compares training in an artist's studio to that in university art departments as follows:

> … In the classroom – in contrast to the studio, which had tended to be dominated by metaphor – it is normal to formulate consciously what one is doing and to be able to explain it to others. Creation is taken to be synonymous with productive processes, and is broken down into sets of problems and solutions …
>
> (Goldstein, 1996:280)

Although there is merit in Rosenberg's view, his analysis is arguably an over simplification, as much depends on the actual structures that prevail within individual universities.

Flexible institutional structures and consistent guiding principles

Originality and creativity need not be compromised if university structures are flexible, with consistent guiding principles. Guiding principles that allow for the kind of learning that promotes the development of knowledge, skills, critical awareness (deep understanding of key ideas, principles) and versatility (the transference of deep understanding for use in different situations in the real world) (Tyler, 1949:19,57; Bruner, 1977:51-54; Wiggins & McTighe, 2005:314), that lead to self-belief and confidence necessary for innovative design to take place (Sonntag, 1969:393; Nelson & Stolterman, 2003:22).

Intuitive thinking

Another aspect that needs to be taken into account in university art and design departments is the necessary expertise of specialist teachers who have a deep understanding of subject content, which should enable their teaching approach to encourage intuitive thinking in students (Bruner, 1977:52; Wiggins & McTighe,292). Intuitive thinking is seen as necessary for imaginative experimentation to take place in order for tentative creative (innovative) solutions to occur. Intuitive thinking is a product of understanding through the iterative process of " thinking and doing" which leads to reflective self-criticism and confidence for the "creative leap" and innovative action (Sonntag, 1969:392; Nelson & Stolterman, 2003:22; Cross, 2007:107,115).

Continuity and change through iteration and re-evaluation

Two further principles, that of continuity and change through iteration, and of continued re-evaluation through the use of varied methods and instruments of assessment (Wiggins &

McTighe, 2005:338), (in this case re-assessment and student feedback), have been applied (Goldstein,1996:283) to counter Rosenberg's argument.

It is demonstrated through feedback from the acclaimed artist Robert Rauschenberg (1925-2008) a past student of Albers's, whose work could not be more different visually from that of Albers, that Albers's teaching (developed and refined from his teaching at the Bauhaus) was based on sensitizing students to visual phenomena, to form and colour, and to the properties of materials. Rosenberg's perception that Albers's teaching was too rigid was refuted by Rauschenberg who had the following to say about Albers's teaching long after Rauschenberg had successfully been practicing art, "I'm still learning what he taught me, because what he taught had to do with the entire visual world" (Goldstein, 1996:283).

In art and design education which is a complex field of study, the heuristic 'one-to-one' individual teacher and student relationship when appropriately applied, has as much bearing on the successful use of the creative/design process by students, as it does on curriculum development, and assessment methods.

2.6.1.2 Questioning if all art that comes from university art departments is "academic"
If one takes the view that design is a "bridge between art and science" the debate whether all art that is produced in university environments is "academic", could equally apply to design work that comes from universities of technology. The prevailing view (first raised by the art critic Clement Greenberg (1904-1994)) is that the art that comes out of universities is more self conscious, but that not all of it is "academic" art. Art defined as "academic" is that in which the main aim is to strive for originality and that this type of art is seen to be "falsely" original, referred to by Greenberg as "avant-gardist" as opposed to truly original art, which is avant-garde. Original art is defined as that which says something new and different as opposed to art where the sole purpose is to be different and new (Goldstein, 1996:280).

What can be deduced from Greenberg's analysis about academic versus original art is applicable to design. Even though design is seen to be part of a continuum, described as "all design is redesigning" (Leifer, 2010), design has to be original in some way for it to be innovative; originality and innovation go hand in hand; and in order for this to take place there cannot be self-conscious preoccupation with originality.

2.6.1.3 The university art department as the new academy of "pure research and discourse"
The third point of view that is raised in the investigation into the nature of art education in the university is based on the Neo-Platonic philosophy of the academies that were founded in

Florence during the Renaissance, in Ad Reinhardt's words "an academy that would not lurch in the currents of the art world but be a centre of pure research and discourse" (Goldstein, 1996:293). The teaching of art as "pure research and discourse" is problematic for the making of art, which is about the visual concretization of ideas, and how the world is perceived. Similarly, in design, theory and practice need to be integrated, as design outcomes are practical in nature, and cannot be separated from industry and the needs of the real world (McCoy, 1990:21).

2.6.2 The role of the design industry conference: *All Stars*, Design Indaba (Cape Town, 2010)

From an educational perspective the ConnectED 2010 conference (Sydney 2010) was an attempt to deal with current design issues internationally. Similarly the annual industry based Design Indaba conference (Cape Town 2010) deals with design issues from around the world, but from the perspective of industry. The crux of the matter is that design education and the design industry are interdependent in the real world. Therefore both of these conferences have been significant in raising critical awareness of current design issues, necessary for developing strategies to meet the needs of a complex world that keeps changing.

Presentations were made by designers at the Design Indaba conference (Cape Town, 2010), which demonstrated that they are grappling in concrete terms with many of the issues that were raised at the ConnectED 2010 conference (see Appendix B), highlighting the significance of the education, research and practice cycle (McCoy, 1990:21).

2.6.2.1 The "white space": encouraging ambiguity by keeping the problem and solution space in flux to enable innovative action

At the ConnectED 2010 conference (Sydney, 2010), in discussing the evolution of the concept of "design thinking", the necessity of keeping the problem and the solution both in flux was highlighted, saying that framing was essential and described as walking around a problem to see if it is solvable (Dorst, 2010). This is comparable to the view that "in design, context is everything" (Leifer, 2010). Both approaches encourage ambiguity by keeping the problem and solution space open as long as possible in order for innovative action to occur (Cross, 2007:114).

Voulgarelis and Morkel (Sydney, 2010) confirm that framing a problem is essential, by making their students use the physically built working model as a container for the design idea, which provided enough space, but at the same time tangible and sequential evidence of the development of the design idea into a workable design. In his ten-week course to help

students make the transition from basic design to architectural design, Arens (2010) refers to the space between objects as being as important as the objects themselves and refers to this as "white space" and the "context" in which the objects are reconciled.

The complexities around "design thinking" and "framing the problem" and "contextualising the design idea", of the "white space between objects", and "leaving the space between problem and solution open for as long as possible" were addressed in various ways in papers at the ConnectED 2010 conference (Sydney, 2010). These concepts found form in the *Libraries for Schools project,* which the graphic designer, Michael Bierut (see Appendix B) presented at the Design Indaba conference (Cape Town, 2010).

Well known architects were enlisted to help, by establishing libraries in New York inner city schools, which up to that point, either did not have such facilities, or whose facilities were in desperate need of upgrading. Bierut was asked to design a logo, a brand for the *Libraries for Schools* project, which he thought he could do quickly on his own, only to discover that this project was based on close collaboration with the schools and architects demonstrating the need for design as a social process for the success of this project (Schon, 1983; Manzini, 2009; Ranjan, 2005).

What had to be considered in the design solutions was that the existing built fabric had to be taken into account, as well as the needs of the learners and their teachers, as the schools served different communities. The branding happened in the most unexpected way. The one space that all of the schools had in common was the empty space between the bookshelves and the ceiling. The empty space between the bookshelves and the ceiling (the "white space"), which was not part of the original design brief (ambiguity), became the space for the most effective graphic and communication design intervention in the *Libraries for Schools* project.

Bierut designed a logo that was used for the library project, but the real design opportunity arose in guiding the collaborative process of the different designers, artists and illustrators (with the librarians and the school children) in making use of the space between the bookshelves and the ceiling. This process led to a unique and appropriate branding solution for each of the individual libraries and the particular community of learners that they served.

Is this not perhaps the reframing and new form of practice in design that Dorst talks about? It certainly was a case of leaving the problem and solution space in a state of flux and open until the "white space" between the objects was innovatively contextualized. The innovative branding solution for the inner city school libraries project arose out of working with the "white

space". Rigid structures do not allow for the "white space" necessary for creative thinking and innovative action. The "white space" can be equated with "negative space", which is defined as a core idea in the field of art and design (Wiggins & McTighe, 2005:67). Core ideas should be able to be transferred and adapted for use in different contexts (Brunner, 53-54; Wiggins & McTighe, 2005:293).

> Ideas at the core of the subject are the hard-won results of inquiry, ways of thinking and perceiving that are the province of the expert … The big ideas at the core of the subject are arrived at, sometimes surprisingly slowly via teacher-led inquiries and reflective work by students. (Wiggins & McTighe, 2005:67)

Table. 2.4: Big ideas at the core of various fields contrasted with basic terms (Wiggins & McTighe, 2005:67)

Basic Terms	Core Ideas
Ecosystem	Natural selection
Graph	"Best fit" curve of the data
Four basic operations	Associativity and transitivity (cannot divide by zero)
Story	Meaning as projected onto the story
Composition of a picture	Negative space
Offense and defense	Spreading the defense, thus opening up space for the offense
Experiment	Inherent error and fallibility of experimental methods and results
Fact versus opinion	Credible thesis

2.6.2.2 Transference of knowledge and skills across disciplines: reframing and developing a new practice in design

At the 2010 Design Indaba conference, Troika, the interactive design company, comprising a graphic and communication designer, a product designer and an engineer discussed their design approach, which was to work from the strengths of their individual disciplines and to transfer these to fit the needs of different situations. They combine the strengths from their individual disciplines into a new way of practice to find design solutions using appropriate technology (Cape Town, 2010). It is important to find similarities in practice across disciplines, referred to as professionalization and reframing to develop a new design practice (Dorst, 2010).

A similar analogy may be made when referring to the passport system (Morkel & Voulgarelis, 2010) in the architectural technology department and the mini-hand-in system used in the Design Foundation Course at CPUT, systems devised to deal with similar problems experienced in two different studio-based courses. Although not as structured as the

passport system, the mini-hand-in system was independently adapted in the Design Foundation Course on the recommendation of an industrial design lecturer, who was co-teaching a project in the industrial design component of the Design Foundation Course in the first quarter of 2009. The mini-hand-in was put in place to ensure that students met the different stages of development that were required during the design process, in order to successfully complete the end product (Lecanides-Arnott, 2009).

The need for the passport system of assessment in the architectural technology department and the mini-hand-in system in the Design Foundation Course demonstrates that similar problems are being experienced and that there is a need for greater communication across courses and disciplines in order to establish a community of practice within the Faculty of Informatics and Design at the CPUT. Structures and systems need to be found to streamline processes and to enable the transfer of knowledge and skills across disciplines, which could lead to the development of a "new frame, a new practice" in design (Dorst, 2010).

2.6.2.3 Integrating theory with practice

If one is to move towards establishing a conceptual framework for educating critically aware designers, an integrated approach to theory and practice in design education should be a core idea for curriculum development, assessment methods and teaching approach. There is sufficient evidence in the literature that the integration of theory and practice should apply from foundation level right through all the years of study, including during professional design practice in industry.

2.6.2.3.1 Education, research and practice cycle

Good scholarship is defined as an integrated activity which is "about making connections between ideas, theories and experience" Hart (1998:131-132). This is comparable to McCoy's (see Fig.2.2) view that an integrated approach is needed in higher education in design, particularly at postgraduate level:

> A mature profession has a reciprocal cycle that connects practice with education to research and back to practice, with each component of the cycle interacting with and enriching the others … Graduate studies generate research and experimentation often with professional and industrial support … Experimental and theoretical ideas are worthless without their effective application to the real needs of professional practice, building a bridge between theory and practice.
> (McCoy, 1990:20)

McCoy states that partnerships should be formed, as funding is needed from government and industry in order to support research and experimentation in design. Without supportive

partnerships, design education facilities are not able to function, as was the case eventually at Ulm, where the Institute of Design was forced to shut down due to lack of funding.

Also of importance is that theorizing about design and untested experiments are meaningless unless these have been put into practice in the real world (McCoy, 1990:20). This recalls William Morris and the critic Ruskin in the late 1880s. It was Morris who gave form to Ruskin's argument that "handiwork" was of equal importance to "brainwork" thereby changing public opinion about the value of the applied and decorative arts (Goldstein, 1996:256-257).

2.6.3 Significance of criticism in art and design education

Art and design critics develop a critical awareness of art and design by critiquing practical outcomes, and through this process they are able to integrate theory with practice and to change public opinion. Methods of assessment and evaluation in design education develop reflective self-criticism in students and have a bearing not only on establishing if students understand what they are learning, but also on establishing the validity and credibility of the teaching approach and curriculum (Tyler, 1949:83-84). Appropriate assessment methods ensure quality in curriculum development and teaching approach, which is synonymous with educating knowledgeable, skilled, critically aware and versatile designers.

2.6.3.1 Reassessment of modernism and the postmodernist approach to art and design education through architectural developments

The postmodernist approach to art and design education developed out of a rejection of modernism and its shortcomings. Notwithstanding its aspiration to integrate art with life, theory ("brainwork") with practice ("handiwork"), the failing of modernism lies in the fact that it was part of a Eurocentric art and design tradition, which was not broad, deep or flexible enough. Modernism tried to impose a utopian monolithic approach on architecture, design and art which resulted in being insensitive to the varied needs and cultural diversity of communities, particularly within the urban context of large cities (Hughes, 1980:211; McCoy, 1990:21; Goldstein, 1996:295).

It is perhaps not surprising that postmodernism emerged and developed in architecture, because architecture is seen to be the "visual art form that we live in" (Hughes, 1980:164) and is essential to human activity. Postmodernism rejected the functionalist approach to architecture of the Bauhaus through the re-assessment of architecture that had come before modernism in particular that of classicism:

> … architects "rediscovered" the language of architecture, which is to say that of the
> classicist tradition, an idiom that they found to be of a forgotten complexity and

richness; "relearning" this language, they have created an architecture of new eclecticism and historicism, rewriting modernist architectural theory – and the history of modern architecture.

(Goldstein, 1996:295)

Continued re-evaluation needs to be undertaken in a world that is in constant flux such as ours. Postmodernism led to a re-evaluation of the old visual art traditions. While some theorists and educators have rejected modernism, others continue to teach from an abstract modernist perspective. As Hughes (1980:211) points out, artists, designers and architects cannot assume that they have all the answers to a world which is increasingly complex. More recently a detailed critique and re-evaluation of the role of the Bauhaus in the development of design was conducted through a carefully curated, extensive Bauhaus exhibition at the Museum of Modern Art (MoMA) in New York (2009-2010). In this exhibition particular emphasis was placed on the positive and lasting influence of the Bauhaus foundation course and its teachers on design education in a global context (Filler, 2010:22-26).

The art tradition of the Renaissance academies, in which Goldstein also includes postmodern revisionism and twentieth century modernism, is seen as being part of a Eurocentric academic liberal arts tradition, based on humanistic values with man at the centre, where women, minority groups and cultures outside of the western tradition were largely excluded (Goldstein, 1996:299).

However, a liberal arts tradition is also open to change through the application of logic and reason (Tyler, 1949:90). Times of rapid social change lead to greater access in higher education (Bernstein 1999:171), making the need for design education in the twenty-first century to be more flexible and sensitive to the diverse needs of individuals and different communities (the young, the aged, the disabled, different cultural groupings etc.) a priority (M'Rithaa, 2009). Under these circumstances design foundation education should have a meaningful role in the education of designers.

2.6.3.2 Formative assessment of studio-based design projects

The literature has confirmed that a range of different assessment methods and instruments are needed for effective formative assessment to take place in the teaching and learning of studio-based design projects.

2.6.3.2.1 Verbal group critique

Albers made use of the verbal group critique as a means of formative assessment in the Bauhaus foundation programme. He encouraged students to participate in a comparative analysis of each other's work, by which means they learnt to find the "most promising

solution to a problem" which developed their ability to analyse each others work and most importantly to analyse their own work (Schmitz, 2006:375).

The concept of the Bauhaus Foundation course, of foundation studies being at the core of teaching in art and design is seen as essential for the development of independent creative thought (Sonntag, 1969:387). The use of the Free Community pedagogical model (Ranjan, 2005:1-5) was developed to enable design students to generate theory from practice and to encourage independent critical judgement. The significance of the group critique as a means for students to assess and evaluate their own and others work was initiated at foundation level and seen as being as important in the more senior years of study:

> Participation in critiques encourages the development of the capability to evaluate, critique, and coach others, challenging students to define their own standards of evaluation. These same capabilities are valuable to the design director as well as to the educator.
> (McCoy, 1990:20)

It is clear that the use of the verbal group critique still plays a vital role in the teaching and learning process. Strategies and systems continue to be developed to facilitate and refine the use of the verbal group critique to meet the requirements of students in art and design education in the 2000s (Blair, 2010; Morkel & Voulgarelis, 2010).

2.6.3.3 Summative assessment of design outputs

For the very reason that design bridges art and science, because the outcomes are practical and varied, design needs to be assessed and evaluated using a range of different methods and instruments. It is essential to assess design outputs on an ongoing basis to ensure the development of a critically aware public and to educate critically aware young designers.

2.6.3.3.1 Developing reflective self-criticism from foundation level: the need for a variety of assessment methods and instruments to assess and evaluate design

Students from foundation level need to develop the ability to think and practice like designers. The ability to assess and evaluate their own and others work according to the needs of a fast changing world, within a local and global context is crucial. The literature review has highlighted that development of critical awareness of design can be assisted through intentional exposure to the following (past and present):

- The built and natural environment.
- Specially curated art and design exhibitions, and trade and industry expositions.
- Specialized cultural, scientific, ethnographic and other collections related to the visual arts in museums.

- The views of authoritative historians, theoreticians and educators in the fields of the humanities, the visual arts, sciences and technology.
- The views of artists and design practitioners (from all visual arts disciplines).
- The opinions of art and design critics.
- Participation in art and design education and industry conferences.

2.6.4 Summing up: appropriate, positive design action at the right time is best practice

Appropriate, positive, design action at the right time is best practice. To facilitate and to advance learning, to be most effective, careful consideration should be given to when and how certain concepts and work methods are introduced into the learning cycle (Tyler, 1949:83-86; Bruner, 1977:52-54). The ten week integrated, complex course designed for the dual purpose of reinforcing basic design principles learnt in the first-year, and of helping the students to make the transition from basic design into architectural design, clearly illustrated appropriate, curriculum development and teaching approaches at the right level of the learning cycle (Arens, 2010).

The first two years in art and design education have been pinpointed as being the most important years of study for students in the visual arts. Foundation education is seen as important for diagnostic reasons as well as for developing a critical awareness and understanding of the visual language (Sonntag, 1969:388). Participating in foundation studies where the curriculum, teaching approach and assessment methods are focused on developing an understanding of the visual language through "learning to see" and imaginative experimentation would build up confidence and self-belief (Sonntag, 1969:393; Gombrich, 1984:444).

It is suggested that the fundamental principles "core ideas" related to a specific field or subject should be introduced from foundation level and that it is never too early to deal with big ideas, so that deep understanding can develop over time through the transference and use of these principles in new and more complex situations. However, at any given time, the learning experiences and the teaching approach should be dealt with at the appropriate level to meet the needs of the students concerned, providing interest and challenges that will result in a sense of achievement and self-worth (Bruner, 1977:40,52). A sense of achievement and self-worth develop confidence, self-awareness and cultural awareness (Sonntag, 1969:387; McCoy, 1990:21; Leifer, 2010), all of which are needed to enable positive design action, essential for 'innovation and change' to take place (Sonntag, 1969:392; Nelson & Stolterman, 2003:22).

2.7 Guiding principles (core ideas) to be considered in the development of a conceptual framework for foundation education in design

From literature consulted on design education (in many instances confirmed by issues raised at the recent ConnectED 2010 and Design Indaba conferences), certain guiding principles have emerged that suggest suitability for inclusion in the development of a conceptual framework for a foundation programme. In the approaching of curriculum development, assessment methods and teaching approach in design, the following are for consideration:

- Response to local and global design needs, and establishment of standards (benchmarking) that will apply to both the local and global context (McCoy, Ranjan, Manzini, Goldstein, Dorst, Leifer).

- Establishment of consistent guiding principles that allow for continuity, change and constructive debate within a given educational institution [faculty/school of design] (Sonntag, McCoy, Tyler, Bruner, Wiggins & McTighe).

- Positioning of foundation studies at the "core" of teaching in the visual arts (including design) in order to develop independent creative thought. Develop a foundation programme that allows for epistemological access and participation in further studies in design, potentially enabling lifelong learning (Sonntag, Ranjan, Tynan, Boughey)

- Development of an integrated approach to curriculum, assessment methods and teaching approach, which is not monolithic but which makes appropriate uses of complex traditions in art and design education. Approaches should be responsive to the changing needs of students and the society for which they will design (McCoy, Goldstein, Hughes, Sonntag).

- Establishment of "active centred" strategic design through the development and application of "design thinking" and design skills. Ideally this includes the broader professional community of design specialists, functioning within the global "networked knowledge society", and supported by government and industry to find sustainable design solutions for communities within local and global contexts (McCoy, Schön, Nelson & Stolterman, Ranjan, Manzini, Leifer).

- Through the integration of theory and practice, the development of confident self criticism in students to minimize fear, to enable creative thinking and design action, necessary for imaginative innovation to take place (Sonntag, Nelson & Stolterman).

2.7.1 Need for a flexible approach in the establishment of consistent guiding principles for the development of a conceptual framework

As demonstrated in the literature review flexibility in approach is essential for the diverse needs of a constantly changing world. Therefore a responsive and flexible approach should be considered as the overarching guiding principle when developing a conceptual framework

for a foundation programme in design, which aims to educate knowledgeable, skilled, critically aware and versatile designers.

It was highlighted in the literature that in order to successfully integrate theory with practice in design, partnerships are required between government, industry and higher education. The approach of the partnerships needs to be flexible and responsive to encourage creative solutions and innovative change for socio-economic development to take place (McCoy, 1990; Ranjan, 2005; Manzini, 2007, 2009).

Flexibility is necessary in designers in order for them to be able to adapt to working in varied and different situations (Boud, 2001; Shön, 2009). As such constraints of conventional education structures should not hinder flexibility and freedom of experimentation which is necessary in educating confident, self-aware designers (Sonntag, 1969:393). A flexible approach is particularly relevant for design education when considering aspects of curriculum development, assessment methods and teaching approach for the development of a conceptual framework to educate knowledgeable, skilled, critically aware and versatile designers (Cronje, 2006; Cross, 2007; Sims, 2008; Arens, 2010; Dorst, 2010; Trowler, V & P, 2010).

2.8 Curriculum development, assessment methods and teaching approaches: Tyler, Bruner, Wiggins and McTighe

Consistent guiding principles provide the means for the development of design education, specifically achievable through curriculum development, assessment methods and teaching approach. Taking the view that design is a field of study in its own right, which also forms a bridge between art and science (Cross, 2007:124), there should be freedom to draw on expertise from different fields of knowledge as is needed.

Developing theory from practice, from design itself should take precedence, as demonstrated in the foundation courses of the Bauhaus, Ulm and NID and more recently in an integrated graphic design programme in the UK (Raein, 2004). The "design education, research, practice cycle" (McCoy, 1990:20) stimulates the development of curricula, assessment methods and teaching approaches in design education. Education in design is not about "teaching teachers, to teach teachers", as McCoy (1990:21) aptly states. Allowance may be made for the transference of knowledge and skills, adopting "best practice from other fields of education" (Blair, 2010:4), in this instance from the field of education itself.

Reference has been made in the literature review to the work of the education theorists Tyler, Bruner, Wiggins and McTighe, whose positions on curriculum development,

assessment methods and teaching approach endorse foundation education. Their views will be discussed with specific attention to issues relating to the education of designers.

2.8.1 Curriculum development: the horizontal and vertical curriculum, the spiral curriculum and "backward design"

There is agreement that the purpose of an education needs to be established. Once this has been achieved, it should be followed by the development of a curriculum (Tyler, 1949; Bruner, 1977; Wiggins & McTighe, 2005).

There is also agreement about fundamental principles with regard to curriculum development by Tyler, Bruner, Wiggins and McTighe, which fits cogently with the approach to foundation education from the time of its inception at the Bauhaus in 1920. There is also a similarity in approach to many aspects of curriculum development with different contributions from each of these theorists that highlight the principle of "continuity and change". Tyler (1949) advances the horizontal and vertical approach to curriculum development; Bruner (1977) argues for the use of the spiral curriculum; Wiggins and McTighe (2005) use "backward design" as a means of curriculum development.

Curriculum development is defined as the organisation of a careful selection of learning experiences based on clear educational objectives. Learning experiences should not only be about memorising information but about understanding and meaning through analysis and interpretation, with the aim of applying knowledge and skills to other situations (Tyler, 1949:19, 57; Bruner, 1977: 51-54; Wiggins & McTighe, 2005:296).

The principle of distilling primary functions from different subjects, by subject specialists for use as educational objectives, is significant. Knowledge and understanding of facts and principles are the result of students learning experiences, which have practical and functional outcomes in design. Tyler (1949:63) states that, "Learning takes place through the active behaviour of the student; it is what he does that he learns, not what the teacher does", acknowledged by Bruner (1977:40) and Wiggins and McTighe (2005:314).

2.8.1.1 The horizontal and vertical curriculum

Learning takes place through a combination of different experiences over a period of time. Time is needed to change ways of thinking, for understanding to take place, and for major educational objectives to be actualised. Therefore the organisation of learning experiences in curriculum development is essential for effective teaching and learning (Tyler, 1949:83). What need to be considered are, (a) the relationship of learning experiences over time; and

(b) the relationship of one area of study to another. Tyler (1949:84) refers to these two relationships as the vertical and horizontal relationship of learning experiences.

Continuity, sequence and integration are the three major criteria needed for the effective organisation of learning experiences (Tyler, 1949:84):

- Continuity is a criterion for the vertical organisation of learning experiences, referring to the reiteration of fundamental educational objectives (concepts, values, skills) to enhance and develop understanding and meaning through various uses.

- Sequence is related to continuity and is an essential criterion for the progressive development of educational objectives. Learning experiences need to build on each other in complexity in terms of depth and breadth for further development and use of concepts, values and skills to occur.

- Integration is a criterion for horizontal organisation of learning experiences. Developing a relationship between learning experiences is significant in assisting students to gain a unified view of what they learn, and to relate principles from different areas of study to deal with a variety of situations.

2.8.1.2 The spiral curriculum

In order to enable transference, emphasis should be placed on the "teaching and learning of structure, rather than simply the mastery of facts and techniques" (Bruner, 1977:12). Fundamental principles, "basic ideas" about a particular subject, should be introduced early on at an appropriate level to meet the students' needs (Bruner, 1977:40,54); and should provide stimulation and challenges to instil a desire for further learning (Bruner, 1977:52).

Bruner argues that a greater depth of understanding and an intuitive grasp of the "basic ideas" will develop through the application of these ideas in progressively more complex situations. In order to achieve this objective, he recommends the use of the "spiral curriculum" whereby basic ideas are revisited over time, leading to deep understanding. Most significantly, it follows that continued and more complex application of these basic ideas should stimulate intuitive thinking (Bruner, 1977:52).

Intuitive thinking is described as the "shrewd guess, the fertile hypothesis, the courageous leap to a tentative solution" which develops over time, with experience and expertise (Bruner, 1977:14). Intuitive thinking has also been described as "creative thinking" or "design thinking" by a number of acknowledged designers (Cross, 2007, 51-54). As a phenomenon in design the intuitive thinking/leap has been identified as necessary for "innovative action" to take place (Sonntag, 1969:392; Nelson & Stolterman, 2003:22).

2.8.1.3 "Backward design" (understanding by design): developing the curriculum through assessment

Wiggins and McTighe propose the development of a curriculum that begins with the desired results that one wants to achieve in a particular education. The curriculum is then designed backwards based on the desired results (this outcomes-based approach is implicit in the nature of art and design education). They acknowledge that the concept of "backward design" was introduced by Tyler (Wiggins & McTighe, 2005:338), and that it is logical to begin with curriculum development from clear educational objectives, a fact that they say is understood by many educators but seldom applied (perhaps this is one of the problems that was experienced with the outcomes-based education school system that was implemented as part of educational reform from the beginning of 1994 in South Africa (Malan, 2000:28)). Their contribution has to do with developing a system which consciously and logically designs a curriculum "that begins with the end in mind and designs towards that end" (Wiggins & McTighe, 2005:338).

They refer to their method as "understanding by design" or "backward design by understanding" which can be thought of as "purposeful task analysis" achieved in three stages (Wiggins & McTighe, 2005:18-19):

- Stage one: "Identify desired results" (important to have clarity about priorities to fit within available time of the learning experience/unit/course).
- Stage two: "Determine acceptable evidence" (think about what evidence is required for assessment to confirm that the desired learning has taken place during the learning experience/unit/course).
- Stage three: "Plan learning experiences and instructions" (it is suggested that these are achieved by asking the following key "essential" questions, "What enabling knowledge (facts, concepts, principles) and skills (processes, procedures, strategies) will students need in order to perform effectively and achieve desired results?")

Emphasis is placed on understanding, so that the meaningful transfer of knowledge and skills can take place. It has been noted that Wiggins and McTighe believe that understanding is a complex and often confusing term with many meanings. For greater clarity they have defined understanding as having six key facets: explanation, interpretation, application, perspective, empathy, self-knowledge (Wiggins & McTighe, 2005:82-104).

It is suggested that the design of rubrics with clear assessment criteria based on desired goals should be used and frequently reassessed. These assessment criteria and rubrics should be applied to all levels of curriculum development, from the learning experience, to the learning unit, to the course and beyond. Based on the assessment criteria, careful

planning is needed for the development of the learning experiences, the performance tasks and the methods of instruction. Facilitating the learning process and understanding of the students, so that the required assessment criteria are achieved is paramount. To ensure that understanding has been achieved when addressing the six facets of understanding Wiggins and McTighe (2005:177) recommend the use of "facet-related criteria" such as the ones suggested in the following table:

Table 2.5: Six facets of understanding: facet-related criteria (Wiggins & McTighe, 2005:177)

Facet 1 Explanation	Facet 2 Interpretation	Facet 3 Application	Facet 4 Perspective	Facet 5 Empathy	Facet 6 Self-knowledge
accurate	meaningful	effective	credible	sensitive	self-aware
coherent	insightful	efficient	revealing	open	metacognitive
justified	significant	fluent	insightful	receptive	self-adjusting
systematic	illustrative	adaptive	plausible	perceptive	reflective
predictive	illuminating	graceful	unusual	tactful	wise

2.8.1.4 Summing up: Tyler, Bruner, Wiggins and McTighe

In some instances, aspects of Tyler, Bruner, Wiggins and McTighe's positions regarding curriculum development, assessment methods and teaching approach confirm those used by design educators. Other aspects advanced by these educational theorists, could enhance education in design. Their positions are "learner centred" and favour an integrated curriculum that facilitates the transfer of knowledge and skills through understanding and active learning (Bruner, 1977:52-54; Wiggins & McTighe, 2005:293). Emphasis is placed on understanding fundamental principles "big ideas", through "core tasks" with careful selection and appropriate use of subject content (Wiggins & McTighe, 2005:292). Fundamental principles "big ideas" should be dealt with from the start at a level appropriate to meet the needs of the learner, as learning can start at any age, the younger the better (Bruner, 1977:52,58,65). Deepening understanding, encouraging reflective practices and intuitive thinking through continued use of "core ideas" in new and increasingly complex situations in tertiary education from foundation level, should provide the means for design activity in an increasingly complex world.

2.8.2 A summary table of key aspects for a conceptual framework for a foundation programme in design

Taking the guiding principles ("core ideas") that were derived from the specialist views about design and more specifically foundation education in design in the literature review, I have devised a summary table. The summary presents the key aspects that should be considered

in curriculum development, assessment methods and teaching approach, towards the development of a conceptual framework for a foundation programme in design.

Table 2.6: Towards a conceptual framework for a foundation programme in design: a summary table generated by the researcher based on the literature review

	Guiding principles	Curriculum development	Assessment methods	Teaching approach
Towards the development of a conceptual framework for a foundation programme intended to educate knowledgeable, skilled, versatile and critically aware designers. Key aspects for curriculum development, assessment methods and teaching approach.				
knowledge	**[A] Respond to local and global design needs and establish standards (benchmarking) that will apply to both the local and global context** (McCoy, Ranjan, Manzini, Goldstein, Dorst, Leifer).	**[A1]** Identify short and long-term goals. Clarify educational outcomes when planning the curriculum (Goldstein, Ranjan, Arens, Tyler, Bruner, Wiggins & McTighe).	**[A2]** Apply assessment methods that accurately reflect short and long-term goals (Tyler, Wiggins & McTighe).	**[A3]** Develop a teaching approach that draws from the existing body of knowledge in the field of design and that is responsive to the current needs of specific contexts. (Goldstein, Sonntag, McCoy, Ranjan,Tyler, Bruner)
versatility	**[B] Establish consistent guiding principles that allow for continuity, change and constructive debate within a given educational institution [school of design]** (Sonntag, McCoy, Tyler, Bruner, Wiggins & McTighe**).**	**[B1**] Develop an integrated, vertical and horizontal curriculum that reflects the guiding principles of a given educational institution [faculty/school of design]. This should acknowledge the diverse needs of students from foundation level by way of applying sequential complexity (Arens, Boughey, Scott *et al*, Tyler).	**[B2]** Employ varied assessment methods and instruments over the short and long term to establish the extent to which "desired results" have been achieved. Analyse feedback from students, specialist educators and industry to establish the continued validity and credibility of the curriculum (McCoy, Bruner, Tyler, Wiggins & McTighe).	**[B3]** Specify teaching approaches to suit different educational needs, such as the conventional lecture to gain knowledge and skills (breadth), and Aicher's free community pedagogical model to gain understanding and meaning (depth) of key ideas (Aicher, Bruner, Cronje, Trowler & Trowler, Tyler, Wiggins & McTighe).
Critical awareness	**[C] Place foundation studies at the 'core' of teaching in the visual arts (including design) in order to develop independent creative thought. Develop a foundation programme that allows for epistemological access and participation to further studies in design, enabling lifelong learning** (Sonntag, Ranjan, Tynan, Boughey)	**[C1]** Develop integrated curriculum units with an emphasis on "learning to see" in order to gain an understanding of the fundamental principles of the visual language of art and design, through different means (drawing, colour studies, formal and stylistic analysis and synthesis). Develop learning experiences to encourage imaginative experimentation in different materials. (Gombrich, Goldstein, Sonntag, Hughes, Stolltermann & Nelson, Cross, Tyler, Bruner, Wiggins).	**[C2]** Establish assessment methods as a means of teaching and learning. Employ verbal group critiques and other strategies that encourage active learning, and monitor progress of studio-based projects. Emphasise the development of independent critical judgement by means of comparative analysis. (Goldstein, Albers, Aicher, Sonntag, McCoy, Bourdieau, Wolflin, Blair).	**[C3]** Teachers and students to generate theory from their own practice – a student centred, interactive teaching and learning approach, which encourages self-expression as well as independent critical judgement (Itten, Klee, Kandinsky, Albers, Moholy-Nagy, Aicher, Schön, McCoy, Ranjan, Raein).

knowledge, critical awareness, skills, versatility	**[D] Generate an integrated approach to curriculum development, assessment methods and teaching approach, which is not monolithic but which makes appropriate use of complex traditions in art and design education. This approach should be responsive to the changing needs of students and the society for which they will design** (McCoy, Goldstein, Hughes, Illich, Sonntag**).**	**[D1**] Employ a flexible, spiral curriculum to revisit and reinforce the understanding and application of fundamental principles in different subjects, and to more complex situations, and in real life (Bruner).	**[D2]** Use assessment criteria, and methods based on "desired results" (projected educational outcomes), to develop the curriculum. Wiggins and McTighe refer to this as "backward design". Apply these assessment methods to the development of curriculum units (learning experiences) and individual lessons (Wiggins & McTighe).	**[D3]** Implement a flexible teaching and learning approach, with the use of appropriate technology, and with the ability to move easily from the real to the virtual world and from practice to theory as required. (Illich, Ranjan, Manzini, Dorst, Cross, Leifer, Arens, Scott, Yeld & Hendry)
critical awareness	**[E] Establish active centred strategic design through the application of "design thinking" and design skills. This includes the broader community of design specialists, functioning within the global "networked knowledge society", supported by government and industry to find sustainable solutions for communities within local and global contexts** (Illich, McCoy, Schön, Nelson & Stolterman, Ranjan, Manzini, Leifer, Sarkisian).	**[E1]** Develop a hybrid/ multidisciplinary curriculum comprised of specified learning experiences and activities in which design problems are contextualized around sustainability issues. Establish learning experiences and activities to enhance student perception and understanding of socio-economic and cultural aspects of society. These facilitate appropriate, meaningful, practical, aesthetic and functional design solutions (Ranjan, Manzini, Leifer, Tyler, Bruner, Wiggins & McTighe, De Vere, Polin).	**[E2]** Summative assessment based on critical analysis of student work allows their design solutions to be measured in terms of the body of knowledge and current professional practice. This engenders reflective self-criticism and develops self-awareness, cultural awareness, and therefore confidence in students (Aicher, Sonntag, McCoy, Nelson & Stolterman, Leifer).	**[E3]** Facilitate transference of fundamental principles from one area of specialisation to another through teamwork and diversity of cultures, disciplines and expertise, in a team-teaching approach for studio-based design projects. (Goldstein, Hughes, Schön, Ranjan, Manzini, Dorst, Leifer, Arens, Tyler, Bruner, Wiggins & McTighe).
knowledge, skills, versatility, critical awareness	**[F] Through the integration of theory and practice develop confident self criticism in students to minimize fear, enabling creative thinking and design action, necessary for imaginative innovation to take place** (Sonntag, Illich, Nelson & Stolterman).	**[F1]** Develop curriculum units (learning experiences) which frame design problems, allowing for experimentation, and "for the problem and the solution to be in a state of flux" (an ambiguous state) for as long as possible; making provision for the "white space" and "intuitive thinking" needed for imaginative creativity and innovation to occur. (Dorst, Cross, Leifer, Arens, Beirut, Bruner).	**[F2]** Apply formative assessment methods to emphasise the design process (exploring, questioning, refining). This encourages "design thinking" flow of ideas and confidence, which are essential to creative and innovative design solutions (Aicher, Schön, Sonntag, Stolterman & Nelson, Dorst, Cross, Leifer, Arens, Voulgarelis & Morkel, Yorke).	**[F3]** Develop positive teaching approaches (with appropriate language use) that enable independent research, and developmental challenges, through the application of the iterative principle of the design process – design practice builds confidence and leads to a sense of achievement, enabling intuitive thinking necessary for making "courageous leaps" to tentative solutions (Itten, Klee, Kandinsky, Albers, Moholy-Nagy, Sonntag, Goldstein, McCoy, Ranjan, Bernstein, Bruner, Wiggins & McTighe). **MLA 2011 CPUT**

2.8.3 Summing up: a conceptual framework for a foundation programme in design which is flexible with consistent guiding principles

The constantly changing and increasingly complex world in which we live demands practical and sustainable design solutions that require designers to be knowledgeable, skilled, critically aware and versatile. It has been demonstrated in the literature consulted and summed up in Table 2.6, that in order to educate such designers it is necessary to begin at foundation level, with a curriculum that is flexible, integrated and based on "core ideas" in design.

Of particular significance is the approach of Wiggins and McTighe in *Understanding by Design* (2005) which confirms Dorst's (2010:6) observation that, even in the field of education, use is made of "design thinking" to solve problems.

The approach applied in *Understanding by Design* (Wiggins & McTighe, 2005) is that of the designer, where the value of student centred education is acknowledged and emphasis is placed on reflective practice and constructivism (Schön, 1987), through "learning by doing". Wiggins and McTighe's approach recalls Ivan Illich's seminal work *Deschooling Society* (1973), in which Illich makes a telling distinction between the quality of learning that takes place in a rigid school environment, as opposed to learning that takes place in the real world. In discussing schooling in Latin American countries (Argentina, Mexico, Brazil) in the 1960s, Illich (1973:14-15) explained that by making school the official site of learning, access to this formal education was aspired to by all, particularly the poorer communities. In the process authentic education and practical learning that had always taken place in the home environment and in the community, came to be seen as inferior, in particular by the communities themselves (Illich, 1973:9-31). This resulted in the collapse of traditional structures and values in practical education.

Illich's insights corroborate Wiggins and McTighe's (2005:292) view, that "learning through making" is crucial to the understanding of subject content, that a " subject area is ultimately about the *doing* of a subject". In a pre-modern (mediaeval) liberal arts tradition "*understanding* required only receptivity and contemplation of truths, organized logically into words – which deliberately distinguishes a liberal education from practical learning" (Wiggins & McTighe, 2005:292).

However, in the field of the visual arts as demonstrated by art and design critics, historians and theorists such as Gombrich (1984:223) and Goldstein (1996:256-257) the split between theory and practice goes back to Classical Greece, Aristotle (fourth century BC), and remains an issue that is grappled with in the twenty-first century (Sonntag, 1969; Hughes,

1980; McCoy, 1990, Ranjan, 1999 & 2005; Cross, 2007; Arens, 2010, Dorst 2010; Leifer, 2010). If one takes Goldstein's view that modernism (which includes post-modernism) goes back to the Italian Renaissance, with the founding of the first art academy by Vasari in Florence in the fifteenth century, the visual arts are part of this long and ongoing humanist liberal arts tradition: a Eurocentric tradition which in the past may have failed women, minority groups and the ability to reconcile theory with practice, but which also has the ability to change through the application of logic and reason (Tyler, 1949:90; Goldstein, 1996:299). The need for continuity and change is clearly described by Hughes as:

> Memory is reality. It is better to recycle what exists, to avoid mortgaging a workable past to a nonexistent future, and to think small [see the economist Ernst Friedrich Schumacher (1911-1977)]. In the life of cities, only conservatism is sanity. It has taken almost a century of modernist claims and counterclaims to arrive at such a point. But perhaps it was worth the trouble.
> (Hughes, 1980:211)

A "liberal education" is described as the "arrangement of the circumstances which encourage the open-ended, exploratory use of acquired skills … education for inventive and creative behaviour …" (Illich, 1973:24). Appropriate use of subject content and technology with an emphasis on "big ideas" and "core tasks" (Wiggins and McTighe, 2005:292) needs to happen early on for understanding to take place, and the meaningful transfer of "core ideas" to be applied to practical real-world situations (Bruner, 1977:33,40,52; Wiggins & McTighe, 2005:314). Although academic curricula change to include modern subject content, the approach to curriculum structure and delivery remains largely unchanged. Wiggins and McTighe describe this as:

> … a march through content, from the basics to the advanced material, with long – sometimes endless – delay in application, to the detriment of engagement and effectiveness.
> (Wiggins & McTighe, 2005:292)

Wiggins and McTighe's position is well illustrated by a comparative analysis made between an undergraduate architecture course and an undergraduate civil engineering course at the California Polytechnic State University (Arens *et al*, 2009:1). Both courses made use of Bloom's taxonomy of learning, specifically the six levels of the cognitive domain: knowledge, comprehension, application, analysis, synthesis and evaluation (Bloom, 1956).

However, the approach and application of the taxonomy differed between the two courses. The engineering course began with the lower levels of the cognitive domain ("knowledge" and "comprehension") prior to moving up the taxonomic scale. The higher levels, beyond the level

of "application" were seldom achieved through this approach. In the architecture course, however all levels of Bloom's cognitive domain were used, often beginning with the highest level of "evaluation", and moving up and down the taxonomic scale in response to specific performance tasks (Arens *et al*, 2009:1). This resulted in architecture students achieving cognition at the higher levels. It was proposed that students should develop a set of "design values" by using the analysis/synthesis model and the studio critique, and that the architecture education model "due to its attempt to blend art and science in the " learning by doing" experience" would also be well suited for education in engineering (Arens *et al,* 2009:6-7).

The approach in the engineering course was science-based and applied what Schön refers to as a "ground-up approach" (Arens *et al*, 2009:3). In the architecture course, learning took place in conditions similar to those of the artist's studio, believed by Schón to be a model for all the professions (Arens *et al*, 2009:4-5). This is confirmed by Dorst's view (2010) of professionalization as a new "frame" for design practice.

However, Illich proposes a much more radical approach. He makes a distinction between the skills instructor and the educational guide "master" who helps partners meet for learning to occur, hereby reinforcing the views of the need for continuity and change and that memory is reality (Tyler, 1949:90; Illich, 1973: 25; Hughes, 1980:211; Goldstein, 1996:299).

> Education can be the outcomes of instruction, though instruction of a kind fundamentally opposed to drill. It relies on the relationship between partners who already have some of the keys which give access to memories stored in and by the community. It relies on the critical intent of all those who use memories creatively. It relies on the surprise of the unexpected question which opens new doors for the inquirer and his partner.
> (Illich, 1973:24-25)

2.9 Conclusion
The conclusive argument that emerges from the literature consulted in Chapter 2 is that the education of knowledgeable, skilled, critically aware and versatile designers should begin at foundation level. The "desired result" would be a foundation education achieved through a curriculum that is flexible, integrated and based on "core ideas" in design (Wiggins & McTighe, 2005:314), in partnerships with local communities, government and industry (Illich, 1973; McCoy, 1990; Ranjan, 2005; Manzini, 2009; Leifer, 2010).

In educating the designer, attention needs to be given to both the "artist" (designer) and the "object" (design outcomes) (Sonntag, 1969:392; Leifer, 2010). In all of the design sub-fields

the integration of theory ("brainwork") and practice ("handiwork") is required to develop confident self-criticism in students to enable creative thinking and design action, necessary for the manifestation of innovative design solutions and intentional change (Sonntag, 1969:392; McCoy, 1990; Ranjan, 2005; Goldstein, 1996; Nelson & Stolterman, 2003).

The reviewed literature and the summary Table 2.6: Towards a conceptual framework for a foundation programme in design, will be used in the development of the research design as discussed in the following Chapter 3.

CHAPTER 3
RESEARCH DESIGN

3.1 Introduction

Chapter 3 describes the research approach and the research design from which a research design matrix was developed to enable the analysis of the data that has been collected for this interpretive study (Denzin, 2006:349-365).

Aspects of curriculum development, assessment methods and teaching approach from the summary Table 2.6: Towards the development of a conceptual framework for a foundation programme in design to educate knowledgeable, skilled, critically aware and versatile designers were identified for consideration in the development of a research framework in the research design chapter.

Addressing the research question and sub-questions, ideas from the literature review summarised in Table 2.6 in Chapter 2 will be used in conjunction with the research design matrix (Table 3.1 in Chapter 3) to analyse the data collected, in order to investigate the challenges, and evaluate the successes of the Design Foundation Course in the Faculty of Informatics and Design at CPUT. The aim being to ascertain which aspects should be considered for the development of a conceptual framework for a foundation programme in design.

3.2 Research question and sub-questions

The research question and its sub-questions arose out of an investigation into what should be provided by tertiary foundation education in design, particularly in studio-based design subjects. Attention has been given to specific aspects of curriculum development, assessment methods and teaching approach in the research question and sub-questions as follows:

3.2.1 Research question

What aspects of the curriculum, assessment methods and teaching approach of studio-based design subjects should be considered towards the development of a conceptual framework for an integrated, multidisciplinary foundation programme with the aim to educate knowledgeable, skilled, critically aware and versatile designers?

3.2.2 Sub-questions

The main question will be investigated through the following sub-questions:

- To what extent does the emphasis on "*learning to see*" in the curriculum structure, the assessment methods and the teaching approach in a design foundation programme, lead to the development of knowledgeable, critically aware and versatile designers?
- To what extent is the grounding education of knowledgeable, critically aware and versatile designers facilitated by the *transference of knowledge and skills* from one discipline to another in an integrated, multidisciplinary design foundation programme?
- To what extent is the *integration of theory and practice* essential for the grounding education of knowledgeable, critically aware and versatile designers?

3.3 Aims and contributions of the research

The intended aims and contributions of the research are both short and long term:

- The aim of the research is to evaluate curricular elements, methods of assessment and teaching approach of a foundation programme in design.
- By extending the debate, the research intends to contribute towards the development of a conceptual framework for the grounding education of knowledgeable, skilled, critically aware and versatile designers.
- Through the application of the principle of "transference of knowledge", similar art and design foundation programmes in other tertiary education institutions may also benefit from the research.
- The intention is that the research will contribute to the establishment of benchmarking criteria at foundation level in a tertiary education context in art and design education.

Keeping the research questions and the envisioned aims of the research in mind, the research design emerged from the research approach that went through different phases and which was developed and refined over time to fit the study.

3.4 Research approach

The process of developing a theoretical approach for research into foundation education in design was lengthy and it developed and changed as the study progressed. It is best described as having evolved into a research framework, comprising aspects of the

following research approaches which emerged in the literature review (see glossary for definitions):

- Action research (Ranjan, 1999; Nelson & Stolterman, 2003; Manzini, 2007, 2009);
- Constructivism (Arens, 2010; Leifer, 2010; Schön, 1983;76-104; Ranjan, 2005; Voulgarelis & Morkel, 2010, Wiggins & McTighe, 2005:292);
- Design research (Ireland, 2003:22,23-29; Lunenfeld, 2003:10-15, Wiggins & McTighe, 2005).

3.4.1 Development and application of a research framework

The application of a research framework rather than the use of a single theory was selected, as study in design is complex. Although design has been acknowledged as a separate field, it is also seen to bridge the opposing fields of art and science (Nelson & Stolterman, 2003:4; Buchanan, 2006:15, 1989:103; Cross, 2007:123).

The first step in the research was to write a personal narrative and to reflect on my teaching approach in art and design education. The personal narrative (Appendix A) is an experiential account of my development as a teacher in foundation education in design, with an emphasis on the present Design Foundation Course in which I teach, and comparing it with the previous versions from which it evolved, to attempt to identify differences and similarities. After writing the personal narrative I extracted questions that I placed in comment boxes adjacent to the relevant text in the narrative. The research study arose from these questions, from the background study and the literature review.

3.4.1.1 Grounded theory, theory building from case studies and theory being developed in response to existing theory

In terms of the existing body of knowledge, design has only recently been acknowledged as an independent field of study and as such research and research methodology in design are relatively new (Margolin, 1989:28; Stolterman & Nelson, 2003; Buchanan, 2006; Cross, 2008). Also as an emerging researcher in design I originally decided to apply grounded theory where theories generated are grounded in the data. Grounded theory's strengths are seen to be "inductive, contextual and processual" (Urquhart, 2002: 51) which fits in with the theoretical basis for foundation education in art and design, specifically of the Bauhaus foundation course (1920-1933), where theory was generated

from the teaching approach and creative outputs of the foundation teachers (Goldstein, 1996:273).

It is however important to remember that the guiding principles on which the Bauhaus was formed in 1919, were a direct response to the devastation caused by World War I. The Bauhaus sought to develop a better future for all, based on freedom and equality by the integration of art and life (Haus, 2006:17). Although theory may be based on direct experience and developed from practice, if one takes the view that the world is part of a continuum, theory cannot be developed in a vacuum, as "*we do not yet know what we have not yet discovered*" (Deutsch, 2012:206). Theory is also developed in response to existing theory, either as a means of further development and refinement of a specific theory or as a rejection because an existing theory is no longer viable (Magee, 1973: 66-68; Popper, 1978:132-133). Either way theory is developed in response to what has come before and to that which is part of the body of knowledge.

Urquhart (2002:50) asserts that it is acceptable to refer to existing literature before beginning data analysis as long as concepts from the literature do not unduly influence this process, which was my initial approach to the literature review. However, the way I planned to approach the research design fitted more closely with theory building from case studies as posited by Eisenhardt and Graebner (2007:25), "the central notion is to use cases as the basis from which to develop theory inductively". This is based on Eisenhardt's (1989b) view, where she introduces theory building from case studies as a research strategy. Eisenhardt and Graebner (2007:29) state that, "the object of building theory from cases is theory".

As the literature review progressed however, it became clear that although the inductive methods of grounded theory and theory building from case studies had a role to play in the research approach there was much to gain from existing theory (Hart, 1998:22). If the standpoint is taken that modernism and post-modernism are part of a long tradition in the field of the visual arts (Goldstein, 1996:299; Margolin, 1989:10; Tyler, 1949:90) then the inductive method of theory building from case studies should rather be seen as part of the existing continuum.

It emerged that an overarching research framework which encompassed a number of research approaches would suit the study, as design education drew on theories developed in the field of design and on theories developed over time in art and other fields such as education, and the social and natural sciences (Blair, 2010:4; Polin, 2010:4). More recently, as described in the literature reviewed, design and particularly "design thinking" have had an impact on fields as diverse as business management, information technology, medicine and education (Clark, K *et al,* 2008; Dorst, 2010), confirming the view that design is a bridge between the arts and sciences.

3.5 Karl Popper's theoretical approach as a research framework for use towards the development of a conceptual framework for a foundation programme in design

A research framework has been developed based on Popper's theoretical approach with specific reference to his scientific/creative method which meets key ideas in the literature review identified for use towards the development of a conceptual framework (please see Table 2.6 in Chapter 2). Karl Popper's philosophy of science, his practical and action-based approach to the world, and his iterative scientific/creative method, resonate emphatically with many significant ideas related to design and design education reviewed in the literature.

3.5.1 The research framework meeting key ideas in the literature for the development of a conceptual framework

The purpose of the research framework is to assist towards the development of a conceptual framework for a foundation programme in design. The following key ideas distilled from the literature review are seen to be significant for design education, and through the application of the research framework form the basis towards the development of a conceptual framework:

- Guiding principles in design education which are flexible and responsive to changing needs;
- Integrating theory and practice;
- Generative self-criticism, the iterative design process, confidence, "intuitive thinking" and the "creative leap".

3.5.1.1 Guiding principles in design education which are flexible and responsive to changing needs

- Design being understood to be a bridge between art and science (Cross, 2007:123; Margolin, 1989:28, Nelson & Stolterman, 2003:4);

- Design being responsive to the needs of local and global communities (Ranjan, 2005; Manzini, 2009; Leifer, 2010);

- The need for tertiary education structures to be flexible, with consistent guiding principles and approaches in design education that are responsive to the changing needs of students and the society for which they will design (Goldstein, 1996:295; Hughes, 1980:211);

- Establishing guiding principles that will allow for the kind of learning that promotes the development of knowledge, skills and critical awareness (deep understanding of key ideas and principles) (Bruner, 1977:52,58,65; Wiggins and McTighe, 2005:292-293);

- Acknowledging that art and design foundation programmes establish building blocks for lifelong learning, and provide the grounding for successful further study of students in the field of design (Sonntag, 1969; Ranjan, 2005; Filler, 2009; Arens, 2010);

- Fostering versatility/flexibility, the transference of deep understanding for use in different situations in the real world (Tyler, 1949:19,57; Bruner, 1977:51-54; Wiggins & McTighe, 2005:314) that will lead to self-belief and the confidence necessary for innovative design to take place (Sonntag, 1969; Nelson & Stolterman, 2003).

3.5.1.2 Integrating theory and practice

- Integration of theory and practice, with intent, for the development of active strategic design through the application of "design thinking" and design skills (Ranjan, 1999:1-3; Manzini, 2009:448-449);

- Acknowledgment of design outcomes: Similar to art, which is the visual concretization of ideas and how the world is perceived, theory and practice in design need to be integrated, as design outcomes are practical in nature, and cannot be separated from industry and the needs of the real world (McCoy, 1990; Raein, 2004);

- Acknowledgement of the significance of the "artist" (designer) and the "object" (design outcome) from foundation level in design education (Sonntag, 1969:392; Buchanan, 2006:19-20, Leifer, 2010).

3.5.1.3 Generative self-criticism, the iterative design process, confidence, "intuitive thinking" and the "creative leap"

- Recognition that intuitive thinking is necessary for imaginative experimentation in order for tentative creative solutions and innovative change to take place (Bruner, 1977:52; Cross, 2007:51-54);

- Recognition of the need for specialist teachers who have a deep understanding of subject content, who through their teaching approach should be able to encourage intuitive thinking in students (Tyler, 1949:90; Bruner, 1977:52);

- Encouragement of the development of confident generative self-criticism in students to enable creative thinking and design action which may lead to the "creative leap" and to innovative change (Sonntag, 1969:392; Nelson & Stolterman, 2003:22);

- Emphasis on the use of the iterative design process of "thinking and doing" to develop understanding and "intuitive thinking" which leads to confidence for the "creative leap" and innovative action to take place (Magee, 1973:67; Sonntag, 1969:393; Bruner, 1977:14; Nelson & Stolterman, 2003:22; Buchanan, 2006:18-20; Deutsch, 2012:203)

3.5.2 Popper's scientific/creative method

Popper's approach is based on the advancement of knowledge through criticism (Magee, 1973:67; Deutsch, 2012:203), which is central to teaching and learning in design education and necessary for the development of generative self-criticism in students (McCoy, 1990:20; Schmitz, 2006:368). Popper makes a distinction between pure logic and scientific method. He states that:

> Although logic may perhaps set up criteria for deciding whether a statement is testable, it certainly is not concerned with the question whether anyone exerts himself to test it.
> (Popper, 2002:32)

The issue of the need for integration of theory and practice in design is raised by Dorst's (2008:6) suggestion that too much emphasis has been placed on the "how and not the why" in design. However, as design outcomes are practical in nature, comparing the iterative nature of the creative process in design practice with the iterative process of problem solving, Popper's scientific/creative method as a research framework is

convincingly an appropriate basis from which to establish a conceptual framework for a foundation programme, (the reasons for using Popper's method towards the development of a conceptual framework in a foundation programme in design education were advanced in a peer reviewed conference paper) (Lecanides Arnott, 2010).

Popper's scientific/creative method is iterative and evolutionary in nature and encourages both continuity and change. It begins with addressing a problem, followed by finding a tentative solution to the problem through error elimination, and finally leads to the investigation of a new problem.

$$P_1 \rightarrow TT \rightarrow EE \rightarrow P_2 \ldots$$

Fig. 3.1: Karl Popper's method *(problem (P₁) → a tentative theory (TT) → error elimination (EE) → new problem (P₂))*, **(Popper, 1978:132; Magee, 1975:65)**

Most significantly, Popper's scientific/creative method is an open, objective and flexible method. It fits in with aspects of Tyler's (1949:83-84) vertical and horizontal approach to curriculum development, and the idea of transference of knowledge and skills. However, it fits in even more closely with Bruner's (1977:40, 52-54) spiral curriculum, which is iterative in nature encouraging the revisiting of core ideas and their application in new and more complex situations. It is also applicable to Wiggins and McTighe's (2005:18-19) backward design as it tests the consequences of a particular theory with the intention of achieving a "desired result". If any particular consequence does not fit, Popper's method allows for further testing through the finding of a tentative solution by the process of error elimination, allowing for the identification of a new problem, and in turn for further testing.

The "framing" and contextualization of a problem, keeping the space between the problem and the solution ambiguous for as long as possible (Dorst, 2010; Leifer, 2010), has been described as the "white space" (Arens, 2010), that encourages "intuitive thinking" (Bruner, 1977:14), and is central to Popper's view (Magee, 1975:68). In this view the process of "intuitive thinking" is understood to enable the creative imaginative leap considered necessary for attaining innovative design solutions (Sonntag, 1969:393; Popper, 1978:132; Nelson & Stolterman, 2003:22). However, Popper's scientific/creative method cannot be seen in isolation from his view of the world, and the guiding principles that gave rise to it.

3.5.3 Guiding principles that underlie the scientific/creative method

Underlying Popper's scientific/creative method is a critical rationalist approach. His critical rationalist approach, unlike that of positivism is based on indeterminism, which is the main guiding principle behind the development of the scientific/creative method (Magee, 1975:14-16).

The indeterminist viewpoint stems from the position that creative thinking and innovative action can only take place in an open society with flexible systems. Appropriately, the example that follows in order to illustrate the guiding principles of an open society that underlie Popper's scientific/creative method, has a direct bearing on the problems that are faced in education in many developing countries such as South Africa, and to be found in the Design Foundation Course at the CPUT:

> The general guiding principle for public policy put forward in *The Open Society* is: 'Minimize avoidable suffering'. Characteristically this has the immediate effect of drawing attention to *problems.* If, say, an Education Authority sets itself the aim of maximizing opportunity for the children under its care it might, understandably, not be sure how to go about this; or it might start thinking in terms of spending its money on the building of model schools. But if, rather, it sets itself the aim of *minimizing disadvantage,* this directs its attention immediately to the most underprovided schools – those with the worst staffing problems, the most overcrowded classes, the slummiest buildings, the least or worst educational equipment – and makes doing something about *them* the first priority. The Popperian approach has this consequence right across the board: instead of encouraging one to think about building Utopia it makes one seek out, and try to remove, the specific social evils under which human beings are suffering. In this way it is above all a practical approach, and yet one devoted to change. It starts from concern with human beings, and involves a permanent active willingness to remould institutions.
> (Magee, 1975:85)

Most importantly, rather than seeking the *truth* in the abstract, Popper's iterative scientific/creative method involves the tentative acceptance of a particular theory until it is falsified through the process of error elimination (Popper, 1978:180-196). Error elimination leads to the definition of a new problem which is synchronous with the

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freedom to change, thus enabling intuitive thinking and the creative leap of imagination, from which innovative change occurs. The finding of tentative solutions through error elimination and the freedom to change is central to Popper's world view which incorporates all aspects of human activity ("body-mind" (Popper, 1978: 187-193)), from the arts through to the sciences, which he describes as "the place of values in a world of facts" (Popper, 1978:193-196).

3.5.4 The process of interpretive research and the scientific/creative method

The scientific/creative method which is synchronous with the iterative nature of the design process, because it embodies the "core idea" of continuity and change, is appropriate as a research framework for this interpretive study. It is appropriate for application to the process of interpretive research, as "prior interpretations and understandings shape what he or she [the researcher] now sees and interprets" (Denzin, 2002:363). Denzin goes on to state that interpretations are not conclusive as conclusions are always drawn, that "it only means that interpretation is never finished", a view confirmed by the computational physicist David Deutsch as follows:

> … our senses themselves do not say anything. Only our interpretations of them do, and those are very fallible. But the real key to science is that our explanatory theories – which include those interpretations – can be *improved* , through conjecture, criticism and testing.
> (Deutsch, 2012:8)

3.5.5 Summing up the principles that underlie the scientific/creative method

It is to be understood that indeterminism should not be equated with relativism. Indeterminism is a disciplined moral standpoint in which the evolutionary principles of continuity and change are applied to a specific problem through application of the iterative scientific/creative method, thereby pushing a particular theory to its limit until the theory is falsified. An indeterminist position, applying critical rationalism through the use of the scientific/creative method is the basis for the research framework from which the research design has been developed for this study with the aim of developing a conceptual framework for a foundation programme in design.

3.6 Research design

Population and sampling, and the question of the reliability and validity of the instruments of measurement, need to be addressed in the research design as these aspects have influenced the choice of data collection methods and the research design matrix in this study. A detailed discussion of the data collection methods will follow, as these have played an important part in the development of the research design matrix.

3.6.1 Population and sampling

There are different methods for selecting samples to reflect the population to be studied. The sampling methods should relate to the research design and to the purpose of the research (Babbie, 2010:116).

Although probability sampling is the primary method for "selecting large, representative samples for social research" it is not suited to all research design and the use of non-probability sampling methods at times are more appropriate, for example when there is a reliance on the availability of subjects, as in a study of homelessness where no list of all homeless people is available (Babbie, 2010:192).

A form of non-probability sampling, the purposive/judgemental sampling method, is suited to this research design on the basis of "knowledge of a population, its elements, and the purpose of the study" (Babbie, 2010:193). The non-probability purposive sampling method is also appropriate for use when studying a subset of the population in which members in the subset are easily identifiable; but where it is not possible to sample all of the members in the subset, as was the case when researching the "population" of the Design Foundation Course. In this instance the application of the non-probability purposive sampling method was found to be both more reliable and valid. The sample consisted of the fifty-six students of the 2008 Design Foundation Course with a selection of a focus group of fourteen students from the larger group of fifty-six students.

The selection of the focus group was made at the end of the foundation year of study once the students had decided which design discipline they would be entering into for study in first-year. The students were chosen to ensure that two of them represented each of the seven design disciplines that are serviced by the Design Foundation Course

in the Faculty of Informatics and Design (architectural technology, interior design, industrial design, jewellery design, graphic design, fashion design and surface design).

Other than the target group of students from previously disadvantaged backgrounds who are underprepared but who show potential for design as specified by the Department of Education (DoE, 2006), there are other reasons for students being classified as disadvantaged and underprepared. In an open society (Magee, 1975:85) the deciding factor would be addressing the given problem which is whether a student who shows potential for study in design needs a foundation education in design no matter what their background may be. The reasons for the choice of students selected for the focus group varies as follows:

- Students from previously disadvantaged backgrounds;
- Students who have never done art or design before as subjects at school;
- Female students choosing to study in a male dominated environment such as that of industrial design;
- Learning disabilities such as dyslexia, which is common amongst people with a high visual quotient (VQ) (Raein, 2004:163);
- Physical disabilities such as being hearing-impaired;
- Students who are not from previously disadvantaged background, but who were considered to be disadvantaged because of other factors such as coming from a broken family background or having received a school education in a rural community based school;
- Students who are not sure about study in design or which design discipline to choose for further study;
- More mature students who have a higher education qualification in another field but who want to change and enter into the field of design.

3.6.2 Reliability and validity

Reliability and validity are defined as "criteria of measurement quality", and although both are necessary for the construction and evaluation of measurements, they serve different purposes (Babbie, 2010:152).

If a particular technique yields the same result consistently it is considered to be reliable. However it does not mean that reliability can always be equated with accuracy (for

example, when conducting an interview or making use of a questionnaire, the results will be more accurate if the respondents answer questions that they are knowledgeable about and which are relevant to them) (Babbie, 2010:152).

It is understood that validity should measure "what we say we are measuring", for instance "a measure of social class should measure social class and not political orientation" (Babbie, 2010:153). The validity of a measurement cannot be absolutely assured, but agreement can be reached on the relative validity of a measure based on its face validity, criterion-related validity, construct validity, content validity, internal validation and external validation (Babbie, 2010:153; see glossary for definitions).

| Reliable but not valid | Valid but not reliable | Valid *and* reliable |
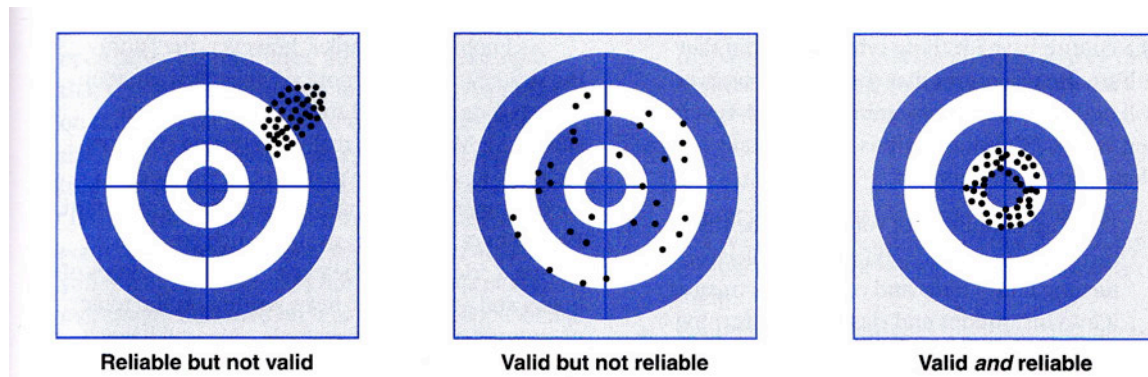
Fig.3.2: An analogy to Validity and Reliability. A good measurement technique should be both valid (measuring what it is intended to measure) and reliable (yielding a given measurement dependably) (Babbie, 2010:155).

The diagrams in Fig.3.2 give a clear depiction of the necessary relationship between reliability and validity as "criteria of measurement quality". In over emphasising the aspect of reliability in a method of measurement, the depth and richness in meaning of a particular concept may be lost, an issue that Babbie (2010:156) refers to as the "tension between reliability and validity". It is not an easy task but a balance has to be found between what is reliable and what is valid so that accuracy is not compromised and meaning is not lost. Combined data collection methods were used in the research design in order to enable reliable and valid measurements.

3.6.3 Combined data collection methods

The research design, with combined data collection methods (Huberman & Miles, 2002:7-9), is based on a qualitative methodological framework that is provided by building theory from case studies through the use of comparative analysis (Wölfflin, 1950; Bourdieu, 1967:346). The design has been based on the analysis and interpretation of the personal narrative (Appendix A), the literature review (Chapter 2), my reflexive journal and from the collection of other varied data sources such as:

- Existing feedback questionnaire adapted to fit the study
- Filmed student focus group interview
- Individual follow-up interviews from student focus group
- Open-ended staff questionnaire
- Quality assurance panel feedback reports
- Mark review reports (Appendix I)
- Documentation of student work
- Staff observations
- Feedback from the 2008 foundation student group on completion of the National Diploma in Design in December 2011

3.6.3.1 Existing student course feedback questionnaire adapted to fit the study

The existing student course feedback questionnaire (Appendix D), which is eclectic in nature and which was developed from the feedback questionnaire used by the design departments at CPUT, was adapted and changed specifically for the purpose of this study. The original questionnaire functioned as a prototype (pilot questionnaire) and was completed by the Design Foundation Course group of students at the end of the first semester in 2008. It was adapted for this study in consultation with a colleague from the CPUT postgraduate research unit, a statistician specialising in the development and analysis of such questionnaires. The original questionnaire was adjusted so that there are no questions that could have more than one answer in the adapted questionnaire (Appendix E). There is a mix of Likert scale (Neuman, 2003:197-198) and yes/no questions, and the document includes an open section for comments. The same group of students, the 2008 Design Foundation Course completed the adapted student feedback questionnaire at the end of the academic year in 2008, on completion of their summative examinations for the year.

3.6.3.2 Filmed student focus group interview

A semi-structured filmed interview was conducted with the focus group of fourteen students from the 2008 foundation/extended first year student body (Appendix O).

The interview of the focus group was conducted to try to determine in greater depth (Babbie, 2010:274) if a foundation programme in design does contribute to educating knowledgeable, skilled, critically aware and versatile designers, through aspects of the curriculum, assessment methods and teaching approach.

3.6.3.3 Individual follow-up interviews from the student focus group

Individual follow-up interviews with the members of the focus group of fourteen students were conducted in 2009, in the second semester, towards completion of their first-year of study in the design discipline of choice. Originally a questionnaire was planned for data collection from the focus group at this stage, but the prototype/pilot questionnaire (which was given to two students from the same student body, but not from the focus group) did not elicit adequate responses. The statistician advisor concurred that the formulation of the questions was adequate and appropriate. She suggested that I use the questionnaire (Appendix F) to conduct a recorded, semi-structured interview with each of the students.

The length of each interview varied according to the individual student. The order of the questions was not always the same and depended on how the students answered. Sometimes the students would lead into discussion of a topic without prompting. The interviews were transcribed word for word so that detail was not lost.

The individual follow up interviews (Appendix N) of the focus group of fourteen students in September/October 2009 were conducted to compare the data from the filmed group interview of the same fourteen students in 2008. For greater reliability and validity it was considered necessary to compare similarities and differences of the data collected over a period of time. The follow up questionnaire made allowance for the focus group to be able to reflect back on their experiences of the Design Foundation Course after almost a year of study in their design discipline of choice.

3.6.3.4 Open-ended staff questionnaire

An open-ended staff questionnaire (Appendix G), in the form of an email was sent to all the design teaching staff, in order to obtain specific feedback from staff in the design disciplines served by the Design Foundation Course. The number of staff who responded

to the email questionnaire constituted 61% of the design teaching body, which is higher than the norm for responses to questionnaires sent electronically (Neuman, 2003:285-288). Most of the staff who replied had direct experience in teaching students from the Design Foundation Course.

3.6.3.5 Quality assurance panel feedback reports

Feedback reports from the Quality Assurance panels, which included academics from other fields of study and design professionals from industry in the specific design disciplines, were written after the panels had reviewed the Design Foundation Course, and had interviewed some of the course's staff and past students.

3.6.3.6 Mark review reports, pass-rate summaries and student project assessments

Information from mark review reports, pass-rate summaries and assessments of individual studio based design student projects were used to ascertain student performance and the validity and reliability of assessment methods and learning experiences in the Design Foundation Course (Appendix I).

3.6.3.7 Documentation of student work

Documentation of particular students' research, preparation (written and visual) and end products (artefacts) of studio based practical design projects has been analysed and discussed in relation to issues that were raised as being significant to foundation education in design in the literature review.

3.6.3.8 Staff observations

Staff observations related to curriculum development, assessment methods and teaching approach were used as necessary.

3.6.3.9 Feedback from the 2008 foundation student group on completion of the National Diploma in Design in December 2011

While writing the findings and analysis of the data by "reflecting in action" (Schön, 1983), and based on the view that a study that has taken place over a period of time has greater reliability and validity, it seemed logical that in addition to the student feedback collected for the study as originally planned, the student feedback from the 2008 group of students who had completed their studies for the three-year National Diploma in Design, in the design discipline of choice in December 2011 would be appropriate for use in the study (Denzin, 2007:362-363).

The following question was texted through by mobile phone to a few of the third year students who then sent it on to their peers:

- From the perspective of a third year student about to complete your studies in design: Looking back, which aspects of the Design Foundation Course did you find most useful in preparing you for further study in the field of design, particularly in the design discipline in which you are registered?

The responses were emailed to me. Although the response rate was not high, the students who responded had successfully completed their diplomas in the allotted time of four years and gave clear well considered answers (Appendix M).

3.6.4 Research design matrix

The data has been analysed by means of coding and pattern, and applied towards the development of a conceptual framework for a foundation programme to educate knowledgeable, skilled, critically aware and versatile designers. The research design matrix has been used in conjunction with summary Table 2.6: Towards a conceptual framework for a foundation programme in design, in order to assist with the analysis of the data.

Table 3.1: Research design matrix

Research question: What aspects of the curriculum, assessment methods and teaching approach should be considered in a design foundation programme towards the development of a conceptual framework to educate knowledgeable, skilled, critically aware and versatile designers?							
Elements of the research question	Interviews	Observations	Questionnaires	Marks	Documents	Student projects: research & prep	Student projects: Design artefacts
Foundation Education	✓	✓	✓	✓	✓	✓	✓
Curriculum	✓	✓	✓	✓	✓		
Assessment methods	✓	✓	✓	✓		✓	✓
Teaching approach	✓	✓	✓	✓			
Knowledge	✓	✓	✓			✓	✓
Skills		✓		✓		✓	✓
Critical Awareness	✓	✓					✓
Versatility		✓					✓

Table 3.1, which represents the research design matrix, was developed to assist in ordering the collected data, and to aid with the analysis of the data. The matrix demonstrates and supports the argument that is advanced by Huberman and Miles (2002:7) that the use of combined data collection methods helps to strengthen the grounding of theory by the triangulation of evidence. "The evidence may be qualitative (e.g., words), quantitative (e.g., numbers) or both" (Huberman & Miles, 2002:9). Research methods have inherent strengths and weaknesses, therefore working with the strengths of different research methods leads to better research design (Babbie, 2010:116

The data has been analysed by means of coding and pattern, and applied towards the development of a conceptual framework for a foundation programme to educate knowledgeable, skilled, critically aware and versatile designers. The research design matrix has been used in conjunction with summary Table 2.6: Towards a conceptual framework for a foundation programme in design, in order to assist with the analysis of the data.

The personal narrative (Appendix A) and the interviews, which are rich in descriptive data, have been included as appendices in the form of tables and graphs. In order to prevent the "destruction" of the meaning of data through intensive coding, Huberman and Miles (2002:8) recommend the use of certain techniques, such as tables and graphs to present qualitative data.

A comparative analysis will be developed from my personal narrative of the two foundation programmes in which I taught; from 1982 to 1992 in the Basic Year at the Cape Technikon, and the current Design Foundation Course in which I have taught since 2003 at the Cape Peninsula University of Technology (a higher education institution that is the result of the merging of the Cape Technikon and the Peninsula Technikon in 2005). It is intended that the comparison of these two case studies will demonstrate the strength of building theory from case studies as identified by Eisenhardt and Graebner:

> The story is then intertwined with the theory to demonstrate the close
> connection between empirical evidence and emergent theory … the use of
> summary tables and aids that summarize the case evidence complements the

selective story descriptions of the text and further emphasizes the rigor and the depth of the empirical grounding of theory.

(Eisenhardt & Graebner, 2007:29)

The two foundation courses in which I have taught have also been compared to the foundation programmes that were discussed in the literature review in Chapter 2, and identified as significant in the development of foundation education in design. The comparison includes the foundation courses of the Bauhaus, the Design Institute at Ulm, NID and (more recently) in design education as discussed in papers at the ConnectED 2010 international conference on design education (Sydney, 2010).

3.7. Research ethics

As required by prescribed academic process, an ethical clearance form was completed and signed by me, in which I undertook to adhere to the following ethical considerations for the collection of data identified as necessary in order to meet the purpose of the research study (Babbie, 2010:120):

- The focus group of fourteen students from the 2008 Design Foundation Course of the Faculty of Informatics and Design at the Cape Peninsula University of Technology, who took part in the semi-structured filmed interview, did so on completion of the Design Foundation Course, after the end of their academic year. The summative assessment and moderation processes of all student work pertaining to the research study had been concluded for the year. The students were invited in writing to participate in the filmed interview. This letter of invitation was addressed to each individual student. It gave a detailed description of the format and intention of the interview. One of the students did not participate in the group interview because he did not feel confident to do so because of a hearing disability. Pseudonyms have been used to protect the identity of the focus group of fourteen students.

- Further recorded individual interviews of the focus group of fourteen students were conducted in 2009, It was made clear to each of the participants before recording the individual interviews that the aim of the interview was to gain insight of their experiences of the Design Foundation Course from the perspective of being near completion of the first-year of study in their design discipline of choice.

- The standard Design Foundation Course student feedback questionnaire was used as a pilot sample. The statistician advisor, an expert in designing questionnaires,

scrutinized the questionnaire and suggested some adjustments. Ethical considerations were taken into account when the existing student course feedback questionnaire was adapted for use in the research study.

- All annual pass-rate results, assessment results and the marks of individual studio based design projects have been ratified and cannot be changed to the detriment of any student who has participated in the research study.

- Sensitive topics such as the use of drugs, and invasive procedures such as the administration of placebos were not used in the research study. Subjects were not exposed to any form of prolonged or repetitive testing.

- No financial inducements were offered to participants.

- This research study did not involve environmental interventions that could damage the environment.

It is understood that in ethics relating to measurement it would be unethical to slant results by way of a biased definition of an issue. Personal bias can also affect measurement. It is important that, "measurement must never be guided by bias or preferences for particular research outcomes" (Babbie, 2010: 158). In quantitative research the use of probability sampling, where limited observation is applied to reflect a much bigger population and which is considered a sound technique, there is still potential for error to occur. The reader should be made aware that the results might not be entirely accurate because of errors such as shortcomings in sampling design and nonresponse. With the use of nonprobability sampling methods, when searching for depth and richness in a given population in qualitative research, the reader should be made aware that the sampling results do not reflect the average or typical member of that population (Babbie, 2010:225). Essentially, anything that might be misleading in the results needs to be indicated in the findings.

3.8 Conclusion

After taking ethical issues into account, reliable and valid measurement techniques based on combined data collection methods (qualitative and quantitative evidence) were used to develop the research design matrix. The research approach and research design fit in with the view of design being a complex field of study that bridges art and science. This in turn reflects Popper's world-view which incorporates all aspects of human activity

from the arts through to the sciences, which he describes as "the place of values in a world of facts" (Popper, 1978:193-196).

> It is through the attempt to see objectively the work we have done – that is to see it critically – and to do it better, through the interaction between our actions and their objective results, that we can transcend our talents, and ourselves.
>
> (Popper, 1978:196)

An indeterminist position, applying critical rationalism, through the use of Popper's scientific/creative method, and the finding of tentative solutions/theories through error elimination followed by the freedom to change, is central to the research framework for the development of a conceptual framework for a foundation programme in design. Popper's indeterminist philosophy of critical rationalism has been further advanced and refined by Deutsch (2012) who puts forward the theory of optimism, which he explains as follows:

> Optimism … is the theory that all failures – all evils – are due to insufficient knowledge. This is the key to the rational philosophy of the unknowable … Problems are soluble, and each particular evil is a problem that can be solved. An optimistic civilization is open and not afraid to innovate, and is based on traditions of criticism. Its institutions keep improving, and the most important knowledge that they embody is knowledge of how to detect and eliminate errors.
>
> (Deutsch, 2012:221-222)

The intended use of the research framework is to meet the purpose of the study. The aim of the research is to establish which aspects of the curriculum, assessment methods and teaching approach should be considered towards the development of a conceptual framework for a foundation programme to educate knowledgeable, skilled, critically aware and versatile designers. The findings and analysis of the data for this interpretive study have been conducted on this basis and are reported in the next chapter.

CHAPTER 4
DISCUSSION AND ANALYSIS OF FINDINGS

4.1 Introduction

The research framework that has Popper's iterative scientific/creative method at its core and the research design matrix (Table 3.1: Chapter 3) will be used in conjunction with the summary distilled from the literature review: Towards the development of a conceptual framework for a foundation programme in design (Table 2.6: Chapter 2), for the findings and analysis of the data.

The research design matrix was developed from a qualitative research approach that made use of combined data collection methods (to enable greater reliability and validity) in order to meet the purpose of the study. The purpose of the research is to establish what aspects of the curriculum, assessment methods and teaching approach should be considered for a foundation programme in the development of a conceptual framework to educate **knowledgeable, skilled, critically aware and versatile designers**.

The data will be used to examine and evaluate the challenges and successes that define the Design Foundation Course by examining the three sub-questions that were formulated to investigate the main research question:

- To what extent does the emphasis on **"learning to see"** in the **curriculum structure**, the **assessment methods** and the **teaching approach** in a design foundation programme lead to the development of knowledgeable, skilled, critically aware and versatile designers?

- To what extent is the grounding education of knowledgeable, skilled, critically aware and versatile designers facilitated by the **transference of knowledge and skills** from one discipline to another in an integrated, multidisciplinary design foundation programme?

- To what extent is the **integration of theory and practice** essential for the grounding education of knowledgeable, skilled, critically aware and versatile designers?

These key ideas are addressed through an analysis of certain aspects of the curriculum, assessment methods and teaching approach, which are located in the three sub-questions. The discussion and analysis of the findings of the Design Foundation Course are addressed in order to ascertain what aspects of the curriculum, assessment methods and teaching approach could be used towards the development of a conceptual framework for a foundation programme in design, and will be conducted under the following bulleted headings (in bold) which relate directly to the key ideas (in bold) in the sub-questions:

- **The purpose of the Design Foundation Course: to educate knowledgeable, skilled, critically aware and versatile designers**
- **Curriculum**
- **Assessment methods**
- **Teaching approach**
- **"Learning to see"**
- **Transference of knowledge and skills**
- **Integration of theory and practice**

When the analysis and findings of the key ideas relating to the Design Foundation Course have been discussed, a brief section will follow in which the research framework will be applied to key ideas that have been drawn from the literature (Table 2.6). This section will take the form of a summary table (Table 4.6) listing key ideas from the literature and aligning them to excerpts from the analysis and findings.

4.2 The purpose of the Design Foundation Course: to educate knowledgeable, skilled, critically aware and versatile designers

The purpose of the Design Foundation Course, as in the foundation courses of the Bauhaus (1919-1933) (Schmitz, 2006:360) and later at the institute of Design at Ulm, on which many foundation programmes worldwide have been based, is to teach students the "visual" grammar to enable them to become visually literate and to raise their critical awareness of design (Sonntag, 1969:391).

The Design Foundation Course has been developed to address the needs of a diverse group of students from different cultural backgrounds and with different levels of understanding and ability both academically and in the visual arts. It provides a foundation (grounding) in design and serves as the extended first-year for the specific design disciplines on offer at the CPUT. Curriculum development is responsive to the needs of the foundation students that vary according to the intake each year (South Africa, Department of Education, 2006: Appendix L).

Most of the students are referred to the Design Foundation Course by the design departments in the Faculty of Informatics and Design, because they are underprepared for study in the design discipline of their choice. There are also students who apply directly to the Design Foundation Course because they have not done art or design at school. Some apply to do the course because of its diagnostic function. From the 2008 student course feedback questionnaire it was found that even though more than half the students had done

art or design at school (Fig, 4.1) there was a large percentage who had not had any exposure to art and design as a field of study. Most of the students entering the course had come straight from school, except for a small percentage who had studied in another field at a higher education institution (Table 4.1).
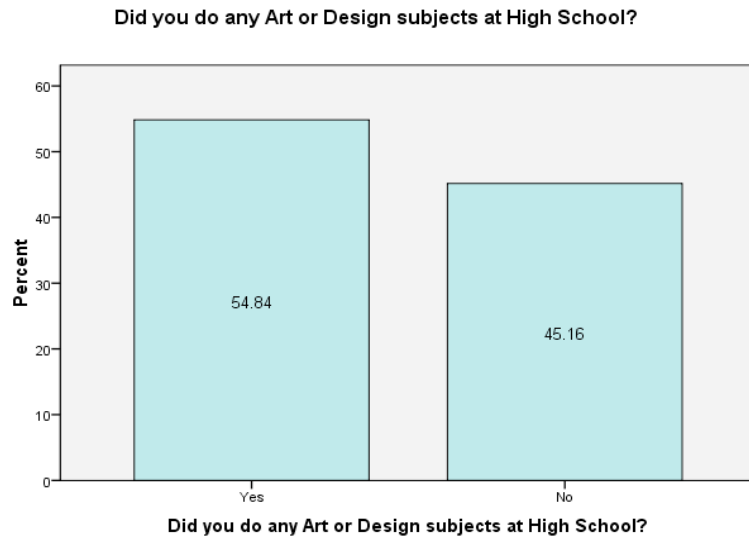
Fig 4.1: Bar chart showing analysis of data from the 2008 Design Foundation Course student feedback questionnaire: Did you do any art or design at high school? (Appendix J)

Table 4.1: Data analysis from the 2008 Design Foundation Course student questionnaire: Prior to coming to do the foundation course did you study for anything else at a higher education institution? (Appendix J)

Q19c Prior to coming to do the Foundation Course did you study for anything else at a higher education institution?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	18.8	20.0	20.0
	No	24	75.0	80.0	100.0
	Total	30	93.8	100.0	
Missing	System	2	6.3		
Total		32	100.0		

4.2.1 Dual function: basic principles of design and of the specific design disciplines

The intention is for all students to benefit from the dual function of the foundation course of gaining an understanding of the basic principles of design and at the same time being exposed to the fundamental nature of each of the seven design disciplines represented in the Faculty of Informatics and Design.

4.2.1.1 Staff responses

The data shows that the design staff (into whose courses the foundation students gain entry once they have completed the Design Foundation Course) who answered the staff questionnaire were all of the opinion (100%) that underprepared students would benefit from participating in the Design Foundation Course (see Table. 4.2).

Table. 4.2: Responses to staff questionnaire: Do you think that the integrated Design Foundation Course is of benefit to underprepared students? (Appendix K: question 1

Do you think the integrated Design Foundation Course is of benefit to underprepared students?			
	Frequency	Valid Percent	Cumulative Percent
Yes	22	100%	100%
Total	22	100%	

However, unlike the general view in the literature that all beginning students should participate in foundation studies (Sonntag, 1969; McCoy, 1990; Ranjan, 2005) the response from the design staff was divided when asked if they thought that all beginning students should participate in a foundation programme when entering a higher education institution, with 50% saying yes and the rest split between no and undecided (see Fig 4.2).
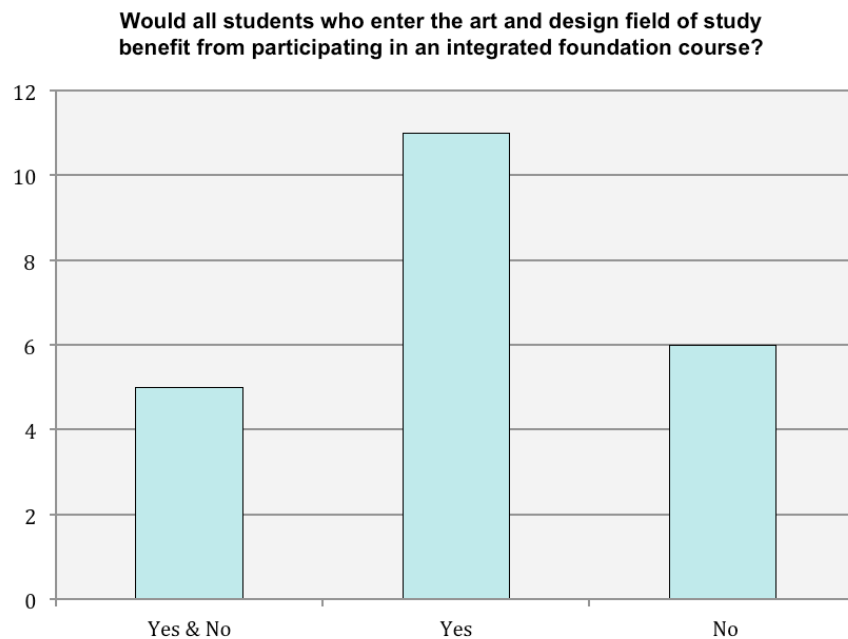
Fig. 4.2: Responses to staff questionnaire: Would all students who enter the art and design field of study benefit from participating in an integrated foundation course? (Appendix K: question 6).

The mixed responses to the question asking the design staff whether they thought that all beginning students would benefit from a foundation year when entering a higher education institution (see Appendix K: question 6) seems to reflect different perceptions and

understanding of the function of a foundation programme in design, particularly of the purpose of the Design Foundation Course. Some of the staff see foundation education in design as being remedial and largely for the benefit of underprepared students from previously disadvantaged backgrounds (South Africa, Department of Education, 2006).

The multidisciplinary nature of the curriculum provides a diagnostic function, which is seen by most of the staff to be of great benefit to underprepared students in making them more aware of design, and in helping them establish which choice of design discipline will suit them best for further study.

Some of the staff consider the foundation course to be essential in providing the grounding for a holistic education for designers, and that its multidisciplinary curriculum (diagnostic function) is particularly relevant to educating the kind of designer needed in the complex and constantly changing world that we live in. Others view it as an extended first-year which will provide students with specific skills to be able to cope with the first-year of study in a particular design discipline.

Some view foundation education in design as the basis for preparing designers for life long learning whereas others view foundation education merely as skills training. The difference in opinion regarding the purpose of the foundation is significant because it indicates inconsistency in guiding principles among the staff as to the role of the designer in the real world. If there was greater clarity about what the "desired result" should be for educating designers by the end of the three-year National Diploma in Design, no matter what discipline has been chosen for specialization, the purpose of the foundation course would become much clearer (Wiggins & McTighe, 2005:18-19).

4.2.1.2 Feedback from 2008 foundation student group on completion of the National Diploma in Design in November 2011 shows critical awareness

From the perspective of having successfully completed the National Diploma in Design in November 2011, reflecting on their years of study, past 2008 foundation students were critically aware of the purpose of the Design Foundation Course. The students were convinced that the Design Foundation Course had prepared them for university life and the academic programme in the following ways (see Table. 4.3):

- It provided the necessary life skills in terms of knowing how to go about using facilities like the library, paying fees, where to buy tools and materials.
- It helped them with time management and how to meet theory assignments and studio based design project deadlines.

- Introduction to the visual language and the basic principles of design through the content of the design disciplines made the students aware of how the design/creative process is applicable to all the design disciplines.

- The drawing component of the course was seen as beneficial as a means to engage in the design process and in the presentation of end results in the different design subjects.

- Although the students were registered in a particular design discipline to start with, exposure to the terminology and basics of all the design disciplines (the diagnostic function) helped them make an informed choice about which design discipline to choose for further study.

- Acknowledgement of the benefit of the final two projects (the extra project and examination project) in the foundation course in preparing students for further study in the subject of choice.

Table 4.3: Tabulated analysis of the data from 2011 third year students who had participated in the Design Foundation Course in 2008 in response to the question: Looking back, which aspects of the foundation course did they find most useful in preparing them for further study, particularly in their chosen design discipline (Appendix M)

As a third year student having completed your studies, looking back, which aspects of the Design Foundation Course did you find most useful in preparing you for further study in the field of design, particularly in the design discipline in which you are registered?		
Useful aspect	**Discipline of choice**	**Quoted student response**
Preparation for university and academic life	Architectural technology	It introduced me to CPUT, where to pay fees, how to register and use the library and other facilities, where to buy tools and materials. Knowing these things saved me time in first year and later on.
	Fashion design	I found the foundation course very beneficial. Coming from grade 12 and having not done any art or design subjects, I had no idea about the design process. The foundation course works at a pace that helps you orientate yourself into the varsity lifestyle. I doubt I would have ever coped with First year design straight from high school.
	Architectural technology	… the foundation course introduced me to all the different types of materials, tools and the best ways to use them, working through all the different design disciplines.
Understanding of the visual language of	Architectural technology	… learning the general broader terminology of design disciplines such as: **elements of design, design principles and the design process.** These primary guidelines form the crux of any design process without which a successful design will not develop and progress. I think it was of extreme importance and relevance that these principles were instilled in us right from the get-go as they are universal tools in developing a design idea of any nature. These were especially beneficial for students without a previous background in design and unfamiliarity with the terminology of aesthetics in art.
	Industrial design	What I learnt through the foundation course in terms were processes, materials, communication, and presentation, which all helped for the continuation of my studies.

design, design terminology, design principles, drawing and the design process	Architectural technology	Although first year does start at the beginning, the classes move fast and I would not have adapted as well as I did if I would have had to try to gain the knowledge of materials, tools and methods of producing drawings on my own.
	Architectural technology	Due to the vast amount of drawing and sketching done in the foundation course, I found that my skills in drawing had been refined and developed to a very high standard, far higher than when I had entered the course … I have no doubt that the extended year of building my skills in drawing helped and will keep helping me in my field of study.
	Graphic Design	I found the foundation course extremely helpful. The graphic design element was obviously helpful for me as I went into graphics. My first year was made easy with the basics that we learnt in foundation, almost felt that I could have gone straight into second year graphics.
Benefits of the complex integrated multidisciplinary curriculum	Architectural technology	Having worked through all the different design disciplines gave me a broader outlook on how to solve design problems. Wish we could do a whole degree in the foundation course!
	Industrial design	I found everything useful not only in the discipline of product design. Learning different processes from jewellery to surface.
	Fashion Design	I applied for graphic design, but after the foundation course was led to an entirely different course: fashion design. If I never did the foundation course I think I would have started something that I would have found out later did not suit me.
	Architectural technology	… the great hands-on exposure we got to **all the design fields -** touching on the different design options available at CPUT, a foundation course student was able to decide which way they would branch off into the design world. It is this knowledge I am most grateful for. Being exposed to the range of design disciplines really opened my eyes and helped me analyse whether I was making the right choice for my future.
	Graphic Design	What I appreciated most from the course was I learnt a bit of everything for each design discipline. It was helpful to have an idea how everything works specially as graphic design can include other elements of design. As I had intended to study architecture it was a real eye opener as to what it entails and I realised that architecture wasn't for me.
Benefits of the extra project and exam project in the discipline of choice as a summative assessment for the Design Foundation Course	Architectural Technology	We did a project that covered all the basics, drawing a plan to scale, sections … Being familiar with these terms made it easier starting first year. At the end of the foundation course we built an architectural model as part of a project. This helped me a lot later on as I knew the basics of model building after this and in first year and further on it is assumed you know these things. Being familiar with these things made my life considerably easier.
	Industrial design	… what was really useful was our final 3D project, the hairdryers and working with the 2nd year ID designers. getting feedback from the learners and technical help with regards to materials etc.
	Architectural Technology	… the end of year specialised (chosen field) project simulation was a very well handled and set out project to prepare me for the year ahead - the project included a full range of the general processes that go along with the design of a building and how it is executed in terms of visual representation. ie. floor plans, elevations, sections etc.

4.3 Curriculum

The essential difference between the Design Foundation Course curriculum, and those of the historical foundation programmes of the Bauhaus and Ulm, and more recently the Basic Year at the Cape Technikon (1980s to early 1990s), is that at CPUT generic design principles are taught through the specific content of the design disciplines. Unlike the assignments at Ulm, which were generally abstract and non-object oriented (Ranjan, 2005:4), the design projects have specific practical and functional outcomes, such as designing an adventure route (detail) (architectural technology) (Fig. 4.3), or an appliquéd satchel bag (fashion design) (Fig. 4.4). Often connectivity is emphasised between design disciplines through the structure of project briefs. The 3D puzzle including its packaging is an industrial design project, whereas the labelling for the packaging is a graphic design project (Fig. 4.5).

Fig. 4.3: Architectural Technology: Adventure route (detail) (Design Foundation Course student work, 2009)

Fig. 4.4: Fashion Design: Appliquéd satchel bag (Design Foundation Course student work, 2009)

Fig. 4.5: Industrial Design: 3D puzzle and box; Graphic Design: Labelling for 3D puzzle box (Design Foundation Course student work, 2006)

4.3.1 Complex, integrated, multidisciplinary curriculum

The Design Foundation Course has developed as a complex, integrated, multidisciplinary curriculum over many years. It is a one-year programme and includes theory and practical design subjects, with academic literacy components embedded in design content which provide the underpinning and foundational support for the delivery of the discipline specific content of the different design disciplines (see Fig. 4.6)

DESIGN FOUNDATION COURSE
INTEGRATED MULTIDISCIPLINARY CURRICULUM
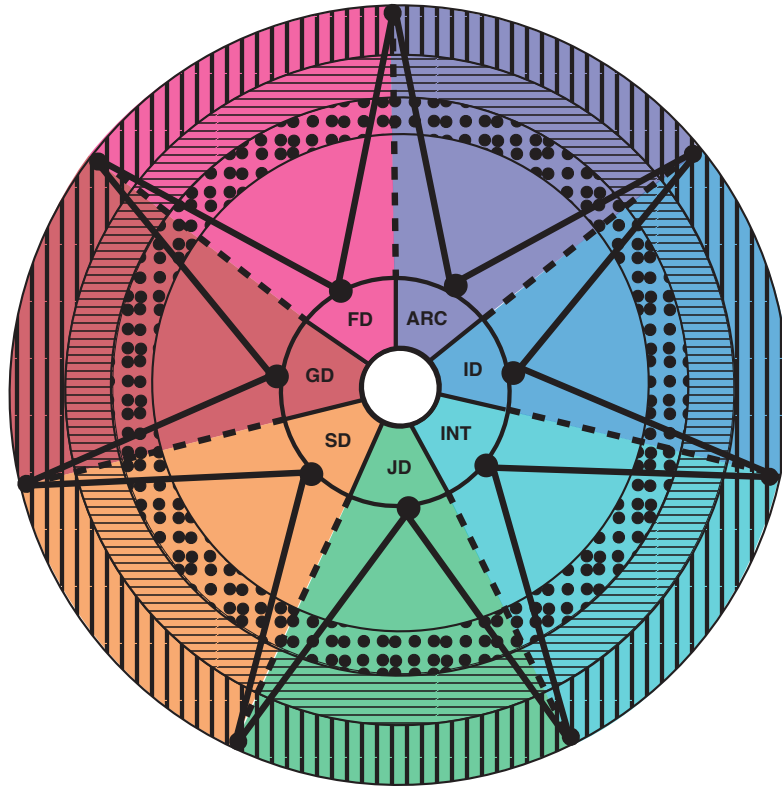
3D Design
ARC: Architectural Technology
ID: Industrial Design
INT: Interior Design
JD: Jewellery Design

2D Design
FD: Fashion Design
GD: Graphic Design
SD: Surface Design

Year Work: 70% of final
evaluation
(formative assessment)

Subject of Choice: 30% of final
evaluation
Extra project & exam project
(summative assessment)

Communication Studies
History of Art & Design
Design & Visual awareness
Current awareness
Communication & Literacy

Professional Business Practice
Life skills
Computer skills
Maths literacy
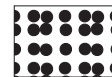
Drawing
Figure drawing
Object drawing

Research & Preparation

Inner white core: Grounding for
aware and versatile designers

MLArnott 2010 CPUT

Fig. 4.6: Diagram of the complex, integrated, multidisciplinary Design Foundation Course (Lecanides Arnott, 2010:3)

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The curriculum has been developed so that the different components slot into each other with learning experiences being delivered in a planned sequence which works both horizontally and vertically (Tyler, 1949:83-84). Since 2005 (see Appendix A) there has been a conscious attempt to develop conceptual, formal and technical skills incrementally throughout the year with an emphasis being placed on the revisiting of "core ideas" so that some components such as the drawing and colour studies have developed into what is described by Bruner (1977:12,40,52,54) as a spiral curriculum.
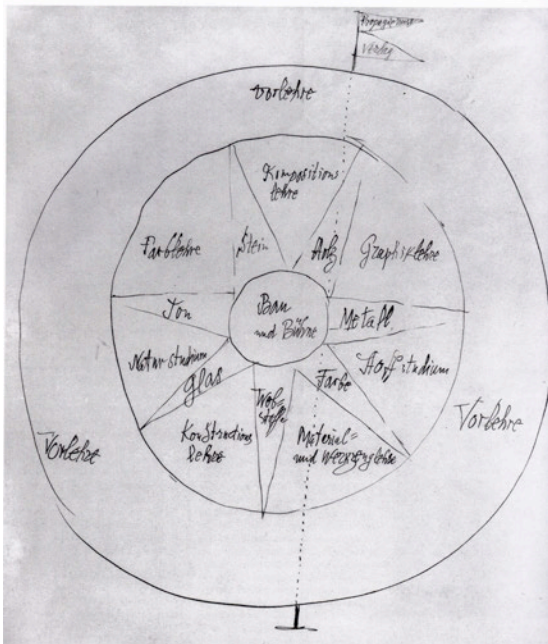
Fig. 4.7: Paul Klee, *Idea and structure of the Bauhaus,* **1922 (Fiedler, 2006:184)**
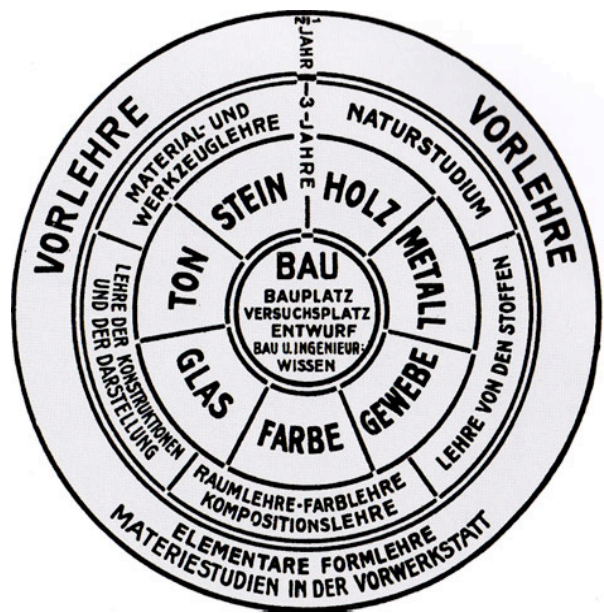
Fig. 4.8: Walter Gropius, *Diagrammatic presentation of Bauhaus syllabus*, **1922 (Fiedler, 2006:183)**

In Figures 4.7 and 4.8 the preliminary/foundation course of the Bauhaus is shown as a hub, without divisions. The foundation curriculum at the Bauhaus as shown in Fig. 4.7 and Fig. 4.8 focuses around the exploration of materials and generic art and design principles, unlike the Design Foundation Course Diagram in Fig. 4.6 where the hub is made up of different sections representing the different design disciplines and which is supported by an underlying structure representing drawing and the theory subjects which are integrated into the curriculum.

The Design Foundation Course/extended first-year forms part of the three-year diploma which is extended over four years. The curriculum incorporates the extended-first year curriculum for the different design disciplines offered at the CPUT by integrating language skills, numeracy skills and life skills into the foundation programme which together with the drawing and design communication studies provide a strong hidden framework (Fig. 4.6) to support and facilitate a greater understanding of the studio based design and drawing

subjects through exploration and experimentation, "I enjoyed every moment of my journey through the foundation course as it was a year of exploration, discovery and clearer observation" (graduating third-year industrial design student, 2011, (see Appendix M).

Although the data from the 2008 student feedback questionnaire shows that the students feel that the curriculum is well integrated as a whole (Fig. 4.9) the data shows a different picture concerning the integration of the practical subjects and numeracy skills (Fig.4.10).
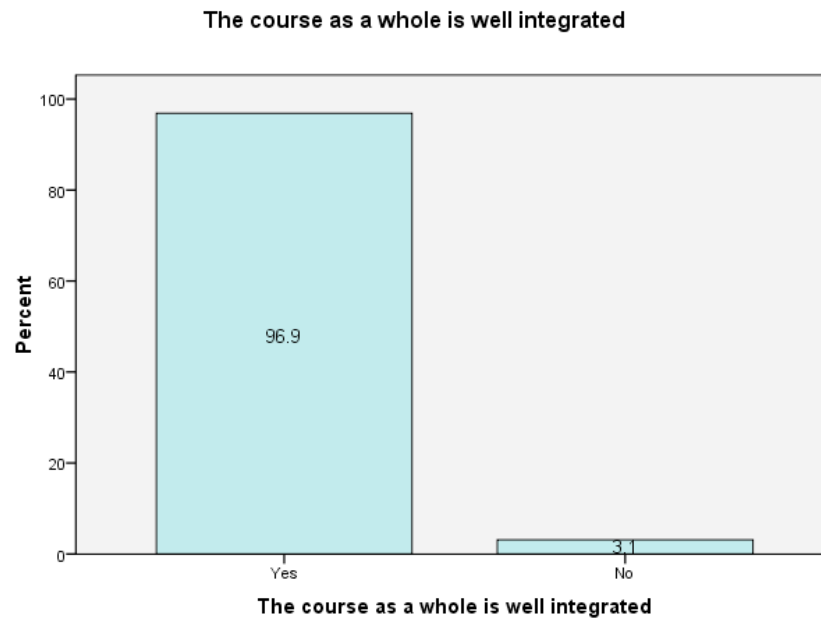
Fig.4.9: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Is the course as a whole well integrated? (Appendix J)

Fig.4.10: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Are the practical subjects and numeracy sufficiently integrated? (Appendix J).

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Based on the data from the questionnaire in 2008, the Design Foundation Course numeracy skills lecturer (formerly an experienced language and maths secondary school teacher) and who has been teaching the numeracy skills component since 2009 has been working systematically at integrating numeracy skills into the practical design component of the course (see the 2011 study guide, Appendix L). However, even though the numeracy skills component is being constantly developed and refined, the 2011 group of foundation students achieved poor results in the numeracy skills component of the foundation course which reflects the much wider problem of the low levels of maths literacy nationally, in primary and secondary school education (see National Benchmark Testing (NBT), South Africa, Department of Higher Education And Training, 2011).

4.3.1.1 The differences between the Design Foundation Course, historical foundation courses and the typical South African extended first-year programme

In the South African context, the complex multidisciplinary nature of the Design Foundation Course (and the fact that the design projects have specific practical and functional outcomes achieved through the different design disciplines) distinguishes the Design Foundation Course from the typical extended first-year programme that is used in many other fields of study. An extended first-year programme is vertical in structure and feeds directly into a specific discipline, providing support for further study into the particular discipline. What distinguishes the Design Foundation Course from the historical foundation courses of the Bauhaus, Ulm (see Figs. 4.7 & 4.8) and the Cape Technikon Basic Year (see Appendix A) is that the content is not generic, abstract and non-objective. Instead the Design Foundation Course projects are contextualized within the frame of the different design disciplines with specific practical and functional outcomes.

The intention is for students to get an overview of the different design disciplines at the CPUT through the multidisciplinary nature of the curriculum and to prepare them for further study in their design discipline of choice. With a broader critical awareness of design, and a basic understanding of design disciplines other than in their discipline of choice students should eventually be able to transfer knowledge and skills (Bruner, 1977:40,54; Edwards, 2005:7-8) within a variety of contexts, collaborating with designers from other disciplines in solving complex design problems.

4.4 Assessment methods

The complex multidisciplinary nature of the Design Foundation Course calls for different assessment instruments to be used for different purposes that are determined by specific

learning experiences as in Otl Aicher's teaching models (see Table: 2.3 in Chapter 2). Although the foundation staff use different assessment instruments for different purposes in assessing theory and studio based projects, all the foundation staff are guided by the principles of providing students with consistent, clear and regular feedback (Yorke, 2003:479).

In the literature review relating to the historical foundation course of the Bauhaus, three "core ideas" regarding assessment were identified as being essential for curriculum development (Goldstein, 1996), confirmed by educational theorists (Tyler, 1949; Wiggins & Mctighe, 2005): Assessment of the programme at different levels through staff and student feedback; pre-assessment of students when entering the course; and formative and summative assessment of student work. The first two areas will be discussed briefly and formative and summative assessment of student work will be discussed in greater depth. For the purpose of this study, focus is placed on the studio-based subjects (colour studies, drawing, industrial and graphic design) that I am directly involved in co-ordinating, teaching and assessing in the Design Foundation Course and from which the research data was collected.

4.4.1 Assessment through student and staff feedback

Student feedback is essential for the assessment of a programme at all levels, from the individual learning experiences to how the curriculum is seen as whole (Tyler, 1949:63; Wiggins & McTighe, 2005:338). Other than informal feedback given by the students and staff during contact hours in the studio, the students select two class representatives and two deputies from whom one Design Foundation Course representative is selected to represent the students on the faculty's student representative council. All these measures should ensure that information is made available from within and from without the foundation course.

Specific information regarding the foundation programme itself is collected through the Design Foundation Course student feedback questionnaire (Appendix D) which is completed by the students at the end of the foundation year of study. The data from the course feedback questionnaire is based on individual student feedback so that the responses tend to be more focused and detailed, in order to help ascertain if the "desired results" (Wiggins & McTighe, 2005:18-19) have been met by the course.

Regular foundation staff meetings are timetabled for every two weeks in which issues relating to all aspects of the foundation course, staff and students are discussed. The design staff from the design departments in the faculty, and the specialist part-time staff from

industry who co-teach with us, are consulted in the preparation and improvement of theory and studio based design projects before, during and after delivery (Tyler, 1949:83).

4.4.2 Pre-assessment

It is suggested that in ascertaining the purpose of a curriculum one should not only apply "backward design" in order to establish the "desired result" (Wiggins & McTighe, 2005:338) but that pre-assessment should be undertaken to establish what is needed to achieve the "desired result".

Pre-assessment was used at the Bauhaus (Schmitz, 2006:368) as a means of establishing epistemological entrance into the study of design. Applicants had to pass an entrance test to determine their potential for study in the field of art and design. If they passed the test they gained entry into the foundation course. It is standard practice in the field of the visual arts to use entrance portfolios, entrance tests, interviews and written essays to assess potential, with similar processes being applied by the individual design departments at the Cape Peninsula University of Technology (CPUT, 2011). However, there is great variation in the standards in the entrance requirements of the different design departments and referral of students into the foundation course is inconsistent.

During the 2008 filmed interview with the focus group (Appendix O), some of the students discussed how and for what reasons they decided to apply for entry in to the Design Foundation Course. Although she wanted to apply for interior design Sophia (graduated in 2011) was pressurised by her parents to apply for graphic design, she was turned down and applied directly to the Design Foundation Course to do interior design. Irene applied to jewellery design and was turned down. She then applied directly to the Design Foundation Course for jewellery design where she started very tentatively but as the year progressed she became more confident and blossomed, emerging as one of the top students in 2008. Irene continued to do well, graduating in jewellery design in 2011 as one of the top students in her year. Iris an underprepared student from a previously disadvantaged background failed first-year fashion design after which she was referred to the Design Foundation Course, as she was determined to do fashion design. She struggled in all areas in the foundation course but made sufficient progress to pass into fashion design first year. Although acknowledged by the design staff as benefiting underprepared students, these students are not always referred to the Design Foundation Course. There seems to be a lack of clarity about how the foundation course functions, which was identified as a weakness by one of the senior design academics:

Referring a candidate to the foundation course means that a department accepts
that particular person as a student in its undergraduate programme. However,
this is not reflected in the faculty structure.
(Senior industrial design academic – staff questionnaire, question 5: In your view
what are the weaknesses of the design Foundation Course?: Appendix G)

4.4.3 Studio-based design and object drawing subjects: Assessment as "reflection in action"

In the studio based design and drawing subjects, teaching, learning and assessment take place concurrently, best described as "reflection in action" (Schön, 1983:276-278).

- Use is made of standardized brief and assessment forms. Students are inducted into working from a design project brief, from the first studio based design project given in January. Standardized briefs and assessment forms are used, in order to assist the students (see 2011 study guide, Appendix L).

Objectives are clearly stated in project briefs
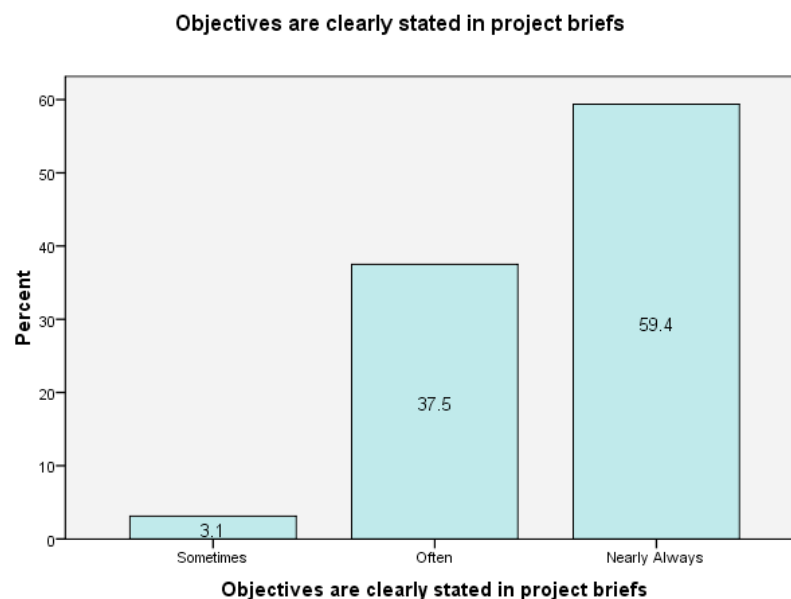
Fig.4.11: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Objectives are clearly stated in project briefs (Appendix J)

- The briefs and assessment forms are integrated. Critical cross-field criteria are integrated into all the practical project briefs. The criteria that are set out in a particular project brief are the same as those that appear on the accompanying assessment form (Wiggins & McTighe, 2005:18-19; Drew & Shreeve, 2005:8). Consistency is vital. It is important that the assessment criteria do not shift as a project progresses. However that is sometimes difficult to achieve, especially when a new project is taught which is still in the process of being developed.

- The design process is assessed at key stages. Arriving at an end product is part of a process and the assessment criteria should reflect this. The design process, which includes research and all preparatory work, is assessed at key stages, so that the student has a clear idea of the progress being made (Lecanides Arnott, 2009; Morkel & Voulgarelis, 2010). We found that this is particularly important with the interior design and architectural technology components of our course, where the students work on one project made up of different components that culminate in an end product after a three-week period, or with shorter complex projects such as the industrial design 3D puzzle project (see Appendix A). On the advice of one of the specialist industrial design lecturers who co-taught the 3D puzzle project, a mini hand-in system was devised to ensure that the students kept and met the requirements of the various stages of the design process in solving conceptual, formal and technical problems when making the 3D puzzles in order to meet the objectives and deadline of the specified brief (Lecanides Arnott, 2009).

- Design faults should be identified during the design process, so that students can make corrections before arriving at the end product. It is not fair to assess an end product and penalise a student for something that should have been assessed and corrected earlier on in the design process (see Appendix A).
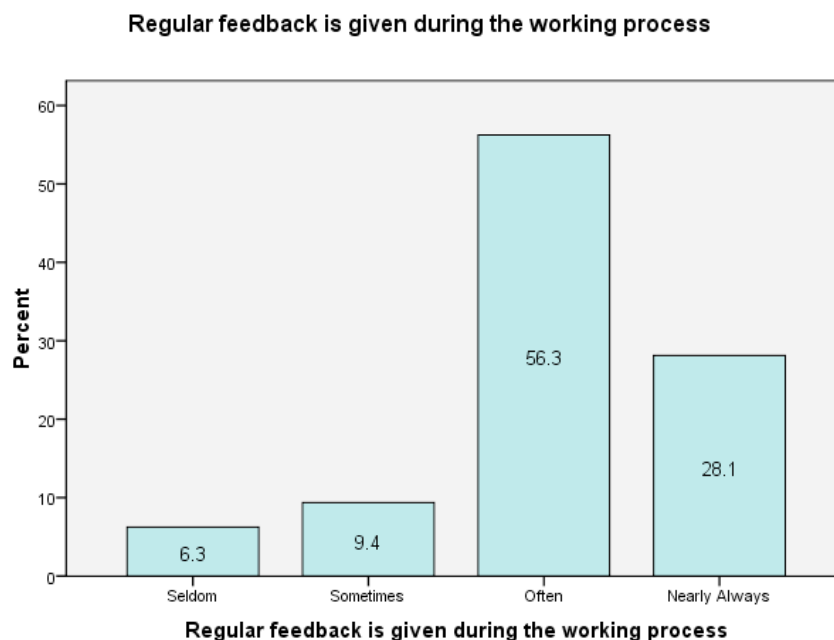
Fig.4.12: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Feedback is given during the working process (Appendix J)

4.4.4 Progress mark evaluations

The progress mark evaluation schedule has been devised so that all the projects in the Design foundation Course are fairly assessed and the marks allocated to each project reflect the basis of complexity and the duration of the learning experience. Learning experiences are of different lengths, with approximately three weeks allocated to each design discipline during the year work component.

Students are assessed for individual and group assignments (group assignments and group presentations are done mostly in the theory subjects). In the theory subjects they write tests and essays, and the four progress mark evaluations of the year are equally weighted at 25% making up the final mark of 100%. In studio-based design subjects and object drawing, marks are weighted in terms of the time allocation and complexity of individual projects, with the year marks adding up to a 100%.

| Progress Marks 2009 Design Foundation Course Extended First Year (CT campus)							
Project briefs specify submission dates for marking of practical, communication and numeracy projects							
Evaluation 1		**Evaluation 2**		**Evaluation 3**		**Evaluation 4**	
Rework submission date: 2 April **Final submission date:** **8 April**		**Rework submission date:** 18 June **Final submission date:** **25 June**		**Rework submission date:** 17 September **Final submission date:** **23 September** **25%**		**Final submission date:** **12 November** **30%**	
40% 2D		**50% 3D**		**30% 2D & 20% 3D**		**30% Final Project** **30% Exam Project**	
2D Design	**Marks**	**3D Design**	**Marks**	**2D Design**	**Marks**	**2D or 3D Design**	**Marks**
Graphic Design - Less is more - Type as meaning	25 25 = 50	**Industrial Design** - 3D Puzzles - Tile relief - Box for 3D puzzles	60 30 10 = 100	**Graphic Design** - Type & Image (labels for 3D puzzle box) - Stylistic analysis self-portrait	25 25 = 50	-Extra project in Design Discipline of choice	50
Surface Design - colour wheel - repeat pattern - potato print	10 35 10 = 55	**Interior Design** - Work space project **Jewellery Design** - Chain - Saw & Rivet - Recycled Piece	100 20 20 10 = 50	**Surface Design** - Colour Cushion - Black & White Cushion	35 10 = 45	- Exam project in Design Discipline of choice	50
Fashion Design - pattern making	50			**Fashion Design** - Fashion Illustration	50		
				3D Design **Architectural Technology** Adventure route **Jewellery Design** - Recycled Piece - Silver Ring -Drawing	100 10 20 20 =50		
Drawing		**Drawing**		**Drawing**		**Drawing**	
Figure Drawing	10	**Figure Drawing 2**	20	**Figure Drawing**	30	**Figure Drawing 4**	40 = 100
		Object Drawing -3 Different Materials - Matchbox Pumpkins + boxes	10 10 30	**Object Drawing** - Sweets all sorts	25	**Object Drawing Exam** (Add figure + object) divide by 2	25 = 100
Communication Studies Modules 1 & 2	25	**Communication Studies** Modules 3 & 4	25	**Communication Studies** Modules 5 & 6	25	**Communication Studies** Module 7 & 8	25
		Professional Business Pratice (Includes Numeracy, Computer Skills & Life Skills) Module 1	30	**Professional Business Pratice (Includes Numeracy, Computer Skills & Life Skills)** Module 2	40	**Professional Business Pratice (Includes Numeracy, Computer Skills & Life Skills)** Module 3	30 MLA

Fig. 4.13: Design foundation Course 2009 progress marks evaluation schedule. The figure drawing and object drawing are highlighted (each accounts for 50% of the final drawing mark of 100%). The four figure drawing evaluations are weighted incrementally (10%, 20%, 30% and 40% making up a final end of year mark of 100%). The object drawing projects are marked individually as in the other subjects

4.4.4.1 Assessment of figure drawing

Figure drawing is divided into four teaching blocks spread throughout the year (see Fig.4.13). Conceptual, formal and technical skills are developed incrementally. "Core ideas" are dealt with in more complex ways as the year progresses (Bruner, 1977:51-54). This is reflected in continuous assessment methods that are used during and on completion of figure drawing sessions (Lecanides Arnott, 2009: 3-5). The four progress mark evaluations for figure drawing are consistent with the continuous assessment process and are weighted incrementally (10%, 20%, 30% and 40%) making up a final end of year mark of 100%. The assessment process is holistic, forming part of the teaching and learning experience (Wiggins & McTighe, 2005:18-19; Drew & Shreeve, 2005:5-6). Students are expected to actively assess and evaluate the work that they produce. They are also expected to interact with the teacher, their peers and most importantly with their own work.
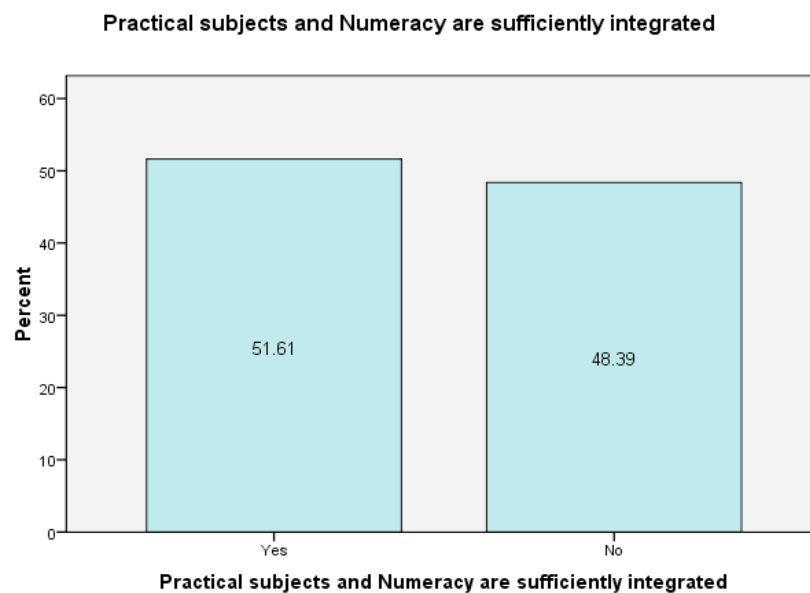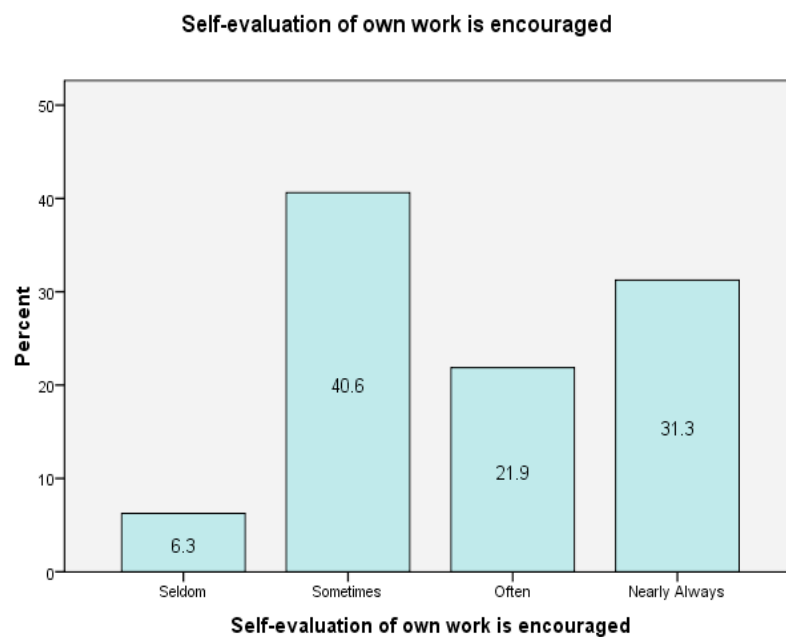

Fig.4.14: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Is self-evaluation of own work encouraged? (Appendix J)

4.4.5 Formative and summative assessment of studio-based design subjects

From January to September, all students, in whichever design discipline they are registered, follow the same syllabus. They learn about the visual language and basic design principles through the specific content of the seven design disciplines on offer at the CPUT. Projects in the different design disciplines are co-taught and assessed by foundation staff and design lecturers from the relevant design department. All studio-based design projects are

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continuously assessed. The continuous assessment process is formative and makes up the year mark, which accounts for 70% of the final mark (Fig. 4.15).

The remaining 30% of the final mark is derived from the last two projects in the specific design discipline of choice, in which a student is registered. The extra (penultimate) project is a bridging project between the year project and the examination (final) project in the discipline of choice. The examination project tests what students have learnt from all the preceding projects. The students' ability to think critically, to solve problems creatively, to meet deadlines and present their work clearly is tested by the summative assessment.

Practical Subjects Course Outline   Design Foundation Course (Extended First Year)   CPUT CT Campus   2009

Day															
Mon	5-Jan Term begins	26-Jan Less is More	16-Feb SD Potato Print	9-March ID Relief Tile	30-Mar 3D/Fig Draw	27-Apr	18-May Work-station	8-Jun Mat-box/3 Ma	20-July term 3 JD	10-Aug	31-Aug Arch Tech	21-Sept	19-Oct Exam Project	9-Nov	30-Nov
Tue	6	27 Less is More	17 SD Potato Print	10 ID Relief Tile	31 3D Puzzle Box	28 Object Draw/SD	19 Int.D Work-station	9 Match-box/3 Mat	21 JD Cast Ring	11 Arch Tech	1 SeptGD Portrait/Fig Draw	22	20 Drawing Exam	10	1 Dec
Wed	7	28 Less is More	18 FD Bag Construct	11 ID Relief Tile	1-Apr 3D Puzzle hand in	29 Object Draw/SD	20 Int.D Work-station	10Match-box/3 Mat	22 JD Cast Ring	12 Arch Tech	2 GD Self Portrait/Fig Draw	23 Handin extra proj	21 Exam Project	11	2
Thu	8	29 Less is More	19 FD Bag Construct	12 3D Puzzle	2 GD Labels	30 Object Draw/SD	21 Int.D Work-station	11 JD Jew Draw	23 JD Cast Ring	13 Arch Tech	3 GD Self Portrait/Fig Draw	Vac Use time for reworks	22 Exam Project	12	3
Fri	9	30 Less is More	20 FD Bag Construct	13 3D Puzzle	3 GD Labels	1-May	22 Int.D Work-station	12 JD Jew Draw	24 JD Cast Ring	14 Arch Tech	4 GD Self Portrait/Fig Draw		23 Exam Project	13	4
Sat															
Sun															
Mon	12 Leturers return	2-Feb Colour Theory	23 FD Bag Construct	16 Fig Draw/3D Puzzle	6 GD Labels	4 SD/Fig Draw	25 Int.D Work-station	15	27 Obj Draw Sweets	17 Arch Tech	7 GD Self Portrait/Fig Draw	5-Oct term 4 Extra	26 Exam Hand-in	16	7
Tue	13	3 Colour Wheel	24 FD Bag Construct	17 Fig Draw/3D Puzzle	7 GD Labels	5 SD/Fig Draw	26 Int.D Work-station	16	28 Obj Draw Sweets	18 Arch Tech	8 GD Self Port/Fig	6 project Subject of Choice	27 Exam moderation of	17	8
Wed	14	4 Colour Wheel	25 FD Machine sewing	18 Fig Draw/3D Puzzle	8 GD Labels	6 SD/Fig Draw	27 Int.D Work-station	17 JD Cut & Rivet	29 FD/ Fig Draw	19 Arch Tech	9 GD Self Port/Fig	7	28 practical subjects	18	9
Thu	15	5 Colour Wheel	26 FD Machine sewing	19 Fig Draw/3D Puzzle	9 GD Labels/ reworks	7 Fig Draw/SD	28 Int.D Work-station	18 JD Cut & Rivet	30 FD/ Fig Draw	20 Arch Tech	10 GD Self Port/Fig	8	29	19	10
Fri	16	6 SD Textile Gouache	27 Indaba Expo	20 Fig Draw/3D Puzzle	10 Vac	8 Fig Draw/SD	29 Int.D Work-station	19 JD Cut & Rivet	31 FD/ Fig Draw	21 Arch Tech	11 GD Self Port/Fig	9	30	20	11
Sat															
Sun															
Mon	19 Students register	9 SD Textile Gouache	2-Mar GD Typography	23 3D Puzzle/ Fig Draw	20-Apr Term 2 SD/Obj	11 Fig Draw/SD	1-Jun Work-station	22 JD Cut & Rivet	3-Aug Fig Draw/FD	24 Arch Tech	14 GD Self Port/Fig	12 Exam Project in subject	2-Nov moderation ends	23	14
Tue	20 Dean welcome kits, lock	10 SD Textile Gouache	3 GD Typo.	24 3D Puzzle/ Fig Draw	21 SD/ Object Draw	12 Fig DraW/SD	2 Int.D Work-station	23 JD Chain	4 Fig Draw/FD	25 Arch Tech	15 Extra Project: Subject	13 subject of choice	3	24	15
Wed	21 Orient/ draw	11 SD Textile Gouache	4 GD Typo.	25 VOTING DAY	22 SD/ Object Draw	13 Fig Draw/SD	3 Int D Work-station	24 JD Chain	5 Fig Draw/FD	26 Arch Tech	16 of choice	14 Exam Project	4	25	16
Thu	22 Orient/ Draw	12 SD Textile Gouache	5 GD Typo	26 3D Puzzle/ Fig Draw	23 SD/ Object Draw	14 Fig Draw/SD	4 Int D Work-stat	25 JD Chain	6 Fig Draw/FD	27 Arch Tech	17	15 Exam Project	5 Comm. Studies Hand-in	26	17
Fri	23 Orient/ Draw	13 SD Textile Gouache	6 GD Typo	27 3D Puzzle/ Fig Draw	24 Object Draw/SD	15 Fig Draw/SD	5 match-box/3 mat	26 JD Chain	7 Fig Draw/FD	28 Arch Tech	18	16 Exam Project	6	27	18 Term Ends
Sat								Vac							
Sun															MLA

GD=Graphic Design SD=Surface Design FD=Fashion Design ID=Industrial Design Int.D=Interior Design JD=Jewellery Design Arch Tec=Architecture

Fig. 4.15: Year work: 70% of final mark (formative assessment). Extra project and exam project: 30% of final mark (summative assessment)

The extra project and examination project are assessed and moderated during the end of year examination moderation, by a panel of examiners from the foundation course and design departments. Students are allocated exhibition spaces in the Design Foundation

Course studios in which to display their year's work, which includes the extra project and the exam project in the discipline of choice. They are required to submit a bound portfolio of all the research and preparation done for the studio-based projects in the design subjects.

The extra and examination projects are the culmination of the entire year's work. As the two final projects in the design discipline of choice they provide the foundation students with specific knowledge and skills for successful further study in first-year. It is appropriate that the summative assessment is based on performance in these two projects. The final projects of the foundation year were highlighted by past 2008 foundation students, who completed the National Diploma in Design in 2011, as being useful in preparation for further study (see Table 4.3).

4.4.5.1 The dilemma of breadth versus depth

Issues related to the extended first-year curriculum were discussed at a foundation/extended first-year meeting on 28 October 2011 attended by the Faculty of Informatics and Design curriculum officers, foundation staff and design staff. In discussing the Design Foundation Course the general opinion seemed to be that the current weighting and time allocation for the 70% formative assessment, and 30% summative assessment in the discipline of choice, did not allow sufficient time for the latter. It was proposed that the weighting should be changed for 2012 to a 60% for the formative assessment and 40% for the summative assessment allowing for more time in the discipline of choice.

The problem that was identified with the year work in comparison to the extra project and exam project in the subject of choice, was that of breadth versus depth. This problem continues to challenge the way foundation courses are assessed and structured (perhaps it is for this very reason that Sonntag (1969) recommended that foundation courses in art and design should be two years long). Although breadth of content in the integrated multidisciplinary curriculum is an acknowledged strength in the Design Foundation Course, lack of depth is seen as a weakness.

From feedback in the staff questionnaire a senior architectural technology academic saw the Design Foundation Course as more than adequately addressing fundamental design needs, but perhaps not meeting the technical and theoretical aspects needed by students entering the regular first-year of study, which he expressed in the following way:

> A lack of depth of learning as opposed to breadth. However it is accepted
> that this will be so, out of necessity

In the 2009 individual focus group interviews, two of the students (Appendix N) made similar observations about insufficient time having been given to technical considerations when asked if there was anything that needed improvement in the Design Foundation Course. Iris, fashion design student, said that the approach to learning how to use the industrial sewing machine in the foundation course was not adequate for what was required in first-year fashion design. In preparation for study in first-year, Ingrid, industrial design student felt that greater exploration and investigation of different materials was needed. However, a third student Brigitte also a fashion design student felt that one of the strengths of the foundation course was that it had given her a good technical grounding for first year. She made specific reference to the fact that having been introduced to the use of the industrial sewing machine during the Design Foundation Course had given her an advantage over students who were accepted directly into first-year fashion.

The opposing views of Iris and Brigitte about the adequacy of the introduction to the use of the industrial sewing machine in the Design Foundation Course has been insightfully identified by a graphic design lecturer in her response to the question, whether all students entering a tertiary institution to study design should participate in a foundation course. The sewing machine is not the subject of discussion, but rather the different levels of understanding and skill of students who enter first year from the foundation course, which raises the issue of breadth versus depth in the foundation curriculum:

> From my experience the students who pass into GD1 [graphic design, first-year]
> from the foundation course are students who have varying abilities – i.e. they do
> not all have the same level of skill or capacity. Some will be stronger than others
> much as is the composition of a first year class. This means that there are
> students who are stronger than the regular intake of first years as well as those
> who are weaker than the first year group. An obvious relationship therefore exists
> with the exit point result of the Foundation student and how they compare with
> first year students.
> (Graphic design senior lecturer – staff questionnaire, question 2: If you teach in
> first-year, how do the students in your first-year classes who have completed the
> Design Foundation Course compare with students who were accepted directly
> into first-year? (Appendix G))

What is demonstrated by the dilemma of breadth and depth in curriculum development and methods of assessment in the foundation programme is that an integrated approach is needed beyond the foundation year of study (Tyler, Bruner, Wiggins & McTighe). Foundation education should be assessed and the curriculum developed in the context of the National Diploma of Design, and the real world which needs knowledgeable, skilled, critically aware and skilled designers. Although often used, the process of "backward design" (Wiggins & McTighe, 2005:338) has been implemented in an intuitive and haphazard way. It needs to be acknowledged and implemented with intent through the application of an iterative creative/scientific method (Popper, 1978:132) in keeping with the design process.

4.5 Teaching approach

Similar to the assessment methods, the teaching approach in the Design Foundation Course is based on consistent guiding principles that are responsive to the needs of the students, which vary according to the intake each year. The emphasis is on the artist "designer" and the object "design outcome" (Sonntag, 1969:392). The development and refinement of an interactive student centred approach is a continuing process that is constantly adjusted to meet the aims of the different learning experiences that make up the curriculum.

4.5.1 Encouraging the use of the design process of "thinking through doing"

The intention of the teaching approach is to facilitate and encourage learning through the development of self-research, and the development of concepts in the studio-based design subjects through drawing and the hands-on "thinking through making" approach (Illich, 1973; Schön, 1983; Ranjan, 2005; Arens, 2010; Voulgarelis & Morkel, 2010). The emphasis is on "learning to see", of gaining an understanding of the visual language through analysis and synthesis (Sonntag, 1969:393; Arens, 2009:6-7). To this end, the lecturers in the theory subjects (which includes language, numeracy, computer and life skills) and the lecturers studio based design subjects work closely together so that "key ideas" are reinforced in all areas of learning (Tyler, 1949:19,157; Bruner, 1977:12,52; Wiggins & McTighe, 2005:296). The teaching and learning approach is demanding on staff and students in the beginning, but as the year progresses the benefits are revealed in the outcomes of the students work.

> Ja, brainstorming … you guys forced us to go through that design process, to go and get research, go and work with your ideas and get to an end product, and that was very hard for me at the beginning of the year. I struggled.
> (Clint, graduating architectural technology student 2011: filmed student focus group interview 2008 Design Foundation Course, Appendix O)

Through the continued application of the design process of "thinking through doing" the students gain in confidence and with time they are able to work more independently.

4.5.2 Foundation teachers as specialists and team teaching

In the studio-based design subjects the discipline specific projects, through which "core ideas" in art and design are learnt, are co-taught by the foundation staff (who have backgrounds in art and design), and by specialist design lecturers from the relevant design discipline (Appendix A).

4.5.2.1 Team teaching

The foundation teachers are responsible for leading the constructive team teaching process during the year-work component of the course. However the entire team of teachers contribute to the development and refinement of the project briefs and to the delivery and assessment of projects (see Appendix P: email correspondence with recommendations from the different individuals in the teaching team for improving the 3 D puzzle project in industrial design). The students are encouraged to question, investigate and explore in order to find appropriate and creative solutions to design problems. Being exposed to the opinions of a team of teachers encourages them to have to consider different options in approaching particular design problems as set out in the project briefs. The team teaching approach is used for all the studio-based design projects for the year-work component. Unlike the year work component the extra project is largely led and taught by the specialist design lecturers from the relevant design departments, with minimum input from staff during the examination project.

4.5.2.2 Foundation teachers: specialists in grounding education in design

It is essential for the foundation teachers to lead the studio-based design projects so that the purpose of the foundation curriculum is met.

An important aspect of the foundation course is that it incorporates the extended-first year curriculum for the different design disciplines offered at the CPUT by integrating language skills, numeracy skills and life skills into the foundation programme, which together with the drawing and communication studies provide an embedded framework to support and facilitate a greater understanding of the studio-based design and drawing subjects. The function of the foundation teachers is to provide this support as most of the students who enter the foundation course have a limited understanding of the field of visual arts, particularly in design. Some students who enter the Design Foundation Course mistake it for a programme in which they will be receiving technical skills training in the discipline of choice

in order to gain entry into the regular first year (McCoy, 1990). They have not been exposed to the creative design process through which design concepts are developed and they do not have a critical awareness of design. Design is a broad and complex field of study bridging art and science. It is not essentially about skills training, and the purpose of foundation education should be to provide a thorough grounding for designers (Buchanan, 1989:91-92; Nelson & Stolterman, 2003: Cross, 2007:122-125)
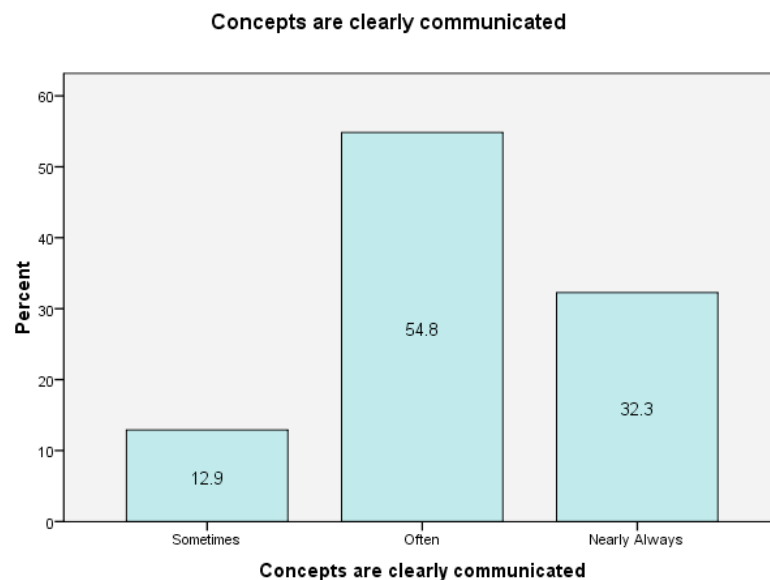
Fig.4.16: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Are concepts clearly communicated? (Appendix J)

4.6 "Learning to see"

It has been established in the literature that two of the primary functions of foundation education in the visual arts are to enable understanding of the visual language of art and design, and to develop a critical awareness of design.

As the language of design is largely visual, "learning to see" is a "core idea" which should be addressed from the beginning in educating a designer (Sonntag, 1969; Bruner, 1977:40,54; Wiggins & McTighe, 2005:296). The curriculum should be developed so that the "core idea" of "learning to see", is incorporated into long and short learning experiences in both the practical design studio-based subjects and the theory subjects (Tyler, 1949:83-84; Wiggins & McTighe, 2005:292). In order for it to be reinforced as a "core idea", "learning to see" needs to be dealt with in different situations using a variety of methods to build up knowledge and understanding in "seeing" by developing different skills, and thereby encouraging a greater

critical awareness of design. Through the careful sequential organisation of learning experiences in both studio-based design and theory subjects, the "core idea" of "learning to see" and a critical awareness of design can be developed concurrently. Different ways of seeing will be discussed starting with drawing.

The learning process is participative
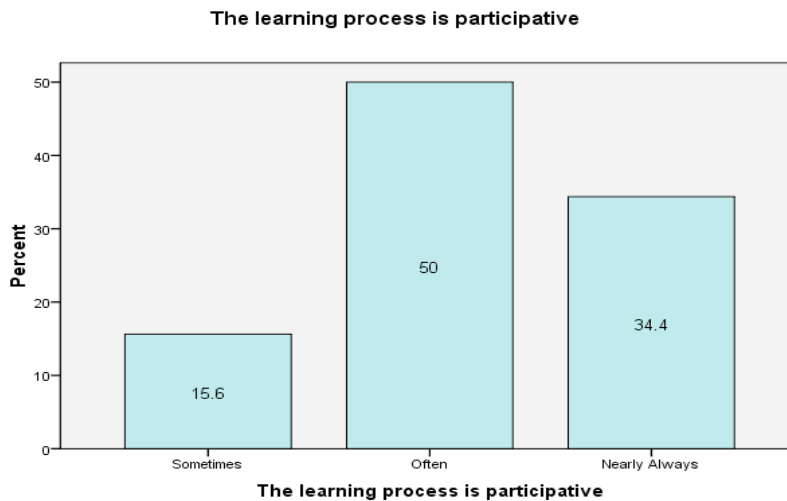
Fig.4.17: Bar chart showing analysis of data from the adapted 2008 Design Foundation Course student feedback questionnaire: Is the learning process participative? (Appendix J)

4.6.1 Drawing as "seeing"

Drawing is about learning to see. The quality of the drawing is directly related to how much a student is seeing (Nicolaides, 1969:5). 'Seeing' in this context is not just looking, but observing and understanding (Tzonis, 2001:22). Seeing is making use of all the senses through the portals of the eyes. It is about engaging with the world in a tangible and tactile way. Drawing is an activity that is fundamental to design, a foundation from which ideas are realized and developed visually (Tzonis, 2001:22).

The drawing course is divided into two equal parts, comprising figure and object drawing, which complement each other and reinforce important concepts. Figure drawing is divided into four teaching blocks spread throughout the year allowing for conceptual, formal and technical skills to be developed incrementally (see Fig. 4.18).

4.6.1.1 The human figure and "learning to see"

In our consciousness the human figure is iconic. It is a paradigm that we carry within us and for which we design. Drawing from the nude figure is an established and accepted practice in

art and design education (Goldstein, 1996:159-185). In order to gain an understanding of the human form and how it works, students learn to draw both nude and clothed figures.

Practical Subjects Course Outline   Design Foundation Course (Extended First Year)   CPUT   CT Campus   2009

	Cycle:	1	2	3	4	5	6	7	8	9	10	11	12	13	13a
Mon	5-Jan Term begins	26-Jan Less is More	16-Feb SD Potato Tile	9-March ID Relief Tile	30-Mar 3D/Fig Draw	27-Apr	18-May Work-station	8-Jun Mat-box/3 Ma	20-July term 3 JD	10-Aug	31-Aug Arch Tech	21-Sept	19-Oct Exam Project	9-Nov	30-Nov
Tue	6	27 Less is More	17 SD Potato Print	10 ID Relief Tile	31 3D Puzzle Box	28 Object Draw/SD	19 Int.D Work-station	9 Match-box/3 Mat	21 JD Cast Ring	11 Arch Tech	1 SeptGD Portrait/Fig Draw	22	20 Drawing Exam	10	1 Dec
Wed	7	28 Less is More	18 FD Bag Construct	11 ID Relief Tile	1-Apr 3D Puzzle hand in	29 Object Draw/SD	20 Int.D Work-station	10Match-box/3 Mat	22 JD Cast Ring	12 Arch Tech	2 GD Self Portrait/Fig Draw	23 Handin extra proj	21 Exam Project	11	2
Thu	8	29 Less is More	19 FD Bag Construct	12 3D Puzzle	2 GD Labels	30 Object Draw/SD	21 Int.D Work-station	11 JD Jew Draw	23 JD Cast Ring	13 Arch Tech	3 GD Self Portrait/Fig Draw	Vac Use time for reworks	22 Exam Project	12	3
Fri	9	30 Less is More	20 FD Bag Construct	13 3D Puzzle	3 GD Labels	1-May	22 Int.D Work-station	12 JD Jew Draw	24 JD Cast Ring	14 Arch Tech	4 GD Self Portrait/Fig Draw		23 Exam Project	13	4
Sat															
Sun															
Mon	12 Leturers return	2-Feb Colour Theory	23 FD Bag Construct	16 Fig Draw/3D Puzzle	6 GD Labels	4 SD/Fig Draw	25 Int.D Work-station	15	27 Obj Draw Sweets	17 Arch Tech	7 GD Self Portrait/Fig Draw	5-Oct term 4 Extra	26 Exam Hand-in	16	7
Tue	13	3 Colour Wheel	24 FD Bag Construct	17 Fig Draw/3D Puzzle	7 GD Labels	5 SD/Fig Draw	26 Int.D Work-station	16	28 Obj Draw Sweets	18 Arch Tech	8 GD Self Port/Fig	6 project Subject of Choice	27 Exam moderation of	17	8
Wed	14	4 Colour Wheel	25 FD Machine sewing	18 Fig Draw/3D Puzzle	8 GD Labels	6 SD/Fig Draw	27 Int.D Work-station	17 JD Cut & Rivet	29 FD/ Fig Draw	19 Arch Tech	9 GD Self Port/Fig	7	28 practical subjects	18	9
Thu	15	5 Colour Wheel	26 FD Machine sewing	19 Fig Draw/3D Puzzle	9 GD Labels/ reworks	7 Fig Draw/SD	28 Int.D Work-station	18 JD Cut & Rivet	30 FD/ Fig Draw	20 Arch Tech	10 GD Self Port/Fig	8	29	19	10
Fri	16	6 SD Textile Gouache	27 Indaba Expo	20 Fig Draw/3D Puzzle	10 Vac	8 Fig Draw/SD	29 Int.D Work-station	19 JD Cut & Rivet	31 FD/ Fig Draw	21 Arch Tech	11 GD Self Port/Fig	9	30	20	11
Sat															
Sun															
Mon	19 Students register	9 SD Textile Gouache	2-Mar GD Typography	23 3D Puzzle/ Fig Draw	20-Apr Term 2 SD/Obj	11 Fig Draw/SD	1-Jun Work-station	22 JD Cut & Rivet	3-Aug Fig Draw/FD	24 Arch Tech	14 GD Self Port/Fig	12 Exam Project in subject	2-Nov moderation ends	23	14
Tue	20 Dean welcome kits, lock	10 SD Textile Gouache	3 GD Typo.	24 3D Puzzle/ Fig Draw	21 SD/ Object Draw	12 Fig DraW/SD	2 Int.D Work-station	23 JD Chain	4 Fig Draw/FD	25 Arch Tech	15 Extra Project: Subject	13 subject of choice	3	24	15
Wed	21 Orient/ draw	11 SD Textile Gouache	4 GD Typo.	25 3D Puzzle /Fig Draw	22 SD/ Object Draw	13 Fig Draw/SD	3 Int.D Work-station	24 JD Chain	5 Fig Draw/FD	26 Arch Tech	16 of choice	14 Exam Project	4	25	16
Thu	22 Orient/ Draw	12 SD Textile Gouache	5 GD Typo	26 3D Puzzle/ Fig Draw	23 SD/ Object Draw	14 Fig Draw/SD	4 Int D Work-stat	25 JD Chain	6 Fig Draw/FD	27 Arch Tech	17	15 Exam Project	5 Comm. Studies Hand-in	26	17
Fri	23 Orient/ Draw	13 SD Textile Gouache	6 GD Typo	27 3D Puzzle/ Fig Draw	24 Object Draw/SD	15 Fig Draw/SD	5 match-box/3 mat	26 JD Chain	7 Fig Draw/FD	28 Arch Tech	18	16 Exam Project	6	27	18 Term Ends
Sat								Vac							
Sun															MLA

GD=Graphic Design SD=Surface Design FD=Fashion Design ID=Industrial Design Int.D=Interior Design JD=Jewellery Design Arch Tec=Architecture

Fig. 4.18: Design Foundation Course 2009 practical subjects course outline shows the four figure drawing blocks (light orange: Group A; and dark orange: Group B) and the object drawing blocks (yellow: Groups A & B together)

4.6.1.2 Continuity and change in the approach to drawing

There has been continuity in the structuring of the drawing curriculum and in the teaching approach to figure drawing as it has developed over time. It is based on how I was taught as a student, the experience I gained through my own creative work, and in teaching drawing to students at different levels at various higher education institutions over the years. I work with two opposing approaches to "learning to see" to which I was introduced as a student, based on the concepts put forward by Kimon Nicolaides (1969). These he named "gesture' and 'contour". I use these approaches as a basis for teaching the students to see. Although my

approach has deep roots, it has evolved to fit the current context of teaching underprepared students in the Design Foundation Course. The learning experiences, and the teaching approach, are adjusted and changed to meet the needs of the foundation students. These vary from year to year depending on the individuals in the class (Bruner, 1977:40).

4.6.1.3 Gesture and Contour Drawing: two opposite ways of "learning to see"

Gesture drawing is done in quick energetic spurts, and is made up of many, loose, broken lines searching for form through movement (Fig. 4.19 and Fig. 4.21). Contour drawing is done slowly, in a carefully considered manner, focusing on eye-hand co-ordination, defining the edge of a form, and is made up of single, clean lines (Fig. 4.20 and Fig. 4.22).

Fig. 4.19: Figure gesture drawing 2009, compressed charcoal on newsprint

Fig. 4.20: Figure contour drawing 2008, black fine-liner pen on cartridge paper
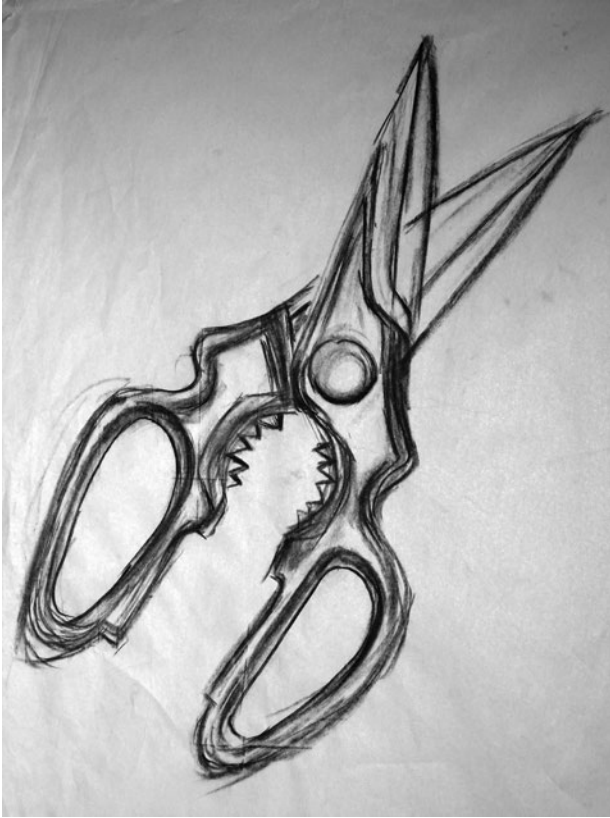
Fig. 4.21: Object gesture drawing 2005, compressed charcoal on newsprint
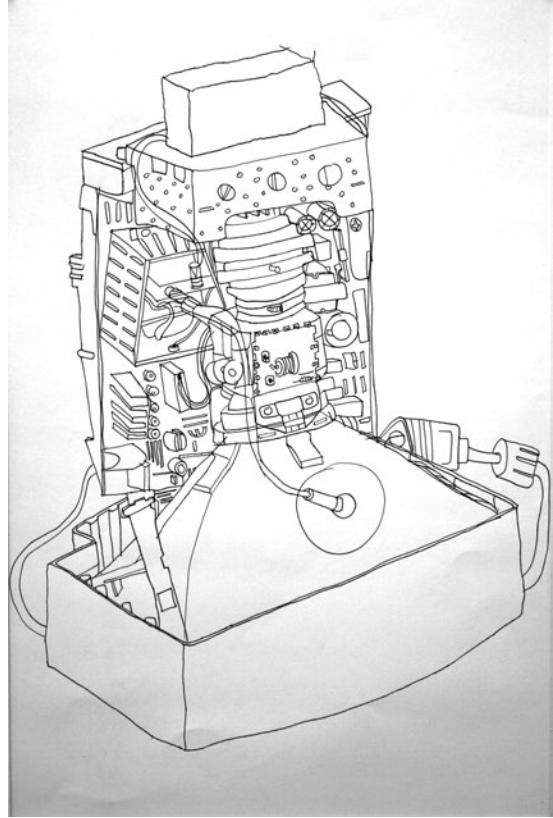
Fig. 4.22: Object contour drawing 2006, black fine-liner pen on cartridge paper

In gesture drawing the main idea is to develop visual perception through direct experience, by persuading the students to work directly from themselves. Seeing is not limited to the mirror image or realistic photographic likeness, but is a full experience, of touching, of connecting with the live model in front of them, "seeing" the model through their own eyes. The students are often encouraged to get into the same short dynamic pose as the model, during a particular gesture drawing, so that they can feel which parts of the body are stretching and pulling as reflected in the specific pose (Nicolaides, 1969; Appendix A).

A life-sized skeleton made of a synthetic material is also placed in the studio for reference so that the students are made aware of the underlying structures of the human form. However, the emphasis is on "seeing" the live model and not on the scientific study of anatomy. The purpose of the drawing exercises is to develop the students' visual perception of the world, making use of their five senses through their eyes. They are also shown how best to hold and use their different drawing instruments, and which drawing media to use to best meet the purpose of a particular drawing exercise. The students will do up to twenty to thirty drawings in a drawing session of two hours when they do gesture drawing, building up concentration

and visual memory, encouraging them to engage with what they are drawing at any given time to the exclusion of other external influences.

When doing contour drawing the students have to work for extended periods of time. At the beginning of the year their ability to concentrate is short and thus the amount of information they see is limited. However as the year progresses and the students' eye-hand co-ordination improves they become more confident and are able to work on a single contour drawing for up to two hours. The quality of line is sensitised and describes the particular forms referred to.

Contour drawing may be likened to driving a car, where one develops the ability to manipulate the changing of gears, paying attention to the traffic while driving. Similarly, when making a contour drawing the students learn to look very intensely at the model when drawing and not at the paper on which they are drawing. They only look back at the paper when a line that describes the particular form that they are drawing seems to come to an end. The sense of touch through "seeing" is vitally important when doing contour drawing. They have to be able to imagine that they are touching the form they are drawing with their eyes, and that there is a thread which connects their eyes to the hand holding the fine-liner pen they are drawing with, so that they are "drawing" the form with their eye and their drawing hand in unison.

As the year progresses the students become more empathetic towards the human figure. Through the emphasis on "seeing" the whole, their gesture and contour drawings begin to capture on paper the embodiment and the essence of the particular pose that the model is in at a given time.

4.6.1.4 "Learning to see" the whole

One of the most important aspects in life drawing is seeing the figure as a whole, and learning to move through it, relating the different parts to each other. The challenge lies in the fragmented way in which the students approach their drawings and indeed their work generally. Both gesture and contour drawing deal with seeing the whole. Relating the different parts of the human figure to each other and the ability to relate different forms in space in an object drawing is not an end in its self. The aim is to transfer the fundamental principle of working with the whole in drawing to the design process. The "desired result" (Wiggins & McTighe, 2005:338) is to get the students to see that the different parts of a design should be developed together from the beginning, from the self-research stage to when the idea is first visualized, right through to the making of the final product. The ability to see the whole and to

develop the different parts at the same time should be considered as a "core idea" in the iterative creative process of designing (Magee, 1975:70-71).

4.6.1.5 Conquering fear through "learning to see"
Initially there may be a lack of confidence and great uncertainty amongst the students, as the figure drawing classes are interactive and require the students to engage completely, in a very physical way. The students are fearful (Nelson & Stolterman, 2003:22), as the process is direct and exposes their visual strengths and weaknesses. The time that it takes differs, but most of the students engage in the process and as soon as they can see that they are making progress, the fear diminishes and confidence and self-awareness begin to grow. This in turn usually leads to exponential development in the way the students approach their work, which is reflected in the resulting drawings as what it does is to " "raise his [the student's] sights" above the narrow channel through which he normally sees" (Schön, 1983:314).

> My figure drawing, I don't how it happened. I used to do them before, but I never knew that I could do better, that I could do more. But now you are telling us to do this and to … to push. Here you really, really pushed me to work with the form, to do more, and so I was like I can do more, but before I never knew that I could do more. I never knew that I could draw the form that I was seeing. But now I know that if I push myself, then I can do well, I can improve.
> (Iris, fashion design: (Appendix O) filmed interview of focus group from 2008 Design Foundation Course)

However there are always a few students who withdraw from the drawing process as has been described, before the new "way of seeing" becomes a habit and they revert to approaching their work as they did before participating in the intensive figure drawing classes. Perhaps because the drawing approach demands a full commitment, or perhaps they do not want to take risks. Whatever the reason when this happens, progress in "seeing" is hampered. The biggest challenge is in helping students to stay the course until the new "way of seeing" becomes a habit.

4.6.1.6 Students who struggle to "learn to see" through figure and object drawing
Approximately ten percent of the class each year struggle to "learn to see" through drawing (see Fig. 4.23) and for these students other means of gaining an understanding of the visual language is essential, such as exploration in the use of colour, stylization and simplification, working in three-dimensions, visual analysis in the theory subjects and using the formulaic drawing conventions of the different design disciplines such as perspective and axonometric drawings, and sections and plans to scale in order to visualise ideas.

Student A

Student B

Fig 4.23: Comparison of two gesture drawings of feet done during the same drawing session in the second semester of the foundation year of study. Student A's drawing has not shown much progress from the first figure drawing session of the year, whereas Student B who started off drawing poorly benefited through "learning to see" from drawing. Student A was not receptive to the drawing process and never took the risk of allowing herself to enter into the unknown without fear, unlike student B who engaged and became immersed in the drawing process from the very first drawing session (Design Foundation Course student gesture drawing studies of feet, July 2009, compressed charcoal on newsprint)

However, even if sufficient progress is made to enter into the first year of study in the design discipline of choice, by exposing these students to different ways of seeing, by developing their perceptual and cognitive abilities through means other than figure and object drawing, these students are still at a disadvantage during the following years of study because of the lack of drawing ability. Jane, one of the students from the focus group who struggled with drawing describes how she changed from fashion to jewellery design because she found that the act of physically making jewellery, of "thinking through making" a more concrete and direct way of dealing with design problems rather than visualising ideas on paper.

> I did apply for fashion, but I never got in. I didn't know about this course, so they said I should try here and now I want to do jewellery. I never thought of jewellery design as a course, I didn't know it was offered. It was the last thing I thought I was going to be doing, but I really enjoy working with my hands and creating things rather than drawing … I like making things that fit my fingers and arms now. Like I've always wanted to do fashion since I was a kid. My mom was in the fashion industry, but the [fashion design] projects that we did was a block.
> (Jane, jewellery design student: Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

4.6.1.7 "Learning to see" through criticism and analysis

Learning to 'see' does not only occur through the act of drawing, but also through students learning to discuss and analyse their own and each others' drawings. The physical act of

learning to see through drawing is transferred to the cerebral act of 'seeing' by looking at the drawings critically (Fig.4.24).

Student A Section study May, 2009

Student B Section study May, 2009

Student A section study July, 2009

Student B Section study July, 2009

Fig. 4. 24: Comparative analysis of section studies by two students (A and B) done in the figure drawing block in May and in the next figure drawing block in July 2009. The drawings in July followed after an intensive group critique with the students had taken place. (Design Foundation Course extended gesture drawing section studies, May and July 2009, compressed charcoal on newsprint)

This is done through comparative analysis. As Pierre Bourdieu explains, in order to understand something, one has to be able to compare it to something else, preferably its opposite. He uses Classical and Baroque painting as examples of comparative analysis (Bourdieu, 1967:346).

Learning through comparative analysis is a means for students to develop their critical thinking skills. The students engage in the lower levels of the cognitive domain according to Bloom's taxonomy of learning (knowledge, comprehension, application, analysis and synthesis). However the highest level of cognition, of evaluation is introduced early on in the

figure drawing through the studio group critique, and in "learning to see" through comparative analysis of their own and others work. Making use of the evaluative level of cognition (dealing with complex ideas at an appropriate level early on) is an approach that is supported by Arens, (2009:1) in the teaching of architecture students and is reaffirmed by Wiggins and McTighe (2005:292, 314) and Bruner (1977:33,40,52).

The students learn to critique and assess their own and each others' work with the guidance of the drawing teachers. The studio group critique as a method of assessment and learning, described as "reflection in action" (Schön, 1983:276), was introduced by Joseph Albers (Fig. 4.25) in the foundation course at the Bauhaus (Schmitz, 2006:375), and it continues to be used in drawing and in other design subjects in the Design Foundation Course (Fig 4.26). As the students' levels of visual literacy and their critical thinking abilities increase, they use comparative analysis incrementally, not only in drawing but in the theoretical and practical design subjects.

Fig. 4.25: Assessment of foundation student work by means of a studio group critique of abstract three-dimensional designs conducted by Joseph Albers at the Bauhaus (1928-29) (Fiedler, 2006:374)

Fig. 4.26: Figure (life) drawings arranged on easels in the Design Foundation Course Studio in preparation for a group critique using comparative analysis, September 2009

4.7 Transference of knowledge and skills

The forming of new learning habits needs to be reinforced through repetition in studio-based design subjects. Learning habits are not reinforced through repetition by drill, by repeating the same thing in the same way, but through curriculum development by designing learning experiences of different duration comprising "core tasks" which reinforce the understanding of fundamental principles, "core ideas" in design (Wiggins & McTighe:292). "Thinking through making" in different but related and progressively more complex situations through the transference of knowledge and skills (Illich, 1973:9-31; Schön, 1983; Bruner, 1977:12,52; Wiggins & McTighe, 2005:82-104), is applied to all fundamental design principles such as simplification and stylization, working with the whole, composition, the use of negative spaces and colour as "seeing". The "core ideas" are reinforced in all the studio-based projects through the content of the different design disciplines.

Transference of the "core idea" of colour as communicating meaning and form from one subject to another will be discussed in detail as it has been identified as an essential element in "learning to see" and in "critical visualization" (Livingstone, 2002; Gage, 2006; Hall, 2008) as it bridges art and science

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4.7.1 Transference of the "core idea" of colour as "learning to see"

The complex and essential aspect of colour in design demonstrates very clearly that through transference of knowledge and skills and the repetition of fundamental principles ("core ideas") in different situations new learning habits are successfully established.

"Learning to see" colour in a foundation programme in design should be considered a "core idea" as it extends the students' perception of the world (see table 2.2 in Chapter 2). Similar to "learning to see" through drawing, which is not only about the physical act of drawing, colour cannot simply be regarded scientifically as an optical perception phenomenon, because colour has symbolic value. Together with drawing, colour is an essential element in the "critical visualisation" of ideas (Hall, 2008:120-131).

Colour conveys meaning about specific cultures, and if one takes the view that "designers create culture" (McCoy, 1990:21) then, as artists have done for many centuries (Livingstone, 2002:10,37,137), designers should use colour (pigment) symbolically, to express emotions and luminance (colour values) to convey form, shape, pictorial depth and three-dimensionality in their designs.

Learning to perceive and use colour meaningfully for expressive and symbolic reasons, and to convey form and space through transference to the different design disciplines has been identified by past students as being one of the successful aspects of the curriculum of the Design Foundation Course.

During the filmed interview with the focus group, Peter (industrial design), Ingrid (industrial design) and Violet (surface design) highlighted different aspects regarding colour studies in the foundation course. Peter said that learning to mix colours for use in the colour wheel helped with the following surface design project and all other projects that needed colour. Ingrid commented that, "[in] colour theory [it] doesn't really matter what field you decide to go to in the end because you just need that". Violet who discovered how to use colour in the foundation course, and who changed from fashion to surface design because of the emphasis on the use of colour in surface design spoke about the transformative power of colour:

> I thought fashion was the greatest thing in design, but when I came here I knew
> nothing about colour … I found fashion design very simple for me. There weren't a
> lot of colours I could use to do stuff. Surface design is a little easier because you
> can come up with a separate design and you use patterns, and then you just add

colour and it becomes something else. (Violet, graduating surface design student 2011:
Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

4.7.2 Continuity and change in the approach to colour

The literature shows that there has to be consistency in guiding principles, or else it is not possible to develop an integrated curriculum. The approach to teaching colour at Ulm was affected because of a lack of agreement between the use of scientific and expressive approaches to the study of design. The resulting discord led to the discontinuation of colour studies altogether (Ranjan, 2005:4; Betts, 2006:76).

4.7.2.1 Continuity in the practical exploration of colour

In the design departments at the CPUT there is continuity in the practical exploration of colour. The on-going need for exploration and practical application of colour seems to have ensured the continuation of colour studies in the curriculum. The colour wheel is still painted in gouache using the original template designed by one of the foundation teachers. Gouache is used to teach students to mix colour, during which process they "learn to see" colour relationships. There is also continuity in the use of the grid system which was devised by Itten at the Bauhaus and refined by Albers in his teaching, and in his own creative work (Goldstein, 1996:277). The grid system was used in the Basic Year at the Cape Technikon, and continues to be used by the same teachers in design currently at the CPUT (Appendix A).

In the studio-based design projects, the basic contrasts of light/dark, warm/cold and the mixing of chromatic greys are still in use. In keeping with the commercial printing process, magenta, cyan and process yellow are used as primary colours, from which the secondary and tertiary colours and their tints and tones are mixed. The knowledge gained from the colour theory lectures, from learning to mix colours, and the understanding gained from making the colour wheel is transferred for appropriate practical application in the different design disciplines, through varied media such as gouache, colour inks, colour pencil crayon and collage.

The sequence of transference of knowledge and skills, of the "core idea" of colour as "learning to see" and how it is taught in the Design Foundation Course, is best described by presenting examples of student work that will form a "visual essay". The precedent for the use of the "visual essay" was by John Berger (1973; 36-43; 66-81; 114-127) in his book *Ways of Seeing,* in which three of the chapters are "visual essays" without words. Colour is used with other "core" elements in design to construct visual meaning and to communicate

ideas, such as: working with the whole; the use of composition; negative spaces and simplification and stylisation, all of which are present in the student work selected to form the "visual essay" that follows (Fig.4.27)

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Fig. 4.27: Visual essay showing developmental use of colour through the year in various contexts in different design disciplines (Design Foundation Course student work done between 2003 – 2011)

4.7.2.2 Change in the approach to teaching colour theory

Unlike at the Institute of Design at Ulm colour studies continue to be taught at the CPUT, in spite of the current differences in approach to colour theory. The inconsistent approach to colour theory began in the late 1990s and early 2000s as a result of technology having enabled huge advances in neurobiology and in the science of optics, which challenged the Newtonian approach to seeing light and colour (Livingstone, 2006:171).

Prior to this, in the previous Basic Year foundation course and until recently in the Design Foundation Course and generally in the design departments, the approach to teaching colour was based on Itten's treatise, *The Art of Color (1963)*, where colour effect is understood through seven contrasts (light/dark; contrast of hue; warm/cold; complementary contrast; the contrast of saturation; simultaneous contrast and extension). Some of the more basic contrasts such as light/dark, warm/cold and the use of chromatic greys from mixing complementary colours are still being taught (Appendix A).
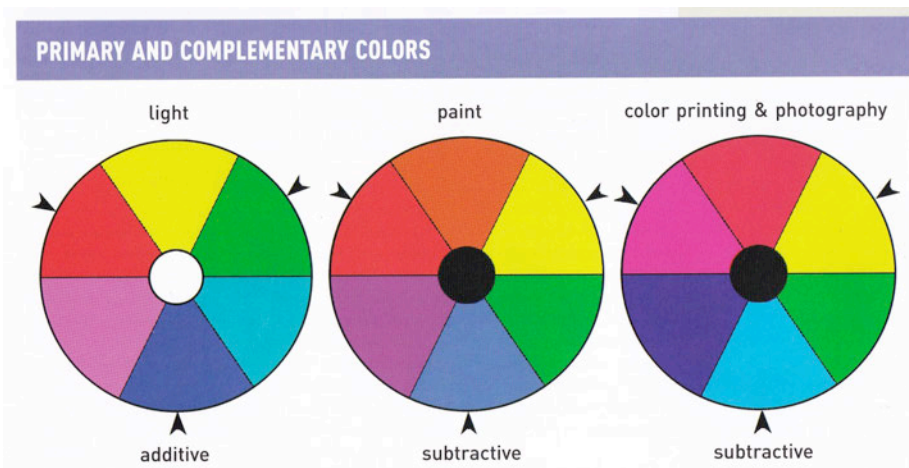
Fig. 4.28: Colour wheels: Primary and complementary colours (Livingstone, 2002:171)

The colour theory lectures have been restructured since 2011 in the Design Foundation Course by incorporating three different approaches. The theory for the study of colour is being developed from the use of the artist's colour wheel (pigment), the printer's colour wheel (pigment) and the light colour wheel (luminance) and is therefore drawn from the fields of art, technology and science (Fig. 4.28). This approach is in keeping with the view that design bridges art and science. A practical use of colour based on colour theory is being developed further in the Design Foundation Course from the comparative perspectives of art, Itten (1963) and Gage (2006), technology and science Livingstone (2002).

4.7.3 Building up confidence and self-awareness through transference of knowledge and skills

There is strong evidence from the design staff (Appendix K) and past foundation students (see Table 4.3) that the gaining of an understanding of the fundamental principles of design through the content of the different design disciplines, and of the transference of knowledge and skills from one discipline to another, leads to confidence and self-awareness in the foundation students.

There is mixed feedback regarding colour and how knowledge and skills are transferred from studio-based projects in the different design disciplines in the Design Foundation Course, except for specific mention having been made by a senior lecturer in graphic design about the connection between industrial design and graphic design in the 3D puzzle project:

> Creatively and conceptually – the students have a good basic understanding of a creative brief and the research and thinking process required to complete this. I see evidence of this in integrated projects like the toy/puzzle in the packaging/box"   (Graphic design senior lecturer: Appendix K, response to question 1).

It will be interesting to see if any differences will be noticed by the design staff in response to the implementation of the new approach to colour theory, particularly in the way foundation students deal with colour when they enter first-year. Past foundation students see the colour component in the Design Foundation Course as significant in "learning to see", for use in the design process, and in raising self-awareness and building up confidence.

Unlike the drawing component which was specifically singled out as a strength in the Design Foundation Course by graphic, surface and interior design staff (Appendix K), colour was not particularly mentioned as a strength or a weakness, except for one insightful observation that was made by a senior graphic design academic. He identified colour awareness and the ability to visualize as being part of the development of the student as a whole person during the foundation year, in which he saw the diagnostic function as being of importance in building up confidence:

> Mainly the development of emotional preparedness, alongside the exposure to possibility, development of work ethic, development and improvement of skills such as visualisation, colour awareness, and knowledge of the idiosyncrasies of the various fields. The ability to discern one's aptitude is invaluable for students' confidence that they land up registered for the discipline that they are most suited

to. This ensures a higher retention, resulting in smoother running of the undergraduate programmes. (Graphic design senior lecturer: Appendix K)

The aim of developing the student as a whole person during the foundation year was also identified as a strength by one of the history and theory of design lecturers, and was described as " developing inter-personal and personal life skills" and "giving students confidence in their abilities and in themselves" (Appendix K: question 4).

In the filmed interview with the focus group it was clear that the students were aware of the sequential and integrated nature of the curriculum, as well as the benefit of fundamental design principles being transferred and dealt with in different ways from one design discipline to the other. This was confirmed by the responses from the student course feedback questionnaire completed in 2008 (Table.4.4)

Table.4.4: Data analysis from the 2008 Design Foundation Course student course feedback questionnaire: Does the order in which the projects for the practical subjects are taught allow for the incremental development of conceptual and technical skills? (Appendix J)

Q15 The order in which the projects for the practical subjects are taught allows for the incremental development of conceptual and technical skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	93.8	100.0	100.0
Missing	System	2	6.3		
Total		32	100.0		

4.7.4 Knowledge and skills transferred from the drawing subjects into the different design disciplines

Although constantly reinforced in the content of projects and through the teaching approach, the transference of knowledge and skills from one subject area to another does not always happen with ease. In the filmed focus group interview it was mentioned that it could be seen from the architectural technology presentations during the summative assessment of the examination projects that some of the students had applied what they had learnt in their drawing subjects to their architectural technology conceptual thumbnail sketches, but not to their finished drawings. Clint responded by saying that it was difficult to transfer what he had learnt from figure and object drawing to the finished architectural technology plan, section

and elevation drawings, especially as he had fixed ideas about what the architectural technology drawings should look like.

> The thing is, when you look at architecture drawings you have this image, these clear lines, only line work, but [the architectural technology lecturer] really tried to get it across that you must work with your drawings, that you must make it communicate, not that you have to explain yourself, the drawings explain themselves … And like we struggle with that … I tend to go back, I tend to think about architecture drawings as just lines, no depth and stuff like that and I'm still struggling to get the mind set.
> (Clint, graduating architectural technology student 2011: Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

The conversation about drawing continued but the emphasis shifted to how drawing was used to initiate the design process for the visualisation of ideas, with Glenda, interior design student saying, "Ja, it's like a key for a door, and when the door opens … that's what I have learnt from this course" (Appendix O).

Ingrid's response to Glenda's insight was the observation that what was learnt in the figure drawing was not an end in itself.

> In terms of figure drawing, that is one of the most essential parts of this course, because you know, you like, apply it to everything, every project that you do. To conceptualize as a whole, is basically what you're doing when you're doing figure drawings, and to take that back into your projects.
> (Ingrid, graduating industrial design student 2011: Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

What emerged was that, according to their different conceptual and perceptual abilities, the focus group as a whole understood and made use of the "core idea" of the transference of knowledge and skills from one design discipline to the other. They were critically aware that transference made it easier to engage in the design process by introducing what they had learnt previously into different and new situations. "The key to opening the door" to design was the design process ("thinking through doing"), as was so aptly described by Glenda (Appendix O).

4.8 Integrating theory with practice

From the observations that were made in the filmed interview regarding the students' critical awareness of the significance of transference of knowledge and skills, their understanding of the integration of theory with practice also functions at different levels (see Table: 2.5 in Chapter 2).

According to the responses from the student course feedback questionnaire many of the students feel that independent thinking is encouraged and creative problem solving is emphasised (Appendix J: questions 5 & 6). However, the mixed response from the question asking if self-evaluation of own work is encouraged (Appendix J: question 9) (Fig. 4. 29), is more revealing in terms of the degree to which the integration of theory and practice has been achieved in the curriculum, assessment methods and the teaching approach of the Design Foundation Course. Some of the observations made during the filmed interview with the focus group were more specific about what still needs to be achieved in order to integrate theory with practice.
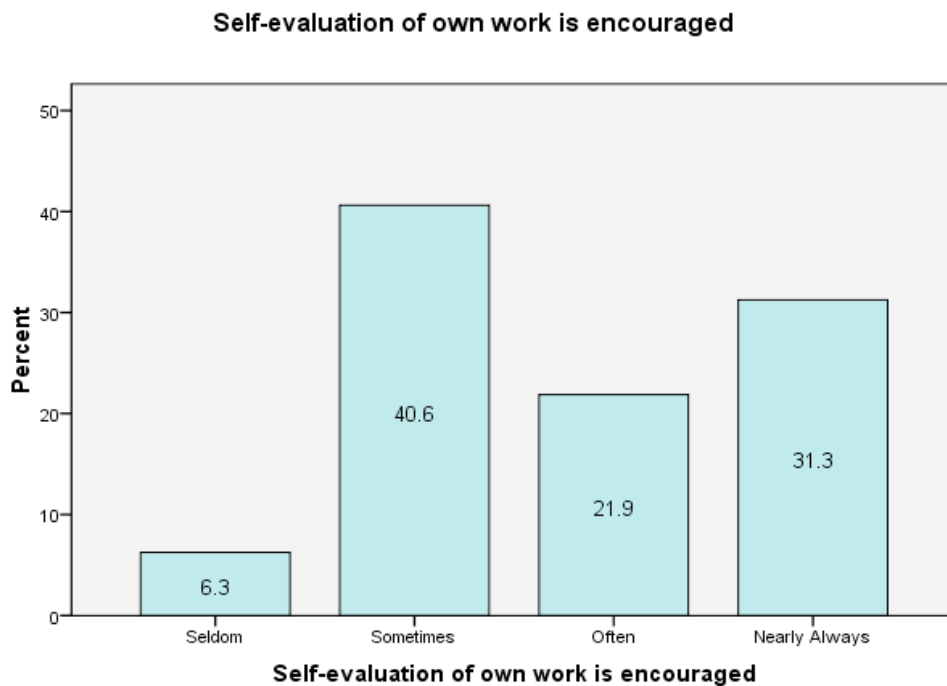
Fig. 4.29: Bar chart analysis of data from the 2008 Design Foundation Course student feedback questionnaire: Is self-evaluation of own work encouraged? (Appendix J: question 9)

4.8.1 "Core idea" of research and preparation

During the filmed interview with the focus group, the students commented on the theory lectures with some of them feeling that they did not receive sufficient written assignments. However they were all agreed that the focus on analysing and contextualising visual art and design images right from the beginning of the year gave them a lot of confidence. Peter an industrial design student commented: "I find I'll be walking around and I'll look at stuff and I'll analyse it" (Appendix O). Peter's comment was followed by Glenda saying " and also observation, through figure drawings, I've really learned to observe" (Appendix O). The comments from Peter and Glenda demonstrate that they are aware of the importance of integrating theory with practice.

The outcomes of the studio-based design projects reflect the level of involvement in self-research and preparation, and the extent to which students are able to solve simple and complex problems through the design process of "thinking through doing" and "reflecting in action" (Schön, 1983:275-277). Students are encouraged to apply the design process by learning to work from a brief, undertake self-research, brainstorm and develop ideas through the use of thumbnail (scamps, 2D prototypes) gesture drawings. They do this from the beginning of the year in the first studio-based design project.

Although conceptually undemanding, understanding that having to find a good quality detailed photographic image in order to have enough information from which to develop a design is a "core idea" (the design outcome is only as good as the quality of the research). Finding a good quality image was a criterion in *Less is More*, the first graphic design project brief of the year (see 2011 study guide), (Appendix L) which introduces the fundamental design principle of simplification and stylization, a process that is used in design to extract essential information that can be developed into a new design to fit a particular context (Fig. 4.30). The other "core ideas" that are introduced are those of "framing the problem" (Dorst, 2010; Leifer, 2010), and the use of negative spaces. In this project the "core ideas" are introduced at an appropriate level for the beginning of the year. "Framing the problem" is introduced by getting the students to create four designs (compositions) within a specific format which "frames" the problem. Using the negative space as well as the positive shapes in creating a design introduces the concept of working with opposites (Bourdieu, 1967:346; Wollflin, 1950).

Fig. 4.30: *Less is More*, graphic design, first project of the year that deals with the "core ideas" of simplification and stylisation and the relationship of positive shapes and negative spaces, important for developing the idea of the pictogram and logo (Design Foundation Course, student work, 2007)

4.8.2 "Core idea" of negative spaces

In the visual language negative spaces have been identified as a "core idea", as opposed to composition which is defined as a "basic term" (Wiggins & McTighe, 2005:67) (see Table.2.4 in Chapter 2). It is also to be understood that the relationship of form and meaning between shapes/objects is determined by the space that exists between them (Arens, 2010:5; Bierut, 2010).

Awareness of negative spaces encourages students to work with composition as a whole. Working with the whole is a "core idea" addressed through both gesture and contour in the

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figure and object drawing classes (Nicolaides, 1969; Lecanides Arnott, 2010) as is shown in the pumpkins and boxes drawing project (see Fig. 4.31 and Fig. 4.32). The fundamental principles of working with the whole, and the fact that negative spaces determine the relationship between shapes/objects in two and three-dimensional design are illustrated by specific studio-based projects – typography in graphic design (Fig. 4.33), the silkscreen project based on Op Art (Fig. 4.34) in surface design, and the 3D puzzles (Fig. 4.35 and Fig. 36) in industrial design.
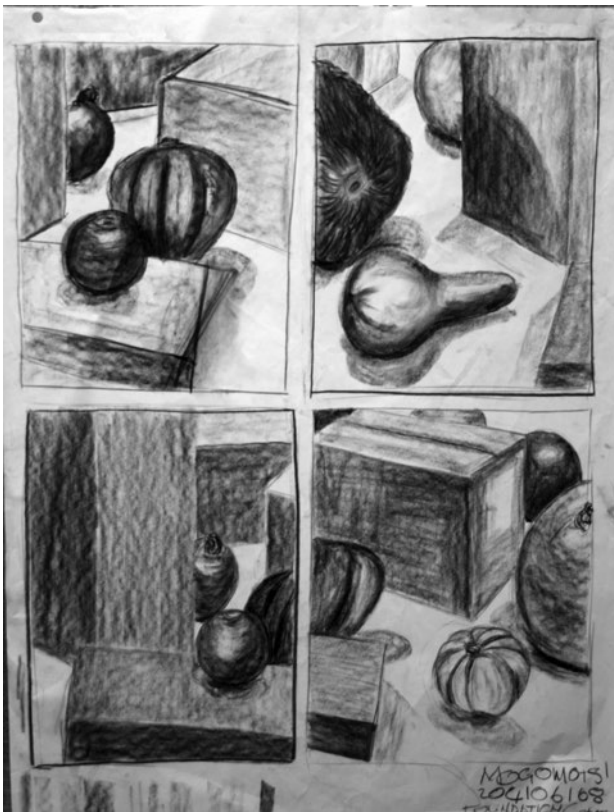
Fig. 4.31. In the object drawing *Pumpkins and boxes* project, preparatory thumbnail compositions investigate the relationship between forms by incorporating the surrounding negative space within a given format (foundation student work 2006, compressed charcoal on newsprint)

Fig. 4.32. Final composition for the *Pumpkins and boxes* project selected from the thumbnail compositions in Fig. 4.31. Emphasis is placed on the relationship of organic and manmade geometric objects through the negative space that defines them. The shapes cast by shadows onto the negative spaces become active elements in the composition communicating the mood of the drawing (foundation student work 2006, chalk pastel on card)
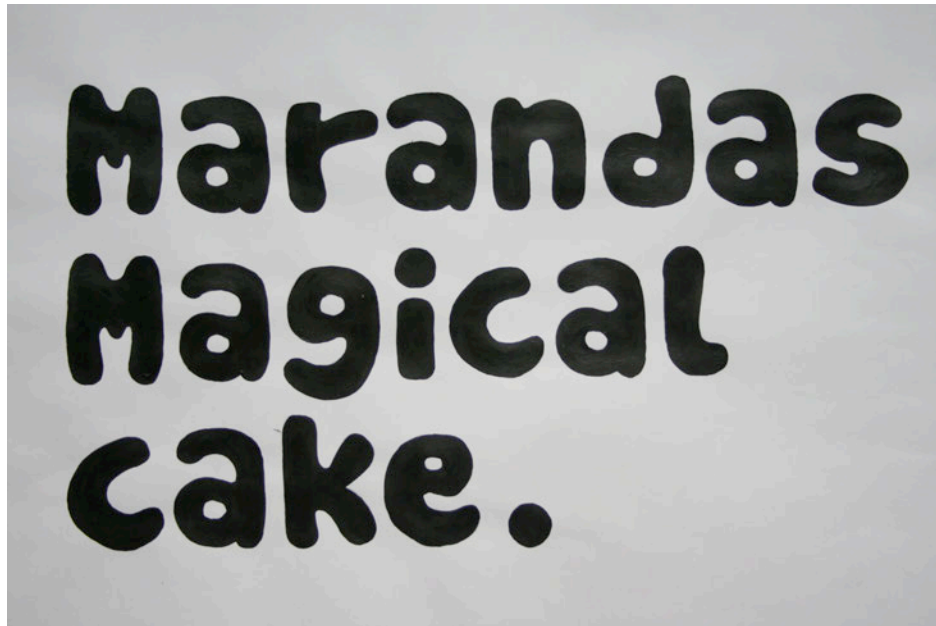
Fig. 4.33. One of the main purposes of the graphic design _Less is more_ project shown in Fig. 4.30 is to make students aware that the successful kerning and character formation of type is dependent on how the negative spaces surrounding the type are seen. The form and meaning of the type are determined by the negative spaces as much as by the black characters. (Student work 2009, black gouache on Ariston paper)

Fig. 4.34: Surface design silkscreen cushion. The inspiration for this project is based on the stylistic analysis of the 1960s Op Art movement. The two halves are a mirror image of each other using equal amounts of black (positive shapes) and white (negative spaces), (foundation student work 2009, black silkscreen ink on white cotton fabric)

Fig. 4.35: Industrial design 3D puzzle construction, inspired by a mask from the Venice carnival (foundation student work 2011, corex card and coloured stick-on film)

Fig. 4.36: Industrial design 3D puzzle construction, inspired by a chieftain's headgear from the North American Inuit festival (foundation student work 2011, corex card and coloured stick-on film)

Working with the negative spaces has been well understood in Fig. 4.35 and Fig. 4.36 in that the designs function well as freestanding three-dimensional forms in space. The application of coloured film articulates the 3D puzzles without detracting from the open spaces formed by the white card which function in a similar way to the negative spaces that form the whole in the *Less is more* compositions (Fig. 4.30)

4.8.3 "Framing the problem" and keeping the "desired result" in mind

From the filmed interview with the focus group it was clear that initially the emphasis on research and preparation, and working closely to the project brief of "framing the problem" (Schön, 1983; Arens, 2009; Dorst, 2010, Leifer, 2010), was very demanding for the students but that with continued use in the studio-based design subjects the process became easier.

The foundation staff have observed that there seems to be a shift in attitude at the beginning of the second semester after the long winter holidays, with many of the students being able to work more independently from that point onwards. It is also in July, in the third figure drawing block of the year that a marked improvement in the students' drawing is seen. In the filmed interview, Peter commented on the fact that he only really started reading and making use of his studio-based design project briefs in the middle of the year:

That took me a while to get into. I found, like half-way through the year, like half-way through the project, I'd go back again and read my brief and hope that I'd covered everything, all the aspects in the brief. I never used to.

(Peter, graduating industrial design student: Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

Sophia, an interior design student (Appendix O), said that by working closely to the brief through the design process she learnt to "think of ideas quicker, or use symbols … I think that at this stage you have to think of where you're heading to, and something, like a symbol, something to symbol [symbolise?] what you want to do". What was clear from this statement was that although the solution for final outcome had still not been found, Sophia understood that she had to keep the "desired result" in mind (Wiggins & McTighe, 2005:338; Cross, 2007:57), so she described the final outcome/design end product as a "symbol".

When Sophia was asked to explain her statement by giving an example from one of her design projects, although her design discipline of choice was interior design, she referred to a surface design project and explained the following:

With surface there is a lot of planning. You have to think what shapes you're going to use, what colours you're going to use. All of that you have to think of and it takes such a long time before you get to the final idea, and the closer we get to the end of this year, it became much easier for me to think of something and to produce the end of it.

(Sophia, graduating interior design student 2011: Appendix O, filmed interview of focus group from 2008 Design Foundation Course)

What Sophia demonstrated was that she had grasped the complex concept, the "core idea" of "backward design", of working with the "desired result" in mind (Wiggins & McTighe, 2005:18-19). The sequential development of the curriculum, and the teaching approach with the emphasis on the iterative nature of the design process play key roles in helping the students develop the understanding that they have to keep the "desired result" in mind, but at the same time allow for unexpected possibilities and creative solutions to occur in the process.

The other aspect that should be recognised from Sophia's experience is that often designers have a high visual quotient (VQ) (Raein, 2004:163). Raein observed that design students tended to develop theory from the practical design work that they were currently working on. His observation resonates with Sophia's experience and Ranjan's (2005:3) view that "what is

significant about the Bauhaus foundation course is the close interplay of theory and skill",
that theory is developed from practice.

Although the weaker students make use of the iterative design process, the principle is not
entirely understood and many of these students need longer than a year for the new way of
working to become established. The intensive support that they receive from the foundation
staff needs to be continued into the first-year of study in the discipline of choice for new
learning habits to become properly established. Iris who was referred to the Design
Foundation Course after having failed first-year fashion design (she should have been
referred to the foundation course to start with), was academically underprepared and
struggled with "seeing". During the third figure drawing block in July there were some signs in
her drawing that things were changing. In the final figure drawing block the progress was
exponential, with a complete turn around from not seeing to seeing. What she had gained in
the figure drawing had to be transferred and reinforced in all the other studio-based design
subjects. She was promoted into first-year fashion design but she needed at least another six
months of intensive support such as she had been receiving in the Design Foundation
Course. Unfortunately there seemed to be no continuity in the approach in first-year and Iris
failed first-year for a second time.

> When I was in fashion, there was no one telling me that I had to come to the
> foundation course until I failed. I got a sup for the practicals, for the history of art I
> failed because no one told me about referencing. So when I failed that, they told
> me about this foundation course that it can help me … So next year when I go to
> Fashion, I can be able to use gouache, because some of the tools in our kit, they
> never taught us how to use them.
> (Iris, past first-year fashion design student; Appendix O, filmed interview of focus
> group from 2008 Design Foundation Course)

The foundation specialist staff are aware of the level of support that individual students
require. Some of the weaker students will continue to need intensive support in the first-year
of study which should be acknowledged in some way, either by extending the foundation
year from one year to a year and half or two years as suggested by Sonntag (1969:387), or
to actively include the foundation staff (for studio-based and theory subjects) as part of the
teaching team in the first six months of the first-year in the same way that the design
specialist staff are included in the foundation year.

Sometimes projects which deal with a number of "core ideas" like the fashion design
appliquéd bag satchel and the industrial design 3D puzzle where new concepts and

techniques are introduced, the problem becomes too complex to be addressed successfully by students whose understanding of the visual language and whose cognitive abilities are not yet sufficiently developed.

The 3D puzzle project (Fig. 4.35 & Fig. 4.36) is the first fully three-dimensional project of the year and is completed in March. Students are expected to make a conceptual shift from designing in two-dimensions to composing in three-dimensions within the generic theme of festivals. It is a complex project and the weaker students find it difficult to develop workable designs within the allotted time.

It has been decided to retain the 3D puzzle project because many "core ideas" are addressed in this project, but by finding ways to "frame the problem" more clearly. Limiting the theme to a few specific cultural festivals (such as the Mexican festival of the dead and the Indian festival of lights), and specifying that the students study particular details, such as the headgear worn during these festivals, may help to "frame the problem" more clearly (see Fig. 4.35 & Fig. 4.36), (see Appendix P for the teaching team's email correspondence about this project).

4.8.4 The "white space" making allowance for intuitive thinking and innovative change
Negative spaces are as important as positive shapes in composing designs and seeing the whole (be it in a figure drawing, an object drawing, a design for a chair or a design for a building) (Lecanides Arnott, 2010). It is the space between the shapes/forms/objects that determines the relationship between those shapes/forms/objects in two-dimensional and three-dimensional designs in all the design disciplines (Arens, 2010; Bierut, 2010).

4.8.4.1 The "white space" and figure drawing
Careful organisation of learning experiences and the way the curriculum is structured (Tyler, 1949:83) can create the necessary "white space". In the Design Foundation Course spreading the four figure drawing blocks throughout the year (see Fig. 4.18) creates space between the drawing blocks. During the periods between the drawing blocks the students engage in other studio-based design projects, allowing enough time for what they have learnt in the figure drawing sessions to be absorbed. The time between the drawing blocks is comparable to the "white space" referred to in the literature, the space that is necessary for intuitive thinking to take place, and which in turn allows for the "imaginative leap" needed for creative change to occur (Cross, 2007:51-54). It is when students return to draw in a new drawing block after this "white space" that exponential development in the drawing may often

be observed, particularly between May and July in which the long midwinter holidays take place.

4.8.4.2 Flexible structures needed for the "white space" to occur

Creating the "white space" has to occur at many different levels in order to enable the intuitive leap. When Katherine was describing her experience in the Design Foundation Course, she was speaking about a nurturing environment of possibility which allows for creativity to take place:

> I think we all come here with our own creativity and this course just exercises that
> creativity to lead us to where we want to be, because when I came here I wanted
> to either do fashion or interior …
> (Katherine, graduating surface design student 2011: Appendix O, filmed interview
> of focus group from 2008 Design Foundation Course).

Without structure there will be chaos, and too rigid a structure will inhibit an environment of possibility in which creative action and innovative change can occur. A structured environment in which the students can function is essential, but it has to be a flexible structure that will allow for the "white space" (Arens, 2010) where problem and solution are kept open and ambiguous for as long as possible (Cross, 2007:114; Dorst, 2010; Leifer, 2010).

Once again in talking about structure one is referring to different aspects of structure, regarding foundation programmes in design such as structure relating to policy, administration, management, finance, physical spaces, curriculum, assessment methods and teaching approach. A senior industrial design academic (Appendix G) referred to structure as being the greatest success of the Design Foundation Course, but also its greatest weakness. His views are quoted as a comparative table.

Table. 4.5: Staff questionnaire, responses to questions 4 and 5 (Appendix G)

Structural strengths of the Design Foundation Course	Structural weaknesses of the Design Foundation Course
The undeniable strength of the course is its curriculum. The interweaving of a sequential progression of manual and visual skills with specific discipline context and the exposure students get to lecturers of different departments who bring their departmental ethos with them. Very few people in the faculty seem to understand the value of this as it is a complex structure that could only come about by in depth analysis of specific learning outcomes and careful planning	The main weakness of the existing course on CT campus is structural. The course has developed through various stages and funding models. Initially it was perceived in the faculty as an independent add-on. Through the current funding model this is no longer the case. Referring a candidate to the foundation course means that a department accepts that particular person as a student in its undergraduate programme. However, this is not reflected in the faculty structure. First, all foundation staff is employed on a temporary basis. This fact doesn't give it the credibility it deserves and there is no guarantee of continuity

Although the structural weakness referred to by the same academic has to do with the Design Foundation Course that is situated on the Cape Town campus of the Cape Peninsula University of Technology, it has been identified as a much broader problem that needs to be addressed on a national level in South Africa as argued by Boughey:

> Relocating Academic Development work within a concern for quality offers the opportunity not only for that work to be validated, but also for structural changes to take place which would allow for further development of the field itself and enhance its potential to contribute to resolving issues related to teaching and learning which have long plagued the system (Boughey, 2007:10).

There are other aspects of the grounded theory that have emerged from the research related to the Design Foundation Course that are applicable to the broader context of design foundation and foundation education in general.

4.9 Establishing which key ideas drawn from the literature and used towards the development of a conceptual framework are supported and strengthened by the grounded theory from the research

As described in 3.5.1 in Chapter 3, the purpose of the research framework was to work towards the development of a conceptual framework for a foundation programme in design. The following ideas were distilled from the literature review and through the application of the research framework form a basis towards the development of a conceptual framework:

- Guiding principles in design education which are flexible and responsive to changing needs;
- Integrating theory and practice;
- Generative self-criticism, the iterative design process, confidence, "intuitive thinking" and the "creative leap".

The left column in the following table provides a summary of the key ideas distilled from the literature through the application of the research framework the purpose of which is the development of a conceptual framework in foundation education in design. The research findings (excerpts from Chapter4) that support and strengthen the key ideas for application to a conceptual framework appear in the right column next to the relevant idea.

Table. 4.6: Summary of key ideas from the literature for the development of a conceptual framework, supported and strengthened by findings from the research

Key ideas drawn from the literature for application to the development of a conceptual framework for a foundation programme in design	Support and strengthening of key ideas from the literature by applying grounded theory that has emerged from the research (excerpts from chapter 4)
1. Guiding principles in design education which are flexible and responsive to changing needs	
1.1 Design understood to be a bridge between art and science (Cross, 2007:123; Margolin, 1989:28; Nelson & Stolterman, 2003:4)	Similar to "learning to see" through drawing, which is not only about the physical act of drawing, colour cannot simply be regarded scientifically as an optical perception phenomenon, because colour has symbolic value. The theory for the study of colour is being developed from the use of the artist's colour wheel (pigment), the printer's colour wheel (pigment) and the light colour wheel (luminance) and is therefore drawn from the fields of art, technology and science (Fig. 4.28). This approach is in keeping with the view that design bridges art and science. A practical use of colour based on colour theory is being developed further in the Design Foundation Course from the comparative perspectives of art, Itten (1963) and Gage (2006), technology and science Livingstone (2002).
1.2 Design being responsive to the needs of local and global communities (Ranjan, 2005; Manzini, 2009; Leifer, 2010)	In the South African context, the complex multidisciplinary nature of the Design Foundation Course (and the fact that the design projects have specific practical and functional outcomes achieved through the different design disciplines) distinguishes the Design Foundation Course from the typical extended first-year programme that is used in many other fields of study. An extended first-year programme is vertical in structure and feeds directly into a specific discipline, providing support for further study into the particular discipline. With a broader critical awareness of design, and a basic understanding of design disciplines other than in their discipline of choice (Talbot, 2007:2) students should eventually be able to transfer knowledge and skills (Bruner, 1977:40,54; Edwards, 2005:7-8) within a variety of contexts, collaborating with designers from other disciplines in solving complex design problems
1.3 The need for tertiary education structures to be flexible, with consistent guiding principles and approaches in design education that are responsive to the changing needs of students and the society for which they will design (Goldstein, 1996:295; Hughes, 1980:211)	Once again in talking about structure one is referring to different aspects of structure, regarding foundation programmes in design such as structure relating to policy, administration, management, finance, physical spaces, curriculum, assessment methods and teaching approach. Without structure there will be chaos, and too rigid a structure will inhibit an environment of possibility in which creative action and innovative change can occur. A structured environment in which the students can function is essential, but it has to be a flexible structure that will allow for the "white space" (Arens, 2010) where problem and solution are kept open and ambiguous for as long as possible (Cross, 2007:114; Dorst, 2010; Leifer, 2010).
1.4 Establishing guiding principles that will allow for the kind of learning that promotes the development of knowledge, skills and critical awareness (deep understanding of key ideas and principles) (Bruner, 1977:52,58,65; Wiggins and McTighe, 2005:292-293).	The sequential development of the curriculum, and the teaching approach with the emphasis on the iterative nature of the design process play key roles in helping the students develop the understanding that they have to keep the "desired result" in mind, but at the same time allow for unexpected possibilities and creative solutions to occur in the process. The focus group as a whole understood and made use of the "core idea" of the transference of knowledge and skills from one design discipline to the other. They were critically aware that transference made it easier to engage in the design process by introducing what they had learnt previously into different and new situations.

1.5 Acknowledging that art and design foundation programmes establish building blocks for lifelong learning, and provide the grounding for successful further study of students in the field of design (Sonntag, 1969; Ranjan, 2005; Filler, 2009; Arens, 2010)	It has been established in the literature that two of the primary functions of foundation education in the visual arts are to enable understanding of the visual language of art and design, and to develop a critical awareness of design. As the language of design is largely visual, "learning to see" is a "core idea" which should be addressed from the beginning in educating a designer (Sonntag, 1969; Bruner, 1977:40,54; Wiggins & McTighe, 2005:296). The curriculum should be developed so that the "core idea" of "learning to see", is incorporated into long and short learning experiences in both the practical design studio-based subjects and the theory subjects Learning to "see" does not only occur through the act of drawing, but also through students learning to discuss and analyse their own and each others' drawings. The physical act of learning to see through drawing is transferred to the cerebral act of "seeing" by looking at the drawings critically through comparative analysis
1.6 Fostering versatility/flexibility, the transference of deep understanding for use in different situations in the real world (Tyler, 1949:19,57; Bruner, 1977:51-54; Wiggins & McTighe, 2005:314) that will lead to self-belief and the confidence necessary for innovative design to take place (Sonntag, 1969; Nelson & Stolterman, 2003).	The curriculum which becomes conceptually, technically and formally more complex as the year progresses provides the necessary breadth of knowledge, technical skills and a critical awareness of the fundamental principles in design through the specific content of the different design disciplines on offer at CPUT
2. Integrating theory and practice	
2.1 Integration of theory and practice, with intent, for the development of active strategic design through the application of "design thinking" and design skills (Ranjan, 1999:1-3; Manzini, 2009:448-449)	The emphasis that is placed on research and preparation in all the studio-based design projects through engaging in the iterative design process through "thinking and making" and "reflection in action" of the continuous assessment of the work through criticism develops confidence and self-awareness which has been identified as necessary for creative action that will result in imaginative innovative solutions.
2.2 Acknowledgment of design outcomes: Similar to art, which is the visual concretization of ideas and how the world is perceived, theory and practice in design need to be integrated, as design outcomes are practical in nature, and cannot be separated from industry and the needs of the real world (McCoy, 1990; Raein, 2004)	Initially the emphasis on research and preparation, and working closely to the project brief of "framing the problem" (Schön, 1983; Arens, 2009; Dorst, 2010, Leifer, 2010), was very demanding for the students but that with continued use in the studio-based design subjects the process became easier. The foundation staff have observed that there seems to be a shift in attitude at the beginning of the second semester after the long winter holidays, with many of the students being able to work more independently from that point onwards.
2.3 Acknowledgement of the significance of the "artist" (designer) and the "object" (design outcome) from foundation level in design education (Sonntag, 1969:392; Buchanan, 2006:19-20, Leifer, 2010)	Initially there may be a lack of confidence and great uncertainty amongst the students, as the figure drawing classes are interactive and require the students to engage completely, in a very physical way. The students are fearful (Nelson & Stolterman, 2003:22), as the process is direct and exposes their visual strengths and weaknesses. The time that it takes differs, but most of the students engage in the process and as soon as they can see that they are making progress, the fear diminishes and confidence and self-awareness begin to grow. This in turn usually leads to exponential development in the way the students approach their work, which is reflected in the resulting drawings as what it does is to " "raise his [the student's] sights" above the narrow channel through which he normally sees" (Schön, 1983:314).
3. Generative self-criticism, the iterative design process, confidence s, "intuitive thinking" and the "creative leap"	
3.1 Recognition that intuitive thinking is necessary for imaginative experimentation in order for tentative creative solutions and innovative change to take place (Bruner, 1977:52; Cross, 2007:51-54)	Creating the "white space" has to occur at many different levels in order to enable the intuitive leap. A nurturing environment of possibility which allows for creativity to take place. In the Design Foundation Course spreading the four

	figure drawing blocks throughout the year (see Fig. 4.18) creates space between the drawing blocks. During the periods between the drawing blocks the students engage in other studio-based design projects, allowing enough time for what they have learnt in the figure drawing sessions to be absorbed. The time between the drawing blocks is comparable to the "white space" referred to in the literature, the space that is necessary for intuitive thinking to take place, and which in turn allows for the "imaginative leap" needed for creative change to occur (Cross, 2007:51-54). It is when students return to draw in a new drawing block after this "white space" that exponential development in the drawing may often be observed, particularly between May and July in which the long midwinter holidays take place.
3.2 Recognition of the need for specialist teachers who have a deep understanding of subject content, who through their teaching approach should be able to encourage intuitive thinking in students (Tyler, 1949:90; Bruner, 1977:52)	It is essential for the foundation teachers to lead the studio-based design projects so that the purpose of the foundation curriculum is met. The foundation specialist staff are aware of the level of support that individual students require. Although the weaker students make use of the iterative design process, the principle is not entirely understood and many of these students need longer than a year for the new way of working to become established. The intensive support that they receive from the foundation staff needs to be continued into the first-year of study in the discipline of choice for new learning habits to become properly established.
3.3 Encouragement of the development of confident generative self-criticism in students to enable creative thinking and design action which may lead to the "creative leap" and to innovative change (Sonntag, 1969:392; Nelson & Stolterman, 2003:22)	The outcomes of the studio-based design projects reflect the level of involvement in self-research and preparation, and the extent to which students are able to solve simple and complex problems through the design process of "thinking through doing" and "reflecting in action" (Schön, 1983:275-277). Students are encouraged to apply the design process by learning to work from a brief, undertake self-research, brainstorm and develop ideas through the use of thumbnail (scamps, 2D prototypes) gesture drawings. They do this from the beginning of the year in the first studio-based design project. They were all agreed that the focus on analysing and contextualising visual art and design images right from the beginning of the year gave them a lot of confidence.
3.4 Emphasis on the use of the iterative design process of "thinking and doing" to develop understanding and "intuitive thinking" which leads to confidence for the "creative leap" and innovative action to take place (Sonntag, 1969:393; Bruner, 1977:14; Nelson & Stolterman, 2003:22; Buchanan, 2006:18-20)	The sequential development of the curriculum, and the teaching approach with the emphasis on the iterative nature of the design process play key roles in helping the students develop the understanding that they have to keep the "desired result" in mind, but at the same time allow for unexpected possibilities and creative solutions to occur in the process. There is strong evidence from the design staff (Appendix K) and past foundation students (see Table 4.3) that the gaining of an understanding of the fundamental principles of design through the content of the different design disciplines, and of the transference of knowledge and skills from one discipline to another, leads to confidence and self-awareness in the foundation students. "The key to opening the door" to design is the design process ("thinking through doing").

The results of the findings and analysis of the data are interpreted in greater depth in Chapter 5, and followed by recommendations and the conclusion for this interpretive study.

CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Keeping in mind the problem statement and rationale of the study that was addressed in Chapter 1, the results of the previous chapters will be summarised in Chapter 5. Recommendations and a conclusion will then be made after reflection and interpretation of the summarised results.

5.2 Summary of the results of the previous chapters

The summary will be conducted under the following headings:

- Introduction and background to the study: Chapter 1
- Literature review: Chapter 2
- Research design: Chapter 3
- Discussion and analysis of findings: Chapter 4

5.2.1 Introduction and background to the study: Chapter 1

The call in recent years from both design education and design industry conferences for designers to be knowledgeable, skilled, critically aware and versatile in order to deal with the needs of a fast changing world led to the study.

In South Africa the problems that are experienced in foundation programmes in art and design in institutions of higher education are similar. There appeared to be no particular conceptual framework for foundation programmes to educate knowledgeable, skilled, critically aware and versatile designers. The problems that have been experienced in the different foundation programmes in art and design have had to do with drawing, the transference of knowledge and skills from one design subject to another, and the integration of theory with practice.

Internationally, and in South Africa, due to increasing urbanisation and globalization, needs have emerged in education for foundational support in English language skills and numeracy skills. As a result research in both areas has been extensive. Locally, academic support is much needed in order for underprepared students to gain access into institutions of higher learning, because South Africa is comprised of a multicultural and multilingual society with great variation in the standard of private and government schools in wealthy and poor areas, and in the standards between schools in urban and rural areas.

A long tradition exists where all beginning students who gain access to study art and design participated in a foundation course before specialisation in a particular art or design discipline. The main functions of foundation courses in the fields of art, design and architecture (the visual arts), have been to give students the means to gain an understanding of the "visual language" of art and design, "to learn to see", and a critical awareness of the field. However, except for a few incidents such as that of the Bauhaus foundation course (1920-1933) and to a lesser extent that of the Institute of Design at Ulm (1953-1968) on which many foundation programmes are based, not much has been published in foundation education in design in South Africa or abroad in recent years.

Furthermore, South African experts in the field of foundation education have been emphatic that for foundational support to be effective it needs to be epistemological and integrated into higher education structures. As foundational provision is about gaining access to higher education, and about participation, and the development of an attitude of life long learning, it needs to be in the "language" of the specific field of study and to be integrated into the curriculum of that specific field of study.

5.2.1.1 The rationale

The rationale of the study arose out of the following observations:

- Not enough research has been undertaken in foundation education in art and design
- Foundation education in design needs to be integrated into the "visual language" of art and design.
- There appears to be no conceptual framework for foundation education in design in South Africa.
- A pass rates analysis of the results of Design Foundation Course students was undertaken over the four-year period of study required to complete the National Diploma in Design. The outcomes of the pass rates analysis indicated the need for investigating and evaluating the successes achieved and challenges faced in this particular foundation programme.

The areas of concern that were highlighted in the background study and the rationale were dealt with in detail in the literature review which together with the personal narrative addressed the research question and sub-questions.

5.2.2 Literature review: Chapter 2

As the field of visual arts, including design, is a complex field of study, the body of knowledge was re-examined through the use of comparative analysis. The research question was established and the area of study was delineated.

The research was undertaken by investigating aspects of curriculum development, assessment methods and teaching approach in studio-based design subjects in the Design Foundation Course. The investigation of the studio-based design projects was done in terms of "learning to see", the transference of knowledge and skills and the integration of theory and practice. The meanings of knowledgeable, skilled, critically aware and versatile, relating to design and designers were investigated, and definitions were arrived at through the literature.

After investigating foundation programmes which have been influential in design education in Europe, the United Kingdom, America, India and in South Africa, recent developments in design education were distilled from the *ConnectED2010* international conference on multidisciplinary design education (Sydney, 2010) and the industry based, *All Stars* Design Indaba conference (Cape Town, 2010). Together with other information from the recent literature on design education, a basis for a conceptual framework emerged from the literature. A summary table of key aspects in curriculum development, assessment methods and teaching approach towards a conceptual framework for a foundation programme in design (see Table 2.6 in Chapter 2), was generated from the literature.

5.2.2.1 The results from the literature review

The results of the literature review from which the summary table towards a conceptual framework was developed are listed as follows:

- The constantly changing and increasingly complex world that we live in demands practical and sustainable design solutions that require designers to be knowledgeable, skilled, critically aware and versatile.
- In order to educate such designers it is necessary to begin at foundation level (Sonntag, 1969; McCoy, 1990; Ranjan, 2005).
- The "desired result" would be achieved through a curriculum that is flexible, integrated and based on "core ideas" in design with consistent guiding principles.
- A design education in partnerships with local communities, government and industry (Illich, 1973; McCoy, 1990; Ranjan, 2005; Manzini, 2009; Leifer, 2010).
- The need for continuity and change and the recognition that memory is reality (Tyler, 1949:90; Illich, 1973:24-25; Goldstein, 1996:299; Hughes, 1980:211).
- Appropriate use of subject content and technology with an emphasis on "big ideas" and "core tasks"(Wiggins & McTighe, 2005:292; Arens, 2010, Leifer, 2010).
- It is necessary for "core ideas" and "core tasks" to happen early on, and for the meaningful transfer of "core ideas" to be applied to real-world situations for understanding to take place (Bruner, 1977:3, 40,52; Wiggins & McTighe, 2005:314).

- A student centred approach with emphasis placed on reflective practice and constructivism through "learning by doing", was confirmed as being crucial to the understanding of subject content (Illich, 1973:9-31; Wiggins & McTighe, 2005:292).

- In educating the designer, attention needs to be given to both the "artist" (designer) and the "object" (design outcomes) (Sonntag, 1969:392: Leifer, 2010).

- In all the sub-fields the integration of theory ("brainwork") and practice ("handiwork") is required to develop confident self-criticism in students to enable creative thinking and design action, through formative assessment and the studio group critique.

- An emphasis on analysis and synthesis is necessary to develop confident self-awareness and healthy self-criticism (Sonntag, 1969; Arens, 2009).

- Allowing for the "white space" of keeping the problem and solution in a state of flux to allow for intuitive thinking and the creative leap, is needed for intentional and innovative change to take place (Sonntag, 1990; Nelson and Stolterman, 2003; Cross, 2007; Arens, 2010; Dorst, 2010; Leifer, 2010).

The summary table for the conceptual framework generated from the literature review was used to develop the research design in Chapter 3.

5.2.3 Research Design: Chapter 3

Addressing the research question and sub-questions, a research design matrix (Table 3.1) was developed for use in conjunction with the summary table towards a conceptual framework (Table 2.6: Chapter 2) drawn from the literature to analyse the data collected, in order to investigate and evaluate the successes and challenges in the Design Foundation Course, the purpose of which was to develop a conceptual framework for foundation education in design.

Ethical issues were taken into account as well as making use of reliable and valid measurement techniques based on combined data collection methods, to help strengthen the grounding of theory by the triangulation of qualitative and quantitative evidence (Huberman & Miles, 2002:7).

The process of developing a theoretical approach evolved into a research framework over time comprising aspects of action research, constructivism and design research.

5.2.3.1 Results of the research design

Design has been acknowledged as a separate field of study, and that it bridges the opposing fields of art and science (Nelson & Stolterman, 2003:4; Buchanan, 2006:15, 1989:103;

Cross, 2007:123). As study in design is complex, the application of a research framework rather than the use of a single theory was selected.

Although theory may be based on direct experience and developed from practice, if one takes the view that the world is part of a continuum, theory cannot be developed in a vacuum. Theory is also developed in response to existing theory, either as a means of further development and refinement of a specific theory, or as a rejection because an existing theory is no longer viable (Magee, 1973: 66-68; Popper, 1978:132-133, Deutsch, 2012).

5.2.3.2 A conceptual framework for foundation education in design

Popper's scientific/creative method which is iterative and evolutionary in nature and encourages both continuity and change was selected as a research framework towards the development of a conceptual framework for a foundation programme in design. It begins with addressing a problem, followed by finding a tentative solution to the problem through error elimination, and finally leads to the investigation of a new problem.

Popper's approach is based on the advancement of knowledge through criticism (Magee, 1975:67; Deutsch, 2012:8-9), which is central to teaching and learning in design education and necessary for the development of generative self-criticism in students (McCoy, 1990: 20; Schmitz, 2006:368). It is the interpretations that we place on appearances that are meaningful, that "seeing" is not only about observing but understanding, that our senses do not say anything "only our interpretations of them do, and those are very fallible. But the real key to science is that our explanatory theories – which include those interpretations can be improved, through conjecture, criticism and testing" (Deutsch, 2012:8).

Furthermore as design outcomes are practical in nature, comparing the iterative nature of the creative process in design practice with the iterative process of problem solving, Popper's scientific/creative method is convincingly an appropriate basis from which to establish a research framework.

Significantly, Popper's scientific/creative method is open, objective and flexible. Indeterminism as the main guiding principle forms the basis for the critical rationalist approach to the development of his method (Magee, 1975:14-16).

The indeterminist viewpoint stems from the position that creative thinking and innovative action can only take place in an open society with flexible systems. Indeterminism is a disciplined moral standpoint in which the evolutionary principles of continuity and change are

applied to a specific problem through the iterative scientific/creative method, thereby extending a particular theory to its limit, until the theory is falsified. An indeterminist position, applying critical rationalism through the use of the scientific/creative method, is a suitable basis for the conceptual framework for a foundation programme in design.

5.2.4 Discussion and analysis of findings: Chapter 4

The intended use of the research framework was to meet the purpose of the study. The aim of the research was to establish which aspects of the curriculum, assessment methods and teaching approach should be considered towards the development of a conceptual framework for a foundation programme to educate knowledgeable, skilled, critically aware and versatile designers. The findings and analysis of the data for this study were conducted on this basis and were reported in Chapter 4.

5.2.4.1 Interpreting the results

What became clear during the findings and analysis process is that in order to reach reliable and valid results, the use of the research design matrix that was developed from combined data collection methods (Table.3.2 in Chapter 3) was suitable, as design is a complex field of study bridging art and science.

5.2.4.2 Combined data collection: interviews and practical design outputs

All the data that was collected was used. The most meaningful proved to be the practical design outputs of the students' studio-based projects, unlike the mark sheets for these outcomes which give a superficial indication of student achievement. The interviews, particularly the filmed interview with the focus group, were more meaningful than the student course feedback questionnaire.

From the outputs of the studio-based design projects and the filmed interview of the student focus group it was possible to discern the level of critical awareness (depth of understanding) of individual students. Triangulation took place when the results from the interviews and the practical outcomes were analysed in conjunction with the responses of the design staff from the open-ended staff questionnaire, which confirmed the "core idea" from the literature that in educating the designer, consideration needs to be given to both the artist (designer) and the object (practical design outputs) (Sonntag, 1969:392; Leifer, 2010).

The comparative analysis of the practical outcomes (particularly in the case of drawing because it has been emphasised in the study), are a concrete reflection of the students' level of understanding of the studio-based design projects. However, the assessment of the studio-based design projects needs a deep understanding of the "visual language" of design

and of the specific content of the different design disciplines represented in the curriculum of the foundation programme. Specialist teachers are essential to the teaching, learning and assessment process (Bruner, 1977:52): the "interpreter must be an "informed reader" of the phenomenon" (Denzin, 2002:363).

5.2.4.3 Conflicting results from different data collection methods: breadth versus depth

The student course feedback questionnaire was about breadth of response but the filmed interview was about depth, which led to conflicting results from the two data collection methods. However, the difference was essentially an indication that the purposes of the questionnaire (breadth) and the filmed interview (depth) were different.

The difference of breadth versus depth is demonstrated by the responses regarding the integration of theory with practice. The results in the bar chart (Fig 4.9: Chapter 4) from the student feedback questionnaire, reflect that 100% of the students felt that theory and practice were well integrated in the Design Foundation Course. However, in discussion during the filmed interview with the focus group, it emerged that the students felt that the integration of theory and practice worked well with some of the design briefs (such as the stylistic analysis self portrait) but not necessarily with all aspects of the course. The interaction in the interview between the various individuals gave rise to observations that could never have surfaced in the questionnaire, but the questionnaire was important in that the responses to it helped to define the questions for the interviews.

5.2.4.4 The hermeneutic circle of interpretive research

The students in the focus group were chosen as representative of underprepared individuals from different backgrounds that needed foundation education in design for a variety of reasons. What happened, while sitting around the table which formed a circle with the fourteen students, was that as the filmed interview progressed the students opened up about their different backgrounds and what had led them to apply for admission to the foundation programme, allowing "the researcher to compare and contrast the stories ... to identify convergence in experience" (Denzin, 2002:355). Using the technique of comparative analysis the students made observations of their experiences during the foundation-year. The hermeneutic circle of interpretive research as described by Denzin, aptly explains what took place during the filmed interview:

> Interpretive research enters the hermeneutic circle by placing the researcher and
> the subject in the center of the research process. A double hermeneutic or
> interpretive circle is implied. The subject who tells a self-story or personal
> experience story is, of course, at the center of the life that is told about. The

researcher who reads and interprets a self-story is at the center of his or her interpretation of that story. Two interpretive structures thus interact. The two circles overlap to the degree that the researcher is able to live his or her way into the subject's personal experience stories and self-stories. These circles will never overlap completely, for the subject's experiences will never be those of the researcher.

(Denzin, 2002:354)

Denzin goes on to state that "prior interpretations and understandings shape what he or she [the researcher] now sees and interprets" and that interpretations are not inconclusive as conclusions are always drawn, that "it only means that interpretation is never finished" (Denzin, 2002:363; Popper, 1978: 132).

Based on Denzin's insight that the process does not end, further use can be made of data collected for the study. The individual follow-up interviews of the focus group of students from 2009, during the regular first-year of study (Appendix N), have only been referred to for certain key issues. Although the students spoke about the Design Foundation Course, comparing it to the first-year of study, they tended to speak in greater detail about their experiences of first-year. From the data in these interviews it emerged that the data would also be suited for use in a study of first-year courses in design, as well as foundation programmes in design.

5.2.5 Answering the research question
The purpose of the research was to develop a conceptual framework for a foundation programme in design with the aim of educating knowledgeable, skilled, critically aware and versatile designers. The grounded theory that emerged from the findings and analysis of the data through application of the research framework and key ideas drawn from the literature was applied to establishing what aspects of the curriculum, assessment methods and teaching approach should be considered in the development of the conceptual framework.

The research question was answered through the three sub-questions and is discussed under the following headings:
- "Learning to see"
- Transference of knowledge and skills
- Integration of theory

5.2.5.1 "Learning to see"
Two of the primary functions of the integrated, multidisciplinary Design Foundation Course are for the students to gain an understanding of the "visual" grammar of art and design in

order to become visually literate and thereby developing a critical awareness of design. As the language of design is largely visual, "learning to see" is a "core idea" which has been addressed from the beginning (Sonntag, 1969; Bruner, 1977:40,54; Wiggins & McTighe, 2005:296). The curriculum has been developed so that the "core idea" of "learning to see" is incorporated into long and short learning experiences in both the practical design studio-based subjects and the theory subjects (Tyler, 1949:83-84; Wiggins & McTighe, 2005:292). In order for it to be reinforced as a "core idea", "learning to see" has been dealt with in different situations using a variety of methods to build up knowledge and understanding in "seeing" by developing different skills, and thereby encouraging a greater critical awareness of design. Through the careful organisation of sequential learning experiences in studio-based design and theory subjects, the "core ideas" of "learning to see" and gaining a critical awareness of design have developed concurrently to a lesser and greater degree. These have been achieved by different means such as drawing, the use of colour, the comparative analysis of visual images in history of art and design, and in the studio-based design subjects.

Students "learn to see" through figure and object drawing where the emphasis is not only about looking but about observing and understanding. However, as approximately ten percent of the class each year struggle to "learn to see" through drawing, and as "learning to see" is a "core idea" it is necessary to be able to gain an understanding of the "visual" language through other means as well. It is possible to do so through the complex, integrated, multidisciplinary curriculum by strategies such as exploration in the use of colour, stylization and simplification, working in 3D, visual analysis in the theory subjects and using the formulaic drawing conventions of different design disciplines such as perspective and axonometric drawings, and sections and plans to scale in order to visualise ideas.

An integrated, multidisciplinary curriculum is complex by nature and as such deals with "big ideas" from the start. The forming of new learning habits is reinforced through repetition in studio-based design subjects through curriculum development, designing long and short learning experiences comprising "core tasks" which further the understanding of "core ideas" in design (Wiggins & McTighe:292).

5.2.5.2 Transference of knowledge and skills

"Thinking through making" in different but related and progressively more complex situations through the transference of knowledge and skills is applied to fundamental design principles such as simplification and stylization, working with the whole, composition, the use of negative spaces and colour as "seeing" (Illich, 1973:9-31; Schön, 1983; Bruner, 1977:12,52;

Wiggins & McTighe, 2005:82-104). These "core ideas" are reinforced in the studio-based projects through the content of the different design disciplines

One of the most important aspects in life drawing is seeing the figure as a whole. The challenge lies in the fragmented way the students approach their drawing and indeed their work in general. The aim is to transfer the fundamental principle of working with the whole in drawing to the design process. The "desired result" (Wiggins & McTighe, 2005:338) is to get the students to see that the different parts of a design should be developed together from the beginning, from the self-research stage when the idea is first visualized, through to the making of the final product. The ability to see the whole and to develop the different parts at the same time should be considered as a "core idea" in the iterative creative process of designing (Magee, 1975:70-71).

Transference of the "core idea", of working with the whole, is applied to studio-based projects in the different design disciplines. It encourages the development of knowledge and skills leading to versatility and building up confidence. However, this process takes time to be absorbed by the students, especially the weaker ones. Allowance for the "white space" needs to be acknowledged and provided for, to enable "deep understanding" which is necessary for intuitive thinking to occur (Bruner, 1977:52; Arens, 2010).

"Learning to see" does not only occur through the act of drawing, but through students learning to discuss and analyse their own and each others' drawings. The physical act of learning to see through drawing is transferred to the cerebral act of "seeing" by looking at the drawings critically through comparative analysis. Once again, the weaker students and those whose cognitive abilities are not yet sufficiently developed need extra individual support.

5.2.5.3 Integrating theory and practice

Learning through comparative analysis is a means for students to develop their critical thinking skills. The students engage in the lower levels of the cognitive domain according to Bloom's taxonomy of learning (knowledge, comprehension, application, analysis and synthesis) (Arens, 2009). However, the highest level of cognition, of evaluation is introduced early on in figure drawing through the studio group critique, and in "learning to see" through comparative analysis of their own and others work (Yorke, 2003:481-485). Making use of the evaluative level of cognition, of dealing with complex ideas at an appropriate level from early on, is a "core idea" (Bruner 1977:33,40,52; Wiggins & McTighe, 2005:292, 314).

The students learn to critique and assess their own and each others' work with the guidance of the drawing teachers. The studio group critique as a method of assessment and learning,

described as "reflection in action" (Schön, 1983:276; Schmitz, 2006:375), is used in drawing and in the other design subjects in the Design Foundation Course. As the students' levels of visual literacy and critical thinking abilities develop, they are able to use comparative analysis incrementally, not only in drawing but in the theoretical and studio-based design subjects. However, according to student feedback, it is indicated that further development is needed in this method of assessment to facilitate learning.

5.2.5.4 Implications of the research for the development of a conceptual framework for a foundation programme in design to meet the needs of a diverse group of students
The literature and the findings and analysis from the research support the view that foundation programmes in art and design based on the principles established in historical models are still viable in forming the basis for a conceptual framework for a foundation programme in the South African context. Above all the conceptual framework needs to be flexible in order to incorporate other aspects of academic development to meet the changing and varied needs of a diverse group of students. For designers to be able to play a meaningful role in a constantly changing world of exponential urbanization and globalization, a conceptual framework for a foundation programme needs to be developed that will instil the principle of "life long learning" for the students and the society for which they will be designing.

In this respect the present integrated, multidisciplinary curriculum of the Design Foundation Course is a good starting point as it provides the students with the necessary breadth of knowledge, skills, critical awareness and versatility at the beginning of their long journey in education in design. It does not perpetuate the existing "silo mentality" of beginning design students who enter into the study of a specific design discipline in first year. Depth of understanding in the specific disciplines is essential but not before an understanding is gained of how these disciplines fit together to form the big picture of design. This points to what has already been recommended by academic development specialists, (but in a broader sense, and not only for students from previously disadvantaged backgrounds) that the time spent in design higher education programmes needs to be extended.

The iterative process of design for solving problems through the application of the scientific/creative method by "thinking through doing", of "reflection though action", is appropriate for the development of a conceptual framework, as the principle of "continuity and change" is inherent in the iterative process.

Importantly, the implication of dealing with complex ideas at an appropriate level from early on means that individual students' needs should be acknowledged, and that some students will require support beyond the foundation-year of study. "Core ideas" may be introduced in the foundation year but due to the multidisciplinary nature of the curriculum which has breadth but not depth, they need to be repeatedly reinforced in first-year in order for deep meaning "critical awareness" to take place, and in order to increase the through-put rate beyond the foundation-year of study.

There have to be consistent guiding principles and continuity to build up confident self-criticism, which is necessary for creative "design" thinking and innovative change to occur. This endorses the literature on academic development that traditional curricula in the regular years of study need to be more responsive to the changing needs of a progressively more diverse group of students. The development of the conceptual framework for a foundation programme in design should be considered as the basis for the development and change that is needed in first year, and beyond, in design education.

5.2.6 Summing up: recommendations

- As the function of the foundation course is for students to "learn to see" and to gain a critical understanding in design it is not appropriate for them to engage in "workplace" related projects on their own, However at the same time exposure to the needs of the workplace are important from foundation level, which can be achieved by foundation students working in a team with more senior students. In September, during the foundation year of study, once the foundation students have completed the year-work component in the Design Foundation Course they should participate in a context specific studio-based design project before doing the final examination project in the subject of choice. The foundation students should work as part of a team consisting of more senior students in which they can function at a level appropriate to their knowledge and skills in solving design problems. The teamwork design project that they engage in should preferably be a community based design project that "frames a problem" to do with a sustainability issue and which is funded by industry and government (McCoy, 1990; Ranjan, 2005: Manzini, 2009; Cross, 2007; Dorst, 2010; Leifer, 2010).
- Further research into the relationship between the foundation-year and the years of study that follow is needed in terms of curriculum development, assessment methods and teaching approach, particularly with regard to the regular first-year of study in the design discipline of choice (use can be made of the data collected for this study for further research, particularly into the regular first-year of study).

- Foundation programmes in art and design need to be properly integrated within the university structure, with art and design foundation staff being acknowledged as specialists in the field of foundation education in design.

- After pre-assessment in order to determine whether they have potential for study at an institution of higher education and in the field of design, all applicants who are underprepared should participate in foundation programmes.

- Applicants who wish to participate in a foundation programme to gain a broader understanding of the "visual language" of art and design through exposure to the fundamental principles of the different subfields in design should be allowed entrance to courses such as the Design Foundation Course after a pre-assessment to determine that they have potential for study in the field of art and design.

5.3 Conclusion: meeting the aims and contributions of the research

- The aim of the research was to evaluate curricular elements, methods of assessment and teaching approach in a foundation programme with a view to educating knowledgeable, skilled, critically aware and versatile designers. Consistent guiding principles are needed in order to establish open and flexible structures which are stable and secure, but that allow for the possibility of change to take place. The education of critically aware designers is achieved by making provision for the "white space" through the curriculum, assessment methods and teaching approach, by encouraging the development of the process of intuitive thinking in order to make the creative leap which is necessary for innovative change to take place.

- The debate has been extended, by suggesting the use of the practical and action based creative/scientific method (Popper, 1987:132) as a basis for a research framework (appropriately synchronous with the iterative nature of the design process) for the development of a conceptual framework for a foundation programme in design. The iterative nature of the conceptual framework encourages development and refinement to take place, building up confidence. The open and flexible structure allows for the discovery of tentative solutions through error elimination necessary for the intuitive leap and creative design action to be able to take place, and for intentional innovative change to occur (Nelson & Stolterman, 2003:22; Cross, 2007, 51-54). Within this conceptual framework the debate will continue and change as required by specific situations.

- The creative/scientific method can only be successfully applied in an open society with flexible systems addressing existing problems. "Instead of encouraging one to think about building utopia … it starts with human beings, and involves a permanent active willingness to remould institutions" (Magee, 1973:85). Most importantly, rather than seeking the *truth* in the abstract, the iterative creative/scientific method involves the tentative acceptance of a particular theory until it is falsified through the process of error

elimination. If the principle of "transference of knowledge and skills" is applied from an indeterminist (open and flexible) perspective, similar art and design foundation programmes should be able to benefit from the research as it provides broad, but practical "core ideas" that can be used and adapted to suit different situations.

- The scientific/creative method is based on the advancement of knowledge through criticism (Magee, 1975:67). Knowledge and criticism are central to teaching and learning in design education. Generative self-criticism in students provides the most appropriate benchmarking instrument for assessment of practical design outputs. Confirming, from a position of critical awareness - "the place of values in a world of facts" (Popper, 1978:193).
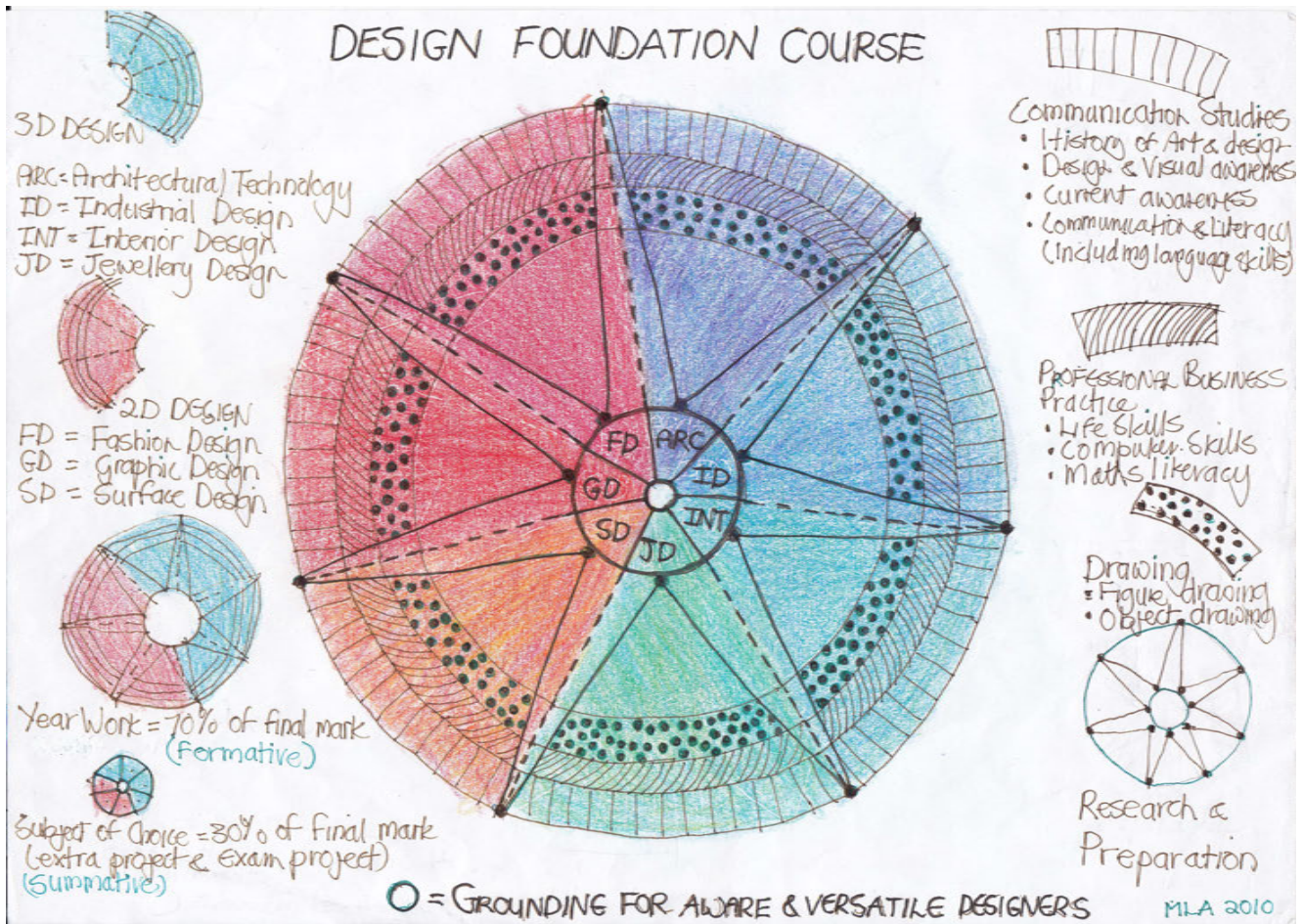
Fig. 5.1. Diagram of the complex, multidisciplinary, Design Foundation Course (Lecanides Arnott, 2010)

The foundation course has played a major part in my work and has contributed immensely to what I am now capable of doing. … It also gave me the confidence I needed to enter graphic design because I had not done art as a subject at high school. The drawing skills you taught us (contour and gestural), the emphasis on research, the colour theory and the principle of 'less is more' and 'form follows function' has definately (sic) stuck with us through the years. … Most importantly I think the way you taught us to keep scamping, re-working and refining has been of invaluable importance.

(Final-year graphic design student, CPUT 2009).

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APPENDICES

APPENDIX A: PERSONAL NARRATIVE

Reflections on the evolution of an integrated Design foundation course

Introduction

I will briefly trace my personal journey as an Art and Design educator mainly at the foundation level, from when I first started teaching in 1982 until my present involvement at the same level of Design education in 2008 to show the continuity and development of certain aspects of the foundation course.

Emphasis will be placed on the evolution of the foundation course in the same higher education institution and its development to meet the needs of a society in flux. Attention will be focused on the current form of the foundation course that has been in use since the beginning of 2007.

It is known as the Design Foundation Course (Extended First Year) and aspects of the course structure, the curriculum and the pedagogical approaches will be discussed, keeping in mind that the aim of a foundation course is to give students essential insights into the field of Art and Design and to equip them with the necessary skills for further study in their chosen Design discipline.

This will include references to the previous versions of the foundation course in the context of the Design Foundation Course to highlight similarities of good practice and aspects that continue to be unresolved and problematic, showing that the present and the past might differ in some aspects, but that essentially they are a continuum.

This is an experiential account, beginning with how I became an Art and Design teacher in 1982. I will endeavour to present facts as they occurred.

Background

1. 1982: Basic Year, School of Art and Design, Cape Technikon

In March 1982 Marthinus Le Grange who had been my drawing lecturer at the Michaelis School of Fine Art, University of Cape Town contacted me to tell me that the School of Art and Design of the Cape Technikon, needed a qualified person to co-ordinate and teach drawing in the Basic Year course and to teach drawing in the Fine Art course, in the second and third years of study.

He knew about this teaching position from his partner Mel Hagen (she went on to become the first Dean of the Faculty of the Built Environment and Design, Cape Technikon and of the Faculty of Informatics and Design, for a short while after it became the Cape Peninsula University of Technology).

She had started teaching in the Basic Year course in January 1982 and was responsible for co-ordinating and teaching one of the subjects in the Basic Year called Perceptual Studies.

I went for an interview with the Director of the School of Art and Design, Stan Slack. He went through the photographic portfolio (prints and slides) of the work I had produced in my third and fourth years of study for the degree BA Fine Art at the Michaelis School of Fine Art, University of Cape Town (UCT).

He then conducted a thorough interview with me about my studies. He wanted to know how I would approach the co-ordination and teaching of a Drawing course in the Basic Year.

The Basic Year course was compulsory for all the students to attend and pass before entry into the second year of study either into Fine Art or one of the three Design disciplines (Graphic Design, Textile Design and Interior Design) on offer in the School of Art and Design. The Basic Year course consisted of four practical subjects, Drawing, Perceptual Studies, Form and Colour and Graphic Interpretation and one theory subject, History of Art and Design.

As I had no teaching experience, all of my answers to questions in the interview with Stan Slack were based on what I had learnt as a student and on my experience and observations of the variety of pedagogical approaches of my

lecturers at the Michaelis School of Fine Art, UCT. Most of the lecturers who taught me at the Michaelis School of Fine Art were well known practicing artists (Bruce Arnott, Kevin Atkinson, Stanley Pinker, Cecil Skotnes, Gavin Younge) who have made substantial contributions to the field of Art in their respective disciplines in South Africa.

All of them had also been trained in the accepted liberal Arts tradition that had evolved and been in use in various forms in the Art Academies and Art Schools since the Renaissance in Europe, Britain, the United States of America and indeed in the Art schools in the traditional universities in South Africa, such as the University of Cape Town (UCT) and the University of the Witwatersrand (Wits), to name two of the better known ones at the time that I was studying for a degree in Fine Art in the late 1970s.

The day after my interview the secretary Jennifer Penfold (now our faculty Officer) called and the director of the School of Art and Design, Stan Slack offered me a permanent full-time position as co-ordinator of the subject, Drawing, in the Foundation Year course and in second and third year drawing in the Fine Art Department.

I will be referring mainly to the foundation course in this narrative. Teaching in the Basic Year entailed teaching a group of a hundred and ten students divided into four groups, that moved between the four practical subjects mentioned above on a rotational basis. The timetable was based on a four-week cycle for the practical subjects (five days per subject in each four-week cycle) with two regular slots for History of Art and Design per week. I knew that the interview had gone well but I was not expecting such a quick response and a firm offer of employment.

He requested that I commence working at the beginning of the following month, April. I told him that I needed a while to think about it and that I would get back to him the next day which I did. My request was that I would teach for a month and that if I found that I could do it and that the students felt that I had something to

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administrator 9/24/08 6:58 AM
Comment [13]: In a field of study such as design is it important for the teachers to be practicing their own work for the successful teaching of students in the practical subjects?

administrator 8/18/08 3:58 PM
Comment [14]: What is meant by liberal arts tradition? Look at historical background of art academies and art schools etc.

administrator 10/19/08 7:27 AM
Comment [15]: Is it a wise practice to employ teaching staff permanently straight after an initial interview? If not how long should the teacher be put on probation before being permanently employed?

administrator 8/18/08 4:03 PM
Comment [16]: Why was working on a weekly cycle with a number of days per subject chosen over working on a 45minute period as some of the other fields of study still use currently?

administrator 9/24/08 7:07 AM
Comment [17]: How have the patterns of employment changed? Has the practice of employing academic staff changed and if so has it improved? What about the issue of experience or lack there of ? What about the relationship of qualifications versus expierience?

administrator 9/24/08 7:07 AM
Comment [18]: Is flexibility in negotiating terms for teaching according to the needs of the course and the teacher sound practice?

offer them, he could make me the offer again. There was a long silence on the other side of the phone before he agreed to my request.

He suggested that I come in and shadow the present drawing teacher for a day before she left, which I did. It was good to do this. She gave the students instructions and sat at the one end of the studio and watched until they completed an exercise before issuing the next set of instructions and so it went all day. I walked around and looked at what was being done. Many of the students, particularly those who were struggling simply did not engage with the artist's model that was posing for them and what they drew reflected this. It had been most informative attending this session, as I felt motivated to roll up my sleeves and get involved actively with the students.

That was exactly what I did in that first month. It is a time that I always recall whenever I lose sight of the reason why I chose to teach (usually when I have a struggle with a difficult student, or when work politics interfere). The students responded enthusiastically and the most reclusive of them came out of their shells. I found the teaching most rewarding. Participating in an active way with the students and every little break-through that emerged in an individual's work, made me want to jump up and down with delight. I had found something useful to do as a living. I could make a difference in a small way in some people's lives in the field of Art and Design.

My formal interview, towards the end of April with executive management went well and I was formally appointed from 1st May 1982. In 1984 I was promoted to Senior lecturer when I was still 24 (I was told that I was the youngest person appointed to that level to date). I stayed on until December 1992. My time at the school of Art and Design was not all easy and happy. Some of it was difficult beyond belief due to a range of factors some of which were personal.

The political climate under the apartheid (National Party) government with states of emergency, a closed education system, political sanctions which affected the arts as well, the restricted movement of people through the pass laws, the

administrator 9/24/08 7:09 AM
Comment [19]: Description of a pedagogical approach which is passive. Would this approach be found to be of good practice or not?

administrator 10/19/08 7:29 AM
Comment [20]: To what extent is it useful to base a teaching approach on observations of existing teaching approachs either as a way of developing an existing approach or rejecting it?

administrator 10/19/08 7:30 AM
Comment [21]: A contrasting teaching approach to the one described in previous paragraph (interactive as apposed to passive). Is this approach any better? If so what is the theoretic underpinning for it?

administrator 8/18/08 4:14 PM
Comment [22]: Has the practice of promoting academic staff for being good teachers been continued and if so how and if not why?

administrator 8/18/08 4:18 PM
Comment [23]: Should the closed and open education system be discussed in greater detail? Should references be given to underpin the political climate at the time?

disappearance of political activists and the incarceration of people one knew had a terrible negative effect on us all and caused great stress. The reasons related to the work environment I will refer to in the context of the present Design Foundation Course later. However, no matter what happened, my feelings towards teaching did not change.

I fell in love with teaching, and that has remained constant after all these years. What has changed, is that I no longer have the boundless energy of a twenty-three year old. On the other hand I do have more experience and wisdom to offer to students and colleagues alike. I have learnt that commitment, trust, enthusiasm, empathy, sincerity, clarity of expression, a constructive critical eye and an open heart are essential to encourage personal growth in the students that one teaches. In developing these qualities (in how students relate to the teacher, each other and their environment), these principles come to permeate the design process, leading to clear and meaningful results in their work. I still try to apply these principles to my work in general and especially to how I communicate with my students.

This is sometimes more difficult to do with colleagues, because of internal politics and the present climate of job insecurity, that has resulted in staff being pitted against one another. However, even now in the present Design Foundation Course after so many years of teaching, I find it easy to do with the students.

Due to another Government policy with the view of attempting to streamline Art and Design Education in the Western Cape, the Fine Art Department was phased out of the School of Art and Design in 1989 after a long, hard battle by most in the School of Art, and Design.

This closure took place even though clear arguments were presented as to the benefit of a holistic approach and the enrichment of the education that students would receive by having a Fine Art department within a largely Design orientated school.

administrator 5/16/09 4:06 PM
Comment [24]: Is it necessary and at what stage in a teaching career should the emphasis be placed on training new staff through mentoring them during the teaching process so that skills and experience can be passed can be passed on and not lost.

administrator 8/18/08 4:20 PM
Comment [25]: What is the theoretical underpinning for the pedagogical approach described here?

administrator 8/18/08 4:21 PM
Comment [26]: What is the present climate o job insecurity? Has it led to employers taking advantage of employees?

administrator 8/18/08 4:24 PM
Comment [27]: Should policies be imposed from outside where there is no intimate knowledge of how things function? Should there be this sort of intervention even if something is working well and serves a clear educational function?

The two other higher education institutions that offered Art and Design programmes in the Western Cape, namely, the Michaelis School of Fine Art of the University of Cape Town and the Department of Fine Art of the University of Stellenbosch argued that the nature of our Fine Art department was different to theirs and that its retention would be mutually beneficial to both the design and fine art components of the School of Art and Design (the fight for the Fine Art department was one of the reasons that I over extended myself, which led to me being diagnosed with Chronic Fatigue Syndrome that led to me leaving teaching in 1992).

One of the aspects to the closure of the Fine Art department was that the School of Art and Design lost Fine Art but gained Industrial Design.

All of this had an impact on the Basic Year. Industrial Design and Interior Design rightly felt that two years of specialization for a three-year diploma with a lot of technical requirements was not adequate. Instead of adding on an extra year of study, these departments went straight into specialization from year one.

This left the Basic Year limping along, preparing students for study in only Graphic Design and Textile Design, causing it to lose its diagnostic function. This finally led to its closure at the end of 1993.

Mel Hagen took over as Director of the School of Design once Stan Slack retired. This post was removed in 2000 and instead, the position of Dean was created for the new Faculty of the Built Environment and Design (this was changed into the Faculty of Informatics and Design which is what it is currently). The result is that the Design section of this large and diverse faculty does not have a designer heading it any longer.

Most of the remaining Basic Year staff were absorbed by the Graphic Design department into the large Graphic Design First Year Course, under the leadership of Denise Penfold, who had been the Painting lecturer in the Fine Art Department. She had also been involved in the teaching of History of Art and

Design and became the co-ordinator of the subject Form and Colour in the Basic Year.

The basis for this first year Graphic Design course was the Basic Year from which a successful and dynamic first year course has been developed (some of the present staff such as Margaret Bezuidenhout and Janet Purcell-van Graan had been part-time lecturers on the original Basic Year). Some of the staff in the Graphic Design department namely: Bruce Snaddon, Wayne Coughlin and Sean Beukman had been taught by me in the Basic Year in the early 1980's.

Before I continue with the next phase of the foundation course I would like to give a short account of what I did during the ten years after leaving teaching in 1992 and coming back to it in 2003, as I firmly believe that these ten years equipped me to take my career in teaching to another level.

2. 1993-2002: My ten-year personal journey outside of teaching

I did not allow myself to be overwhelmed and become a victim of the Chronic Fatigue Syndrome with which I had been diagnosed when I left teaching in 1992. I overcame it with a lot of rest and hard work in between.

I got married to Bruce Arnott in September 1992 and with his loving support and encouragement I worked intensively towards my first solo show of drawings and paintings from the beginning of 1993 which opened at the Irma Stern Museum in May 1996, two weeks before the birth of my second child, Matthew. This led to a smaller solo show in France in 1998. Both shows were well received.

The work that I did for these two shows consolidated ideas from when I was a student and from my years as a teacher. In my painting I investigate the relationship of fine art, craft and design. Furthermore, the drawings and paintings from these exhibitions informed my teaching and a lot of the projects that I set for my students were based on discoveries I had made in my own work.

I continued to work and show on a very limited scale on group shows until 2005. The demands of work and the ongoing struggle of trying to keep the foundation course healthy and growing has stopped me from drawing and painting for now. However my husband Bruce has extracted a promise from me that I will paint again once I have completed my Post Graduate Studies. I am finding that not having being able to work consistently on a creative body of work of my own for the last few years, is beginning to impact on my teaching as the continued discovers from making one's own work and from what one discovers through teaching strengthen one another. There is a need to engage in one's own creative endeavours as these inform and keep one's teaching creative, fresh and relevant.

The other thing that played a role in developing my managerial skills, which have been important for the growth and development of the foundation course, was starting and developing my own catering business. Unlike the making of art, which is an introspective activity, one has to constantly liaise with people, having to work as part of a team and deliver on time under enormous pressure. In short one has to be supremely organized to succeed in this industry. You may ask why catering? For me it is another art form and more and more of my family and friends were asking me to cook and bake for them for special occasions.

I researched the area and devised a large and varied menu. I took the logo that I designed for my business to Dorrit Ferreira, a practicing Graphic Designer and an ex-colleague, who worked around my logo and designed my business card, letterhead and menu. She also helped me put together a marketing campaign.

I started this business in late 2000 and it continued into 2003, but I could not sustain it with the demands of teaching and closed it altogether during 2003. By late 2002 the catering business had grown too large to run from home and I was contemplating renting premises and expanding when I was head hunted by the then Executive Chef of the Mount Nelson Hotel, Garth Stroebel. I had to go for an interview armed with a platter of a variety of cold anti-pasta. Even though I had had no formal training in the hotel industry, straight after the interview he offered

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me a job of managing the cold buffet of the Oasis Restaurant. I would be in charge of four staff. I told him that I needed to think about it.

Unlike all those years ago when Stan Slack offered me my first teaching job, after much agonizing I turned it down. I knew that this was the break-through that most people would kill for in this industry, as the Mount Nelson is South Africa's most prominent hotel internationally, but I felt it would take me too far away from Art and Design.

Within a week of saying no, I was offered three part-time teaching jobs in Art and Design. I started 2003 by doing all of them. I taught second and third year Fine Art and Graphic Design students drawing at the Ruth Prowse School of Art; I co-ordinated and taught the Graphic Design, Industrial Design and Drawing component in the Access course at the Cape Technikon; and I ran an evening Drawing course for Continuing Education of the Cape Technikon.

That was my re-entry into teaching. I spent my time traveling between the two institutions by day and by night spent my time teaching drawing with the result that some days I would kiss my children good bye in the morning and only see them the following morning at breakfast time. Not an ideal situation.

By the beginning of 2004 I was certain that I would be most effective and make the most difference in the Foundation Course in the Faculty of the Built Environment. I ran the evening Drawing Course once more and have since focused all my attention on the Foundation Course.

3. 1994: The Access Course

A gaping hole was left after the closure of the Basic Year at the end of 1993. With the advent of Democracy in South Africa in 1994 and the right of access to all learners from diverse social, economic and cultural backgrounds into higher education, some of whom were severely disadvantaged because of the legacy of Apartheid, there was more of a need than ever for a foundation course, to deal with the special requirements of under-prepared students.

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This led to the formation of the Access Course, which was started on the initiative of Margaret Bezuidenhout, one of the part-time lecturers from the Basic Year that closed down at the end of 1993.

The Access Course was developed outside of the diploma structure with very little funding and no permanent home for many years, until the prefab building was erected behind the Design Building on the Cape Town Campus, for its use in 2003.

Not withstanding its difficult beginnings it survived and grew. When one of the original two teachers left, I joined the Access Course at the beginning of 2003. The other member of staff, Diane Retief-Steyn, an art schoolteacher and ceramicist, who had been instrumental in building up certain components of the course together with the specialist Design lecturers (Interior, Surface, Fashion Design and architectural Technology) prior to 2003, is still there.

Initially it served as a bridging course to give under-prepared students from disadvantaged backgrounds the opportunity to gain access into the first-year of study in Graphic Design. However, by 2002 it represented the seven Design disciplines on offer for study at the Cape Town Campus.

This marked the beginning of the diagnostic function of the present Design Foundation Course. It gave the students exposure to the different Design disciplines and equipped them with the necessary skills for entry into the Design discipline of their choice. From 2004 the Access Course was known as the Foundation Course, as the Department of Education had recognized the importance of foundation courses and had started a new round of funding for a foundation cycle that would run for a three-year period from the beginning of 2004 to the end of 2006. The then Dean, Mel Hagen applied for funding and to register the foundation course, but due to a technical error the course was not registered.

An opportunity arose again to submit Foundation Funding Proposals for the new foundation cycle that would run for another three years from the beginning of

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2007 to the end of 2009. Mel Hagen was due to retire at the end of 2006 and was not able to work on these proposals.

Although I had no experience of such matters I knew that it was critical to submit Foundation Funding Proposals for all of our Design disciplines if we wanted the integrated Design Foundation Course to survive, as by now the old bridging courses had been replaced by foundation courses that functioned within the diploma and degree structures.

I had come through all these years to know one thing: that a foundation course was essential for access and successful further studies in design. I also knew that our current course had evolved into a unique model that served many purposes in helping students to participate at the next level of study successfully.

I used my initiative, put my head down and studied the document released by the current Minister of Education, Naledi Pandor. The document suggested the different foundation models that could be used for the funding proposals. I then did the necessary work for these in consultation with the Dean, Mel Hagen. I aligned the proposals to fit in with the institutional template devised by James Garraway from the Fundani Centre (the academic development unit) and the Hemis officer Arina Wessels who referring to the course descriptions I had written and helped me complete the statistical information.

The Foundation Proposals were submitted in mid-September 2006, and I am proud to say that they were accepted. Over and above the subsidy that the Design departments receive for students registered for the extended first year by doing the integrated Design Foundation Course, we have received R 1 747 000 for the three-year cycle that ends in December 2009 for foundational support. Although this may not seem like a lot of money this funding is essential for running our course.

4. 2007: The Design Foundation Course (Extended First Year)

administrator 9/23/08 8:51 PM
Comment [51]: Strategic not only for much needed funds. More important for registering the foundation course and bringing it back into the diploma structure. The question must be asked why are foundation courses not permanently placed within degree and diploma structures?

administrator 5/16/09 4:28 PM
Comment [52]: Why were the bridging courses replaced by foundation courses/extended curriculum programmes tha t functioned within the diploma/degree structure?

administrator 5/16/09 4:30 PM
Comment [53]: How important is long experience as a teacher in a particular area of study?

administrator 5/16/09 4:36 PM
Comment [54]: Did my years of experience in teaching and developing the curriculum at foundation level justify my doing the funding proposals for the new foundation funding cycle for 2007to 2009?

administrator 9/23/08 8:58 PM
Comment [55]: Has the course been affected negatively in any way by becoming part of the official diploma structure?

administrator 8/22/08 4:03 PM
Comment [56]: Other than funding from the DoE is there anyway to encourage partnerships with industry? Speak about Bauhaus style Black Mountain college, USA attempt to do this in early 20th century.

The current foundation course has been functioning since 2007 and is situated on the Cape Town Campus. It is known as the Design Foundation Course (Extended First Year) and is part of the Faculty of Informatics and Design of the Cape Peninsula University of Technology (CPUT). The CPUT grew out of the merger between the Cape Technikon based in Cape Town and the Peninsula Technikon situated in Bellville in 2005 as a result of a Government policy that had been applied to various technikons and universities throughout South Africa and was instituted by the previous Minister of Education, Kader Asmal.

One of the aspects of this merger is that the two technikons have become a university of technology, with an emphasis on research-based education. This should be useful for the development of a field like design where there has not been extensive research to date, even though design plays an important role and permeates virtually all sectors in our society.

With the current need for the development of sustainable design worldwide, our Faculty of Informatics and Design has an important role to play by engaging with these issues. There is a need for the training of knowledgeable, aware designers who have a broader understanding of design beyond the required specialist training of their specific design discipline, essential for dealing with such a fast changing world. Training of designers begins at the foundation level and an integrated design foundation course may be the model that fits the need for the training of aware designers who have breadth of understanding outside their specific Design field. Is

The present form of this department has been in use since 2002 from which time it has represented all of the seven Design disciplines on offer at the then Cape Technikon, now the Cape Town Campus of the CPUT. It was known as the Foundation Course since 2004. Since the beginning of 2007 the Design Foundation Course (Extended First Year) has been integrated into the diploma structure. The existing programme is under constant review and development with close consultation and direct input from the seven Design disciplines in our

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Faculty (Interior Design, Industrial Design, Jewellery Design, Graphic Design, Surface Design, Fashion Design and Architectural Technology) that it represents.

5. An in depth investigation of the current Design Foundation Course

I will start with the entrance requirements to the Foundation course and after a detailed description of the course itself I will compare it to the Basic Year, 1982 and the Access Course, 1994 to highlight similarities and also changes that were made in the interests of better practice.

5.1 Entrance Requirements

The selection process is thorough. All the Design disciplines have entrance portfolio requirements. Applicants also have to complete a specified essay. Part of the process includes an interview that is conducted by staff members of the Design discipline that the applicant is applying to for study in the first year. This practice of the selection process with all its different facets was instituted by the original Basic Year and has been refined over the years. It is a necessary practice as it helps to identify applicants who show appropriate potential for study in Design.

The target group for the Design Foundation Course (extended first year of study) consists mostly of prospective students who have applied for entry into the regular first year of study in one of the specialist Design departments. These applicants show appropriate potential for study in Design but are not ready for entry into the regular first year of study and are referred to the Design Foundation Course. If accepted these students are registered for the Extended First Year in the Design discipline for which they originally applied. Preference is given to applicants from disadvantaged backgrounds.

Prospective students often apply directly into the Design Foundation Course as they do not know enough about Design, or where their strengths lie to make an informed decision about which Design discipline to enter into for study. These applicants undergo our selection procedure, which includes a specified entrance portfolio, an essay and an interview. If they are accepted to do the Design Foundation Course they also have to register for the Extended First Year of study in one of the seven Design disciplines offered, as an important function of the foundation course is that it serves as the extended curriculum programme for the seven Design disciplines.

The course also serves as a diagnostic year of study as it has been developed as an integrated Design foundation course. By the end of the Design Foundation Course students should have a fair idea of where their strengths lie, and they should also be able to make an informed choice as to which Design discipline they should be entering in the regular first year of study. If necessary, after completing the Design Foundation Course, students are allowed to change their registration for study to another Design discipline for the regular first year of study.

5.2 The Structure of the Foundation Course, the Learning Approach and Assessment Criteria

5.2.1. Completion Time

The completion time for the three-year diploma for the students doing the extended first year (Design Foundation Course) is a minimum of four years. The original 1982 Basic Year was followed by a period of two years of specialization that was not adequate and was one of the main reasons for it being closed down.

The present structure of four years has resolved the problem and allows for three years of specialization once the foundation course has been completed. It also allows for additional foundational support where it is needed in the regular first year of study.

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Mentoring and continued support of students coming through from the foundation course into the regular first year should continue to reinforce the integrated approach to learning that they were exposed to in the foundation course. This will help them to continue and to succeed with their studies at this level. This is why the foundation course is also referred to as the *Extended First Year* and is seen as an extension of the regular first year of study, as the students are exposed to the fundamental principles and elements of Art and Design by being introduced to and learning to use the specific conventions of designing applied by the seven Design disciplines offered for study at CPUT.

5.2.2. Course Structure and Learning Approach

The Design Foundation Course covers all the Design disciplines namely: Graphic Design, Fashion Design, Surface Design, Jewellery Design, Industrial Design, Interior Design and Architectural Technology.

The learning process is interactive, with students working individually and in groups, and with critical discussion of the work that is done. During the design process and when projects have been completed there is peer review of projects in the form of critiques that are guided by the lecturer. The intention is to give the students exposure to an integrated approach to learning during this year of study.

Students develop a range of skills, from the ability to analyse artworks and designs verbally and in writing to developing conceptual and technical skills required for the development and execution of designs appropriate to the seven different Design disciplines to which the students are introduced.

The aim of this programme is that it will better prepare the students for entry into the regular first year in the Design discipline in which they are registered. Furthermore foundational support is integrated into the regular first year course where it is needed.

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administrator 8/17/08 3:50 PM
Comment [72]: Answers to the question: Should foundational support be continued into the regular first year of study? This answer is reinforced by observations made at the Marks review meeting in March and my pass rates statistics analysis done in 2007 (still need to update these).

administrator 10/19/08 8:20 AM
Comment [73]: What is meant by an interactive learning process? The answer to how it is done in the foundation course is described here. However what can be done to further enhance this method of interactive teaching?

administrator 5/16/09 4:41 PM
Comment [74]: The intention was to integrate foundational support into the Regular first year where needed, but has this been done?

administrator 10/19/08 8:21 AM
Comment [75]: Why should foundational support be given in all the areas where it is needed in the first year of study? The marks say otherwise and some departments are not actively incorporating foundational support into their curriculum. This was something that emerged in the plenary meeting on extended curricula with Prof Ian Scott in march this year.

5.2.3. Assessment

Completed practical projects are assessed by the presenter and moderated by a lecturer from the Regular first year in the relevant Design discipline. The student is given a detailed written assessment (formative) based directly on the criteria specified in the project brief. If required the presenter discusses the assessment with the student; and if necessary the student is given a further opportunity to rework the project.

Students have to attain a minimum of 50% in all theory and practical subjects, and preferably 60 % in the Design discipline in which they have been registered, in order to gain entry into the Regular first year of study.

The theory subjects and most of the practical subjects are made up of a number of projects that are weighted according to the role they play in terms of conceptual and technical complexity in relation to the other components of the work done in the particular subject. In this way the students always know where they stand with their studies.

Until this year this form of assessment has not been applied to the Interior Design and Architectural Technology components that are delivered in three-week blocks. Even though the projects for both of these subjects are made up of different components (concept-boards, plans, to scale models and presentation drawings) the students are given only one mark at the end of the project. This way of assessing has led to lack of clarity as far as the marks go and confusion for the students as they are not able to see which components of the project they do well in and which areas might need more attention. Through student feedback and discussion amongst staff these two subjects will be assessed in the same way as we assess the other subjects from 2009.

This kind of formative assessment also referred to as continuous assessment, accounts for 70% of their final mark for the year. This component is followed by

an extra project and an exam project in the subject of choice for study in first year and is done in the last six weeks of the academic year. These two components account for 30 % of the final mark and form part of the summative assessment gauging what students have learnt throughout the year, their ability to think critically and solve problems on their own and their readiness for entry into the regular first year of study in the Design discipline of choice.

This form of continuous assessment was used in the Basic Year course in the 1980s when it was not a standard requirement for assessing which it is now for all fields of study under the current Outcomes Based Education (OBE) framework.

We introduced this form of assessment for practical subjects in the Basic Year, partly in response to how some of us who had studied at the Michaelis School of Art, UCT in the 1970s had been assessed at the time. Work done for practical subjects was formally assessed only twice a year, at the end of the first semester and at the end of the second semester. It must however be noted that that there were individual lecturers who instinctively used the continuous method of assessment when evaluating student work.

Students exhibited all of their practical work for examination by a panel of staff. Being examined by a panel made the process more objective but being formally assessed twice a year did not provide students with sufficient feedback to develop and improve their work. We have retained the end of year Moderation (summative assessment) but it has been adapted.

The work done during the course of the year serves as diagnostic function in an attempt to look at the student's work holistically. Only the extra project and exam project are marked and moderated. If there is a problem with these two projects the examining panel looks at all the work done for the different design disciplines during the year to try and identify strengths that will inform the summative assessment.

The students in the current the Design Foundation Course are required to display all the work done during the year for their practical subjects in specially designated spaces in a clear and cohesive way meeting the specified criteria for displaying drawing, 2-dimensional and 3-dimensional projects. This is done so that the panel of examiners, comprised of lecturers from the Design Foundation Course and from the specific Design discipline, have an overview of each student's work. However, the only work assessed by the panel is the extra and the exam project in the subject of choice as well as the last component of the figure drawing that accounts for 40% of the year mark and the projects from the compulsory one day object drawing exam done at the end of the second semester.

The students are required to put up the years' work so that even though it is only the extra project and exam project that are being assessed, the students work is seen holistically. Seeing the students' body of work as a whole also serves a diagnostic function. The extra and exam projects are seen in the context of all the work that has been done during the year. This is helpful if the projects that are being examined are problematic and give the examiners the opportunity to suggest a possible alternative choice of Design discipline for further study rather than the one that has been chosen.

5.2.4. Course Description
Students have to register for the extended first year of study in one of the seven Design disciplines on offer in the Faculty of Informatics and Design, namely: Graphic Design, Fashion Design, Surface Design, Jewellery Design, Industrial Design, Interior Design and Architectural Technology. They register under the same subject codes as for the regular first year of study in the chosen Design discipline.

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In the Design Foundation Course the practical subjects fall under the three areas of Drawing, 2-Dimensional Design (Graphic Design, Fashion Design, Surface Design) and 3-Dimensional Design (Jewellery Design, Industrial Design, Interior Design and Architectural Technology).

5.3 Practical Subjects

In the Design Foundation Course the practical subjects fall under the three areas of Drawing, 2-Dimensional Design (Graphic Design, Fashion Design, Surface Design) and 3-Dimensional Design (Jewellery Design, Industrial Design, Interior Design and Architectural Technology).

5.3.1 Drawing

(i) The use of drawing in the Design Subjects

Drawing is fundamental to Design and is embedded in all of the Design subjects as part of the design process. Drawing is used to visualise ideas (putting ideas down on paper). It is an integral part of research and preparation and in the exploration and development of concepts into viable designs. Students make use of technical drawings and accurate plan drawings using the accepted architectural conventions for the designing and building of models. They also do presentation drawings using Design discipline specific drawing conventions for the presenting and marketing of completed projects.

(ii) Drawing as a Subject

Drawing is also taught as a separate subject that is divided into Figure and Object Drawing. These two components are equally weighted. Through figure and object drawing students are encouraged to develop observational, perceptual and conceptual skills and to carry these into their Design subjects. Students learn to work with a range of drawing media (pencil, pen, charcoal, pastel, and colour pencil crayon), and to use composition, line, tone, texture, colour, form and space within a given format when drawing.

5.3.2 Two-Dimensional Design (Graphic Design, Surface Design and Fashion Design)

Graphic Design

Students learn to communicate ideas through visual Design in colour and black and white, using various techniques (simplification, stylization, typography, storyboarding) and a range of different graphic media (gouache, pencil, markers, mixed media, pen and ink). They explore the basic principles of working within a given format, composition, simplification, and stylization, all of which are aspects of the design process that are essential to all the other Design disciplines. There is a project dealing with the principles of typography and meaning. This is then developed into a more complex project dealing with type and image. Students also learn how to use images to communicate a story or event and explore illustration.

Surface Design

Surface Design includes textile design and the application of designs onto different surfaces. The students are introduced to the colour wheel and colour theory after which they construct and paint their own colour wheel. They learn to understand pattern and do projects using repeat pattern in colour, and apply what they have learnt in colour theory. Researching the concept of the cultural use of colour and pattern, students also use and explore different printing and hand-painting techniques and how these are applied in the textile industry.

Fashion Design

Students are introduced to basic patternmaking and garment construction techniques in this subject. Students do a stylistic analysis of the designs of well-established international and local fashion designers and based on this understanding they learn to use concept boards to develop and design their own range of garments. The students then use storyboards to present these designs.

5.3.3 Three-Dimensional Design (Architectural Technology, Interior design, Industrial Design, Jewellery Design)

Architectural Technology

Students design an exterior structure for a specific site that meets special

requirements as set in the brief. They have to consider the materials, tools and technology when planning the design. Students learn to draw 1:10 scale plans paying attention to methods of construction from which they build a scale model of their design. They then give a PowerPoint presentation of their entire project to an audience for assessment.

Interior Design

Students learn to research and make use of concept boards in developing ideas for designing a specific interior space. They then learn to draw accurate plans and sections of their design on a 1:20 scale and construct a scale model of their design. They learn to make axonometric drawings of their model in pencil and to render these drawings in colour using colour pencil crayons.

Industrial Design

Students create a positive for a mould that could be used for mass production by making a cardboard construction for a low relief ceramic tile. They learn to work in three dimensions by designing and constructing slot-together structures for children from Corex card. The use of line, pattern and flat colour will be incorporated into these designs. Students then do a packaging exercise constructing a box and lid in cardboard from accurate technical drawings with strict specifications. They also make carefully rendered drawings in pencil of manufactured objects made of different materials.

Jewellery Design

Students are introduced to drawing techniques used in Jewellery Design such as working to scale, using a grid and making carefully rendered presentation drawings in pencil and in colour using colour pencil crayons. They develop different jewellery designs and manufacture these using appropriate technology. Students learn to carve, work in relief, cut brass plates, recycle found materials and use various wirework techniques. They make use of lost wax casting and learn to smelt, pour, sand and file metals such as copper and silver.

5.4 Theory Subjects

5.4.1 Communication Studies

History of Art and Design

This subject is taught on a theme-basis, introducing first-time History of Art and Design students to segments from the first year History of Art and Design course. Students are required to attend some first year History lectures and these are supplemented by tutorials. *(Design Foundation Study Guide, 2008)*

Design & Visual Literacy

This component of the course concentrates on introducing students to design and visual literacy and is developed through various written and spoken exercises and assessments. *(Design Foundation Study Guide, 2008)*

Current Awareness

Design and visual literacy classes are augmented by outings and visits to exhibitions. This is done to develop an awareness of current design and to encourage an attitude of life-long learning. *(Design Foundation Study Guide, 2008)*

Communication and Literacy (including Language Skills Course)

This section of the course introduces students to academic reading and writing as well the skills needed to research information and present this information in a coherent and effective written and verbal format. Students have the opportunity to ask for support with any of their written and oral assignments, and where remedial help is needed, it is given. Furthermore integrated into all theory assignments is an assessable language component that counts for 30% of the final mark. *(Design Foundation Study Guide, 2008)*

Learning Approach and Assessment

Students are required to complete a series of projects throughout the year. Projects will include: written analyses, image files, presentations, short and full academic essays and tests. Students are required to attend all classes, lectures and tutorials for this course. All projects contribute towards the final mark. Assignments have to be handed on or before the specified deadline. Late

assignments will not be marked. If less than 50% has been achieved for a project it has to be redone. All problem areas in student's work that have been pointed out by the lecturer have to be attended to by the student concerned. The maximum mark for resubmitted work is 50%. *(Design Foundation Study Guide, 2008)*

5.4.2. Computer Skills, Life Skills and Numeracy

Computer Skills
Basic computer literacy is offered in order to familiarise students with the current frameworks of technology. This knowledge is further developed into word processing and presentation package skills in order to empower students to successfully utilise these resources. *(Design Foundation Study Guide, 2008)*

Life Skills
This course includes various life skills and study skills workshops. These help students develop the kinds of individual and academic competencies and attitudes needed to successfully learn on a first year academic level. *(Design Foundation Study Guide, 2008)*

Numeracy Skills
The Numeracy course consists of 3 modules designed to give the students a practical understanding of Numeracy as it relates to various facets of life. The modules include a variety of topics such as areas and volumes, data processing and probabilities, as well as financial aspects such as interest rates, inflation and exchange rates. The emphasis is on practical application rather than theory. To this end students are given examples and exercises weekly, to enable active learning and application. Certain exercises as well as assessments will be used to demonstrate competency. *(Design Foundation Study Guide, 2008)*

(All the course descriptions are from the *Design Foundation Study Guide 2008* that was compiled and written by me except for the theory section that was edited and formatted by me).

6. The evolution of the Design Foundation Course in the context of its predecessors

6.1. Inside or outside of the diploma structure

The use of a selection process helps to identify if students have the potential to study in Design. However the students who enter into the foundation course come from diverse backgrounds and the levels of prior learning are varied. Some come from schools that are in disadvantaged areas and others from schools in established middle class suburbs. Others come from rural areas where Art and Design are not offered as subjects at high school at all. English is the accepted language that is used in Design but a lot of students only have English as a second language. Furthermore the way that Art and Design is assessed at the grade 12 level (secondary school exit level) is inconsistent. We will give a student who has achieved a B, 70% for the grade 12 final exams a score of 3 out 10 for our entrance portfolio and at other times our score will be an accurate reflection of the final grade twelve mark. The best way to deal with all of this is to put the emphasis on the learning that takes place once the students have gained access into the course. To give the students a solid grounding in the basic principles of Design through a carefully structured integrated curriculum. Access is only the first step in the process. It is important to prepare the students so that they can successfully continue with further studies and complete them within the allotted period of four years. It becomes costly for everyone concerned for studies to continue beyond the given time frame in which a qualification should be completed. Bridging courses such as the previous Access course deal with mostly just that, access. For all the above reasons, I am relieved that like the original Basic Year course the present Design Foundation course falls within the diploma structure.

6.2. The diagnostic function of the practical subjects in the present Design Foundation Course

The diagnostic function helps students in the following way: To identify if their strengths lie broadly in the 2-dimensional or 3-dimensional areas of design. To

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administrator 8/22/08 4:13 PM
Comment [95]: Taking into account that potential students have varying levels of prior learning: How are the portfolio requirements decided on? How does one test for academic potential? What qualities does one look for in the portfolios and other tests?

administrator 8/22/08 4:14 PM
Comment [96]: The assessment of Art and Design at Grade 12, school leaving level is inconsistent. What is the best way to deal with this in the selection process? Our answer so far is to give the students a solid foundation in design. We focus on the curriculum and in the way it is delivered.

administrator 8/22/08 4:15 PM
Comment [97]: Support this with theoretical underpinning. (Article on Access and Participation)

administrator 5/16/09 5:16 PM
Comment [98]: Why is access not enough and why has the emphasis been put on participation? Why ashould foundation courses be emphasizing the preparation of the successful further study of students?

administrator 8/23/08 6:29 AM
Comment [99]: Why is the diagnostic function of the Design foundation Course important? Look at other models present and past.

gain an understanding of the terminology, and the basic principles and elements of Art and Design namely: composition, format, form, simplification, stylization, positive shapes, and negative spaces. To gain an understanding of the different Design disciplines on offer for study in the faculty, enabling them to make an informed choice for further study.

6.2.1 The Basic Year Course 1982-1993

In the Basic Year course this was done through the four subjects that were offered in a broad generic way:

Drawing
In drawing through learning to see by means of building up concentration, paying attention, developing eye and hand co-ordination, using line, tone and texture to show form and space.

Graphic Interpretation
In Graphic Interpretation through the use of different graphic media (drawing and illustration: using pencil, pen, markers, inks, paint, printmaking and typography. Printmaking included block printing and silkscreen printing. Typography included calligraphy, as computers were not in use yet.

Form and Colour
In Form and Colour learning about colour through colour theory and applying it to two-dimensional designs mainly through the use of gouache but also other colour media (colour pencil crayons and colour drawing inks).

Perceptual Studies
Perceptual Studies was the interdisciplinary subject where colour, drawing, mixed media, collage and three-dimensional constructions were explored.

These subjects were not related to any particular Design discipline, so the diagnostic function was generic as one could identify broadly if a student

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gravitated towards the two or three-dimensional aspects of design not specifically which Design discipline they would be better suited to. The broadness of the generic diagnostic function of this approach is probably better suited for study in the Fine Arts. The historical model for this approach seems to be based quite strongly on the approach used by the Bauhaus.

6.2.2 The Design Foundation Course 2007-

On the other hand in the Design Foundation Course the students come to grips with the basic principles and elements of Design in projects that are specific to the different Design disciplines (Graphic, Fashion, Surface, Jewellery, Industrial, Interior Design and Architectural Technology) that are represented in the foundation course. They deal with the generic through the specific. The skills that they acquire in one discipline can be applied to and developed in another.

In their first project of the year, a Graphic Design project called 'Less is More', they deal with the concept of designing within a given format and learning to simplify and stylize form. They are also made aware of positive shapes and the surrounding negative spaces. They are made aware of negative spaces being as important as the positive shapes in terms of seeing form and composition. This last aspect is important for when one is doing typography.

The next project in Graphic Design is a typography project and they have to apply the concept of the relationship between the positive shapes and negative spaces to the kerning (spacing between characters) and seeing the characters (letters) as individual forms that express different qualities in terms of width, weight, and more significantly the difference in meaning that the different forms convey. Simplification and stylization are essential to the process of designing whatever the discipline may be and these are applied in various ways in different projects in the different design disciplines. Typography is also used in presentation drawings in Industrial Design, Interior Design and Architectural Technology as well as for presentation boards in Fashion Design.

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administrator 9/1/09 5:44 PM
Comment [101]: Why? What is the difference between fine art and design?

administrator 8/21/08 10:10 AM
Comment [102]: Comparison of previous foundation model 1982, historical model and foundation model we use currently.

administrator 8/21/08 10:19 AM
Comment [103]: Generic through the specific. Most important fundamental difference between the current course and before. Is this a valid and useful model and approach?

administrator 9/1/09 5:46 PM
Comment [104]: Why?

administrator 8/21/08 10:17 AM
Comment [105]: Simplification and stylization important aspects in designing process. Support this statement.

administrator 8/22/08 4:17 PM
Comment [106]: Typography essential area of study in graphic Design but also important in other design disciplines. Covered in detail in Graphic design typography project but used in other design disciplines. Is this demonstrated, conveyed to students? Elements of typography generic to 2D design and once understood can be applied specifically to other design disciplines. Find support for this? Maybe will have to be just from data?

The use of colour is taught through teaching the students to mix colours and to construct a colour wheel. They are given formal colour theory lectures after which they apply this knowledge to different projects in ways that are Design discipline specific thus becoming skilled in many different areas of colour usage.

6.2.3 Order of the delivery of the practical projects

The order in which the students are given projects is carefully considered. The projects are delivered in terms of technical, formal and conceptual complexity so that the students acquire skills in these areas incrementally thus building a strong foundation. I have been working at ordering the delivery of projects since 2004 (things were set when I started in the Access course in 2003 and I also needed some time to see exactly where the students were and how the course was run before making any interventions). I also firmly believe in trying to work with what is there and developing it and refining it. I only discard something if it really does not fit in with and strengthen the whole. Otherwise one is always going back to square one, reinventing the wheel and creating a whole set of new problems.

The order that students are exposed to the design principles in the projects is critical to their development. The way the 3-dimensional Design component is developed throughout the year will demonstrate this clearly.

The order of the delivery of the three-Dimensional component of the Design Foundation Course: Early in the year for the Surface Design component students learn to work in repeat pattern and do a repeat pattern design in gouache after they have completed their colour wheel and have been given their initial colour theory lecture. This repeat pattern design is used as a basis to develop the first industrial design project and make a cardboard construction for a low relief ceramic tile.

The relief tile project is followed by three-dimensional slot-together construction toy puzzles for children in corex card, also an Industrial Design project. In this project the objects are completely free standing and three-dimensional where the positive shapes and negative spaces are of importance. The students also

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decorate these with line, pattern and colour having to refer to aspects of the colour theory when applying the colour.

The next three dimensional construction is a box and lid, packaging, for the toy puzzles. This is constructed in white printcote cardboard, cut, scored and folded from an accurately measured technical drawing also done for the Industrial Design component.

The order in which the three Industrial Design projects are delivered to the students is vital for the understanding of working in three-dimensions and also for the development of the next three projects.

The next project after the packaging for the 3D puzzles is a project for Interior Design. This is a workspace project where the students construct a 1:10 model in cardboard from accurately drawn plans. This project in turn is followed by the Jewellery component where even finer co-ordinated hand skills are required.

In the Jewellery component the students start of with a cast coin project that entails carving in relief, which is then followed by a wirework chain project. This is followed by a key ring project made of cut brass plate and finally a lost-wax casting project where they design and make a ring in silver. After the Jewellery Design component the 3-dimensional Design section of the course culminates in the conceptually and technically demanding 3D structure that they build from accurate to scale 1:10 plans for the Architectural Technology project. The structure is built from a combination of cardboard and plywood.

This careful planning is applied to the other components of the course, to the Drawing and the 2-dimensional Design projects for Graphic Design, Surface Design and Fashion Design. We have found that for the students to make sense of the course as a whole and to fit the different components together so that the students see them as unique pieces that slot together to make a whole puzzle. Although some pieces are larger than others they are all needed to complete the puzzle.

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Design is strongly visual and has to do with the communication of ideas and information of products and the planning and making of artifacts, external environmental structures and internal spaces. The other thing to remember is that many of the students doing the foundation course have never been exposed to art and design studies before, so an introductory course to drawing is offered to teach the students how to draw and to use drawing to convey their ideas in the design process.

As described under the course description the drawing is made up of two components: The first being the subject Drawing, that consists of two equally weighted components, Figure Drawing and Object Drawing. The second being the subject specific drawing that is embedded in the different Design disciplines.

In the first component students are taught how to draw, which essentially has to do with seeing and becoming aware of the world around them. Through figure drawing, they learn to develop their concentration and visual memory. This is done by working for long periods of time on one drawing and in short intensive periods working on drawings done in quick succession of each other. Both these methods deal with form and space and relating the different parts of the figure to each other and to the whole. They use line, varied mark making and tone to achieve this.

The principles of working with the whole and relating the parts to the whole are translated to object drawing where the students work with designs using single objects or groups of objects in a designated format paying attention to achieving interesting and appropriate compositions and working with elements such as contrast and repetition of scale, tone, line form, space, texture and colour.

In both the figure and the object drawing the students work on a large scale initially so that they can get involved in the drawing and use their entire arm from the shoulder and not just working from the wrist and hand as they would do when working on a smaller scale. They lightly and loosely map out the composition and are encouraged to develop it in layers using flexible media such as charcoal and

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pastel, letting the work underneath shine through instead of rubbing out what the students perceive as mistakes.

In object drawing they move from working on a large scale to working on a small scale drawing in pencil and then in colour pencil crayon, applying aspects of the colour theory that they were given. In the last Graphic Design project the 'Stylistic Analysis Self Portrait' the students are actively encouraged to make use of what was learnt in their figure drawing during the course of the year as well as linking up the stylistic analysis aspect with what they learnt in their communication studies about formal and stylistic analysis when looking at works of art and design.

The figure and object drawing leads to greater awareness, concentration, accuracy, and greater sensitivity in the use of line to draw up plans and presentation drawings using discipline specific conventions for drawing in Architectural Technology, Interior Design and Jewellery Design projects. The figure and object drawing also leads to the understanding and the ability to see a composition and design as a whole, and not in patchy, disjointed parts. This aspect of being aware of the whole is encouraged when they are engaged in the design process in practical projects in the 2D and 3D subjects. It takes the entire year of reinforcing in all areas of the practical component of the course for this concept to be understood and applied.

6.2.3 Annual review of the course: refinement of the order of the course delivery, and the refinement of existing projects, including the introduction of new projects

At the end of each year we review the course as a whole. Projects continue to be refined and new ones introduced in an attempt to continue to develop and refine the process (we try to engage in the iterative process that is design, each time we put our course outline together). Not only are individual projects developed and refined but also the order in which they are delivered throughout the year.

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The 3D toy puzzle project made in corex and the box and lid, the packaging designed for the puzzles are good examples to use to illustrate the development and refinement of individual projects.

When I started teaching in the foundation course in 2003, I became the co-ordinator of the Industrial Design component and had a meeting with the co-ordinator of the first year Industrial Design programme to discuss the structuring of the Industrial Design component of the foundation course to see what needed to be developed in the practical component to enable the smooth transition of our students into the first year of Industrial Design and to ensure that they had the necessary skills to continue with their studies in the first year.

It was decided that introducing them to the concept of designing in three dimensions would be easier by introducing them to working in relief first. This resulted in creation of a new project, the tile relief project based on the repeat pattern project in Surface Design which preceded it. It was decided that we would keep the 3D puzzle project, as it was a good way to introduce the students to constructing freestanding three-dimensional objects.

Although the basic concept of the 3D puzzle project was sound it needed to be developed and refined. I made a few changes to improve this project in 2003. A theme was introduced that the students could research and find related visual images from which they could make drawings that would be used to develop designs for their 3D puzzle constructions.

The method of construction, of cutout geometric and organic shapes being slotted together to make a freestanding 3D construction was retained. However, the material that was used for the constructions was changed from cardboard card that tore easily to the constructions being made from corex card (a ridged, hard wearing plastic card that is used for signage commercially).

The use of colour would also no longer be left as a student personal choice, instead the students would be required to work with flat colour (using stick-on

opaque colour plastic film) referring to and applying one of the colour contrasts (Contrast of Hue) that they had learnt about in colour theory.

They would also apply the concept of simplification and stylization when designing by referring to the first Graphic Design project *Less is More* where they worked in black and white and learnt to simplify and stylise form. Each year since 2003 it has been decided to retain this project but each year we have made changes to it in an attempt to make it work better and meet the criteria that have been set out in the brief more efficiently.

The other aspect of this project that was refined was the box and lid that are used as packaging for the puzzles. When the project was first delivered before I took over the teaching the puzzles were placed in a premade covered box and lid. The labeling of the box consisted of haphazardly cut out type and photographic images of the assembled puzzles.

This was changed to the students having to cut and fold a box and lid from carefully measured technical drawings done on triplex card. This was further refined into a third Design as the template that I designed for the students to use was too large and the triplex card, even though they carefully scored it before folding was too thick and it tore. The next design that is the one that is currently in use. I Designed a template on a smaller scale using a slightly thinner printcote card that remains intact when folded. For the label design they deal with 'Type and Image' applying what was learnt in their previous Graphic Design stylization and typography projects. The colour aspect is a development from the Surface Design repeat pattern project and like it is painted in flat colour in gouache paint. Conscious application of what has already been learnt in order to take their work a step further forward is actively encouraged.

6.3. Integrating the theoretical and practical components

The History of Art and Design course of the Foundation Year Course in the 1980's was approached in the traditional way as a historic survey, chronologically

starting with Mesopotamia and Ancient Egypt and ending with Modern Art in the 20th century.

The approach in the present Design Foundation Course is different and is structured to deal with the diverse student body in terms of the range of levels of prior learning. It is theme based and chronologically based. Students who have never done Art and Design before have to be taken into consideration, as do the varying standards of the schools where Art and Design are taught. There is a vast difference between schooling in urban and rural areas that are disadvantaged (poor, lacking in infrastructure and resources) and the education found in established private schools and government schools in middle class suburbs. English language proficiency is another problem as English is a second language for a lot of the students. This has resulted in the development of an intensive programme not only in terms of Art and Design History, but to foster a general awareness of Design through the development of visual literacy which is augmented by taking the students on outings to galleries in the city, making them aware of the built environment and involving them in events such as the Design Indaba Expo and Conference. The programme is structured to develop analytical and critical thinking skills that can be applied to both visual and written work. A language skills course is run and all attempts are made to integrate this into the theory component. Furthermore life skills workshops are offered and aspects of these such as time management, communication and review are assessment categories that are built into our practical subject project briefs. Research and preparation are emphasized and we try to integrate practical subject projects by linking them up with activities that take place in the theory component.

On the one hand one is comforted by the ongoing debate internationally of how to integrate theory and practice in vocationally orientated disciplines such as Design, so the problem we face is not unique. However, it is more severe in our situation because of the under-preparedness of a lot of our students as a result of the legacy of apartheid. I did a statistical analysis to see what the pass rate was of students who had successfully completed our course from 2002 to 2007

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administrator 9/1/09 5:56 PM
Comment [124]: How important is this aspect of developing general awareness of design at foundation level

administrator 9/1/09 5:58 PM
Comment [125]: Is the development of visual literacy important at foundation level? Why is it important?

administrator 8/22/08 4:40 PM
Comment [126]: Notwithstanding all these interventions there is still a problem with the passrates in the theory subjects as can be seen from the passrates statistics and observations made at the Marks review meeting. Why? Are certain areas not addressed sufficiently? Is more support needed in the first year of study? Is the problem greater and does it lie with the sport or lack there of in the students primary environment? What can be done at School level to improve thins? Is it our problem?

administrator 8/21/08 11:18 AM
Comment [127]: I have found two articles discussing the integration of practice and theory relating specifically to design.

administrator 8/21/08 11:20 AM
Comment [128]: Many education articles dealing with this issue and foundational support in other disciplines not design. I will apply to design

and 40% (higher than the National average which is closer to 13%) of the students complete their studies for the three year diploma. The main reason for this low pass rate is because of failure mainly in the theory subjects. This was confirmed in a marks review meeting. The most disturbing observation made there was that there is a high failure rate at the end of first year. This is particularly alarming as we have a foundation programme in place.

Many of the students who are in the foundation course have not been exposed to art and design studies, so we try to provide an art-historical chronology so that they can fit their theoretical studies into a meaningful context. This approach is used as a vehicle through which the students are familiarized with the basic principles and elements of Art and Design through formal, stylistic, conceptual and contextual analysis. A thematic approach is also applied in order to study certain material cultures in more depth such as Islam. This is done with a view to show how Islamic culture has influenced the design of buildings, furniture, textiles, clothing and jewellery. Once the students have gained sufficient analytical and critical thinking skills they are given their first big research project where they have to find a contemporary design of their choice in each of the seven design disciplines that are represented on the foundation course and do a formal stylistic and contextual analysis of the designs that they have chosen. This balances the art-historical chronological aspect of the course.

> **administrator 8/22/08 4:46 PM**
> **Comment [129]:** Why should studies be contextualized?

> **administrator 8/22/08 4:50 PM**
> **Comment [130]:** As in the practical subjects an incremental approach starting from the development of more simple skills to more complex is used in the structuring and the delivery of the communication studies course. Why use this approach? Find literature to support this.

6.3.1 Research and preparation

I always tell the students, "The end result is only as good as your research and preparation". Process is emphasized in order to arrive at a carefully considered solution to a given problem. All of the practical projects are set in a way that the students are given a thorough briefing with visual presentation relating to the project and much discussion. Sometimes this is preceded by a theory lecture in Communication studies about the given topic, as is done in the Graphic Design, " Stylistic analysis self-portrait" project.

After the briefing of a project the students are given time to go out and gather the necessary information. The students have to inform themselves about the requirements of each project by doing the necessary specified research and then using drawing as a means engage with the design process and continue to refine their designs until an acceptable solution has been found in their layout pads.

In the case of the 3D toy puzzles they then had to construct small proto-types in cardboard from their drawings before commencing with the final versions in the corex card. The final product sometimes also needs to be refined but this way of working leads to less errors being made in the execution of the design and is a standard way of approaching things in the design industry from using storyboards before filming advertisements for television, to the process of developing pro-types in car design and the construction of to scale models by architects before embarking on the construction of the actual buildings.

In communication studies emphasis is also put on research and preparation. At the beginning of the year the students are shown how to use the library and their workshop on how to learn to use databases is planned so that they do the research for the Industrial Design 3D puzzle as the practical part of the database workshop. This is done to try and develop a culture of research and to reinforce the integration of practical and theory subjects, no matter how basic the level may be.

6.4. Issues of staffing and pedagogy

6.4.1 Generalist and specialist teachers

The teaching that is required at the foundation level is particular in every sense of the word, from who does the teaching to the pedagogical approach that is used. In the practical component of the course one needs teachers who understand the broad principles of Art and Design. In the case of the model that we use in the Design Foundation Course where the generic principles are taught through the specific Design disciplines, we also need teachers who have been trained as specialists in their given Design discipline represented in the course namely:

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Graphic Design, Surface Design, Fashion Design, Jewellery Design, Industrial Design, Interior Design and Architectural Technology.

4.2 Experience and team-teaching

Experienced teachers are better able to deal with the diversity of the student body, because of the difference and range of the social, economic and cultural backgrounds of the students who participate in the Design Foundation Course. Although most of the students have had very little or no exposure to training in Design at this level, their levels of prior learning in other fields of study are varied in the extreme. Students gain access into the course from having had no Art and Design at school, to coming from schools in disadvantaged urban and rural areas, to those coming from private schools and government schools in established middle class suburbs, to students who have completed diplomas and degrees in other fields of study. As a result of all of these factors great skill and adaptability is required at this level of teaching. The ability to convey complex concepts in clear and simple terms is essential. Teachers have to be able to use analogies to explain ideas that will be understood by all of the students. We have experienced on a number of occasions that lecturers who co-teach practical projects with us and are trained in a specific Design discipline have the specialized technical knowledge relating to the particular Design discipline but are not able to convey the information to the students in the foundation course successfully. They have to be patient and be prepared to work around a particular problem that students might encounter in a project. They have to be able to find different ways of approaching the problem through different explanations according to the differing needs of individual students. Practical demonstrations also need to be done individually for students and also in the group situation depending on what is needed. Sometimes getting the students to work in a group to solve a problem by giving them a list of criteria and getting them to conduct a critical analysis of one another's work under guidance from the teacher, is the solution. All of this points to the fact that in order to make the right call in dealing with a problem, dedication and experience is required when teaching at this level. In short the foundation specialist teachers and the

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specialist Design teachers have to be experienced and team-teach to be most effective.

4.3 Continuity and the training of young teachers

The other component that is needed for the teaching team is to be able to use young motivated, energetic teachers who are engaged with research and post-graduate studies. Inclusion of young teachers in the team is important as they are more closely connected to the students in terms of their worldview, and they bring new perspectives and fresh teaching approaches to the course. By teaching with the older more experienced staff they in turn are able to gain the skills required to teach at this level thus ensuring the continuation and regeneration of the pedagogical approach of the Design Foundation course. We have had the same experience in both Industrial Design and in Jewellery Design where the students struggled when young teachers from these disciplines taught them in that that they did not spend one on one time with the students and were not experienced enough to find inventive enough means to open up difficult aspects in a project. They struggled to help to lead the students to finding solutions without giving them the solution itself. This problem could be overcome quite easily if these teachers taught as part of a team with the foundation specialist staff and the more senior and experienced staff from their own Design discipline. I had a young woman teach with me who could draw with ease and though she had not been exposed to my approach before, she was applying it to her own figure drawing intuitively. Once she had been made aware of the principles that she was applying in her own work (working with the whole at all times and the parts being the sum of the whole by finding the main impulse and gesture of a specific pose and following it through the figure as a whole) she understood it in no time, and was able to convey this complex concept to the students so that they would understand it. It did not take long for her to apply what she practiced in her own drawing to her teaching once she had the terminology and historical context for what she was doing. The idea of working with the whole (in a drawing, composition, design) is one of the main concepts to get through to students at this level, as it is only then that one finds a solution to

a problem thereby arriving at a successful design. I deal with this in a direct and tangible way in the figure and object drawing and then try to get the students to apply this to their discipline specific designs. It is an aspect of designing that I reinforce throughout the year no matter what design discipline component we may be dealing with.

The problem here is that not sufficient lecturers are appointed to enable team-teaching, due to financial constraints and Department of Education policies, of having one lecturer per 55 students being the norm. The regulations should be less rigid to allow for the staff ratios to differ according to the pedagogical requirements of a specific field of study (design education is more studio and work place based than the teaching of Mathematics requirements to meet need of varied pedagogical approaches in skilled young teachers in a particular area of art and design such as drawing are hard to come by.

4.4 The adverse effect of lack of funding
A huge problem that we experience is finding talented young teachers and keeping them because of the ideological (affirmative action appointments policy as a means of addressing the wrongs of apartheid) and perhaps even more importantly the financial constraints imposed by the Department of Education in that teachers are not being paid competitive enough salaries so they leave the country to teach abroad or leave the profession altogether. The young drawing teacher that was mentioned above went to Italy to do a post graduate course in Fashion Illustration that she passed with 100%. All we were able to offer her was a part-time position so she never returned and we have not been able to find someone else with her skills again because of the constraints mentioned above. Until such time as Education especially Tertiary Education is seen as a business and recruitment practices mirror those in the private sector in terms of how talented or valued staff are treated there will always be a problem with the outcomes of what students learn and the development and maintenance of standards. Continuity in the programme is essential for the development of good practice. This is achieved through the use and nurturing of experienced and

skilled teachers. Too often the students are blamed for lack of performance and although there are always some problematic individuals who simply do not make a commitment to their studies, most problems can be addressed and resolved through good teaching and a sound institutional infrastructure.

Lack of funding also affects student success rates. The government Financial Aid Scheme, that is made available by CPUT through a stringent means test, provides the financially disadvantaged students with some assistance, but does not sufficiently meet all of their needs in order for them to be able to engage in their studies.

In 2005 we ran a Learnership that was aligned to our course. This was funded the MAPPP-Seta which paid the fees of our needy students. The students were subjected to the government financial means test, run by our institution, and were granted a space on the Learnership according to the results of this test.

In 2006 the Learnership was converted to a bursary fund that was renewable each year until the recipients completed their studies for a diploma in their chosen Design discipline. The only condition for the bursary to be renewed was that the students should pass at the end of each year. The bursary covered the tuition fees, residence fees, art materials kit and additional art materials as needed throughout the year (R35 per year per student). Money was never made available to the students instead accounts were paid.

Unfortunately due to the MAPPP-Seta running into organizational and financial difficulties, since 2007 only the students already on the bursary scheme benefit until they have completed their diplomas. As a result we have had a number of students who have not been able to continue with their studies or would have succeeded and not dropped out had they had the necessary financial support. This will continue to be a problem until an equivalent means of funding is found.

4.5 Problems caused by lack of continuity
Often the lack of continuity of the foundation pedagogical approach in the regular first year of study, leads to the students who come through the foundation course

not receiving sufficient mentoring and support. This leads to failure at the end of the first year in some cases.

I made some observations in the Marks Review meeting earlier this year where all of the departments of our Faculty of Informatics and Design had to complete a pass rates information form and present this in the meeting. What emerged was that generally there was a high failure rate at the end of the first year of study. Of the seven Design disciplines represented on our foundation course only Graphic Design on the Cape Town Campus had a low failure rate. In my opinion this is because students who needed foundational support were referred to us, but most importantly a number of the teaching staff from the foundation year course that was closed in 1992 were absorbed into the Graphic Design first year course. So, they had the experience to deal with students who needed foundational support. Furthermore all of them were university trained in the liberal arts tradition with a number of them holding either Honours or Masters degrees from the Universities of Cape Town and Stellenbosch. Again this highlights the need for experienced and skilled teachers and continuity. From this it can also be seen that the failure rate at the end of first year would be less of a problem if more of the specialist Design staff were exposed to the students needs through team-teaching with foundation specialist staff not only during the foundation year but also in the first year. This would probably lead to the restructuring of the curriculum in the first year.

In fact the question that should be asked is one year of foundation studies enough? Should this integrated model of teaching Design not be extended into further studies in the first year and beyond? This would lead to a very different type of Design graduate in that one could develop the course in design as other traditional undergraduate degrees are structured where students could major in two to three subjects and then specialize in one subject in the fourth year. This model is applied to the traditional degree in Fine Art but nothing as yet like this exists for study in the field of Design in this country. A possible equivalent model should be investigated as an alternative for study in Design. After completing an

integrated foundation year the following year of study could consist of the student choosing three design disciplines and in the third year of study this could be reduced to two out of the three disciplines being continued. In the fourth year one of the remaining two disciplines could be chosen for specialization. Even within the current model where students specialize in one Design discipline from the start, feedback that we receive from past foundation students and a lot of the specialist staff in the different Design disciplines is that the integrated foundation course is of great benefit to students and it does prepare them and help them to succeed with further studies in their respective disciplines. Often the opinion has been expressed that all students would benefit from doing the integrated Design Foundation course no matter what their level of prior learning.

Continuity is probably the most important aspect required in the development of the foundation course that does what it says, it lays the foundation for further studies in design.

Now the questions must be asked. Does this foundation course meet the needs of the students in our current socio-economic climate? What are its strengths? Are there any weaknesses? What historical models are referred to? Has it adapted and used that which worked from the previous foundation courses of this institution? What is still lacking and what can be done to address the problematic aspects of the course? Should it be limited to the small base of students that it serves currently or should all students who wish to study Design do the foundation course.

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Appendix B: Chronological and thematic survey of art and design education

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1.1 Comparative Analysis

As Pierre Bourdieu explains, in order to understand something one has to compare it to something else, preferably it's opposite. He demonstrates this through the comparative analysis of the opposing styles of Classical and Baroque painting (Bourdieu, 1967: 346), the theory of which is based on Heinrich Wölfflin's study that outlines the difference between Classical and Baroque drawing, painting, sculpture, architecture and the decorative arts (Wölfflin, 1950: passim). Chris Hart (1998: 131-132) also points out that a comparative analysis of the similarities and differences between the opinions of specialists, in a particular area of learning, will lead to the development of sound arguments in the literature review, based on critical thinking.

This method of investigation and analysis is suitable for use in this thesis as the research focuses on foundation education in design. "Design outcomes are practical in nature: products are manufactured; systems are developed; ideas are communicated" (Lecanides Arnott, 2010: 6), and the language that is used for the making of 'things' is essentially visual.

1.2 Integration of theory and practice

One of the areas of concern that was highlighted in the introductory chapter of this thesis, and which forms part of my research question, is the need for the 'integration of theory and practice' in design. Bourdieu, Wölfflin and Hart, have approved comparative analysis as a suitable method for the investigation and critical understanding of both written research (theory), and art and design artefacts (practical). I will therefore use it for purposes of analysis throughout this thesis, in theoretical and practical aspects of design, particularly foundation education in design.

Wölfflin points out that stylistic development in the Fine and Applied arts (drawing, painting, sculpture, architecture and the decorative arts) relates to specific times and places. The implications of this view are that form, content and function are closely related, reflecting the historical and cultural context of the particular society from which they stem.

1.3 Transference of knowledge and skills

As mentioned in chapter one, corroborating Tynan and Boughey's views of the necessity for an integrated approach in foundation education, Hart (: 8) (when discussing how to go about doing a literature review) describes good scholarship as an integrated activity, "Integration is about making connections between ideas, theories and experience". He goes on to describe the necessity for the transference of knowledge and skills in the following way:

> It is about applying a method or methodology from one area to another: about placing
> some episode into a larger theoretical framework, thereby providing a new way of looking
> at that phenomenon … It might also mean re-examining an existing body of knowledge in
> the light of a new development. (Hart: 8)

1.4 Re-examining the body of knowledge

It has been necessary to take a long view in this literature review, because study in the field of art and design is complex. A re-examination is indicated as to why and how the visual language of art and design has developed and changed since the time of the first academy founded by Vasari, the *Academia del Designo* (1563), in Florence in Italy in the early Renaissance, through to the widespread phenomenon of Postmodern art and design education in the late twentieth century (Goldstein: passim).

'Learning to see' (Sonntag: 369) and the teaching of the 'language' of art and design, is based on theoretical principles that have grown out of the development of the visual language itself (Goldstein: 273). Looking at the development of the principles of art and design and how they have been taught in the past is necessary in order to establish:

- Whether past curriculum structures, teaching approaches and assessment methods adequately meet the current requirements for the grounding education of critically aware and versatile designers?

- What further developments and changes need to be made to curriculum structure and teaching approach in foundation programmes, and what the implications will be for education in design?

- Whether there is a conceptual framework, and how to implement it for the continued development of foundation programmes in design, looking at curriculum structures, teaching approach and assessment methods?

The information for this chapter will reflect the following key areas in foundation education in design that were identified in chapter one as needing investigation, and on which my research question and sub-questions have been based.

- Aspects of the curriculum, teaching approach and assessment methods

- Critical awareness and understanding of design

- Transference of knowledge and skills

- Towards a conceptual framework for best practice and quality in design foundation education

2. Challenges facing design and design education

Many challenges face education because of the acceleration of technological advances since the 1990s, particularly in the field of information technology which has led to a new network knowledge economy, changing and enabling business, expediting communication and the sourcing of information through the internet, social networks and other databases which has led to the expansion of study and research like never before (Hart: 3).

2.1 The need for critically aware and skilled designers
As a result, design practitioners and educators, such as Katherine McCoy (1990: 21-22) have been advocating change for a different type of design education, which is not only based on skills training. McCoy

aptly stated that, "Designers create culture and they should know the history and dynamics of their culture" (McCoy: 21).

More recently, MP Ranjan (2005: 1-5) emphasized the need for basic design education at postgraduate level, because design had become a knowledge-driven discipline, due to the widespread use of computers, which had led to the loss of basic design skills. McCoy and Ranjan's views demonstrate a need for educating critically aware and skilled designers.

Harold G Nelson and Erik Stolterman stress the importance of creating a design culture, "one that promotes an understanding of design as transcendent of particular contexts, specific disciplines, or single concepts" (2003: 4). A design culture that is "broad in its scope and deep in its meaning and utility" (Nelson & Stolterman: 5).

2.2 Design action: 'Breaking down silos' and the need for strategic design
The concept of 'breaking down silos', the main theme of the Design Indaba conference (Cape Town 2006), is echoed by Donald A Schön (2009: 111). Schon identifies designing as a social process, using a building project to demonstrate the need for flexibility in the work place (Boud, 2001: 38) and for designers to be able to work with other professionals from fields other than design (such as engineers, property developers, accountants).

Arising from different contexts, Ranjan (1999: 1-3) and Ezio Manzini, (2009: 448-449) both take the concept of design as a social process further, stressing the need for strategic design and the move from user centred design to active centred design, with the broader community of design specialists functioning within the global "networked knowledge society", designing sustainable socio-economic environments with local communities.

In discussing the concept of design action, Nelson and Stolterman (: 22) make a distinction between design action and problem action. They believe problem action to be initiated out of reactive motivations such as need, fear, weakness, hate and pain, as opposed to design action which they see as generating more energy than it consumes, believing it to be an innovative inquiry that creates more resources.

3. The response of design practitioners to challenges in a constantly changing world

At the *All Stars* Design Indaba Conference of 2010, the presentations of many of the emerging and established design practitioners, from South Africa and other parts of the world, bore testimony to the fact that they were trying to address the global challenges of a fast changing world through innovative and sustainable design in particular contexts on a local level, with some having global impact.

3..1 Designers and their way of 'thinking' and 'doing': Integrating theory with practice
I will discuss the approach of a few of these designers with reference to their design work and how their way of 'thinking' and their way of 'doing', answer some of the challenges expressed as needing attention by the design theoreticians and educators in the previous section

 3.2. Their approach to design gives a clearer idea of what qualities are required of designers, for them to be knowledgeable, critically aware and versatile.

However, one of the main areas of concern in art and design education highlighted earlier, is the question of integrating theory with practice in the field of art and design, which has implications as to how one investigates, analyses and evaluates the work of artists and designers in a field where the outcomes are largely practical.

As Professor MJ Ranjan (2005: 3) from the National Institute of Design in Ahmedabad, West India, insightfully points out in his writing when reflecting on the influences of the art and design education of the Bauhaus and Ulm, on the National Institute of Design, is that "what is significant about the Bauhaus foundation course is the close interplay of theory and skill". With time the emphasis in design education became more skill oriented, leading to designers not writing about their practice. This shift and the emphasis of design being on the 'making of things', raises the question as to what constitutes a published, peer-reviewed work in the field of art and design, where the outcomes are usually practical in nature?

3.3. Industry based conferences and education based conferences

The industry based, annual Design Indaba conference which has been held at the Cape Town International Convention Centre (CTICC) for the last thirteen years, is the largest conference of its kind, attracting leading designers from around the world. The Design Indaba Conference runs parallel with the Design Indaba Expo, which showcases the best new design produced locally in South Africa by established and emerging designers. The designers who have been chosen to speak about design and in particular about their own design work at the annual Design Indaba Conference in Cape Town, have been acknowledged by industry, their products have been manufactured, often mass-produced and used in the real world. Surely all of this can be seen as constituting publication and peer review of their work?

However, the presentations of their work have not undergone the double-blind peer-review process of conference papers presented at academic, education based conferences such as the DEFSA international conference in Cape Town (2007) and more recently the *ConnectED2010, 2nd international conference in design education*, in association with DEFSA in Sydney (2010).

3.4 Peer review and the publication of art and design artefacts (material culture)

Earlier, I argued why current work by designers, which has been acknowledged in industry as being significant in some way, should be taken into account when looking at grounding education for designers

3.3.1 Troika

The young interactive designers based in London, Connie Freyer, Eva Rucki and Sebastein Noel (a graphic and communication designer, a product designer and an engineer) (Cape Town 2010) met at the Royal College of Art, and in 2003 formed a multidisciplinary art and design practice called *Troika*. With their combined knowledge and skills, " putting everything into one pot", from their different design backgrounds they have designed exciting and varied self initiated and commissioned projects, receiving a major award for their *Cloud* mobile installation, commissioned by British Airways for the new BA lounges in Heathrow Airport, Terminal 5.

Troika described the influences in their work, saying that initially they had to learn to understand the different design languages that they use, because the terminology varied as a result of the three of them having specialized in different disciplines.

Much thought goes into developing their designs, which often reflect social and critical comment, applying 'Bauhaus thinking' by mixing elements of art and design, using existing materials, imagining new functions for old objects and harnessing old and new technologies.

Structures and systems in nature are also investigated during the design process (in the early stages of designing *Cloud* they looked at the structure of a pineapple). They often collaborate with specialists from different fields, like scientists and screen printers in search of suitable technologies for the construction of their designs. They are emphatic about making technology "manifest and tangible", describing technology as a cultural artifact, using it as a means to express ideas in a tactile way, often pushing the boundaries of new technologies

3.3.2 Mokena Makeka

Mokena Makeka (Cape Town 2010) a South African architect, who runs a "multi-cultural laboratory" style design practice from Cape Town (with young architects and designers from South Africa and other parts of the world, particularly from developing countries in South America and Asia), believes that buildings should outlive their owners, as a building's legacy is at the heart of sustainable architecture.

Makeka is conscious of the fact that Cape Town is a city of "contrasts and contradictions", of wealth and extreme poverty, with the vast majority of the population situated in the township of Khayelitsha, an informal settlement far away from the city centre and job opportunities. He believes that intelligent design interventions can go a long way towards resolving the existing incongruities of the cultural, social, economic and built fabric of the city.

He is the chief architect involved in the revamping of Cape Town railway station, and has been responsible for designing public buildings, namely a police station in Retreat and a community centre in Khayelitsha. These buildings clearly demonstrate Makeka's design approach. His design solutions are most successful when designing for existing situations taking the needs of the community in the particular context into account (as opposed to his Utopian design for a house in the Mongolian desert or the futuristic cityscape of Cape Town).

His approach is to develop a strong concept, as he says this helps keep costs down. He sees design as a "journey" and that design needs to be "teased out" of certain situations. He feels that it is essential that his buildings engage with the public, and are sensitive to the needs of the people who use them. He believes in a humanistic approach to creating structures that are formally, aesthetically and functionally responsive to a particular context. In a transient township environment, to encourage the notion of community, he has created public buildings that are permanent and strong, but open and inviting, as apposed to authoritarian, closed and fenced in structures.

He says that design intervention can also be about stripping things down, and not always about adding on.

When asked if his buildings conveyed a sense of African culture he replied that, as a designer he creates a "stage for people to infuse the space with what they want to". From this statement it is clear that he does not have a narrow tribal or ethnic outlook on culture, but instead is interested in the development of an African

urban design culture, which takes into account the diversity of the South African urban environment and population.

3.3.3 Boback Firoozbakht

Boback Firoozbakht (Cape Town 2010), is a Persian-American emerging designer and developer, completing his Masters of Interior Architecture, Intervention and Adaptive Reuse at Rhode Island School of Design. His views are similar to Makeka's, in that Firoozbakht believes that buildings with the lowest 'carbon footprint' are those that already exist.

His design for the conversion and reconditioning of a disused warehouse into artists' studio apartments is a carefully considered and sustainable design intervention. It retains the integrity of the warehouse structure with its large windows, making use of these windows to provide appropriate light for the interior space, which has been designed into affordable units for artists to live in and work from. The sensitivity to the existing fabric of the building and the understanding of the requirements of the artists for whose use the building was converted, demonstrates the understanding of the necessity to create a broader 'design culture' which is referred to by Nelson and Stolterman (: 5).

3.3.4 Michael Bierut

In his presentation at the Design Indaba conference, the well established, much awarded New York based, graphic designer Michael Beirut (Cape Town 2010), who is a partner at *Pentagram*, discussed the steep learning curve he experienced when asked to do some pro bono work under the auspices of the *Robin Hood Foundation* (a charity organization). The foundation had enlisted well known architects to help with the *Libraries for Schools* project, by establishing libraries in New York inner city schools, which up to that point, either did not have such facilities, or whose facilities were in desperate need of upgrading.

Bierut thought that the answer was to design a striking logo, a brand for the library project, that he could do quickly, only to discover that his "one man band" approach was not going to work. What became clear was that the entire project was based on close collaboration with the schools. Design as a social process as described by Schön (: 111) was essential to the success of the *Libraries for Schools* project.

The particular design solutions arrived at by each architect were based on the specific needs of the particular school the architect was designing for. The design solutions had to consider the existing built fabric of the particular schools and the needs of the learners and their teachers, as the schools served different communities.

According to Beirut it emerged that, what all the libraries had in common was 'the empty space between the bookshelves and the ceiling'. This area, that was not part of the brief to start with, was what became the space for the most effective graphic and communication design intervention in the *Libraries for schools* project.

Beirut designed a logo that was used for the library project, but the real design opportunity arose in guiding the collaborative process of the different designers, artists and illustrators with the librarians and the school children in making use of the space between the bookshelves and the ceiling. Each individual creative practitioner took responsibility for a unique and personalised design, through images and text, using different

graphic/painting media for a particular library. In activating the spaces between the bookshelves and the ceiling, the designer/artist portrayed the users (learners) of a specific library, conveying the children's views of what the library meant to them, thereby successfully encouraging the users to take ownership of their respective libraries.

Beirut also realized that the design solution was for a complex audience, recognizing the librarians as being pivotal to the success of the library project. He saw the designers' job as " giving the librarians a stage to perform on", so that they were able to engage the children in learning, through books and other appropriate technologies that can be used in a library environment.

Bierut stated that he learnt the following important design lessons from the library project: one has to be thoughtful and responsible; one's audience is most important; responding to a particular context is essential; the real design opportunity may not be part of the original scope of the work (in this case the space between the bookshelves and ceiling); the message can be consistent without it being all the same; and that one gets power by giving away power.

Bierut's insightful reflection on the outcomes of the *Libraries for Schools* project and Makeka's humanistic approach to design for public buildings, are practical demonstrations of the point made by Nelson and Stolterman (: 22), "that unlike problem action, design action generates more energy than it consumes, being an innovative inquiry that creates more resources".

3.3.5 Piyush Pandey
Piyush Pandey, the national creative director of Ogilvy & Mather, Mumbai, India (Cape Town 2010) said that one of the challenges of making advertisements for an Indian audience was the diversity of the population in India, where there are thirty official languages. His solution is to convey information through largely visual means, putting the emphasis on "messages for the heart". He said that in Indian culture, nine emotions are used to get to the heart, with humour being one of them, and the one Pandey uses most in his work as it has proved to get through to the widest audience.

Many of his successful advertising campaigns rely on the use of humour and strong visual storylines, which comment on the Indian way of life, with which the broader Indian audience identify. Tapping into Indian culture and the use of the visual language are what make his work accessible.

Katherine McCoy's call for a different type of design that is not only skills based, is answered by both Makeka (developing a culture of African urban design), and Pandey (tapping into the diversity of Indian culture through humour and the visual language), as their work demonstrates an awareness of "the history and dynamics of their culture and that designers develop culture" (: 21-22). The importance of contextualizing design (of framing design questions/problems and solutions) and that the language of design is first and foremost visual, is evident in both the *Libraries for Schools* project with which Michael Beirut was involved, and in Pandey's advertising campaigns.

3.3.6 Tord Boontje
At the Design Indaba *All Stars* conference (Cape Town 2010), Tord Boontje, a product designer, was one of the designers who best embodied the qualities of critical awareness and versatility needed by designers to

face the challenges to deal with a constantly changing world. Boontje's approach fits in with both Ranjan's (1-3) and Manzini's (448-449) views of strategic, active centred design, with specialized designers functioning within the global "networked knowledge society" designing sustainable socio-economic environments with local communities.

He studied at the Design Academy Eindhoven, Holland and then completed his masters at London's Royal College of Art (RCA). He founded his own practice, Studio Tord Boontje in 1996, relocating to France in 2005. He currently works from his studio in London having been appointed as professor and head of Design Products at the RCA in 2009

4. Curriculum development, teaching approach and assessment methods for foundation programmes in design

> A great deal of controversy exists today about the importance of foundation or ground work. Most people accept the validity of such work, but there is disagreement on where, when and how. It is my belief that the success or failure of art education is largely dependent on the content and atmosphere of the introductory years [the first and second year] encountered by the young student who elects a visual education … a Foundation Course, that is, a course of thorough grounding in all branches of art for the student.

> (Sonntag, 1969: 387)

The quote by Sonntag written in 1969 could have been written in 2010. It reflects the current debate around foundation studies in art and design in South Africa and relates in particular to issues that have been raised in design at the Cape Peninsula University of Technology.

The challenges facing design and design education that were highlighted in 3.2 and the response of designers to these challenges in 3.3 (see chapter 2A) give a clearer indication as to what is required in educating critically aware and versatile designers. Designers who will be able to find sustainable design solutions to meet the needs of a complex and constantly changing world.

These challenges and how they are being met in the design industry need to be addressed in the grounding education of designers and need to be taken into account when developing the curriculum, the teaching approach and assessment methods of foundation programmes in design.

Certain aspects relating to curriculum development, teaching approach and assessment methods have been identified and will be discussed under the following themes throughout in this literature review, which relate directly to the three sub-questions of the research question:

4.1 Critical awareness and understanding of Design

4.2 Learning to 'see' and the transference of knowledge and skills

4.3 Towards a conceptual framework for best practice and quality in design foundation education

4.1 Critical awareness and understanding of Design

4.1.1 Relationship of design to art, craft and science

Design (in education and in practice) has been recognized as a field separate from art and science. "However, the relationship of design to the arts and sciences is vital, especially when generating theory, as Design provides a bridge between the opposing fields" (Lecanides Arnott, 2010: 6). I strongly support this contemporary view of design forming a bridge between art and science, which is approved by Nelson and Stolterman (: 4) and by Nigel Cross (2007: 78).

Bourdieu (: 349) points out the differences in approach between the opposing forces of the arts and sciences. Drew Faust, a historian and the incumbent president of Harvard University, warns against the "humanities being seen as the handmaidens of science", claiming that "studies in the humanities develop critical thinking" (Faust in Blaine, 2009: 9).

As mentioned in the introductory chapter one of this thesis, Goldstein's treatise on art schools and academies is important because it provides an overview of art education, placing it within the socio-economic context of each period that is under discussion. Furthermore, he attempts to define the meaning of art by relating art to science and craft, thereby providing a framework for the investigation and analysis of design in relation to art, craft and science in the literature review for my thesis. He looks closely at the relationship of theory and practice and the role of drawing, in particular figure drawing, in the making of art and how its function has changed in response to the socio-economic period within which a particular art academy or art school has functioned.

Goldstein (: 186-201) when looking at the relationship between art, craft and science, discusses the approach that the artists of the Bauhaus had to science and art, which was about "exact research and objective standards", echoing Sir Joshua Reynolds' earlier views on the subject (Goldstein: 186).

4.1.1.1 Sir Joshua Reynolds: dispelling of social prejudice against painters and sculptors

Joshua Reynolds (1723-92) went to Italy to study the art of the masters of the Italian Renaissance like Raphael, Michelangelo, Corregio and Titian whom he saw as epitomizing ' true art'. Reynolds developed the view that the only meaningful route for artists to follow was "the careful study and imitation of what were called the excellences of the ancient masters – the draughtsmanship of Raphael, the colouring of Titian and so on" (Gombrich, 1984: 366).

Later, as the first president of the Royal Academy of Arts (founded in 1768), Reynolds, who also established it as a school (Murray, 1976: 19), put forward his ideas of 'true art' in a series of discourses. He expounded the position that only certain subjects such as historical paintings and allegories relating to the classical past were worthy of painting, and not the mundane events of everyday life. Gombrich (: 366) highlights a passage from Reynold's third lecture, which explained his beliefs, "Instead of endeavouring to amuse mankind with the minute neatness of his imitation, the genuine painter must endeavour to improve them by the grandeur of his ideas".

It can be seen from his carefully observed portraits such as the *Portrait of Joseph Baretti* (1774), that Reynolds was a sensitive and perceptive artist and not pompous which he might have been misunderstood

to be, because of his writings, but rather that the views he expressed were more concerned with dispelling social prejudices against painters and sculptors. Artists were seen to be less worthy than poets, philosophers and scholars of language because they worked with their hands. They had to insist that their real work was not 'handiwork' but 'brainwork' and that they should be accepted into polite society as poets and scholars were. The significance of these discourses is that "artists came to stress the importance of poetic invention in art, and to emphasize the elevated subjects with which their minds were concerned" (Gombrich: 367).

4.1.1.2 Working with hands: 'manual therefore menial'
Gombrich points out that social prejudice against artists went back to classical Greece, to Aristotle:

> Aristotle codified the snobbishness of classical antiquity in distinguishing between certain arts that were compatible with a 'liberal education' (the so-called Liberal Arts such as grammar, dialectic, rhetoric or geometry) and pursuits that involved working with the hands, which were 'manual' and therefore 'menial' and thus below the dignity of a gentleman. (Gombrich: 223)

4.1.1.3 The Italian High Renaissance and the period of the great masters
It was only in the Italian Renaissance (c.1420-1527) and particularly during the High Renaissance (c.1500-1527), which was a period of great masters that the social prejudice against artists receded. As Gombrich (: 218) says, although we do not have all the answers as to why the Italian Renaissance was a period of great masters, there were some conditions that helped to give rise to this phenomenon.

The end of the 12th century saw the growth of a new money economy, the gradual rise of new towns, and the initial development of the modern middle class in Europe. This growth and development was gradual, reaching a pinnacle in Italy in the 1500s, with its wealthy, independent cities, where the first western banking system was begun, as opposed to the less independent, feudal, guild based mediaeval cities of the North (Hauser, 1962: 1-10). However as Hauser (: 1) points out, "… the real turning point does not occur until the eighteenth century and that the modern age really begins with the enlightenment, with the idea of progress and with industrialization … ".

4.1.1.4 Neo-Platonism and Patronage
In the fourteenth century "pride of the cities" in Italy vied to secure the services of the greatest artists to beautify their buildings, to build monuments and create works of lasting fame. With the revival of Neo-Platonism in the fifteenth century (Flew, 1979: 227), many of the wealthy nobility such as Lorenzo de Medici actively embraced Neo-Platonic doctrine, which " ascribed moral value to beauty, and therefore significantly encouraged the making of art" (Arnott, 2003: 5). Burckhardt (1944: passim) gives detailed descriptions of the patronage of the wealthy nobility who ruled over the city-states. He identifies the Medici (: 131-132) in Florence, the Sforzas (: 27) in Milan, as well as the wealthy, and at that time corrupt, Catholic Church (: 75). This patronage provided an incentive for the masters to compete for commissions, which in turn led to a period of great discoveries, of artists turning to mathematics, the study of the laws of perspective and of anatomy to gain an understanding of the human body. How these masters functioned was most clearly seen in the architecture of the time where a master such as Leon Battista Alberti (1404-1472), incorporated

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classical ideals by combining the ancient 'orders' into the modern city palace structure. As Gombrich points out there was a marked shift in the artist's status at this time:

> He was no longer a craftsman among craftsmen, ready to carry out commissions for shoes, or cupboards, or paintings, as the case may be. He was a master in his own right, who could not achieve fame and glory without exploring the mysteries of nature and probing into the secret laws of the universe.
> (Gombrich : 218)

This shift in the artist's status led to a role reversal, whereby a master would grant a wealthy patron a favour by accepting a commission, picking and choosing the best ones. "At last the artist was free" (Gombrich: 219).

4.1.1.5 Leonardo Da Vinci: Inventor (designer) as opposed to scientist

Leonardo Da Vinci (1452-1519), best exemplifies the great masters of the Italian Renaissance. He started as an apprentice at the most famous workshop of the time, of the sculptor and painter, Andrea del Verrochio (1435-1488). It was here that he learnt to prepare for paintings and sculptures, making careful studies of the nude and draped human figure, of animals, working in different metals and learning about foundry technology. He also studied the laws of perspective and the optics of colour. We can see from his notebooks and sketchbooks that he undertook research in many fields. He saw himself as an artist, rather than a scholar, continuing the tradition of the artist, of investigating the visible world, but more thoroughly than ever before, "he would never accept what he read without checking it with his own eyes" (Gombrich: 220). If Leonardo came across a problem he would try experiments to solve it. This empirical approach to his art making, of seeing, observing, analyzing and understanding did not lead only to discoveries but to many of his inventions.

4.1.1.6 Design: 'Creative thinking' and 'innovative activity'

This ability to invent, "achieved through the manifestation and integration of creative concepts into the real world", is what Nelson and Stolterman (: 29) define as distinguishing the designer from the scientist, whose emphasis is on discovery. Design is seen to comprise 'creative thinking' and 'innovative activity', with a distinction being made between innovation and creative thinking, as innovation is action oriented.

Laying the foundation for the modern designer

It is precisely this tradition of 'seeing', discovering and inventing, of 'thinking' and 'making' that was emphasized at the Bauhaus School of Design (1919-1933) by its artist/designer teachers, led by Walter Gropius the first director. "By tying artistic crafts to handicraft, he laid the foundation for the development of the modern designer" (von Seckendorf, 2006: 402).

Establishing the theoretical origins for foundation education

Therefore I will be looking closely at the Bauhaus School of Design and its foundation programme, the Preliminary Course, comparing the views of authoritative writers on the subject in order to establish the theoretical origins for foundation education in design, and if this has in any way influenced the curriculum

development, teaching approach and assessment methods of the Design Foundation Course at the Cape Peninsula University of Technology.

4.1.2 Integration of theory and practice

4.1.2.1 The Bauhaus

The difference between the traditional training of the art academies and the Bauhaus was that in the former, design courses offered to artists and artisans, consisted solely of drawing, of copying from ornaments, flowers, animals and of the figure from engravings, plaster casts and sometimes from life. The Bauhaus emphasized the integration of art with life, and artistic crafts with handicraft (Goldstein: 256-258 and Schmitz: 360).

4.1.2.2 Reynolds, Ruskin and Morris: Towards re-integration of the responsibilities of the designer and the artisan

As has been mentioned, in the eighteenth century art academies, in order to elevate the artist's status, for art to be worthy, it had to be 'brainwork' and not 'handiwork', which was seen as being inferior and menial. This belief led to the separation of the responsibilities of artists from those of artisans, with artists designing and artisans making decorative objects. This was the prevalent attitude of the art academies from the time of the High Renaissance supported by Reynolds, only being challenged by the renowned art critic John Ruskin (1819-1900) in the nineteenth century. The work of William Morris (1834-96) gave weight to Ruskin's theories, which acknowledged the use of the 'human hand' in the making of art and crafts. Ruskin saw 'handiwork' as being as important as 'brainwork', as being noble, adding value and integrity to artwork and crafts, qualities that were seen to be lacking in machine mass produced objects (Goldstein: 256-257).

The Bauhaus ideas were strongly linked to the twentieth century modern movement of abstraction and expressionism (in the early Weimar years). However the idea of the artist as craftsman can be traced back to Morris, and his firm, Morris & Co., established in 1861, where "design and craft harmonized in the production of everything from furniture and stained glass to textiles, tapestries, and wallpaper" (Goldstein: 257).

4.1.2.3 'Truth to material'

The modernist ideal of 'truth to material' and the emphasis on the investigation of the qualities and uses of different materials in the Bauhaus, were vital considerations in the design and production of Morris' work, as quoted in Goldstein, from Morris' own writings:

> Never forget the material you are working with and try always to use it for doing what it can do best: if you feel yourself hampered by the material in which you are working, instead of being helped by it, you have so far not learned your business … The special limitations of the material should be a pleasure to you, not a hindrance … it is the pleasure of understanding the capabilities of the special material, and using them for suggesting (not imitating) natural beauty and incident, that gives the *raison d'être* for decorative art.
>
> (Goldstein: 258)

The art and architecture historian, Sir Nikolaus Pevsner (1902-1983) corroborates the view that Morris's approach to the use of materials was of vital importance in the development of the modern designer. He is identifies two schools founded in England in the late 1880s which incorporated some of Morris's ideas, the Municipal School of Art of Birmingham founded in 1881, and the London Central School of Design in 1896 (Goldstein: 260). However it is only at the Bauhaus, that the modernist ideal of 'truth to material' was realised.

4.1.2.4 The role of museums and exhibitions in developing a critical awareness of material culture (and design)

Robert Hughes (1980: 199) points out that the Bauhaus (1919-1933) as an institution has had a lasting influence on applied design, "the philosophy of the Bauhaus did more to dignify the work of modernist designers than any other cultural strategy of the last half century, at least until the foundation of the [architecture and] design collection at the Museum of Modern Art in New York" in 1932. The collection was founded and has been developed on the fundamental understanding that architecture and design "are allied and interdependent arts" (MoMA, 2010).

It must be mentioned that the glass and iron construction, the *Crystal Palace* designed by Joseph Paxton (1851) known for its innovative use of materials and construction methods was built for the *Great Exhibition* in Hyde Park, London. This exhibition was important as it raised public awareness of design, and encouraged links with industry in nineteenth century England. The Great exhibition also led directly to the establishment of the Victoria and Albert Museum in 1851, known then as South Kensington Museum. In 1899 it opened in its current location as the Victoria and Albert Museum. It houses the largest collection of decorative arts and design in the world. The Victoria and Albert museum is of further importance in that joint courses are offered for study to post graduate design students together with the Royal College of Art founded in 1837, (an independent post graduate school of art and design with university status since 1967) also situated in South Kensington.

A similar role was played by the first *Exposition Universelle* in Paris (1855), which led to the founding of the ethnographic museum the *Trocadero* in Paris (1878) and the second *Exposition Universelle* in Paris (1889), which included a comprehensive exhibition of oceanic artefacts and other 'primitive' sculpture, some from West Africa. These two exhibitions did not only arouse interest in social scientists such as anthropologists and the general public, but the second exhibition in (1889) had a profound effect on artists, especially Gauguin and Van Gogh (Goldwater, 1938). These exhibitions were instrumental in changing perceptions of what was seen to be art, and contributed to the development of the modernist aesthetic, by the redefinition of objects from 'primitive' material cultures to artworks.

4.1.2.5 Art reflecting the outlook in Europe, post First World War

European art at the time of the establishment of the Bauhaus reflected the general outlook in Europe, changing from initial euphoria and Utopian ideals at the end of World War 1, to a "universal post war 'return to order', *'le rappel à l'ordre'* in Jean Cocteau's phrase", with the stabilization of the European economy (Willett: 10). Authoritarian values led to the rise of fascism in Italy and had the most disastrous

consequences in the Weimar Republic of Germany, where the short lived German Bolshevik Revolution ended by 1923, and by 1925 when Field Marshal Hindenberg became president, it was as if a restoration had taken place.

On 21 March 1933, the Third Reich came into power, with Hindenberg as president, Hitler as Chancellor and Goering becoming Reich Marshal (Willett: 156). This led to the closure and abolition of the Bauhaus by the National Socialists in 1933.

4.1.2.6 Co-opting of the modernist aesthetic by the National Socialists: demonstrating the need for critically aware designers and ethical design
After 1933 the National Socialists attempted, and in some ways succeeded in nationalizing the Bauhaus tenets of modernism that were based on experimental internationalism. They, "often appropriated modernism for their own ends" (Betts, 2006: 34). This could be seen in certain aspects of graphic design (typography and graphics for propaganda posters and pamphlets) and architecture (especially industrial buildings, factories and workers housing). For economic reasons it was most clearly seen in industrial design, as there was a lucrative export market for Bauhaus designed products.

"In a famous 1978 interview [the National Socialist architect, Albert] Speer even admitted that "Schönheit der Arbeit" routinely plagiarized from the Bauhaus cannon" (Betts: 36).

As Nelson and Stolterman (: 10) point out, " design activities can do and have done great service for humanity. But design has done great harm as well … we cannot know, ahead of time, the full, systemic effects of a design implementation".

However with greater critical awareness of the role of design, of our environment and of our common humanity, it is to be hoped that sensitive, sustainable and ethical design solutions will be implemented. It is for ethical reasons as well as those of sustainability that critical awareness in the grounding education of designers should be an essential criterion.

4.1.2.7 Weimar: 'Culture of city dwellers' (the new modern urban culture) and Bauhaus involvement with cultural life of the city
John Willett (1984: 111) defines Weimar culture as a "culture of city dwellers". In the Weimar Republic, Berlin was the centre of cultural activity, but this new modern urban culture was a phenomenon of all the cities. The cities had their own particular qualities but there were other aspects of the new urban environments, which were similar. More importantly, many aspects of the Bauhaus philosophy were reflected in urban culture and many of the Bauhaus staff collaborated with visual artists in the cultural activities of the city (for example, Moholy-Nagy was responsible for the sets and film of Erwin Piscators' political theatre production of the "Merchant of Berlin", and there were the few professional stagings of Oskar Schlemmer's, experimental *Triadic Ballet* with music by Paul Hindemith (1895-1963)).

4.1.2.8 Integrating art and life: 'masters of form' and the 'workshop masters'
The inception of the Bauhaus, in the Weimar Republic in Germany, at the end of World War I, in 1919, was

at a time of devastation and great uncertainty. It was also a time of new beginnings and hope and was affected by 'romantic' thought (Colin, 2006: 20). The

pivotal idea of the Bauhaus in the early Weimar years, as already mentioned, was about integrating art with life, of creating a modern Utopia. Gropius' intention was to create a community of artists-craftsmen similar to the (master, journeyman, apprentice) guild system of the Middle Ages. This was reflected in the Bauhaus approach to curriculum development and teaching philosophy (Haus, 2006: 17).

The 'masters of form', the Fine Artists, taught theory and method. The 'workshop masters', the skilled craftsmen, were responsible for technical instruction (Ranjan 2005: 3). It was required of all students to learn a craft, taught in one of the school's craft workshops during the foundation phase of their studies.

4.2 Learning to 'see' and the transference of knowledge and skills

The primary function of both the foundation courses of the Bauhaus (1919-1933) (Schmitz, 2006: 360) and later at Ulm (1953-1968) (Ranjan, 2005; 2-4), on which many foundation programmes worldwide have been based (eg. the New Bauhaus and Institute of Design in Chicago by Moholy-Nagy, Black Mountain College and the art department in Yale University by Albers, the National Institute of Design in Ahmedabad, India, in South Africa at the Michaelis School of Fine Art, University of Cape Town in the1970s, the School of Art and Design, Cape Technikon in the 80s and 90s and currently, the Design Foundation Course, Cape Peninsula University of Technology, amongst others), is to teach students the 'grammar' to enable them to become visually literate, "learning to see" (Sonntag, 1969: 391).

The aim of assignments in the foundation courses at both the Bauhaus and at Ulm, were to encourage individuality and to raise critical awareness (Ranjan, 2005: 4) through the understanding of basic principles of art and design. I will be focusing on the Bauhaus foundation course, which had a strong influence on the one at Ulm and was instrumental in developing a modernist approach in art and design education, encouraging the individual development of students through the transfer of knowledge and skills from one aspect of their art and design education to another. Many aspects of this approach are of contemporary relevance.

4.2.1 The Bauhaus 'Vorkurs' Preliminary Course (curriculum development, teaching approach and assessment methods)
The Preliminary (foundation) Course reflected the shifting ideology of the Bauhaus from its early Weimar period to the later years in Dessau, and was influenced by the individual personalities of its three leaders, Johannes Itten, followed by László Moholy-Nagy and then Josef Albers.

4.2.1.1 Johannes Itten: Curriculum changes in the Bauhaus attributed to the development of the foundation programme
Itten, an experienced art teacher (having previously run his own art school in Vienna), established the Preliminary Course in 1920, developing it into an essential part of the Bauhaus. With the result that many of the curriculum changes in the school, could be attributed to the development of the foundation programme (Schmitz: 360).

Integrated Approach and direct experience
Unlike the teaching approach of the traditional art schools, with the emphasis on skilled professionalism (copying historical paintings and drawing from plaster casts of the nude and draped figure), Itten's 'reform teaching' was a form of human education. Itten who knew Hölzel (a pioneer of abstract art) from his teaching years in Stuttgart, adapted elements of the Hölzel-method, namely working with the opposing elements of "rules [of design] and perception [subjective intuition]" into the preliminary course (Schmitz: 360).

The aim of the Preliminary Course is best described in Itten's own words, "The preliminary course concerns the student's whole personality, since it seeks to liberate him, to make him stand on his own feet, and makes it possible for him to gain a knowledge of both material and form through direct experience" (Goldstein: 263).

Learning to 'see': principles of art and design and understanding of materials
This 'seeing, feeling, thinking and making', of using one's powers of intuition and expression, were the dominant characteristics of the approach in the Preliminary Course.

Under Itten, the main purpose of the Preliminary Course was to familiarise students with the "basic principles which underlie all creative activity in the visual arts". In Itten's words, " The three basic forms, the square, the triangle, and the circle, are characterized by four different spatial directions. The character of the square is horizontal and vertical; the character of the triangle is diagonal; the character of the circle is circular" (Goldstein: 273).

Another important aspect of the curriculum was for the students to gain an understanding of and "feeling" for materials. Itten worked with the idea of harmonies and particularly with the concept of contrast (eg. light/dark, warm/cold) in his form and colour studies as well in the expressive, exploration of different materials, emphasizing opposing qualities (eg. rough/smooth, soft/hard). The theory for this approach was refined and explained in detail in his book *The Art of Colour* (1961).

Connection between physical and mental harmony: Theoretical centre
"The direct connection between physical and mental harmony as the basis of creative potential was also the theoretical centre of the preliminary course in Weimar" (Ackermann, 2006: 91). Itten worked closely with Gertrud Grunow from 1919, using the results of her teachings for the development of the foundation course and its students. Her teachings were based on harmonizing the personality by means of sound, colour and movement, which concurred with Itten's aim of forming integrated personalities. Her teaching method, called Harmonization Theory from 1923, was aimed at the individual, so she worked with students on an individual basis, which differed from Itten's spiritual belief in 'human and religious community' and working collectively.

Diagnostic function and the principle of transference
One of the main functions of the Preliminary Course was diagnostic, to help students find their specific talents, and to establish which workshop they would be best suited to attend on completion of the course. With this aim in mind " Grunow transferred the connection between color and music to the qualities of

materials and integrated the development of a feeling for materials into the logical sequence of synaesthetic laws" (Ackermann: 93).

4.2.1.2 Klee and Kandinsky: The metaphysical meaning of form and colour and the modernist aesthetic of abstraction

Although the teaching styles of Itten, Klee and Kandinsky were different to each other, the belief in the underlying metaphysical meaning to form, within the modernist aesthetic of abstraction, was the unifying principle in their own artwork and in their teaching.

Unlike Itten's physical approach, Klee's approach was more systematic and he developed a theory of form based on his own work and his teachings, conveying the same basic principles, "beginning with points and lines, activated to form the square, the triangle and the circle. And Kandinsky did the same adding color" (Goldstein: 273).

Kandinsky explained the chromatic properties of a square in the following way, "The cold-and-warmth of the square and its clearly plane nature immediately point to red, which represents a middle stage between yellow and blue and carries these cold-warm qualities with it …"(Goldstein: 273), he then goes on to explain why the chromatic properties of the triangle are yellow and that of the circle are blue.

The similarity in Itten, Klee and Kandinsky's approach can also be seen in the theoretical basis for how they worked with colour, which was derived from Goethe, Runge and Hölzel. Whereas in the advertising and wall painting workshops, Hinneke Scheper and Joost Schmidt's work in colour was based on the schematic colour ordering of the chemist, Wilhelm Ostwald, a Nobel prize winner (Kaiser-Schuster, 2006: 392).

4.2.1.3 Shift from expressionism to functionalism: from metaphysical abstraction to postivist scientific investigation

In his writings about his time at the Bauhaus, Albers who was a student in the Preliminary Course under Itten points out that although the Bauhaus manifesto clearly stated that the aim was to unify art with craft and building, there were inherent contradictions from the start, from the woodcut by Lionel Feininger, an expressionist image of a cathedral, on the reverse side of the manifesto itself.

Abrupt change in Bauhaus policy in 1923

Although Gropius' intention was for unity between the arts and crafts, the crafts in the early Weimar years did not have the same status as the fine arts. The workshop masters were not included in the Masters' Council and it was the artists who were responsible for curriculum development (Goldstein: 262). In 1923 there was an abrupt change in Bauhaus policy, best described by Oskar Schlemmer, "no longer cathedrals but machines for living" (Willett: 40). This change took place largely because the Weimar government, responsible for the funding of the Bauhaus, called for the Bauhaus to have closer ties to industry, with manufacturing processes and social housing. It was also at about this time that the Bauhaus took an apolitical stance.

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Dissolution of the Bauhaus in Weimar and the move to Dessau
The move to the right in the Weimar Republic, led to the dissolution of the Bauhaus at Weimar at the end of 1924. It is important to note that the employment of foreign staff and students in the Bauhaus would have been a factor in the government's closure of the school at Weimar (Willett: 40). Gropius designed the modern Bauhaus buildings at Dessau.

It was at Dessau that for the first time there was a proper architectural department headed by the functionalist Hannes Mayer, which led to the Dessau Bauhaus being referred to as a school of architecture (Gombrich: 444). The technological, functionalist, modernist style is from this period of the Bauhaus (eg. Marcel Breuer's tubular steel chairs, product designs to fit in with the new functionalist environments, such as desk lamps, by Marianne Brandt, commercially made pottery, wall paper designs and even built in kitchen furniture that Gropius designed for his own house in Dessau (Willett, 74-76)).

William Morris showed that machine production lacked the fine craftsmanship of handmade artefacts, it therefore became important to discover what the machine could do and to design for it (Gombrich: 444). This is very much what was being dealt with at the Bauhaus in Dessau, finding appropriate technologies and design for mechanized production.

'Art and technology, a new unity': Moholy-Nagy and Albers
The shift in Bauhaus policy, which became 'Art and technology, a new unity' (Willett: 44), as apposed to the metaphysical expressionism of the early Weimar years led to the departure of Itten from the Bauhaus, with Moholy-Nagy replacing him as leader of the Preliminary Course. Moholy- Nagy was assisted by Albers, who had been taught by Itten in the Preliminary Course (2006).

4.1.2.4 László Moholy-Nagy: a 'scientific' approach based on potential for study in design
Gropius hoped that having Moholy-Nagy as leader of the Preliminary Course would affirm the real world of industry. Moholy-Nagy did not see a "problem between the world of mechanical production and the training of individual creativity" (Schmitz: 368). Moholy-Nagy expresses his approach best, in his writings about the Bauhaus in Dessau:

> … everyone applying will be accepted as long as they show some talent and pass a test
> … The course will equip them with the basic elements of a diverse knowledge …
> Lessons will be given in observing the nature of colour, surfaces and shapes in materials,
> in function, proportion and space. Through exercises in manual skills, the study of
> materials and designs the student will become familiar with the basis of Bauhaus work …
> (Schmitz: 368)

Like Itten he had the students work with contrast to gain a visual and tactile sensory understanding of materials but his approach was more "scientific" in that unlike Itten who emphasised the development of individual experience, Moholy-Nagy wanted the students to develop systematic charts which catalogued the different qualities of materials.

A new way of 'seeing', (recent developments in photographic technology)

However, Moholy-Nagy's leading contribution at the Bauhaus, which was further developed in his teaching when in America at the New Bauhaus and the Institute of Design in Chicago, was his experimentation in the photographic medium. Initially photography was used for documenting activities in the Bauhaus, but through Moholy-Nagy's innovative experiments with this new way of 'seeing' by "rotating images, diagonal compositions, tipped perspectives, bird's-eye, views, and extreme close-ups, and using such techniques as the photogram, montage, and multiple exposure" photography was turned into an art form at the Bauhaus. Through his experimentation of recent photographic technology, he replaced existing pictorial conventions with a new reality, "… contributing to the creation of an authentically modern consciousness" (Goldstein: 265).

Typographical Innovation

The leading artist in typographical innovation during the early years of the early 20s in Germany, was the Russian constructivist, El Lissitsky (1890-1947) but the Bauhaus and Moholy-Nagy contributed to the unprecedented breakthroughs that were made in print layout and typography in the early 20s through the combination of photography, montage and typography. Moholy-Nagy with other avant-gardists such as Schwitters, Lissitsky and Burchartz also contributed to the seminal 1925 issue of the Book Printers' Union's *Communications,* on 'elemental typography' (Willett: 78).

4.1.2.5 Joseph Albers: continuity and change, 'an aesthetic education in applied design' from a teacher's perspective

After Moholy-Nagy left the Bauhaus in1928, Albers took over the leadership of the Preliminary Course. His approach to curriculum development and teaching were similar to Moholy-Nagy's. As with Moholy-Nagy, industrial as well as traditional materials were investigated. Another noteworthy fact about Albers was that he was a teacher trained in the reformed teaching method and that he perceived his teaching as being central to his art making.

Having been a student of Itten's, the teaching methods Albers followed were similar to Itten's but they were used for different purposes, so there was continuity but also change in his approach. Most importantly, his teaching marked the shift from the older masters, Klee and Kandinsky, to that of Breuer, Bayer and Schmidt from "a modernized doctrine of art to an aesthetic education in applied design" (Schmitz: 378). However in his own work Albers made use of geometric abstraction like many of his contemporaries at the Bauhaus during the early 20s. Goldstein points out that geometric abstraction is formalist in approach which has its roots in modern art and not in the crafts (Goldstein: 263).

Assessment through creative self-criticism

One of Albers' students at the Bauhaus, Hannes Beckmann writes the following about Albers method of assessing student work, which describes the process of creative self-criticism achieved through comparative analysis of student work in a group critique situation:

> The preliminary course was like a group therapy. By looking at and comparing all the
> solutions that other students had found, we quickly learned to find the most promising

solution to a problem. And we learnt to criticize ourselves, this was regarded as more
important than criticism by others.
(Schmitz: 375)

4.2.2 The Bauhaus approach to drawing as 'seeing'
Life (figure) drawing was taught from the beginning at the Bauhaus, by Itten in the Preliminary Course, and
by Oskar Schlemmer from 1921 until 1929 when he left. What is significant is the difference of the approach
to drawing at the Bauhaus as opposed to drawing in the traditional art academies.

As pointed out earlier, the teaching of art in the traditional academies consisted solely of drawing (from
engravings, the Renaissance masters' paintings, copies from plaster casts of classic sculptures of the nude
and draped figure, animals, plants and occasionally from life), at the Bauhaus drawing was one of the ways
of gaining an understanding of the "grammar" of the visual language.

Goldstein (: 274) says that the contrast between the traditional academies and the Bauhaus is most clearly
seen in the approach to working from the live model.
The drawing of the nude figure in the traditional academies entailed making endless corrections in order to
find "true beauty", which was a means of promoting a particular form of morality (Neo-Platonic doctrine)
(Goldstein: 159-185). For Itten, life drawing was about, "capturing the rhythmic movement of a pose, an
exercise in gestural drawing carried out to the accompaniment of music" (Goldstein: 274).

Schlemmer developed a synthetic course *On Man*, looking at the human form throughout history and in
particular in relation to the machine age, using the same principles of abstraction as Itten, Klee and
Kandinsky. Schlemmer's approach is best described in his own words, "the square of the chest, the circle of
the stomach, cylinders of the arms and lower part of the legs, spheres of the joints at the elbow, knee …"
(Goldstein: 274).

4.2.3 Summing up: The significance of the Bauhaus in developing a theoretical base for foundation
education in design
This literature review demonstrates that the concept of the foundation course in art and design education
has its roots in the Bauhaus Preliminary Course established by Itten and further developed and refined by
Moholy-Nagy and Albers. A summary will follow of some of the significant aspects of the Bauhaus
foundation course which have laid the theoretical basis for foundation studies in art and design education
and which are still relevant now in 2010.

4.2.3.1 The significance of the similarities and differences in approach to 'seeing' and the transference of
skills in the Preliminary Course
What comes through clearly from the writings of the different authors about the Preliminary Course at the
Bauhaus is that although there were differences in teaching approach, on a deeper level there was an
agreement about the theory regarding the basic principles of art and design and learning to 'see'. What is
significant is that the teachers were developing theories based on their own creative practice and their

teachings and that students were encouraged to work through direct experience with the emphasis being on the development of the individual within a broader, unified, artistic community.

4.2.3.2 Differences in approach to colour theory

The differences in approach to colour theory between the 'masters of form' and the 'workshop masters', shows that the students were given a broad base from which to develop as designers. They were exposed to scientific theories based on optical effects as well as those from the arts with metaphysical and symbolic meaning. The diversity in teaching approaches could only have helped the students gain a deeper critical awareness and better understanding of the basic principles of art and design, enabling them to transfer knowledge and skills from one aspect of their education to another. Demonstrating that the visual language could be interpreted and applied to fit different contexts.

4.2.3.3 Change from expressionism to functionalism but continuity of approach in learning to 'see'

Although there was a shift in emphasis from expressionism to functionalism from the early Weimar period to the later period at Dessau, there was still continuity in approach in learning to see, particularly in the use of certain systems, such as the grid for conveying an understanding of concepts related to the use of colour and for the exploration of different materials.

Itten introduced the system of working with a grid, which was adapted for different purposes (unlike Itten's use of the grid for finding metaphysical meaning in colour and in the exploration of materials, a positivist approach was applied to the use of the grid for the investigating the properties of materials and colour by Moholy-Nagy and then by Albers). Albers developed and refined the use of the grid as a means of the exploration of the properties of materials and colour in his teaching and in his own creative work in the USA (at Black Mountain College and later at Yale University), after leaving the Bauhaus (Goldstein: 277).

The grid was used in the 1970s in the Basic Year at the Michaelis School of Fine Art, UCT for the exploration of colour and materials and is still used in the Design Foundation Course and in colour studies in first-year in fashion design, industrial design, interior design and surface design at CPUT in 2010.

The issue of 'continuity and change' is something that I have highlighted in the literature review, as it is emphasised in different ways by the authors whose views have been analysed. Closer investigation is required of this aspect, of 'continuity and change', which is essential for gaining an understanding of the development of international modernism, and how the tenets of modernism were transferred and applied in the Bauhaus curriculum. The Bauhaus was the most influential proponent of the role of modernism in art and design education, particularly at foundation level. This aspect of 'continuity and change' was vital to the development of Bauhaus pedagogy.

4.2.4 Development of the International Style: Transference from one context to another and the integration of function and form

The aspect of 'continuity and change' and transference from one context to another is clearly demonstrated in the development of International modernism in Europe and why and how it took root in the United States of America (USA) early on in its development.

4.2.4.1 Alfred Stieglitz and the gallery at 291 Fifth Avenue in New York

Alfred Stieglitz a pioneer of modern photography, who was interested in everything that was "new and revolutionary" (Haftmann, 1960: 158) opened the *Photo Secession Gallery* at 291 Fifth Avenue in New York in 1905 and formed a small group of artists called the Stieglitz group who kept in touch with developments in Paris. He met Gertrude Stein in Paris in 1907 and was introduced to the work of Rodin, Matisse, Toulouse-Lautrec, Cezanne, Rousseau and Picasso. Between 1908 and 1912 he showed all of these artists works in his Gallery, thus exposing a small, interested sector of the American public to all the new art movements from Europe.

The 'romantic' view of the artist as visionary: Making use of new technologies to create material culture

What was significant about Stieglitz was the view that he promoted of the artist's role as being central to the development and expression of the new ideas of a modern urban society in America. Stieglitz saw the artist as pivotal in concretizing these ideas and making them visible and real through the use of new technologies, creating material culture. Werner Haftmann best describes Stieglitz's 'romantic' vision of the artist as the lone individual:

> An extreme individualist, he saw the artist as an aristocrat who looked down on the
> common herd. And through his circle this image of the 'artist' as the lone visionary,
> proudly conscious of his mission to combat the sluggish obtuseness of the masses,
> made its appearance in democratic America. It was this self-stylisation which gave the
> modern artist the strength to assert himself and his work against the incomprehension of
> his contemporaries.
> (Haftmann: 158-159)

Stieglitz had a solo exhibition of Francis Picabia's work (1878-1953) in his gallery at 291 Fifth Avenue, in 1913 at the same time as the *Amory Show.*

4.2.4.2 The Significance of the *Armory Show* (1913)

The Armory Show of 1913 in New York (at the 69th Regiment Armory), was an influential international exhibition that played a significant role in introducing all the major Paris-based art movements of the time excepting for German Expressionism and Italian Futurism, to the American public (Lucie-Smith, 1984: 20). Over a thousand works by three hundred artists were exhibited (including Duchamp, Brancusi and Picabia amongst many others).

"With the Armory Show modern art had become an integral part of American cultural life"(Haftmann: 162). He points out that the American contribution was the largest but it was confused and mediocre, unlike the European art, which gave the exhibition its character. He goes on to say that, "by the outbreak of the First World War all the new European ideas had entered upon the American scene: Fauvism, Cubism, Orphism, Expressionism, Futurism and finally abstract art" (Haftmann: 163).

4.2.4.3 Modernist ideals of progress and change: American Architecture

Without diminishing the vital role of painting and sculpture in the development of modernist ideas and aesthetic, which impacted on all spheres of life, as Hughes (: 164) says, "Painting can make us happy but building is the art we live in". The modernist ideals of progress and change, of new technologies and mechanized production are first seen in the 1890s and early 1900s in American architecture (Gombrich: 442), in the development of the high-rise 'skyscraper' buildings on the one hand, and on the other, in Frank Lloyd Wright's (1869-1959) approach of 'organic architecture'.

Chicago and the high-rise 'skyscraper' building

Hughes identifies Chicago as the city which best exemplifies early architectural, as apposed to engineering modernism, particularly in the 'skyscraper' buildings (eg. Burnham & Root's bearing-wall construction; *Monadnock Building* (1891), to their steel frame; Reliance Building (1890-94), to Louis Sullivan's; *Carson Pirie Scott Departmental Store* (1899), with the expressive quality of the structural grid in relationship to its height). Interestingly, Wright was Sullivan's assistant at the time and was one of the architects who had worked on the design of the *Carson Pirie Scott Departmental Store* (an important point made by Hughes (: 173) is that without the invention of the 'safety elevator' by Elisha Otis in 1857 the development of high-rise buildings would not have been viable).

Frank Lloyd Wright and 'organic architecture'

Wright's approach and belief in 'organic architecture', "that a house must grow out of the needs of the people and the character of the country like a living organism" can be seen from, *A House without a 'style': 540 Fairoaks Avenue,* (1902) Oak Park, Illinois (Gombrich: 444). What both these approaches show (development of the 'skyscraper' building and 'organic architecture') is a break with the ideas of the nineteenth century and the development of a new functionalist aesthetic, with the emphasis being placed on the use of uncluttered interior spaces and not on the façade, decorations of the classical orders of the past, and symmetry, as was in use earlier in the nineteenth century.

4.2.4.4 The role of the Bauhaus in finding a balance between aesthetics (form) and function

The accepted modernist view of design was that it should be determined by its function. However, Gombrich significantly states that, "the best examples of this style are beautiful … because they were designed by men of tact and taste who knew how to make a building fit for its purpose and yet 'right' for the eye". He goes on to say that finding a balance between aesthetics (form) and function could only be achieved through trial and error, through experimentation of different proportions and materials. Gombrich then connects this back to the Bauhaus approach to curriculum development and teaching, which encouraged students "to use their imagination and to experiment" (Gombrich: 444).

Le Corbusier's *Villa Savoye,* (1929-31), Poissy, France is singled out as the definitive example of modernist form of the International Style, "he [Corbusier] was in a sense the Picasso of architecture, because his designs provoke such strong sensations, contain such overmastering rhythms, and display such a muscularity of "drawing" "(Hughes; 190).

Imaginative experimentation: Exploring the uses of new materials and technologies and the refinement of new processes

As ground breaking and sophisticated as the form of the *Villa Savoye* is, Hughes (: 191) admits that Le Corbusier did not manage to integrate form with function, particularly with the new materials and technology that were used to construct the building, because soon after it was built, structural problems emerged (cracks, damp and leaks). Gombrich's (: 445) view is that it is only through imaginative experimentation (similar to that found in the *Villa Savoye*), through the exploration of the uses of new materials and technologies, and the continued refinement of these new processes that one can get to real innovative workable solutions, where form (aesthetics) and function are integrated.

Imaginative experimentation and integration of form and function at the Bauhaus and creating an urban culture

This imaginative experimentation was central to the Bauhaus approach, as Hughes (: 192) says, "Although Corbusier was its chief interpreter in France, the main theatre of the machine aesthetic and the International Style in Europe during the 1920s was Germany; and its centre was a school in Weimar named the Bauhaus". Gombrich is in agreement with Hughes, that design should respond to the needs of people, which dovetails with Willett's analysis that the visual arts reflected what was happening in other spheres of urban life in Europe between 1919 and 1933, during the time of the Bauhaus and the collaboration of its staff in creating an urban culture.

Late Modernist experimentalism: Buckminster Fuller (1895-1983 and the geodesic dome

Frederick Hartt (1977: 449) describes the engineer, Buckminster Fuller as the "uninhibited and fearless pioneer designer", who developed the geodesic dome, a spheroid prefabricated structure, "consisting of mutually sustaining polyhedral elements which can be constructed anywhere out of any material, including opaque or transparent panels, and at extremely low cost". Fuller's geodesic dome was used mainly for greenhouses and sheds until he designed the large *American Pavilion* (Biosphere), (1967) for *EXPO 67* in Montreal, Canada for the *World Fair*. The structure itself and the purpose for which it was constructed, is comparable to Paxton's *Crystal Palace* which was built for the *Great Exhibition* in London (1851), more than a hundred years before.

4.2.5 The legacy of Modernism and the Bauhaus

Like the modernist period of the first quarter of the twentieth century, the early part of the twenty-first century that we live in, is also a time of great complexity and persistent change, and the lessons from modernism should be kept in mind by design educators, theoreticians and practitioners in the postmodernist context.

4.2.5.1 Hughes: Continuity and change and the legacy of Modernism

Hughes focuses much more strongly on the negative aspects of the legacy of twentieth century modernism. His cautionary analysis raises the question of how and to what extent there should be continuity and change, and is best summed up in Hughes' own words:

> … the lesson of modernism can now be treated as one aesthetic choice among others,
> and not as a binding historical legacy. The first casualty of this was the idea that

architects or artists can create working Utopias. Cities are more complex than that, and the needs of those who live in them less readily quantifiable. What seems obvious now was rank heresy to the modern movement: the fact that societies cannot be architecturally "purified" without a thousand grating invasions of freedom; that the architects' moral charter, as it were, includes the duty to work with the real world and its inherited content. Memory is reality. It is better to recycle what exists, to avoid mortgaging a workable past to a nonexistent Future, and to think small [see the economist Ernst Friedrich Schumacher (1911-1977)]. In the life of cities, only conservatism is sanity. It has taken almost a century of modernist claims and counterclaims to arrive at such a point. But perhaps it was worth the trouble.

(Hughes: 211)

4.2.5.2 Goldstein: Legacy of the Bauhaus and lessons for further generations of art and design educators
Goldstein's analyzes both the positive and the negative aspects of the legacy of the Bauhaus. Regarding the negative aspects he issues a cautionary warning to educators and theorists in the fields of art and design in a similar way that Hughes issues a warning to architects and artists about the legacy of twentieth century modernism.

Failed ideal of integrating art with life for all: Women's status not equal to that of men
Goldstein points out that although the intentions of the Bauhaus were to find a new way of integrating art with life for all (men and women), it fell short in achieving this utopian ideal particularly as regards to the women students and staff who did not gain equal status as the men.

The only woman master was Gunta Stölzl, appointed a junior master, and finally becoming the director of the weaving workshop. The most outstanding students of the weaving workshop were women (Otti Berger, Helene Nonné-Schmidt and Anni Albers amongst others). The women in the weaving workshop were responsible for innovative design and use of materials (like working with cellophane) turning this workshop into one of the most successful ones in the Bauhaus.

However, the women at the Bauhaus were largely limited to functioning within the weaving workshop, which was seen to fit in with the home-craft roles of weaving and sewing, traditionally ascribed to women. Goldstein (: 268) makes the significant observation that by limiting the women students mainly to the weaving workshop, it appears that what prevailed at the Bauhaus was the old prejudice of the academic traditions which was that of the artist being engaged in 'brainwork' versus the craftsman who was engaged in handiwork' and that 'women's' work was seen to be manual and therefore menial and as a result of lesser value.

Enduring positive Bauhaus legacy in art and design education: Truth to material
Goldstein points out that, "the Bauhaus's championship of the materiality that the academy had repressed made an enduring mark on the teaching of art" and is still used in art and design schools worldwide and can be traced to the transference of the Bauhaus theories and methods particularly by Moholy-Nagy and Joseph Albers to art and design schools in the USA.

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4.2.5.3 The transference of the modernist Bauhaus teaching approach to the United States of America

> Few developments central to the history of art have been so misrepresented or
> misunderstood as the brief, brave, glorious, doomed life of the Bauhaus … the Bauhaus
> has finally been explained to the museum-going public in terms much closer to its actual
> intent and immense achievement than ever before … it was certainly time for a long-
> overdue reassessment of this persistently stereotyped and often maligned powerhouse of
> modern culture.
> (Filler, 2010: 24)

The above quote is by the critic Martin Filler of the recent exhibition, *Bauhaus 1919-1933: Workshops for Modernity* (8 November 2009 -25 January 2010), at the Museum of Modern Art (MoMA) in New York, USA, that was organized by the curator of architecture and design, Barry Bergdoll and a curator of painting and sculpture, Leah Dickerman.

The educational role of the art and design Museum and the large scale exhibition: Reaching a wide audience and readdressing misconceptions
This exhibition readdresses some of the misconceptions about the Bauhaus and its ongoing legacy in education in art, design and architecture in the USA. Filler points out that in part MoMA itself has been responsible for some of the misconceptions as MoMA mounted the 1938 retrospective, *Bauhaus 1919-1928*, that was curated by Walter Gropius in the same year that he became chairman of Harvard's architecture school.

There were a number of appointments which introduced "Bauhaus concepts into the USA and institutionalized them in American higher education" (Filler: 25). Josef Albers (to lead the painting program), Anni Albers (weaving) and Xanti Schawinsky (painting, drawing and drama) were appointed at Black Mountain College, North Carolina 1933 (Betts: 64). László Moholy-Nagy was appointed as founding director at the New Bauhaus in Chicago, 1937. Mies van der Rohe was appointed at Chicago's Armour in 1938, and later as head of architecture at the Illinois Institute of Technology.

Unfortunately as curator of the 1938 exhibition Gropius de-emphasized the importance of the early abstract expressionist phase of the Bauhaus at Weimar and he did not deal with developments at all, after his departure from the Bauhaus in 1928 when Hannes Meyer took over and after him very briefly Mies van der Rohe . The recent Bauhaus exhibition (2009-2010) at MoMA readdresses this by looking closely at the early years taking into account Itten, Klee, Kandinsky and most significantly the influential role that the women; Gunta Stölzl, Anni Albers, Otti Berger, Lucia Moholy-Nagy, Marianne Brandt had.

Summing up: The need for reappraisal of a body of knowledge and the lasting effect of the Bauhaus foundation course on art, design and architectural education
The lasting influence on architectural education in the USA is well documented and still apparent, particularly in the use Bauhaus basic design curriculum (Arens, 2010: 1). In part this may explain why Goldstein (1996: ibid) had difficulty in finding a clear acknowledgment of the Bauhaus method being taught in what he terms the 'New Bauhauses' in the USA.

The significance of the is latest exhibition at the MOMA demonstrates that continual reappraisal of history is vital to ensure that facts are accurate and to enhance understanding, in this case the role of the Bauhaus on modern culture and its lasting influence in art, design and architectural education specifically through the basic design principles of its foundation course.

4.2.5.4 The Institute of Design in Ulm, West Germany (1953-1968): Issues with curriculum development and teaching approach

The Institute of Design in Ulm, is widely regarded as the last West German school of design of international significance. The American High Command and Bonn "jointly underwrote the Ulm project in an effort to rehabilitate the affirmative heritage of Bauhaus Modernism as a signpost of enlightened West German culture" (Betts, 2006: 74). Betts continues, " the Institute of Design in Ulm also marked modernism's last real attempt to unite industrial design and genuine social reform".

The design programme was innovative. The initial inspiration for establishing the Ulm institute came from Inge Scholl a member of the anti-Nazi "White Rose" resistance group during the war (Scholl's brother and sister, Hans and Sophie, also part of the resistance group were killed in 1943). Scholl together with the graphic artist Otl Aicher hoped to create a new "crystallization point for a better Germany" where the "spirit of peace and freedom" would help "cultivate antifascist European culture" (Betts; 74).

Social Reform: From a political outlook to an emphasis on design
Max Bill, the Swiss sculptor, painter and designer, and a past Bauhaus student was the school's first director. He gave the initial political direction of the school less prominence by de-emphasising courses such as sociology, media studies and political science and enhancing the teaching of art, architecture and design. He argued that social reform began with '"the very forms of the social environment" such as city planning, architecture and everyday objects (Betts: 74). A compromise was reached reflected in the school's eventual departments, which were City Planning, Visual Design and Product Form.

Tomas Maldonado: Replacing of the modernist art aesthetic with product management and systems analysis
Some of the other staff led by Tomas Maldonado did not approve of aesthetic criteria coming from modernist art, arguing that the new industrial designer should have a better understanding of the industrial processes of mass production. The Bauhaus philosophy of experimentation through direct experience, of 'learning through doing' was seen to be unscientific and not adequate in preparing students to deal with complicated post Second World War industrialism. Maldonado argued that if design was to "maintain any critical dimension, it needed to be reconfigured as a more scientifically based operation of product management and systems analysis"(Betts: 75).

Restructuring of the curriculum with the focus on science and methodology
This split in ideology amongst the staff, led to the resignation of Max Bill, the rejection of the art-based heritage of design education, the re-evaluation of the Bauhaus legacy and the restructuring of the curriculum (Betts: 76). Ranjan describes both the positive and the negative consequences of this phase at Ulm starting off by listing the new courses that where added to the curriculum as follows in the quote below:

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Cybernetics, theory of information, systems theory, semiotics, ergonomics and
disciplines such as philosophical theory of science and mathematical logic were explored
to bring a solid methodological foundation to design thinking and action for the first time.
The focus on science and methodology was a Pandora's box that literally swallowed
design thinking and sensibilities at Ulm for quite some time and it took great effort from
the inner group of designers Maldonado, Aicher and Gugelot to reassert the supremacy
of design at Ulm.

(Ranjan: 4).

The positive outcome of the new approach to design with an emphasis on science and methodology was that it led to engagement with the real world and the designing of complex products, which is best exemplified by Ulm's collaboration with the Braun Company.

The foundation course ('Grundlehre'), and the teaching of colour and drawing
In the foundation course, Max Bill continued to build on to what had been started at the Bauhaus. Maldonado made the foundation course interdisciplinary. He simplified and made assignments more precise. The emphasis in drawing changed with attention being placed on reflective visualization. All the assignments in the foundation course were abstract and non-object orientated without a practical basis. The reason for this was that it was thought that through abstract non-object based assignments, " the focus was on the understanding of principles and not on immediate application of the concepts" (Ranjan: 5).

No consensus was reached about the approach to colour at Ulm from the start. Albers came back to teach colour at Ulm but he and Itten who came to Ulm at a later stage were not in agreement. Albers eventually left Ulm, as he did not approve of the way that the colour theory was being taught by Helene Nonne-Schmidt (Ranjan: 4). Finally instruction in colour was discontinued with the introduction of the new scientific based curriculum (Betts: 76).

The significance of Otl Aicher's teaching models for design education
One of the significant legacies from Ulm was Aicher's models for education which have been used in design courses world-wide. I have used Ranjan's summary of Aicher's models (: 5-6) and have placed them in the table below, as a comparative analysis showing the difference between lecture based conventional education and the 'hands on' experiential education used in the foundation course at Ulm. The difference being that unlike the conventional (organization) model which was about accumulating information, the second (free community) model encouraged the development of critical thinking, which in turn encouraged individual growth, independent research and the development of theory from practice.

Model 1: Pedagogical principle **Organization**	Model 2: Pedagogical principle **Free Community**
Lecture Authority of teacher and of the material Mass processing Examinations Supervisions	Free form of instruction Discuss Teachers only in auxiliary capacity From practice to theory Working independently Personal interest incentive Enjoying the work Going deeper Unfolding of personal talents Experimental learning instead of dead facts Teaching framework in lieu of syllabus Independent critical judgment

The significance of the reasons for the closure of the Institute of Design at Ulm (1968): Lack of funding and rigid structures of conventional education

A number of factors led to the closure of the Institute of Design at Ulm. Many of the staff and students felt that the curriculum had become too scientific at the expense of imaginative experimentation, which is recognized as necessary for innovative design by, Gombrich; Goldstein; Ranjan; Sonntag; and Nelson and Stolterman, (: ibid).

The perception of the curriculum as being too 'scientific' was reflected in the cultural waning of industrial rationalism, which led to functionalism being questioned in architecture and design circles. Goldstein; Hauser; Hughes; Willett; and Wölfflin (: ibid) all demonstrate that art and design reflect the 'time and place', the socio-economic, cultural and political circumstances from which they emanate.

When the regional government withdrew funding from Ulm because of the continued experimental approach to teaching and the emphasis on the development of critical design theory, the staff decided to close down the Institute (Betts: 77).

The closure at Ulm indicates that design, as a field of study needs funding and positive support to encourage creativity, invention and innovative action. The constraints of conventional education structures should not be allowed to hinder the freedom of experimentation that needs to take place for the development and refinement of the curriculum, teaching approach and assessment methods in educating critically aware and versatile designers.

4.2.5.5 Continuity and change: Transfer of theory and practice from the Bauhaus and the Ulm tradition to the National Institute of Design (NID), Ahmedabad, West India, (1966-)

Ranjan, refers to the foundation courses at the Bauhaus and the Institute of Design at Ulm demonstrating the value of the similarities and differences in their approach. He compares the two design schools saying that the scientific and technological approach to design in the curriculum at Ulm was further developed at NID without losing sight of the modernist Bauhaus art aesthetic and the approach of "thinking through doing". What is significant is that this was achieved through direct consultation and exchange of staff between the design schools of ULM and NID.

Development of the NID foundation course

He then goes on to describe how NID developed its own foundation course in 1970 based on the theories developed by the Bauhaus and Ulm (Ranjan, 2005: passim). The curriculum and teaching approach of the NID foundation course was further developed and adapted through the 1980s and 1990s in-line with the socio-economic and cultural context in India (with thirty official languages and diverse belief systems and customs), which in some ways is comparable to the cultural and socio-economic context in South Africa.

Design as a social process: From user centred to active centred strategic design

Ranjan's analysis of the development of design education at NID is crucial in that after many years of experience, through experimentation and refinement (still ongoing), of the curriculum, the teaching approach, and of working in partnership with local communities, NID pedagogy has consciously attempted to deal with real social development issues through 'design action'. He identifies the use of strategic, action design for development as being essential:

> … we are convinced of the need to use the power of this discipline [design] to further the
> real needs of a huge population desperately seeking solutions to many vexing problems
> in a very tight economic climate.
>
> (Ranjan: 10)

In a different context, the concept of design as a social process is also recognized by Manzini (2009, 448-449) and both he and Ranjan (1999: 1-3) take it further, "stressing the need for strategic design and the move from user centered design to active centered design, with the broader community of design specialists functioning within the global 'networked knowledge society', designing sustainable socio-economic environments with local communities" (Lecanides-Arnott: 1). With this in mind Ranjan advocates the need for basic design skills, of 'thinking through making' as addressed in the foundation course, at postgraduate level in design education because of the recent perception that:

> … design thinkers are seen as an alternative to designers in a knowledge driven world
> and this is particularly worrisome since it is assumed that design thinkers can be trained
> without the burden of learning skills through the adoption of digital abilities in lieu of the
> analog capabilities that has been the historic vehicle for basic design education so far.
>
> (Ranjan, 2005: 11)

Transference of knowledge and skills: Design thinking and design skills, integrating theory with practice, to innovative action

Taking into account all these factors related to the development, and evolution of design education, from its early roots in the Bauhaus Preliminary Course, through various iterations at Ulm and at NID, like Nelson and Stolterman (: ibid), Ranjan comes to the conclusion that design thinking and design skills, that theory and practice have to be integrated in order to enable 'innovative action' for finding design solutions for complex situations.

Goldstein points out that, "Bauhaus methods were adapted by art schools from London to Tokyo to New York" (Goldstein: 264). He adds that what he found most surprising was that from a postmodernist perspective there seemed to be a denial of any clear Bauhaus method being taught in these "New Bauhauses".

I think that Ranjan's view of design education becoming more skills based with time and designers no longer writing about their practice, is noteworthy, and probably played a part in Goldstein forming the opinion of there being a lack of acknowledgement of a particular Bauhaus method in art and design schools, that were founded on the principles of the original Bauhaus School. This confirmed by Katherine McCoy who wrote the following in 1990:

> Many graduates of four-year studio art schools can hardly read or write. A recent masters candidate, an excellent graduate of a highly respected East Coast art school, admitted he had not written one research paper in undergraduate school. (McCoy: 21)

However Erik Sonntag is one of the few educators in art and design who does write about foundation education in the 60s and what he has to say is as relevant now as it was then. I will use his analysis of the significance of the foundation programme in art and design education in his article *Foundation Studies in Art Today*, written in 1969 as a framework for summing up the various views expressed in this section 4.2 *Learning to 'see' and the transference of knowledge and skills*. By referring to Sonntag's analysis it can be demonstrated why certain aspects of a modernist approach to art and design education have been transferred into a postmodernist context and are just as valid in the early 21st century.

4.2.5.6 Summing up: The validity of the transference of certain aspects of a modernist approach in foundation education to the 2000s
"… in our visual field there exists, as in other fields of knowledge and science, a grammar and a vocabulary" (Sonntag: 392)

In 1968 Sonntag helped present an exhibition in England called *Sehen* (to see), representing twelve years of teaching by Professor Oskar Holweck, head of the Foundation Studies programme at the Staatliche Werkkunstschule in Saarbrucken in Germany, which illustrated the ideas of the Bauhaus.

Referring to this exhibition, Sonntag defines the aim of a foundation course as enabling students to transfer ideas into the visual language as follows, "… learning *to see*. It must provide a grammar and vocabulary for pictorial construction, an understanding of fundamental design ideas and the possibility of their expression and interpretation by tangible, visual means" (: 391).

Sonntag's teaching experience at foundation level: Similarities and differences in and to the Bauhaus foundation studies
Based on his various teaching experiences in art and design education in England and in Europe in the 1960s, Erik Sonntag, like some of the other authors mentioned in this literature review (Goldstein, Ranjan, Hughes, Gombrich, Schmitz) also acknowledges and pays tribute to the Bauhaus for introducing the concept of the Foundation Course in art and design education. He does so in the following way, " A release from

convention in favour of personal experiences and subjective knowledge is the sum of the Bauhaus foundation studies" (: 393).

Unlike Schmitz and Goldstein who refer to the Bauhaus foundation programme as the Preliminary Course throughout, Sonntag compares the similarities and differences between Itten's 'preliminary studies' and Moholy-Nagy's 'basic course' explaining that:

> These courses were the result of the belief that where art is not teachable, the command of medium is. They differed in that the former stressed an arriving at something and the latter at deriving from something.

> (Sonntag: 391)

Sonntag analyses Moholy-Nagy's approach as being broader than that of Itten's, in that Moholy-Nagy was concerned with life and issues beyond the visual arts. Sonntag defines the history of the Bauhaus as " a period of incubation until 1923 [Itten's preliminary studies], followed by a phase of practical realization and emanation until 1928 [Moholy-Nagy's basic course]" (: 392). He then makes an important distinction between his own approach and that of Moholy-Nagy's. He identifies the centre of Moholy-Nagy's work as being the artist and not the object, stating that in his experience in order to get satisfactory results, attention has to be given to both the artist and the object.

Sonntag: Salient points to keep in mind when developing a foundation course
I will list some other salient points that Sonntag makes, which have as much bearing on grounding education in the 2000s as they did in the late 1960s (many of which were fundamental to the approach of the Bauhaus foundation course in the 1920s) and should be kept in mind when developing the curriculum, teaching approach and assessment methods for a foundation course (Sonntag: passim):

- *Art, design, science and technology*
  Sonntag wrote his article about foundation studies in art at a time when art and design education were in a state of turmoil, leading to student riots in the United Kingdom, which culminated in the second Coldstream report that was published in 1968 (the National Advisory Committee on Art Education, under Sir William Coldstream was set up in 1959, it recommended, and the Ministry accepted the introduction of the diploma in Art and Design (Dip A.D.) (Sonntag: 387-388).

  Sonntag argues for the retention and continuation of the foundation programmes and for greater clarity as to how they are positioned, that they should be developed within the diploma structure. This is comparable to the issues that we are currently dealing with in higher education in South Africa that have been highlighted by Ian Scott and Chrissie Boughey who are on the national taskforce on foundation education (see chapter 1, pg 8). Sonntag's argument should also be seen in the context of the development of the art and design foundation degrees that were established in the early 2000s in the United Kingdom, in which Jane Tynan identifies the need for further integration of theory and practice in the curriculum (see chapter 1, pg 9).

  He insightfully writes that:

> The challenge to art in our age cannot be avoided; both the creative and the communicative processes of art are inseparable from technical and scientific developments in the modern world. The perception theorists and the teachers at the Bauhaus in Germany in 1920 realized this fact.
>
> (Sonntag: 390)

This challenge to art and design is if anything, more relevant now in the 2000s particularly because of the unprecedented rate of technological advancement in the field of information technology since the 1990s.

- *Basic design: The need to Integrate aesthetics and function*
Sonntag is emphatic that the relationship between aesthetics and function (I would describe it as the relationship between art, design, science and technology) cannot be ignored.

Sonntag points out that at the Bauhaus at Dessau there was an increasingly uncomfortable relationship between aesthetics and function as the pressure for design to meet industrial production requirements grew, eventually resulting in the move away from the modernist art aesthetic almost entirely at Ulm. The emphasis on scientific investigation and method at Ulm became so pronounced that the students complained (Betts: 77). Sonntag identifies this scientific approach at Ulm as resulting in the stifling of creativity, which he sees as a major contributing factor to the dissolution of the school in 1968.

He quotes a discussion about the necessary balance of these two aspects (of aesthetics and function in design), that he had with Victor Passmore, "Not only is it important how a chair is made and how it feels when one sits on it, it also matters how it looks" (: 396). This echoes the views of Gombrich and Hughes, in discussing Le Corbusier's *Villa Savoye* (see pg 27 of chapter 2), where both identify the need for imaginative experimentation in order to find innovative, workable solutions through the integration of form (aesthetics) with function (technology).

- *The Foundation Course: At the core of teaching in an art [and design] school*
Sonntag reinforces the concept of the Bauhaus foundation course stating that in his view foundation studies, the introductory period (the first and second years) of study in art and design as being the most important. His belief, which is supported by McCoy, who says that designers "create culture" (: ibid) and which I think is as relevant for art and design education in contemporary society both locally in South Africa and in a global context as it was in the 1960s (Sonntag) and in the 1990s (McCoy) is described as follows:

> An environment should exist for art education which will make it possible for men and women to understand their world and to invent and create forms symbolizing that world.(Sonntag: 387)

- *The selection process and the diagnostic function of the foundation course*
Sonntag (: 388) says that the main object of the foundation course is to enable the student to decide which art or design specialization (discipline) they are best suited to for further study. In order to

facilitate the diagnostic function of the foundation course he says that "In all spheres of foundation studies the student should work in both two and three-dimensions" (Sonntag: 394).

His recommendation is that all students interested in study in the visual arts should participate in a foundation programme and that the function of a foundation course is not simply remedial for underprepared students.

- *Theoretical basis and methods for teaching in foundation studies: Analysis, synthesis and contrast*
Echoing the views of Bourdieu and Wölfflin that the visual phenomena that we perceive exist only in relation to their opposite effect, Sonntag affirms the theoretical basis and methods employed in the foundation course in the Bauhaus. He gives credence to the approach of Itten, Moholy-Nagy and Albers for the use of contrast in gaining an understanding between the similarities and differences of form, colour and materials.

He explains that the way to go about achieving an understanding of the visual language and of the principles of art and design is through the methods of analysis and synthesis (Sonntag: 393). Through the application of analysis, by taking pictorial elements in a composition apart in order to understand them and then through synthesis, from a position of understanding and experimentation putting the pictorial elements together again in a personal and unique way. " … Pictorial elements, such as light and shade, material and structure, and colour are studied … followed by work with formal pictorial elements: plane, line and point" (Sonntag: 393)

- *'Design thinking', perception and 'seeing': Providing a base for design action through curriculum development*

> I envisage a curriculum which will provide a base for the creative activity of the student, i.e. prepare him through specific exercises in a way which will arouse his interest and promote diligence, clear thinking and enthusiasm for his work … All pictorial activity of man presupposes perception. Perception means to comprehend an environment in its many manifestations. Without recognition and comprehension human activity is uncontrolled. Lack of clarity, conditioned by doubt and fear, marks the results of such activity. Learning to recognize and fight uncertainty, doubt and fear provides one solution for liberating the creative force of the student. (Sonntag: 392)

Sonntag (: 393) explains that "intellectual comprehension and feeling promote certainty and security" and that the way to go about achieving these states is for students to participate in foundation studies, where the curriculum, teaching approach and assessment methods are focused on developing an understanding of the visual language and building up confidence and self-belief in the students.

Almost forty years later Nelson and Stolterman (: 22) reinforce the view that intellectual comprehension and feeling lead to certainty and security, which promote healthy self-criticism and self-confidence, both needed for design action (constituted of creative thinking and innovative activity) to take place. They understand design action to be intentional action that arises out of strength, hope, passion, desire and

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love as opposed to problem action, which is seen as being initiated out of need, fear, weakness, hate, pain and other reactive motives.

The position taken by Sonntag and Nelson and Stolterman is confirmed by my experience in teaching in the Design Foundation Course, which is that fear prevents students from engaging in their work and prevents them from 'seeing'. Fear shuts down creative 'thinking and doing'.

4.2.6 Postmodern developments in art and design education

Independent and well-known art colleges continue to develop and grow (like the Royal College of Art (1837-) in the UK, the Rhode Island School of Design (1877-) in the USA and the National Institute of Design (1961-   ) in India). However since the late 1950s onwards there appeared to be progressive shift in art training from art colleges and artists studios to art and design departments being situated in universities (amongst the oldest being Yale and Harvard in the USA and similarly at the traditional universities in SA, with the Michaelis School of Fine Art at the University of Cape Town (UCT) (1925-   ) being the oldest). Many design disciplines have become situated within a university environment, with the formation of the Universities of Technology (in Australia developed from Institutes of Technology and former colleges of advanced education, since the 1980s, and in the United Kingdom many of which grew out of the previous polytechnic colleges). More recently in South Africa, Universities of Technology, including the Cape Peninsula University of Technology (CPUT) were formed from the equivalent institutions known as technikons in the early to mid 2000s.

4.2.6.1 Art and design departments in universities: Have these become the equivalent of the traditional 'academy' of the eighteenth century?

Goldstein investigates the possible change in the nature of art education by it being located within the university environment (this is comparable to and could apply to the study of design in the more recently established Universities of Technology) and how this might adversely affect the making of original art (creative thinking and innovative action in design).

Rosenberg: From the artist's studio to the university art department

Goldstein quotes the views of the art critic Harold Rosenberg (1906-1978) who compares university training to that found in an artist's studio:

> … In the classroom – in contrast to the studio, which had tended to be dominated by
> metaphor – it is normal to formulate consciously what one is doing and to be able to
> explain it to others. Creation is taken to be synonymous with productive processes, and
> is broken down into sets of problems and solutions …

> (Goldstein: 280)

Rosenberg compares the modernist approach to teaching art that took place in the painter, Hans Hoffman's (1880-1966) "studio" schools (in New York and Provincetown from the mid 1930s to 1958) and how modernism was taught in the universities. Rosenberg saw the former as a method of teaching art, which accepted "the individual gesture, the accident, and the mystery of creativity", whereas he saw works that

reflected systematic teaching such as that of Albers's grid and checkerboard as being "the suicide of art" (Goldstein: 280) and as "academic" art.

Goldstein demonstrates through the work of Robert Rauschenberg (1925-2008), a student of Albers whose work could not be more different visually than that of Albers, that Rosenberg's argument is not watertight. Through Rauschenberg's work he opens up the debate about where art and design education should be located as being a complex issue. Also art and design education has to do with the 'one-to-one', individual teacher and student relationship, as much as it has to do with the tradition of art education itself.

Long after Rauschenberg began to practice as an artist professionally, he acknowledged Albers as having been a good teacher who did not teach through recipes, " I'm still learning what he taught me, because what he taught had to do with the entire visual world …". Goldstein (: 283) goes on to say that Albers's courses were to "sensitize students to visual phenomena, to form and color, and to the properties of materials", which, significantly, was the basis for his teaching in the foundation course at the Bauhaus.

Goldstein (: 287) deduces that modernism was taught differently in the "studio" school to how it was taught in the university, but that it was "taught no less than the art of the tradition".

Greenberg: Is all art that comes out of a university environment "academic" art?
The question that still remains is if all art that comes out of a university environment is "academic" art? He then refers to the art critic Clement Greenberg (1904-1994) who wrote about this particular aspect of university art education.

Although Greenberg writes about art, this debate could equally apply to design work that comes out a university environment. His view was that the art that came out of universities was more self conscious, but that not all of it was "academic" art. The art that he defines as "academic" is that in which the main aim is to strive for originality and that this type of art is "falsely" original. He refers to it as "avant-gardist" as opposed to truly original art which is avant-garde. Original art being art that says something new and different as opposed to art where the sole purpose is to be different and new. To be innovative design has to be original, the two go hand in hand and in order to happen there cannot be self conscious preoccupation with originality.

Ad Reinhardt: The university art department as the new academy of "pure research and discourse
The third point of view that Goldstein (: 293) discusses in his investigation into the nature of art education in the university art department is that of Ad Reinhardt's (1913-1967), whose opinions were very much based on the platonic philosophy of the academies that were founded in Florence during the Renaissance, "an academy that would not lurch in the currents of the art world but be a center of pure research and discourse". This point of view is problematic for art (which is about the visual concretization of ideas, and of how the world is perceived) and design (where the outcomes are practical in nature and which cannot be separated from industry and the needs of the real world).

The postmodernist approach to art and design education through architectural developments
What followed is the postmodernist approach to art and design education. It is not surprising that postmodernism first came about and developed in architecture, because as Hughes (: ibid) described it,

architecture is the visual art form that we live in and is essential to human activity. Postmodernism rejected the functionalist architecture of the Bauhaus:

> … architects "rediscovered" the language of architecture, which is to say that of the classicist tradition, an idiom that they found to be of a forgotten complexity and richness; "relearning"' this language, they have created an architecture of new eclecticism and historicism, rewriting modernist architectural theory – and the history of modern architecture.

> (Goldstein; 295)

4.2.6.2 Summing up: Postmodern revisionism, modernism and finding new form and meaning to suit local contexts from within the existing art and design tradition (canon)

Postmodernism led to a re-evaluation of the old traditions. While some theorists and educators rejected modernism, others continued to teach from an abstract modernist perspective. As Hughes points out artists and architects cannot assume that they have the answers to a world which is increasingly complex and which since the 1990s has been changing at a much more rapid rate than ever before due to unprecedented technological advances.

Placing modernism and postmodernism within the tradition of the Renaissance academies

There are different views about where to place the start of the modern era: in the1500s during the Renaissance, 1700s with the Enlightenment, in the 1800s with industrialization or within the early1900s modernist movement of art and the Bauhaus? Wherever one places modernism, what is significant is that Goldstein places it within the art tradition of the Renaissance academies, in which he also includes postmodern revisionism. He sees this tradition up to and including twentieth century modernism, as being part of the Eurocentric academic liberal arts tradition, based on humanistic values with man at the centre, where women, minority groups and cultures outside of the western tradition were largely excluded. However, it must be noted that the most positive aspect of the liberal arts tradition is that it has always been open to change through the application of logic and reason.

Integrating theory with practice: The continued debate around 'high' art and 'low; art, 'brainwork' and 'handiwork'

Goldstein also raises the issue of teaching the form of the old masters or that of modernism without the content to which the work was originally tied. This particular point resonates with what McCoy (: ibid) says, that design education cannot only be skills based, that designers create culture and that they should know the history of their culture. As has been pointed out and which is part of the research question of this thesis, a dichotomy between 'high' art and 'low' art, 'brainwork' and 'handiwork', theory and practice still exists.

Working within the tradition and being responsive to the socio-economic and cultural needs of local communities

He concludes that it is probably best to work within the existing tradition, not choosing one way above the other, making use of whichever aspects of the canon are most relevant to meeting the needs of a specific context, and being responsive to the socio-economic and cultural needs of local communities, by " taking into account the configuration and problems of the societies in which students later will produce art [and

design]" (Goldstein: 299). This point is significant as I see this as a possible way of working with existing art and design forms from which one can develop and create new forms that have meaning (content) relevant to local contexts, which in certain instances could be applied to meet needs in a global context.

Goldstein ends the debate as to the role art has to play (and therefore design) going into the twenty-first century, with the following two questions:

> … can we say that we are clear about what art [and design] is and what role we expect it to play in our lives and in society? Are we clear enough about these crucial issues to say that art [and design] should be taught in one way and in that way only?
>
> (Goldstein: 299)

4.2.7 The ConnectED 2010, 2nd International conference on Design Education, Sydney (2010)

What was significant about the recent *ConnectED 2010, 2nd International Conference on Design Education*, which was hosted by the University of New South Wales (UNSW) in association with the Design Education Forum of South Africa (DEFSA), in Sydney, Australia (2010), was that it was evident from the issues addressed by the keynote speakers in the plenary sessions and in the conference papers in the parallel sessions, that design education is no longer merely skills based. Diversity of cultures and local and global issues are being dealt with in a variety of different ways. Design educators are involved in research about design and design education in the broader global context, as well as in specific local contexts. They are writing about their own creative work and teaching practices. They are discussing successes and challenges in curriculum development, teaching approach and assessment methods.

Cognisance has been taken of lessons learnt from the past, that in order to find sustainable solutions for a culturally diverse, constantly changing and complex world, a monolithic approach to design education is not adequate (Hughes, Goldstein: 299). This could be clearly seen in how the *ConnectED 2010* conference (Sydney 2010) was organized and in the breadth of design education themes that were addressed in the conference programme. A multidisciplinary approach was taken, with the Faculty of the Built Environment, the Faculty of Engineering and the College of Fine Arts (COFA) School of Art and Design, UNSW, collaborating to host the conference. Double-blind peer reviewed conference papers were presented by educators, from 35 countries from different parts of the world (including five academics from South Africa, with three of us being from the CPUT). Many aspects of design education were addressed under the following conference themes:

Multidisciplinary design education

Designing sustainable futures

Design collaboration and working with industry

Design as research

eLearning and technology in design education

Studio-based learning

Problem-based learning

Design education and community

The *ConnectED 2010* conference (Sydney 2010) was the equivalent attempt from an educational perspective to deal with current design issues internationally, in the same way as the annual Industry based *Design Indaba* conference (Cape Town 2010) deals with design issues from around the world, but from the perspective of industry. The crux of the matter is that design education and the design industry need each other in order for design to function in a meaningful way in the real world. Therefore both of these conferences have been of vital importance in raising critical awareness of design and current design issues, necessary for developing strategies to meet the needs of a complex world that keeps changing.

I will refer to some of the issues that were addressed at the *ConnectED 2010* conference (Sydney, 2010) that are pertinent to the development of aspects of curriculum structure, teaching approach and assessment methods for foundation education in design in South Africa which could be applied to similar situations in the broader global context.

4.2.7.1 The evolution of 'Design Thinking': Framing, keeping the problem and solution space open and preserving "ambiguity" to allow for team creativity
Two of the keynote speakers, Kees Dorst, Professor of Design of the University of Technology Sydney, Australia and Larry Leifer, Professor, Mechanical Engineering Department at Stanford University, USA, focused on the evolution of the concept 'Design Thinking'.

Kees Dorst described design thinking as the co-evolution of the problem and solution, where the problem and the solution are both in flux. He said framing was essential and described this as walking around a problem to see if it is solvable. Larry Leifer's understanding is comparable, saying that "in design, context is everything" and that the problem and solution space should be kept open until the last moment. Liefer continues with this idea of "ambiguity" saying that design thinkers must preserve "ambiguity" to allow for team creativity.

Reframing to change ways of thinking
In his experience, as an industrial designer, Dorst distinguishes between designers who focus on projects, and on professional practices, such as an architectural practice, an environment in which things can happen, where the focus is on the thinking that goes on behind the projects. He refers to this as professionalization, with the practice in each discipline having its own terminology and way of functioning. Dorst talks about reframing, to change one's way of thinking, or creating a new frame, creating a new practice, because innovation is about change.

Design thinking as "research in context"
Leifer sees design thinking as "research in context" and that "design thinking is iterative" that research is most important before reaching a solution, that one should review and decide or decide and review. He sees all design as re-designing and that design is about the object. He observed that students take cues from computers rather than the real world. He says ninety-eight percent was design thinking, "research in context" and that two percent was design. Therefore making communication tangible was important, as was the making of things, by conducting experiments to see how things work. Ranjan (: ibid) would describe this as 'thinking through making'.

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Self-awareness and cultural awareness

Due to the growing phenomenon of design collaboration at a distance (the global networked society that Manzini (: ibid) and Ranjan (: ibid) refer to) Leifer identified the need for a project coach and a culture coach because of cultural differences. He sees self-awareness and cultural awareness as essential qualities and suggests the use of sustainability problems to engage students as a way of raising critical awareness of the needs of a complex and fast changing world.

4.2.7.2 Hybrid design: A new form of integrated interdisciplinary design

In order to deal with complex situations, diverse cultures and fast changing technologies there is a need for designers from different disciplines to collaborate far more closely than ever before which has seen rise to a new form of integrated interdisciplinary design referred to as hybrid design.

Product Design Engineering: A hybrid, integrated, interdisciplinary curriculum

The mechanical engineering department at Swinburne University of Technology in Melbourne, identified a need for a change in approach because of the greater focus on "sustainable design, socially responsible design and design for need" (de Vere et al, 2010: 1). In order to be more effective in product design and development environments, it was established that design engineers needed new skills which included "creative design ability and a more human centred-approach", both of which are not usually addressed in a traditional engineering curriculum (de Vere et al: 1).

Through the collaboration of the design and engineering faculties, a new five-year integrated, hybrid design course, known as Product Design Engineering has been developed. The curriculum is equally weighted with product design and mechanical engineering components. Many innovative, award-winning designs have come out of this particular Product Design Engineering course. The placement rate for graduates from this course is high and they are sought after by industry because of their interdisciplinary abilities as both designers and engineers (ibid).

Addressing the 'cultural user perception gap': A hybrid design system which integrates formalistic design with social design

To address the phenomenon known as the 'cultural user perception gap' experienced in state owned buildings in Papua New Guinea, a hybrid design system has been proposed whereby current formalistic design can be integrated with the social design of human behaviour (Polin, 2010: 1).

"Cultural-user-perception is therefore, the knowledge or understanding of a user of a building of a particular group of people", Polin (: 2) continues to say that:

> Cultural-user-perception gap is described to be the level of variance found between the indigenous cultural perception and the modern cultural perception of modern state-owned buildings being developed in Papua New Guinea … When there is little or no variance the more resolved a building becomes.
>
> (Polin: 3)

The use of a hybrid design system is being proposed to address the 'cultural user perception gap' that has been identified to exist in state owned buildings. One of the areas in existing state owned buildings which clearly demonstrates the 'cultural user perception gap', is the lobby space which has seen much wear and tear in existing buildings, as the lobby space, particularly in hospitals, is too small to accommodate the custom of group visitations of the extended family when a patient is taken to hospital.

Formalistic design in buildings is seen to put the emphasis on the form where buildings are seen to be like sculpture, without much regard for their practical or social function. In social design the relationship between the environment and human behaviour is seen as most important.

Obtaining information about human behaviour is essential to the process of social design. Obtaining live research is seen to be best, as published information is perceived as problematic because there is so much available and it is not always easy for designers to understand. Whichever method is used for gathering information, significantly what is pointed out, is that the " the information must be translated from the terminology of the human sciences to the language of design"(Polin: 4).

What is proposed is the integration of formalistic design with social design to form the hybrid design system which is still theoretical and needs to be tested.

4.2.7.3 The role of undergraduate design education in the development of critically aware and versatile designers

What became evident during the conference was that not only is 'design thinking' essential for innovative action (Nelson and Stolterman, ibid) but that as a strategy 'design thinking' is evolving (Dorst, 2010). If 'design thinking' is seen as being "research in context" (Leifer, 2010) and essential for arriving at a workable design solution, 'design thinking' needs to be encouraged and developed from foundation level and throughout the undergraduate years of study in educating critically aware and versatile designers.

The three papers that will be discussed demonstrate that design education at undergraduate level needs to be much more than just skills based as was identified by McCoy in 1990 (: ibid), but that at the same time because of the extensive use of computers, basic design skills cannot be ignored (Ranjan, ibid).

*Basic design to show the difference of form perception between the virtual and real environment*s
A paper *Composing meaningful forms in a virtual vs real environment* (Ferraris & Rampino: 2010) was presented based on a design workshop for second year students in the industrial design degree course at the Polytecnico di Milano, which was inspired by the Bauhaus Basic Design approach. This approach was used as a basis in a project, to determine the positive and negative aspects of working with a three-dimensional composition in a virtual environment as opposed to doing the same in a real environment. The basic forms of the sphere, the cube and the cone were used to develop compositions relating forms to each other in space.

The reason for setting this project was that it was found that students lacked basic compositional skills in industrial design courses that are based mostly on a functional, technical approach. In this approach much attention is given to basic user needs and technical aspects, so that when students are asked to solve complex design problems, they neglect the formal aspects of their designs. The other problem that was

identified was that most students designed directly in three-dimensional software and that working in this way led to a lack of awareness "that there is a consistent difference in form perception between virtual and real modelling techniques" (Ferraris & Rampino, 2010: 1).

Making it easier to keep the emphasis on the process, on the first day, the students were asked to model a composition using virtual tools working with tone in black and white. The following day they were asked to construct the forms in white card and organize their composition incorporating shadows and light and dark. What became evident was that working in the real environment they were better able to identify strengths and weaknesses in their compositions that they were not able to do when modelling with virtual tools, as they were not always able to visualize what the composition would look like from a view other than that which was projected virtually.

Physically built working model as a 'container' for the conceptual development of an idea during the design process
The lack of ability by the third-year architectural technology students at CPUT, to perceive something from another angle when designing with virtual tools is something that was highlighted in a paper, *The importance of physically built working models in design teaching of undergraduate architectural students* (Voulgarelis & Morkel, 2010). Like the second year industrial design students at the Polytecnico di Milano, it has been found that the increasing ease with which computer technology can be used, has resulted in students avoiding the use of physical models. It is believed that "physical models still allow the best exploration within the design process" (Voulgarelis & Morkel, 2010: 1).

What is addressed in this paper is finding strategies to facilitate student understanding of the importance of working through the design process, rather than the emphasis being placed on the end result and the finished product. With this in mind, easily and relatively quickly constructed working models are made from found materials as opposed to highly finished presentation models using expensive new materials. It is about the concretizing of ideas through, " 'thinking and doing', then 'refining and questioning' " which is also central to the teaching approach in the Design Foundation Course at CPUT (Lecanides Arnott, 2010: 6).

"The model helps to retain the design idea in conceptual development", and it allows for " various possibilities within the main idea" (Voulgarelis & Morkel, 2010: 3). Significantly, it works as a container for the idea and it provides tangible and sequential evidence of the development of the design idea into a workable design, encouraging reflective self-criticism during the learning process.

The transition from basic design to architectural design: working from the real to the virtual and back again, alternating between 2D and 3D
The third paper, *White Space: Taking Beginning Students from the Abstract to the Architectural* (Arens, 2010) acknowledges the lasting influence of the Bauhaus on architectural education in the USA, and in particular the influence of its foundation course and the curriculum for Basic Design. The basic design curriculum was initially met with resistance. It took Walter Gropius eleven years from the time he began teaching at Harvard University, to implement such a course as it was seen to compromise specialist training in architecture due to the perception of there being an "undue emphasis on abstract exercises and the allied

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arts at the expense of architectural issues such as space, community, construction and civic form" (Arens, 2010: 1).

There is still an emphasis on Bauhaus Basic Design abstraction, in the first-year of study at the California Polytechnic State University and the paper discusses a design studio course that takes place in the first quarter of the second-year in the architecture department. This course is an integrated and complex course which was designed to help reinforce the design principles learnt in the first-year through the use of abstraction but also to help the students make the transition into architectural issues such as "site, space, program and technology".

The ten-week course is framed by seven related projects, which interlock conceptually and visually, moving sequentially from simple to complex, dealing with conceptual, formal and technical aspects, culminating in the final project which is a detailed, physical, to scale, sectional model for a poet's retreat. The seven projects can be viewed independently or as a sequential development forming a whole.

The related themes of the projects are organized in such a way as to make the students alternate between 2D and 3D explorations, moving from the literal (realistic/objective) to the abstract and back. The students are encouraged to work with appropriate technology, alternating from the virtual to the real, making use of different methods of visualizing in 2D, through drawing and constructing in 3D, using a variety of media and materials.

A number of significant outcomes were achieved through this ten-week course in helping students to make the transition from basic design in first-year to second-year architectural design. The author highlights three key areas that helped achieve this transition:

> First, that the space between objects is just as important as the objects themselves, and that objects must be reconciled to their context or white space. Second, that simple everyday objects hold many lessons for designers, but only if they take the time and develop the tools for understanding them. Lastly, that the ability to move nimbly between 2D and 3D explorations is a key skill for a young designer.
>
> (Arens, 2010: 5)

4.2.7.4 Summing up: The way forward through the development of integrated, complex curricula, 'thinking through making' and the use of appropriate technology

The papers that have been discussed demonstrate a concerted attempt to raise critical awareness in order to deal with complex constantly changing situations. Reference is made to the modernist Bauhaus basic design principles, of encouraging exploring and experimenting with different materials, and 'thinking through making'.

The emphasis on the design process, of framing or containing a problem, of contextualizing an idea, and the development of an idea through various iterations, points to a design education which is not only skills based. Working with appropriate technologies, making use of various aspects from the art and design education tradition (Goldstein: ibid) to fit specific contexts, and looking at other fields of knowledge, like the

social sciences, point to an integrated approach to design education which has breadth and depth at the same time.

Being responsive to students needs and focusing on the transition from basic design to specialized design through the development of an integrated, sequential curriculum, moving incrementally from the simple to the complex (Arens: ibid) is significant for undergraduate design studies. His view that young designers should be able to confidently move and explore between 2D (more abstract) and 3D (more concrete), the virtual and the real, using different materials and tools (the computer being just one of the tools) to do so, should lead to the versatility that is required in designers to deal with complex design issues.

The issues addressed in the *ConnectED 2010* conference papers, that have been discussed have to do with curriculum development and teaching approach and point to the way towards developing a conceptual framework for best practice in foundation education in design as all of these aspects should be dealt with from the beginning in the grounding education of designers.

Methods of assessment and evaluation were also discussed in papers at *the ConnectED 2010, 2nd international conference in design education,* but these will be dealt with in the following section as although not the only aspects that are of relevance, assessment and evaluation have direct bearing on establishing best practice and quality.

4.3 Towards a conceptual framework for best practice and quality in design foundation education

> Participation in critiques encourages the development of the capability to evaluate, critique, and coach others, challenging students to define their own standards of evaluation. (McCoy: 20)

> A mature profession has a reciprocal cycle that connects practice with education to research and back to practice, with each component of the cycle interacting with and enriching the others.

> (McCoy: 20)

It is my firm belief that an integrated approach to design education, which bridges the arts and the sciences is needed. This is supported by the role of what foundation studies in art and design should be, and which we have been engaged in over the years in the Design Foundation Course by the continued development of a complex, integrated, multi-disciplinary programme.

It is hoped that together with sections 3.2 and 3.3, the comparative analysis that will follow in section 4.3 will assist with forming a conceptual framework towards best practice and quality in curriculum development, teaching approach and assessment methods in the Design Foundation Course at CPUT. That through transference, certain aspects will be of relevance for application to design foundation programmes in similar institutions of higher education.

5. CONCLUSION

The role of foundation studies in design education, from the time of the initial development of the concept of the foundation course by Johannes Itten at the Bauhaus in 1920, is essential for gaining an understanding of the visual language of design by encouraging students to engage in imaginative experimentation through direct experience, and by helping them to develop a critical awareness of design. This is achieved through developing their perceptual, conceptual and technical skills in the use of the visual language and also a critical awareness of design that connects them to global issues, but which should be appropriate to the specific context of the society in which the grounding education of the young designers takes place (in our case in the Western Cape, at the Cape Peninsula University of Technology).

The restructuring of the Royal College of Art in the late 1980s
The Royal College of Art was founded in 1837 in London. It is an independent post-graduate school of art and design with equal standards and status to that of a university. In the late 1980s new facilities were built and further staff appointments made. The library was reorganized and computerized and a college computer network was established. New equipment was installed for courses such as industrial design engineering, holography and computer related design. A new drawing wing was built where and Bryan Kneale was appointed as the first ever Professor in Drawing at the Royal College of Art in 1989. In 1990 the student staff ratio was 6-9: 1.

higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Establishment of a Working Group on a System Towards the Recognition and Reward of Outputs from the Creative Arts, Performing Arts, Patents and Artefacts at Public Higher Education Institutions in South Africa

Terms of Reference.

Background

1. According to the *White Paper 3: A Programme for the Transformation of Higher Education* (1997), "the production, advancement and dissemination of knowledge [as well as] the development of high-level human resources are core functions of higher education system" (2.82). Therefore, institutions of higher learning are expected to generate new knowledge by engaging in research activities.

2. The White Paper asserts that "the outcomes of research are not only measured by traditional tools such as peer-reviews, but also by a broader range of indicators such as national development needs, industrial innovation and community development" (2.85). It becomes crucial, therefore, that the higher education system should look beyond the traditional research methods in developing and awarding excellence. The foundation for consolidating the role of the higher education system lies with the development of new research capacity and the creative application of current and new resources.

3. The *National Plan for Higher Education* (2001) acknowledges that higher education institutions and researchers raised concerns about the limitations of the policies and procedures, prior 2001, to measure creative outputs. It noted that there was a "bias against certain disciplines in the arts and the humanities in particular, as not all forms of creative output, such as music and drama are recognised" (5.1).

4. Following the National Plan, a review of the research outputs policy was undertaken which culminated in the adoption of the *Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions* in 2003. The policy defines research output as **"**textual output where research is understood as original, systematic investigation undertaken in order to gain new knowledge and understanding." As such, there is non-recognition of creative outputs beyond textual outputs while other fields accrue subsidy funds in lieu of their recognised research publications. The policy further asserts that "peer evaluation of research is a fundamental prerequisite of all recognised output and is the mechanism of ensuring and thus enhancing quality". There are other forms of outputs which are excluded from recognition by the policy.

5. From the above definition of research outputs and the rest of the policy, creative outputs, as already noted in the National Plan, are still not recognised in the post 2003 policy. The policy asserts that it is "not intended to measure all output, but to enhance productivity by recognising the major types of research outputs produced by higher education institutions." (Section 2).

6. Academics and practitioners in some disciplines, such as Creative and Performing Arts, whose outputs are not covered in the existing policy, have expressed the need for the DoE to recognise

their outputs. The expectation is that some of their outputs, which may not be in publication format, should be considered for subsidy or some form of recognition.

Establishment of a Working Group

7. A Working Group is hereby established to consider and advise on the recognition and/or reward for certain forms of outputs in the Creative Arts, Performing Arts, Patents and Artefacts that are not recognised by the current policy.

8. The Department Higher Education and Training shall determine and convene members of the Working Group from the sector.

9. The convenor of the Working Group shall be decided upon by the Department and will closely work with the Directorate: Higher Education Policy and Development Support, which shall provide guidance and secretarial support to the Working Group.

Terms of Reference

10. The Working Group must suggest criteria and procedures which can be followed in determining and evaluating the proposed forms of creative outputs, patents and artefacts. It should advise on an appropriate peer review systems, allocation of units/funding and processes and procedures for submission and evaluation of these outputs.

11. The Working Group must consider and advise on each creative discipline or sub-discipline, and their related outputs, that it identifies as not currently recognised by the *Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions*.

12. Although the Working Group will be required to examine and interrogate the definitions of these creative disciplines, the following working definitions have been identified:
    *   Creative Arts: Visual & Fine Arts (**curatorship, photography, design, painting, sculpture, printmaking, digital and audio-visual art**) Design & Exhibitions, but excludes Creative writing (**fiction, poetry, essays, drama texts, biographies, autobiographies, historical accounts**) .
    *   Performing Arts: Drama (**directing, choreography, design and performance, film/play scripts),** Dance, Music **(performance and composition),** and Audio Visual/Performance Art.
    *   Patents refer to specific products or processes patented and granted for the first time, either in South Africa or in another country, excluding provisional patents and multiple rights for the same product or process.
    *   Artefacts are human-developed objects in which applied technology (**computer software, technical drawing/design, working model or prototype**) plays a role and which significantly benefits the technological world, the business world or a specific community.

13. The Working Group must suggest the form or forms of recognition or rewards for the approved creative outputs of the various disciplines. It should also consider and advise on how many and by how much, these disciplines are reflected in the annual submission of research outputs by public higher education institutions.

14. The Working Group must consider and advise on the current practices at higher education institutional level as well as international practices on the recognition and reward for outputs in these disciplines.

15. The Working Group must also advise on whether to develop a new policy or to amend the existing *Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions* for the recognition or reward of creative outputs, patents and artefacts.

16. The Working Group must consult with the sector broadly.

17. The Working Group can include, with explanation, any other matters it considers crucial for the determination of policy in this regard.

18. The Working Group must, at the conclusion of its review, formulate a report with recommendations for policy on the above matters

FINE ART OUTPUTS

LEVEL	ART PRODUCTION	CURATORIAL WORK	CATALOGUE
5	**OPTION 1** One-person exhibition/installation that is demonstrated to be especially substantive and which is accompanied by documentation which makes evident its discursive engagement. Additionally, the exhibition/installation EITHER • travels to at least two venues. It can be demonstrated that this travel has meant that the artist has re-conceptualised the exhibition in accordance with the demands of the new contexts. OR • can be demonstrated to have involved the artist in a significant number of lectures, colloquia or other engagements of a scholarly nature. **OPTION 2** An extremely large and complex art commission which: • can be demonstrated to have involved substantive technical and/or formal innovations • can be demonstrated to be substantive on a conceptual level • can be demonstrated to have involved substantive thematic and/or historical research • has generated textual documentation that makes evident its discursive engagement	An exhibition which can be demonstrated to be especially substantive in actual size as well as the scope of its activities. It will meet at least one of the following two criteria: • The exhibition can be demonstrated to have involved the curator in a substantial number of lectures, colloquia or other engagements of a scholarly nature. • The exhibition travelled to at least two venues after its initial showing – arrangements which demanded that the curator reconceptualise the exhibition for each new venue. Additionally, the exhibition must meet one of the following two criteria: • The curator has specially commissioned all or a substantial number of works included in the exhibition. • The curator has borrowed a substantial number of works included in the exhibition from a wide variety of collections.	

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	• can be demonstrated to have involved the artist in a number of lectures, colloquia or other engagements of a scholarly nature.		
4	OPTION 1 One-person exhibition/installation that can be demonstrated to be substantive and which is accompanied by documentation which makes evident its discursive engagement. OPTION 2 A large art commission which: • can be demonstrated to have involved substantive technical and/or formal innovations • can be demonstrated to be substantive on a conceptual level • can be demonstrated to have involved substantive thematic and/or historical research • can be demonstrated to have involved the artist one or two lectures, colloquia or other engagements of a scholarly nature and/or to have generated some textual documentation that makes evident its discursive engagement	An exhibition which can be demonstrated to be large in size and scope. It will meet at least one of the following two criteria: • The exhibition involved the curator in some lectures, colloquia or other engagements of a scholarly nature • The exhibition travelled to a second venue – arrangements which demanded that the curator reconceptualise the exhibition. It will also meet one of the following criteria: • The curator has specially commissioned all or a substantial number of works in the exhibition. • The curator has borrowed a substantial number of works included in the exhibition from a variety of collections.	
3	OPTION 1 One-person exhibition/installation. OPTION 2 A large commission which can be demonstrated to have involved substantive technical and/or formal innovations as well as substantive thematic and/or historical research.	An exhibition of medium to large size which meets one of the following criteria: • The curator has specially commissioned all or a substantial number of works in the exhibition. • The curator has borrowed a substantial number of works included in the exhibition from a wide variety of collections.	
2	Work exhibited in a two- or three-person show.	Curated exhibition of moderate size and/or complexity.	
1	Single work or series included in	Curated exhibition of modest	Essay or other discursive

	ART PRODUCTION	CURATORIAL WORK	EXHIBITION CATALOGUE ESSAY/CONTRIBUTION
	a group exhibition or produced on commission.	scope or size.	contribution within an exhibition catalogue.
	ART PRODUCTION **CRITERIA FOR ACCREDITATION** **(The application needs to meet these in the first instance. Assessment is via peer review)** 1. A single work submitted to a group exhibition may not have been shown previously. Other exhibitions should be comprised primarily of work that has not previously been submitted for accreditation. 2. Art made on commission must be designed specifically for a designated site or collection and may not replicate (e.g. be another casting or print) of a previous work. 3. Work must generate new knowledge or understanding. 4. Work must have contemporary relevance. 5. Except for commissions for private contexts, work must be exhibited in the public domain.	**CURATORIAL WORK** **CRITERIA FOR ACCREDITATION** **(The application needs to meet these in the first instance. Assessment is via peer review)** 1. Exhibition must contribute to new knowledge or understanding. 2. Exhibition must take place in the public domain. 3. Exhibition must be accompanied by documentation which makes evident its discursive engagement.	**EXHIBITION CATALOGUE ESSAY/CONTRIBUTION** Please note: This category pertains only to those catalogues which are not being submitted as books or chapters in books **CRITERIA FOR ACCREDITATION** **(The application needs to meet these in the first instance. Assessment is via peer review).** 1. Catalogue entry must be of scholarly significance, and generate new knowledge or understanding. 2. Catalogue entry must be the outcome of research. 3. Catalogue must be made available in the public domain.

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DESIGN OUTPUTS

This category includes outputs from the following design disciplines:
Architecture, Built Environment, Communication Design, Fashion Design, Graphic Design, Industrial Design, Information Design, Interior Design, Jewellery Design, Landscape Design, Multimedia Design, and Textile Design

LEVEL	DESIGN WORK	CURATORIAL WORK	CATALOGUE
5	Substantive body of design work of an internationally accepted standard, generated by way of commission, call for tender or at the initiative of the designer to a perceived need or opportunity and		

	completed within a defined period. Presented in portfolio/catalogue format OR through a solo exhibition/show in a reputable gallery or other discipline appropriate public venue/platform. Accompanied by documentation from the designer explaining the conception of the work, practical context and theoretical concerns informing it.		
4	Substantive body of design work of a professional and national standard comprising a minimum of 2-3 major design projects, generated by way of commission, call for tender or at the initiative of the designer to a perceived need or opportunity and completed within a defined period. Presented in portfolio/catalogue format OR through a solo exhibition/show in a reputable gallery or other discipline appropriate public venue/platform. Accompanied by documentation from the designer explaining the conception of the work, practical context and theoretical concerns informing it.	An exhibition/show which can be demonstrated to be especially substantive in actual size as well as the scope of its activities. It must meet the following criterion: ▪ The exhibition/show can be demonstrated to have involved the curator in a substantial number of lectures, colloquia or other engagements of a scholarly nature. Additionally, the exhibition must meet one of the following three criteria: ▪ The exhibition/show travels to at least two venues – arrangements which demand that the curator reconceptualises the exhibition/show for new venue(s). ▪ The curator has conceptualised and sourced appropriate design work for the exhibition/show. ▪ The curator has produced a substantial component of the exhibition/show.	
3	Major design project leading to new or improved insights or to new or improved solutions, devices, products, processes or uses, generated by way of commission, call for tender or at the initiative of the designer to a perceived need or opportunity. Accompanied by appropriate	The exhibition/show will meet one of the following criteria: ▪ The curator has conceptualised and sourced all or a substantial number of appropriate works for the exhibition/show. ▪ The curator has produced a substantial component of the exhibition/show.	

	documentation from the designer		
2		Curated exhibition/show	
1+2	Design project of professionally acceptable scale and complexity Accompanied by appropriate documentation from the designer		Essay or other discursive contribution within an exhibition/show catalogue.
	DESIGN OUTPUTS **CRITERIA FOR ACCREDITATION** **The application needs to meet these in the first instance. Assessment is via peer review.** ▪ Any individual work may only be submitted once for consideration. ▪ Work must be recognised as innovative. ▪ Work must have contemporary relevance. ▪ Work must be in the public domain by way of production and dissemination/distribution OR exhibition/show. ▪ Format of presentation must be acceptable within the relevant design discipline in terms of conceptualisation and process/production documentation.	**CURATORIAL WORK** **CRITERIA FOR ACCREDITATION** **The application needs to meet these in the first instance. Assessment is via peer review.** ▪ Exhibition/show must contribute to new knowledge or understanding. ▪ Exhibition/show must take place in the public domain. ▪ Exhibition/show must be substantive in scope. ▪ Exhibition/show must be accompanied by a catalogue and/or other evidence of discursive engagement.	**EXHIBITION/SHOW CATALOGUE** Please note: This category pertains only to those catalogues which are not being submitted as books or chapters in books **CRITERIA FOR ACCREDITATION** **The application needs to meet these in the first instance. Assessment is via peer review**. ▪ Catalogue entry must be of scholarly significance and contribute to new knowledge or understanding. ▪ Catalogue entry must be the outcome of research. ▪ It can be demonstrated that the catalogue entry offers insights that are *additional* to the exhibition/show it accompanies, i.e. it is not simply a documentary record of works in the exhibition/show. ▪ Catalogue must be available in the public domain.

APPENDIX D: EXISTING STUDENT COURSE FEEDBACK QUESTIONNAIRE

FOUNDATION COURSE: DESIGN 2011
Faculty of Informatics and Design

Course and Assessment Feedback Questionnaire
The objective of this questionnaire is to give you the opportunity to give feedback about the course and the assessment (formative) of individual projects done throughout the year and the final assessment (summative) at the end of the course.
2D Design Subjects: Graphic Design, Surface Design, Fashion Design
3D Design Subjects: Industrial Design, Jewellery Design, Interior Design, Architectural Technology
Drawing Subjects: Figure and Object Drawing
Communication Studies
Professional Business Practice

Date: …………………	**1** never	**2** seldom	**3** sometimes	**4** often	**5** nearly always
1. The course as a whole is well integrated and helps to develop an understanding of the principles of Design in the 7 Design disciplines on offer					
2. The order in which the projects for the practical subjects are taught allows for the incremental development of conceptual and technical skills					
3. Objectives are clearly stated in project briefs					
4. Enough time is given to complete projects					
5. Concepts are clearly communicated					
6. The learning process is participative					
7. Independent thinking is encouraged					
8. Creative problem solving is emphasised					
9. Practical subjects and theoretical subjects (Communication Studies, Numeracy) are sufficiently integrated					
10. Regular feedback is given during the working process					
11. Enough time is given for revising projects after review					
12. Project assessments (formative) relate directly to assessment criteria in the briefs					
13. Exam moderation (summative assessment) is adequate and clear					
14. Self-evaluation of own work is encouraged					
15. Working crits and peer assessment of projects is useful					
16. Support workshops (Numeracy course, computer courses, reading skills workshops) are useful					
17. Life Skills workshops (stress, time management AIDS workshops) are relevant					

Further Comments:

Design Foundation Course 2008
Faculty of Informatics and Design

Course and Assessment Feedback Questionnaire

The objective of this questionnaire is to give you the opportunity to give feedback about the course and the assessment (formative) of individual projects done throughout the year.

2D Design Subjects: Graphic Design, Surface Design, Fashion Design

3D Design Subjects: Industrial Design, Jewellery Design, Interior Design, Architectural Technology

Drawing Subjects: Figure and Object Drawing

Theory Subjects: Communication Studies, Language Skills, Numeracy Course, Life Skills, Computer Skills

Date: 13 October 2008	**1** never	**2** seldom	**3** sometimes	**4** often	**5** nearly always
1. Objectives are clearly stated in project briefs					
2. Enough time is given to complete projects					
3. Concepts are clearly communicated					
4. The learning process is participative					
5. Independent thinking is encouraged					
6. Creative problem solving is emphasised					
7. Regular feedback is given during the working process					
8. Enough time is given for revising projects after review					
9. Self-evaluation of own work is encouraged					
10. Working crits and peer assessment of projects are useful					
11. Support workshops are useful: Numeracy course Computer courses Reading skills					

12. Life Skills workshops are relevant: (stress, time management, AIDS workshops)					

13. The course as a whole is well integrated. **Yes / No**
Give Reasons

14. The course helps to develop an understanding of the principles of Design in the 7 Design disciplines on offer. **Yes / No**
Give Reasons

15.   The order in which the projects for the practical subjects are taught allows for the incremental development of conceptual and technical skills. **Yes / No**
16. Practical subjects and Communication Studies are sufficiently integrated **Yes / No**
Give Reasons

17. Practical subjects and Numeracy are sufficiently integrated **Yes / No**
Give Reasons

18a. How did you find out about the Foundation Course?
Answer

18b. Why were you interested in doing the Foundation Course?
Answer

18c. Did the Foundation Course meet your expectations? **Yes / No**
Answer

19a. Did you do any Art or Design subjects at High School? **Yes / No**
If the answer is yes, please list the subjects.
19b. Before doing the Foundation Course, were you involved in any form of Art and Craft and did you make things with your hands? Did you do any drawings of your own?
Answer
19c. Prior to coming to do the Foundation Course did you study for anything else in a Higher Education Institution? **Yes / No**
If the answer is yes, give details.
20a. Having completed the Foundation Course do you have a better understanding of Design as a field of study? **Yes / No**
Give Reasons
20b. Having completed the Foundation Course do you have a clearer idea of following a career in Design? **Yes / No**
Give Reasons

MLA

Further comments:
(If you feel that certain issues were not addressed by this questionnaire, we would welcome further feedback so that we can continue to develop the Design Foundation Course).

…………………………………………………………………………………………

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Appendix F: Follow-up individual student questionnaire of the 2008 Design Foundation Course focus group conducted in the first-year of study during September-October 2009

Final version of questionnaire that was used for the individual interviews with the students from the focus groups which shows the changes that were based on Corrie's (statistician) recommendations on 2 September 2009

1. How easily did you adapt into first-year from the Design Foundation Course?

2. Have you notice any differences between students who went straight into first year in comparison to those who completed the foundation course first?

3. How does the teaching approach differ from that in the foundation course?

4. How clear is the explanation of project briefs in first year?

5. Can you explain how much time and the process you go through researching, developing ideas through drawing and planning for a project before in first year and does this differ in any way to what you did in the foundation course?

6. What feedback do you get when you have completed a project?

7. Are you encouraged to evaluate your own work and your peers during the design process? Please explain.

8. In what way do you think the drawing that you did in the foundation course has helped you in first-year?

9. How are you coping with the theory subjects now that you are in first-year?

10. How do you see the theory subject content relating to to that of the practical subects in first-year?

11. In what way have the skills components (computer skills, reading and writing skills and the numeracy skills) from the foundation course helped you in first-year?

12. Explain what sort of contact you have with students who were with you in the foundation course, who are in first-year but in different design disciplines to yours?

13. Can you think of any other things that you learnt in the foundation course, which are useful with your studies in first year?

14. Are there any aspects of the foundation course that you feel could be useful to you if they were extended into first-year and made part of the first year course?

Mari Lecanides Arnott: Data collecting questionnaire for Masters research, 2 Sept 2009, recommendations by Corrie Uys (CPUT research unit statistician) in red. Follow-up questions for the 2008 Design Foundation Course student focus group, during the regular first-year of study in the design discipline of choice

1. Did you adapt easily into first-year from the Design Foundation Course? If you are happy to receive only yes or no as a response then this question is fine. How about "How easily did you adapt …"

2. In comparison to students who went straight into first year do you think you have a better understanding of your design discipline of choice? Also a yes no question. Maybe add "Please explain/motivate"

3. In comparison to students who went straight into first year do you think you have a better awareness of design as a field of study? Also a yes no question. Maybe add "Please explain/motivate"

4. Do you find the teaching approach very different from that in foundation or is it quite similar? Again maybe, "How does the teaching approach differ from that in the foundation?"

5. Are project briefs clearly explained in first-year? "How clear is the explanation of project briefs in first year?" Only if you want more than just a "yes" or a "no". All the questions are basically "yes/no" questions. If you want more information (and I think you should get more) then you need to rephrase the same questions so that the students have answer in al full sentence. As I've done up to here.

6. Do you spend as much time researching, developing ideas through drawing and planning for a project before doing the final product as you did in the foundation course?

7. During a project, do you have critiques and discuss your work with other students and your lecturers?

8. Do you get clear feedback when you have completed a project? "What feedback do you get…?"

9. Are the technical skills that you learnt from projects in the different design disciplines during the foundation course useful to you in first-year?

10. Has all the drawing that you did last year helped you in first-year? "how has the drawing that you did….."

11. Are you coping with the theory subjects now that you are in first-year? "How are you coping…."

12. Does what you learn in theory tie up with things that you learn in the practical subjects, or is the theory separate from the practical subjects?

13. Have the skills components (computer skills, reading and writing skills and the numeracy skills) from the foundation course helped you in first-year?

14. Do you still have contact with students who were with you in the foundation course, who are in first-year but in different design disciplines to yours?

15. Can you think of any other things that you learnt in the foundation course, which are useful with your studies in first year?

16. Are there any aspects of the foundation course that you feel could be useful to you if they were extended into first-year and made part of the first year course?

APPENDIX G: OPEN-ENDED STAFF QUESTIONNAIRE

Data collection for masters' research study: questions for design staff

I would greatly appreciate it if you would be so kind as to answer the questions listed below. They are an essential part of the data I need to collect for the masters research study I am doing, titled, "*An integrated design foundation course in the South African context: future best practice*".

Please reply to this email by completing the answers in blue and by placing the answers below the particular questions:

1. Do you think the integrated Design Foundation Course is of benefit to underprepared students? Please support your answer.

2. If you teach in first-year, how do the students in your first-year classes who have completed the Design Foundation Course compare with students who were accepted directly into first-year?

3. In your experience, are the knowledge and skills acquired by past students from the Design Foundation Course of benefit to them in their second and third years of study?

4. In your view what are the strengths of the Design Foundation Course?

5. In your view what are the weaknesses of the Design Foundation Course?

6. Do you think that all students who enter the art and design field of study would benefit from participating in an integrated foundation course? Please support your answer.

7. If you have moderated in the end of year Design Foundation Course exams, or taught in the Design Foundation Course as a specialist in a particular design discipline, any other observations you may have about the foundation course, staff and students will be greatly appreciated.

Please send the answers to me as soon as you can. As I am on a two-year contract I am not allowed to take official study leave. At present, I have a couple of weeks free from teaching responsibilities to collect most of the data that I need.

Yours Sincerely,

Mari Lecanides Arnott

Design Foundation Course

Cape Town Campus

CPUT

Mobile: 072 624 2621, Home: 021 761 3266, Office: 021 460 9062

Appendix H: NMMU conference feedback report from the art and design discussion group with email of approval by conference chairperson

Regional Extended Programmes Workshop Conference
Nelson Mandela Metropolitan University
Bichana Lodge, Colleen Glen, Port Elizabeth
27 and 28 November 2008

Feedback from the Art and Design discussion group

Future co-operation between Art and Design foundation (extended curriculum) programmes at national level

The Art and Design group was represented by Dana Pullen and Christy Rennie, (NMMU, Eastern Cape), Rudi de Lange and Monica Mano, (CUT, Free State), Edwine Simon, Amanda Morris, Somi Deyi and Mari Lecanides Arnott, (CPUT, Western Cape). Rhodes and UFS have Fine Art Departments in their Humanities Faculties, offering the traditional four-year Fine Art degree, with the first year as a foundation course. Dr Arylis van Wyk from UFS said that additional language support was offered. The representative from Rhodes, Michelle Wait was not aware of any additional support being given.

As a group we found the workshop style format of the conference useful. The brief presentations in the morning by each of the institutions provided a good introduction to the different extended programmes, and set the stage for the discussion groups according to field of study in the afternoon. Returning to these groups the following morning allowed for sufficient reflection to take place for further discussion and suggestions on future co- operation.

Foundation courses and extended programmes are not offered in Art and Design by all the universities on a regional basis (hence the informal invitation by Dr Rudi de Lange (CUT) for representatives of both the Design foundation courses of CPUT to attend this conference). As such it was felt that it would be more representative and productive for a future conference to use a similar format, but to include institutions on a national basis. Members of the group volunteered to make contact with institutions from other regions with a view to setting up a national Foundation Art and Design conference next year, 2009 (eg. Durban UT, Tshwane UT).

Similar Problems, different solutions

What became clear during the discussions was that we experienced similar problems but that the solutions for these varied, according to the particular geographical location and constitution of the Art and Design courses on offer. Therefore an extended programme that represented one discipline only (CPUT, Bellville) would function differently to one that represented Fine Art and two Design disciplines (NMMU and CUT) or one that represented seven Design disciplines (CPUT, Cape Town). More in depth discussions and sharing of information about teaching approaches, assessment methods and curriculum structure with colleagues nationally, should give rise to models of best practice.

Classroom based teaching

Student numbers in Art and Design are relatively small and this (together with the process of design) lends itself naturally to classroom style teaching, as this is essential for successful teaching of extended material. This is not so easily achieved in some of the other fields of study (such as Engineering) where traditionally 'chalk and talk' methods are used.

The contextualization of extended material

All were aware that it was essential to integrate the life skills and computer skills aspects into subject course delivery, and were indeed doing so to lesser or greater extent. This would be a good area to workshop further. CUT has brought out a computer skills textbook funded by 'Foundational Support for Material Development and Staff Interaction' from the DoE. This textbook is a resource that can be used by all Art and Design extended programmes.

Integration of theory and language

It was agreed that this was an area of concern by all the representatives from the different institutions. Additional language support had to be contextualized and structured into the existing curriculum for it to be effective. The concept of multilingualism as explained by Somi Dey from CPUT could aid in this. As she explained, a concept would be translated into the student's mother tongue and then explored and opened up after which it would be translated back into English and used in the relevant learning context. She added that there were many layers to a language and that even a monolingual English speaking student would benefit from this approach, as English used as a mother tongue was quite different when used in an academic context.

Research based problem solving as a means of integrating theory and practice

The process of problem solving is central to Design. I showed the 'Research and Preparation Portfolio' of one of the students on the Design Foundation Course, Cape Town, CPUT and everybody agreed that this was a good way of emphasizing process to get to the end result. The basis for any practical project should be the research of theoretical aspects of a topic as well as visual data relating to it. This would be followed by visualizing concepts through the process of design, by developing thumbnail sketches/scamps/idea drawings as a means of getting to the final solution.

Drawing

Everybody agreed that drawing was a fundamental process in Art and Design. However there were many views and sometimes lack of clarity as to the role of the Art of Drawing in relation to discipline specific drawing and how the one could benefit the other. The designing process is in fact the process of visualizing ideas through drawing and as such the ability to convey concepts clearly and to draw with ease is vital. The Art of Drawing should not only be concerned with making students more aware of their environment and teach them to draw what they see and experience but also to facilitate the drawing required by specific disciplines. This is an area that needs to be intensively addressed in a workshop situation.

Issues of staffing and funding

It was agreed that the best and most experienced staff should be involved in teaching at the foundation level. It was felt by all, that staff should be trained so that they could teach appropriately at foundation level. Specialist discipline staff needed to be made aware of what was required in teaching students in extended programmes and active collaboration and consultation is needed with them.

Most of the teaching staff were on contract or employed part-time which led to problems of continuity in the development of programmes. When foundation courses and extended programmes are fully integrated into the diploma and degree structure, and officially recognized by the DoE and no longer depended on three year cyclical funding, staff and course development will be greatly facilitated.

Another very real problem that needs to be addressed is that, as preference is given to students from disadvantaged backgrounds, many of them drop out after completing an initial foundation course, due to the steep increase in the cost of materials required for specialization in certain disciplines.

Conclusion

Professor Ian Scott was quoted saying in the (Mail and Guardian newspaper, October 10-16, 2008 "Failing the Majority", pg 15) that three year degrees needed to be changed to four year degrees (incorporating a foundation course), as most underprepared students cannot complete the degree in three years.

This is what we should be planning for and moving towards.

Mari LecanidesArnott

Design Foundation Course, Cape Town Campus
Faculty of Informatics and Design, Cape Peninsula University of Technology
30 November 2008

Subject: FW: Conference feedback Art & Design - Mari
Date: Thursday 19 March 2009 10:35 PM
From: Bruce Arnott <barnott@mweb.co.za>
To: Johannes Cronje <CronjeJ@cput.ac.za>

------ Forwarded Message
From: "Snyders, Maritz (Prof) (Summerstrand Campus North)"
<Maritz.Snyders@nmmu.ac.za>
Date: Wed, 18 Mar 2009 13:57:52 +0200
To: "'barnott@mweb.co.za'" <barnott@mweb.co.za>
Cc: "Ruffer, Sharon (Mrs) (Missionvale Campus)"
<Sharon.Ruffer@nmmu.ac.za>
Subject: FW: Conference feedback Art & Design - Mari

Dear Mari
Thank you very much for this written report. I am happy that you
forward it as it is to your dean and to the other delegates at the
workshop in PE.

Sharon indicated that she did send the list of names and contact details
of all the delegates to you. I've asked her to do so again.

Regards
Maritz

Appendix I: Marks review reports and pass rate summary

FACULTY OF INFORMATICS AND DESIGN

DESIGN FOUNDATION COURSE (extended first year programme)

MARKS REVIEW REPORT FOR 2010

1. Pass rates, and reasons for low registration into the Design Foundation Course for 2010
1.1 Pass rate statistics for 2010
The following numbers reflect registration, pass, drop-out and failure rates of the students in the Design Foundation Course going into the final summative assessment period for 2010:
48 registered, 3 de-registered, 24 passed, 2 dropped-out 19 failed
10 registered for Architectural Technology, 7 passed
6 registered for Fashion Design, 5 passed
6 registered for Surface Design, 1 passed
4 registered for Graphic Design, 1 passed
2 registered for Jewellery Design, 0 passed
5 registered for Interior Design, 2 passed
12 registered for Industrial Design, 8 passed
1.2 Reasons for the low number of registrations in 2010
There were a number of reasons for the low number of acceptances in 2010:

- We did not have any students registering for graphic design as in previous years, because the graphic design candidates were registered in the graphic design foundation course on the Bellville campus. This was done to facilitate the merger process between the two graphic design departments from the Cape Town and Bellville campuses. Moving the graphic design students from the Design Foundation Course was agreed to as a temporary measure, until further decisions are taken regarding the faculty restructuring process which should be in place for 2013).
- The marketing of Design and the Design Foundation Course (extended first-year) needs attention.
- The optimal number of students that can be accommodated in the Design Foundation prefab building is 60 students. We cannot accommodate 75 students, (the number approved for the new foundation funding proposals for the period 2010 to 2012), unless we are provided with more studio space.

2. Minimum entrance requirement
2.1 Minimum requirements for entrance into CPUT
The minimum entrance requirements for the Design disciplines (Surface, Fashion, Interior, Jewellery, Industrial Design and Architectural Technology) on the Cape Town Campus and Foreshore Campus, represented by the Design Foundation Course are as follows:

- Two languages, one of which must be English, must be passed with a minimum of a rating of 3 (40%) each.
- For Architectural Technology, Mathematics must be passed with a rating of 4 or Mathematics literacy with a minimum rating of 6.
- All applicants are required to submit a prescribed portfolio, or attend a practical test, both of which are set by the respective Design departments.
- Applicants have to submit a written essay and, in some of the Design disciplines, complete a questionnaire and attend an interview.

2. 2 Additional/alternative admissions testing for entrance into one of the design disciplines
The Architectural Technology department conducted mathematics testing and 3D aptitude testing for the 2009 and 2010 intake.
All of the students who register for the extended curriculum programmes represented by the Design Foundation Course were required to sit for the National Benchmark Test (NBT) conducted by the University of Cape Town, in January 2010. Most of the registered students participated, and the tests gave us a clearer idea of the support we needed to provide to individual students. It became evident as the year progressed that most of the students whose results were within the basic category of the NBT (it is recommended that students with results in the basic category are not suited for study at a tertiary institution) struggled to successfully complete the Design Foundation Course.
We felt that the National Benchmark Test would be more useful if applied as part of the admissions testing and not used merely as a diagnostic instrument once the students had registered at the beginning of the year. As consensus was not reached about the use of the NBT throughout the Faculty of Informatics and Design, our faculty management decided not to use the NBT for the 2011 intake.

It was felt by many of the design staff that the psychometric testing that was used as part of the design admissions testing in previous years should be reintroduced as these tests were more specific to design as a field of study (eg. testing for potential in 3D spatial perception).

3. Student enrolment for 2011

We have 64 students registered for 2011 (4 more than we can comfortably accommodate in the design prefab). So far there have been no de-registrations.

We made a promotional DVD of the Design Foundation Course that was sent out to secondary schools in the region in 2010. This together with Design Open day and more referrals from our design departments seems to have helped us meet our numbers for 2011.

We hope that the kind of student we have attracted for the 2011 intake will show potential for study in a university environment and also show potential for study in design. We have tried to focus on accepting students with higher academic results who will be better suited to study in a university environment (eg. we have tried to accept students with no lower than a 4 scoring for their first language) and who have a minimum rating of 4/10 for their practical design entry test or design portfolio.

4. Issues needing attention

4.1 Problems with the current selection process

The current selection process has been identified as contributing significantly to the high failure rate. There is no longer psychometric testing of applicants into design as in previous years. At the very least applicants should be tested for academic potential and literacy during the admissions process not after registration.

There is still a general public perception that universities of technology are technikons (a perception that is perpetuated by publications by S. A. Diaries (PTY) LTD, such as the *2011Year Planner*, which lists the contact details of universities of technology together with technikons under the heading *Technikons*).

It appears that the problem is broader than that experienced by our faculty and that the universities of technology need to look more carefully at their minimum entrance requirements and the kind of student they wish to attract.

4.2 Weak students from the Cape College

We have had a number of weak students who did art and design courses at the Cape College and who then applied to a number of the CPUT design departments for study in first-year. The design departments then referred these students to us. We strongly recommend that a policy is put in place whereby, if applicants from Cape College are not accepted into first-year, their applications should be rejected and they should not be sent to the foundation course. We should not be seen as a dumping ground for applicants not suited for study in a university environment.

4.3 RPL candidates who are not suited for study in Design

All applicants into design, including candidates who have successfully undergone the RPL process to gain entry into CPUT, should meet the entrance criteria of the particular design discipline that they have applied to. The minimum entrance requirements into CPUT do not suffice to enter for study into one of the design disciplines.

4.4 Pass rates, statistics and feedback from design departments

It should be noted that the staff in the Design Foundation Course are not responsible for the students on the extended curriculum programme once they have passed through the Design Foundation Course. Any marks and statistical information that is required about the students on the extended programme in the regular first year should be directed to the Design HoDs. Once the students have completed the Design Foundation Course and they have been promoted into the regular first year they become the responsibility of the particular design department in which they are registered.

However, it is essential to get regular feedback from the design departments about the performance of past foundation students to ensure the continued development of the Design Foundation Course in meeting the needs of students so that they can successfully complete their studies in the design discipline of choice.

4.5 Lack of studio and office space

We receive funding for 75 students from the DoE/DHET, but the design foundation prefab building can accommodate only 60 students.

The main office doubles up as the secretary's office and as a tearoom during tea and lunch breaks. Foundation staff meetings take place in the main office too. Currently the full-time staff members share one small office that was partitioned off from the main storeroom to accommodate the two course co-ordinators in 2008. Office space needs to be found in the Design building, particularly for our theory lecturers, who often need to consult with students on an individual basis regarding their progress in the theory subjects.

4.6 Addressing the staffing crisis

The appointment of the two course co-ordinators and three other academic staff members on three-year contracts until the end of the new foundation cycle in 2012 has to a large extent alleviated the staffing shortage that was experienced in 2009. As we co-teach with the specialist lecturers from the Design departments we are still experiencing some problems because some of the departments, such as interior design have a staffing crisis. As a result we had to ask the specialist part-time lecturers who teach in the architectural technology slot to help with teaching in the interior design slot. Fortunately this worked well as both these disciplines are closely related.

However, having foundation specialist staff teaching only with specialist part-time staff is not ideal. For the sake of continuity into the regular first-year and for the ongoing development of the foundation staff and ultimately for benefit of the students, full-time lecturers from the different design disciplines should be teaching together with the foundation lecturers and part-time lecturers from industry.

4.7 Lack of clarity in the level of appointment of the foundation staff

Attempts have been made to address the lack of clarity in terms of the chain of command and management responsibilities relating to the Design Foundation Course, but problems continue to be experienced. There are two course co-ordinators, who on paper are placed on the same level as the rest of the staff on three-year contracts.

Without proper management and continuity, it is difficult to improve and develop the foundation course. Although the foundation staff members are now on three-year contracts, the foundation course and its staff still need to be fully acknowledged as serving core educational functions within the present three-year diploma structure.

6. Design Foundation Highlights in 2010

6.1 Marketing of the Design Foundation Course

We had a well-attended and successful Design Open day, which led to some successful applications into our course. The end of year exhibition was also well attended by students, parents and the general public.

Due to greater awareness of the function of the Design Foundation Course, the design departments such as architectural technology and industrial design were able to refer many applicants who would benefit from being on an extended curriculum programme such as that offered by the Design Foundation Course. We are still not receiving enough referrals from some of the other design departments.

The showing of the promotional DVD about the Design Foundation Course at the Design Indaba Expo at the end of February, at the CPUT open day, and at the end of year faculty exhibition, as well as sending it to secondary schools in the region seems to have helped in reaching potential students.

6.2 Student achievements and awards

Seven of our past students went on to complete their B Tech studies in 2010 (two in graphic design, one in interior design, one in architectural technology and three in industrial design). It must be remembered that it is in the nature of design, as a field of study, that the numbers of students and practitioners are generally small.

Chad Petersen, a past student who completed his B Tech in industrial design in 2010 was named runner up in the South African Bureau of Standards (SABS) Design Achievers Award 2010. Oriole Bolus who also completed his B Tech in industrial design in 2010 was one of the five finalists in the 2010 Western Cape Furniture Design Competition.

6.3 Aggregate Pass Rates of over 70%

Three of the students who successfully completed the Design Foundation Course in 2010, passed with aggregates of 70% and over.

6.4 Staff development and achievements

Both the course co-ordinators are busy with Masters studies which they intend to complete in 2011.

Another full-time foundation lecturer (a recent CPUT B Tech graduate in surface design) was selected as an emerging creative to participate in the Design Indaba Expo 2010. When not teaching in the Design Foundation Course, this lecturer runs her own business, designing and producing fabric bags and other items which she markets and sells internationally from her own website. More recently she was also interviewed about her work on an early morning TV chat show.

One of the course co-ordinators presented a paper at ConnectED 2010 International Conference on Design Education, in Sydney, Australia in early July. She was invited to participate on the international double-blind review panel, reviewing three conference papers and also asked to chair a paper session. The conference papers have been published in full.

7. Changes and developments in the curriculum

A number of changes and developments to the curriculum have been made in response to student needs described below.

7.1. Measures taken to deal with the high dropout rate in 2009 and 2010

We have never experienced as high a dropout and failure rate as at the end of the first semester of 2009 and 2010 with only a fifty percent pass rate at the end of 2010.

As experienced in 2009, already by the end of the first semester in 2010, the indications were that there was going to be a high failure rate by the end of 2010. We responded to the situation by re-structuring our project briefs and assessment methods and we will continue to do so in 2011 as necessary.

In 2009 and 2010 we had to build in mini hand-in deadlines for the practical design projects, as the 2009 and 2010 intake of students did not understand the concept of meeting deadlines. We had the unprecedented situation of some students not bothering to hand in at all. We think that perhaps the problems we experienced were partly due to the new OBE grade 12 curriculum which was implemented for the first time in 2008.

7.2 Introduction of Photoshop training

Based on feedback from students, Photoshop training sessions were included in the 2010 curriculum. The Photoshop component was integrated into the practical design curriculum by incorporating the further development of an existing foundation course surface design repeat pattern project. Skills gained during this project were reinforced and developed further by being incorporated into a drawing project, which was part of the jewellery design component of the Design Foundation Course.

7.3 Restructuring the professional business practice component of our course

The lecturer responsible for co-ordinating this subject, has been redesigning the professional business practice component since 2009 and has continued with this process in 2010, with the aim that this subject will help prepare the students adequately for study in the regular first year. Life skills, computer skills and numeracy components have been integrated into the professional business practice subject. These components are aligned to coincide with the teaching of the practical subjects where particular skills are needed.

7.4 Integration of language support into the first-year curriculum

For the sake of continuity and to provide past students as well as new students who need language support in the regular first-year, our language support lecturer (only possible because she is full-time on a three-year contract) will be developing a course with the history of design lecturers in first-year from the beginning of 2011.

8. Positive developments in the selection process

The course co-ordinator in charge of the selection process together with the full-time foundation staff introduced a new drawing test, which helped to test cognitive skills. This new test together with the other drawing tests that we have developed over the years gives us a more comprehensive idea of the applicants' abilities.

For the first time past foundation students who were currently busy with their BTech studies were included in the interviewing panels for the selection process. Their inclusion brought additional insights to the interviewing process and we will make use of this system again.

9. Conclusion

Employing the five core Design Foundation Course staff on three-year contracts from the beginning of 2010 has led to greater stability and has allowed time for the course co-ordinators to mentor younger staff. Having full-time staff has also made it possible for regular fortnightly foundation staff meetings to take place to deal with issues relating to the foundation course. As problems arise, we will continue to adjust our selection process, curriculum, teaching approach and assessment methods to meet the needs of the students.

Mari Lecanides Arnott
Design Foundation Course: co-ordinator
16 March 2011

Quality Improvement Plan for 2009: Design Foundation Course

Based on feedback from the 2008 foundation students and the performance of the current students in the first semester of 2009, a number of short and long-term issues have been identified as needing attention. These will be discussed under the following headings:
1. Integration of theory subjects and skills programmes with design subject content
2. Marketing of the Design Foundation Course
3. Guidelines for rules pertaining to student attendance and the submission of student work
4. Selection procedures and psychometric testing
5. Lack of staffing and institutional structure
6. Conclusion

1. Integration of theory subjects and skills programmes with design subject content

It has become clear over a number of years that the foundation students do not make sufficient connections between the theoretical and practical components of the course. This was also highlighted as a problem area at the Regional Extended Programmes Workshop Conference held at NNMU in November 2008, and was raised as a problem area by the 2008 students. We have actively been trying to address this issue by constantly making changes and developing the curriculum. However this process is hampered by the lack of continuity and frequent turnover of the teaching staff that are employed in a part-time capacity.

2. Marketing of the Design Foundation Course

During an interview with a group of students from the Design Foundation Course at the end of 2008, the students raised the issue that the course was poorly marketed. They suggested the making of a video to be sent to schools in the Cape Peninsula. It was also suggested that the video be put onto uTube. I took up this suggestion and with the help of Derek Stokem from Student Affairs we put together a short presentation about the foundation course. This turned out to be a truly collaborative production with input from staff and students from the different design departments. The distribution of this marketing presentation is necessary for reaching potential students for the 2010 intake as we have not been able to host the annual Design Open day in 2009.

3. Guidelines for rules pertaining to student attendance and the submission of student work

Is it possible to enforce a duly performed regulation such as that of a minimum 80% attendance rate in order for students to participate in the end of year examinations?

Are there standardized regulations about the application of penalties for the late submission of student work?

Both of these questions are pressing, as the 2009 intake of students do not understand the concept of meeting deadlines. We have the unprecedented situation of some students not bothering to hand in at all. We think that perhaps the problems we are experiencing are partly due to the new OBE grade 12 curriculum which was implemented for the first time in 2008. All we can do is to adjust our curriculum, teaching approach and assessment methods to meet the need of the students, which we do constantly as problems arise.

4. Selection procedures and psychometric testing

We have never experienced as high a drop out and failure rate as at the end of the first semester of 2009. We had an intake of 60 students and 6 students dropped out by the end of the first semester. Already by the end of the first semester, the indications are that there is going to be a high failure rate by the end of 2009.

The current selection process has been identified as contributing significantly to the high failure rate. There is no longer psychometric testing of applicants into design as in previous years. At the very least applicants should be tested for academic potential and literacy. We have discovered that one of our students has the language and reading skills of a nine and a half year old child. This student would not have slipped through had the psychometric testing been conducted.

We have a number of weak students who did art and design courses at the Cape College and who then applied to a number of the CPUT design departments for study in first-year. The design departments then referred these students to us. We strongly recommend that a policy is put in place that if applicants from Cape College are not accepted into first-year their applications should be rejected and they should not be sent to the foundation course,

as clearly they are not suited to study design in an university environment and we should not be seen as a dumping ground.

5. Lack of staffing and institutional structure and leadership

The lack of infrastructure and the use of part-time and contract staff to teach core subjects, and to manage the course is problematic in terms of input and continuity. Without intensive input and continuity it is difficult to improve and develop the foundation course. The foundation course should be acknowledged as serving a core educational function within the present three- year diploma structure and should not be sidelined as it is.

So far, the only component of our course that has been properly staffed this year was the jewellery design component. We had four dynamic young part-time lecturers teaching and John Skotnes co-ordinating and liaising with me all the time. The students engaged thoroughly with the projects and the feedback from them was positive.

6. Conclusion

In conclusion the following quote from a journal article by Professor Chrissie Boughey, a member of the National Foundation Task force that advises the DoE sums up how we can remedy problems in the Design Foundation Course. Professor Boughey states that:

> ... Relocating Academic Development work within a concern for quality offers the opportunity not only for that work to be validated, but also for structural changes to take place which would allow for further development of the field itself and enhance its potential to contribute to resolving issues related to teaching and learning which have long plagued the system.
> (Boughey, 2007: 10)

Mari Lecanides Arnott, 29 July 2009

Statistics: Through-put rate of students registered from 2002 to 2008 for the Design Foundation Course (extended first year) at the Cape Town Campus, CPUT

Known as: the Access course 1994-2002, the Foundation Course 2003-2006, the Design Foundation Course (extended first year) from 2007. The foundation programme has been an integrated Design Foundation Course covering all seven of the Design Disciplines on offer at the Cape Town Campus since 2002 (Architectural Technology, Graphic, Surface, Fashion, Jewellery, Interior and 3Dimensional Design).

Design Foundation Course (extended first year)	1st Year extended first year	2nd Year	3rd Year	Completed Diploma	Still in System	Changed from design to another field of study	Dropped out	Total % Completed National Diploma in Design
2002 reg 32 / pass 22	**2003** reg 18 / pass 14	**2004** reg 13 / pass 11	**2005** reg 9 / pass 5	**2005** 6 — **2006** 1	**2007** 2 reg for 3rd year		**10**	**38% (7)**
2003 reg 28 / pass 22	**2004** reg 22 / pass 16	**2005** reg 17 / pass 17	**2006** reg 17 / pass 8	**2006** 8	**2007** 7 reg for 3rd year		**6**	**36% (8)**
2004 reg 31 / pass 23	**2005** reg 21 / pass 19	**2006** reg 19 / pass 18	**2007** reg 16 / pass	**2007** — **2008**		1	**4**	
2005 reg 31 / pass 28	**2006** reg 25 / pass 17	**2007** reg 14 / pass	**2008** reg / pass	**2008** — **2009**	**2007** 3 reg for 1st year	1	**6**	
2006 reg 30 / pass 18	**2007** reg 18 / pass	**2008** reg / pass	**2009** reg / pass	**2009** — **2010**				
2007 reg 46 / pass 29	**2008** reg / pass	**2009** reg / pass	**2010** reg / pass	**2010** — **2011**			**6**	

2008: 58 registered (62 registered initially), 4 de-registered, 8 failed, 50 passed.
2011: 26 (44.8%) students of the 58 registered for the Design Foundation Course in 2008 completed the National Diploma in Design.

The student feedback questionnaire, the filmed focus group interview, the individual student follow-up interviews of the focus group and Table 4.1. (Chapter 4) with comments from students who graduated in 2011, are from the 2008 Design Foundation Course. The results of the students who achieved the National Diploma in Design who were registered for the foundation course between the years 2003 to 2007 are not entered on this table beause of inconsistency of student tracking systems. However, it seems that finally a system has been put in place for the 2011 results that is more user friendly and I have entered the results of the 2008 group who successfully completed the National Diploma in Design in November 2011.

Appendix J: Responses from 2008 student feedback questionnaire

Frequencies

[DataSet1] K:\Research\Research PostGraduate\MTech\CPUT\MariArnott\StudentData.sav

Frequency Table

Q1 Objectives are clearly stated in project briefs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	1	3.1	3.1	3.1
	Often	12	37.5	37.5	40.6
	Nearly Always	19	59.4	59.4	100.0
	Total	32	100.0	100.0	

Q2 Enough time is given to complete projects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	7	21.9	21.9	21.9
	Often	17	53.1	53.1	75.0
	Nearly Always	8	25.0	25.0	100.0
	Total	32	100.0	100.0	

Q3 Concepts are clearly communicated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	4	12.5	12.9	12.9
	Often	17	53.1	54.8	67.7
	Nearly Always	10	31.3	32.3	100.0
	Total	31	96.9	100.0	
Missing	System	1	3.1		
Total		32	100.0		

Q4 The learning process is participative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	5	15.6	15.6	15.6
	Often	16	50.0	50.0	65.6
	Nearly Always	11	34.4	34.4	100.0
	Total	32	100.0	100.0	

Q5 Independent thinking is encouraged

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	6	18.8	18.8	18.8
	Often	14	43.8	43.8	62.5
	Nearly Always	12	37.5	37.5	100.0
	Total	32	100.0	100.0	

Q6 Creative problem solving is emphasised

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	7	21.9	21.9	21.9
	Often	15	46.9	46.9	68.8
	Nearly Always	10	31.3	31.3	100.0
	Total	32	100.0	100.0	

Q7 Regular feedback is given during the working process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	2	6.3	6.3	6.3
	Sometimes	3	9.4	9.4	15.6
	Often	18	56.3	56.3	71.9
	Nearly Always	9	28.1	28.1	100.0
	Total	32	100.0	100.0	

Q8 Enough time is given for revising projects after review

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	3	9.4	9.7	9.7
	Sometimes	9	28.1	29.0	38.7
	Often	10	31.3	32.3	71.0
	Nearly Always	9	28.1	29.0	100.0
	Total	31	96.9	100.0	
Missing	System	1	3.1		
Total		32	100.0		

Q9 Self-evaluation of own work is encouraged

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	2	6.3	6.3	6.3
	Sometimes	13	40.6	40.6	46.9
	Often	7	21.9	21.9	68.8
	Nearly Always	10	31.3	31.3	100.0
	Total	32	100.0	100.0	

Q10 Working crits and peer assessment of projects are useful

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	1	3.1	3.1	3.1
	Sometimes	12	37.5	37.5	40.6
	Often	7	21.9	21.9	62.5
	Nearly Always	12	37.5	37.5	100.0
	Total	32	100.0	100.0	

Q11 Support workshops are useful: Numeracy, Computer skills, Reading

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	2	6.3	6.3	6.3
	Seldom	7	21.9	21.9	28.1
	Sometimes	13	40.6	40.6	68.8
	Often	5	15.6	15.6	84.4
	Nearly Always	5	15.6	15.6	100.0
	Total	32	100.0	100.0	

Q12 Life Skills workshops are relevant: (stress, time management, AIDS workshops)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	5	15.6	15.6	15.6
	Seldom	12	37.5	37.5	53.1
	Sometimes	10	31.3	31.3	84.4
	Often	3	9.4	9.4	93.8
	Nearly Always	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

Q13 The course as a whole is well integrated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	96.9	96.9	96.9
	No	1	3.1	3.1	100.0
	Total	32	100.0	100.0	

Q14 The course helps to develop an understanding of the principles of Design in the 7 Design disciplines on offer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	100.0	100.0	100.0

Q15 The order in which the projects for the practical subjects are taught allows for the incremental development of conceptual and technical skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	93.8	100.0	100.0
Missing	System	2	6.3		
Total		32	100.0		

Q16 Practical subjects and Communication Studies are sufficiently integrated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	81.3	86.7	86.7
	No	4	12.5	13.3	100.0
	Total	30	93.8	100.0	
Missing	System	2	6.3		
Total		32	100.0		

Q17 Practical subjects and Numeracy are sufficiently integrated

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	50.0	51.6	51.6
	No	15	46.9	48.4	100.0
	Total	31	96.9	100.0	
Missing	System	1	3.1		
Total		32	100.0		

Q18c Did the Foundation Course meet your expectations?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	96.9	100.0	100.0
Missing	System	1	3.1		
Total		32	100.0		

Q19a Did you do any Art or Design subjects at High School?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	53.1	54.8	54.8
	No	14	43.8	45.2	100.0
	Total	31	96.9	100.0	
Missing	System	1	3.1		
Total		32	100.0		

Q19c Prior to coming to do the Foundation Course did you study for anything else in a Higher Education Institution? Do you hold a Diploma or a Degree?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	18.8	20.0	20.0
	No	24	75.0	80.0	100.0
	Total	30	93.8	100.0	
Missing	System	2	6.3		
Total		32	100.0		

Q20a Having completed the Foundation Course do you have a better understanding of Design as a field of study?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	93.8	100.0	100.0
Missing	System	2	6.3		
Total		32	100.0		

Q20b Having completed the Foundation Course do you have a clearer idea of following a career in Design?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	93.8	100.0	100.0
Missing	System	2	6.3		
Total		32	100.0		

Bar Chart

Objectives are clearly stated in project briefs

Objectives are clearly stated in project briefs

Enough time is given to complete projects
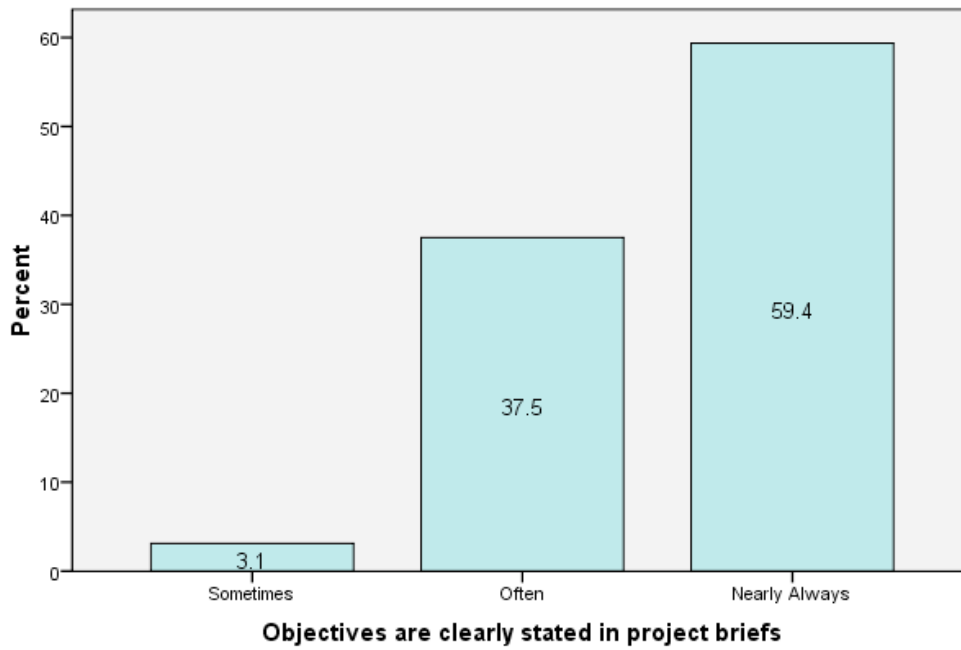
Enough time is given to complete projects
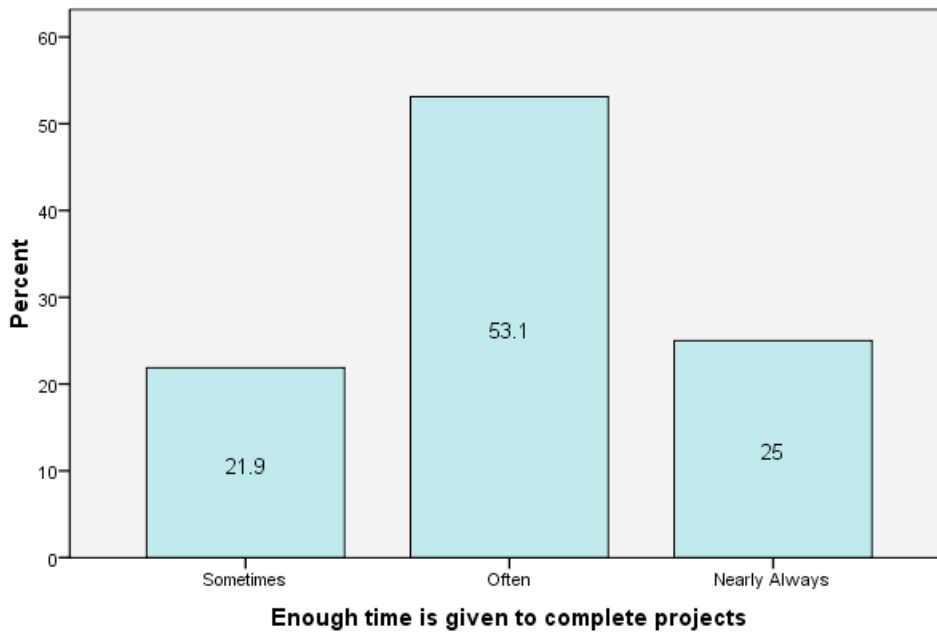
Concepts are clearly communicated
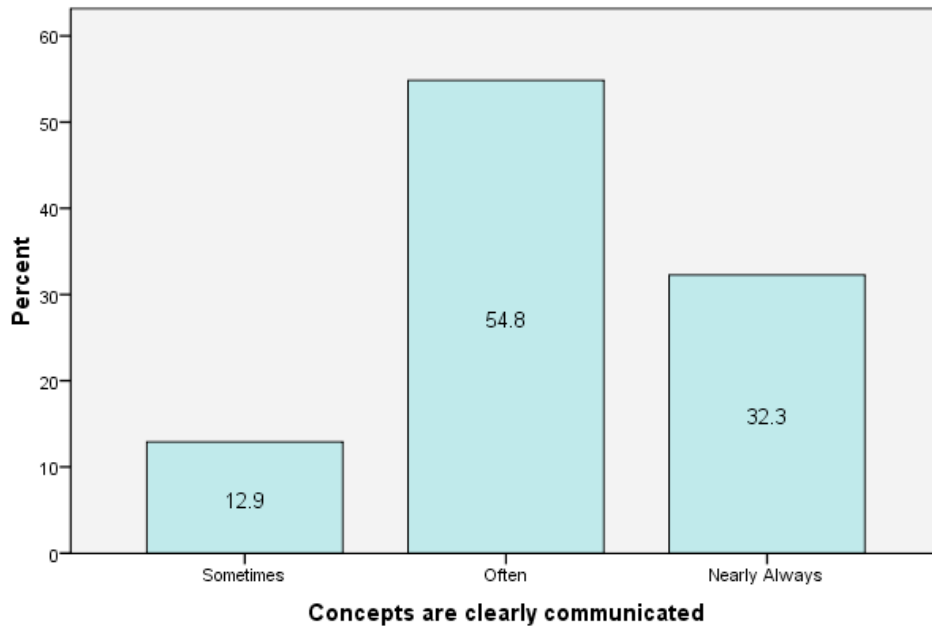
The learning process is participative

Independent thinking is encouraged
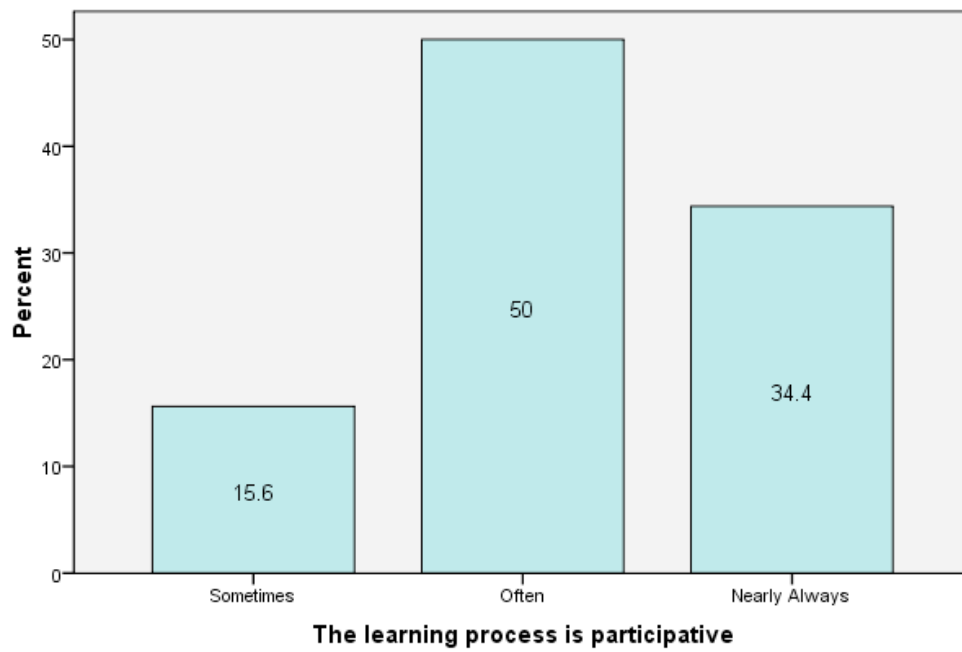
Independent thinking is encouraged

Creative problem solving is emphasised
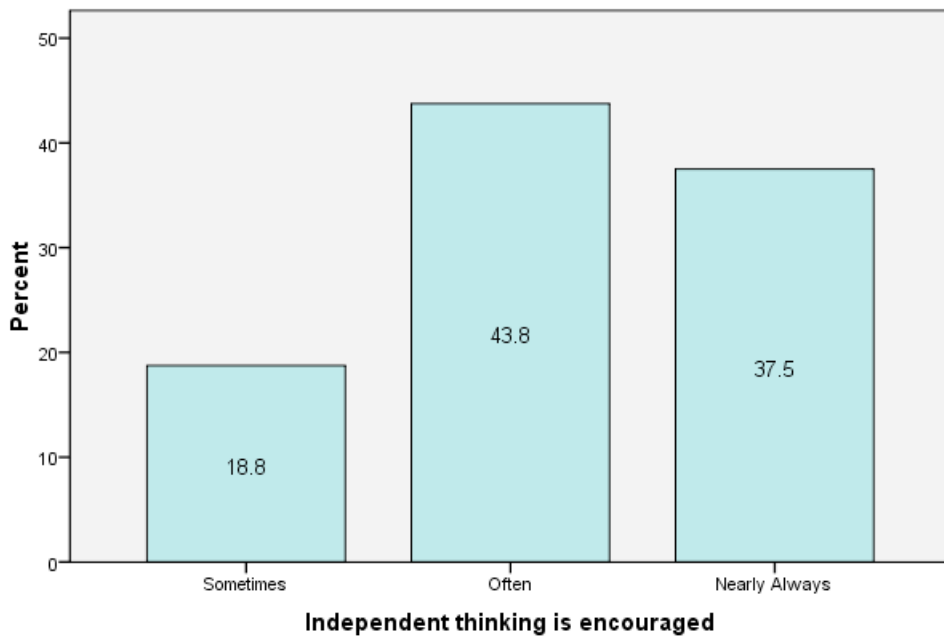
Creative problem solving is emphasised

Regular feedback is given during the working process
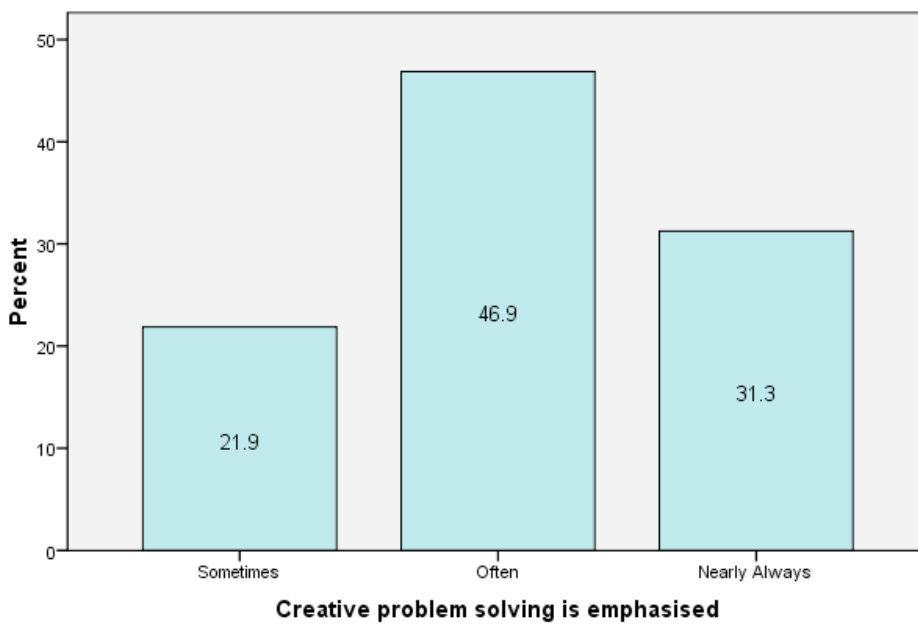
Regular feedback is given during the working process

Enough time is given for revising projects after review
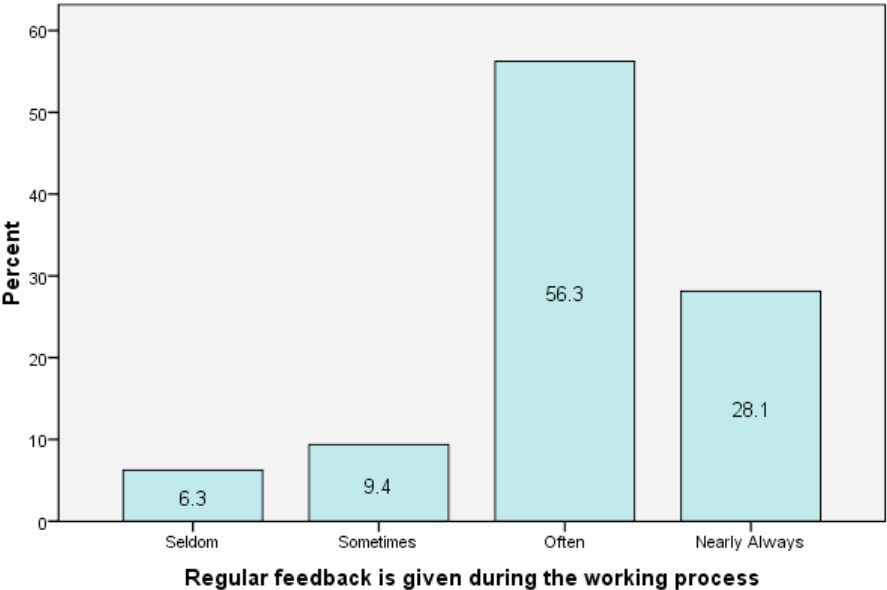
Enough time is given for revising projects after review

Self-evaluation of own work is encouraged
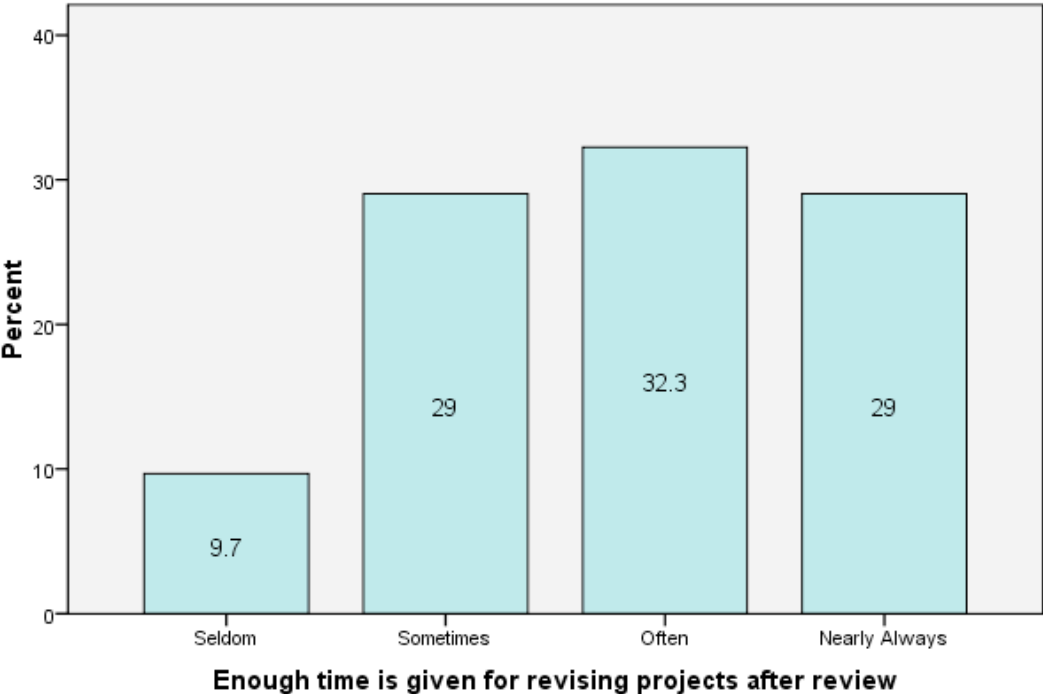
Self-evaluation of own work is encouraged

Working crits and peer assessment of projects are useful
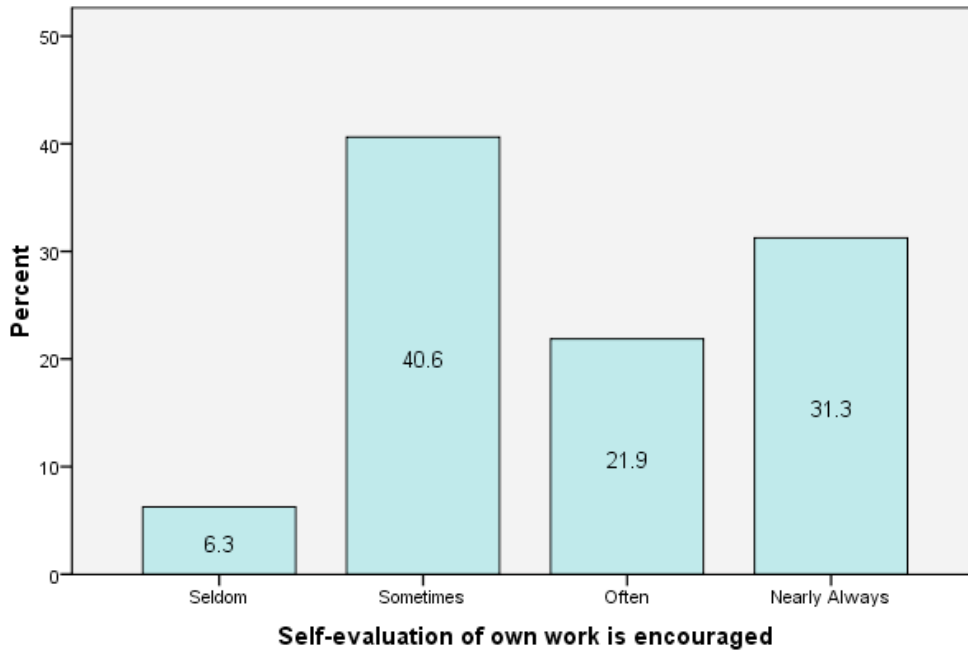
Working crits and peer assessment of projects are useful

Support workshops are useful: Numeracy, Computer skills, Reading
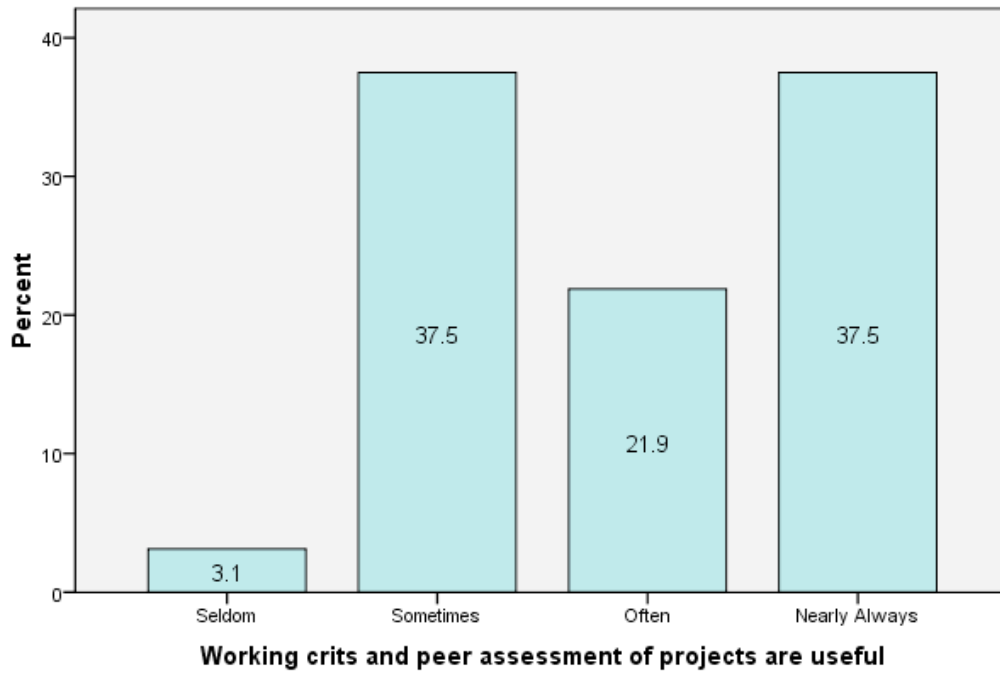
Support workshops are useful: Numeracy, Computer skills, Reading

Life Skills workshops are relevant: (stress, time management, AIDS workshops)
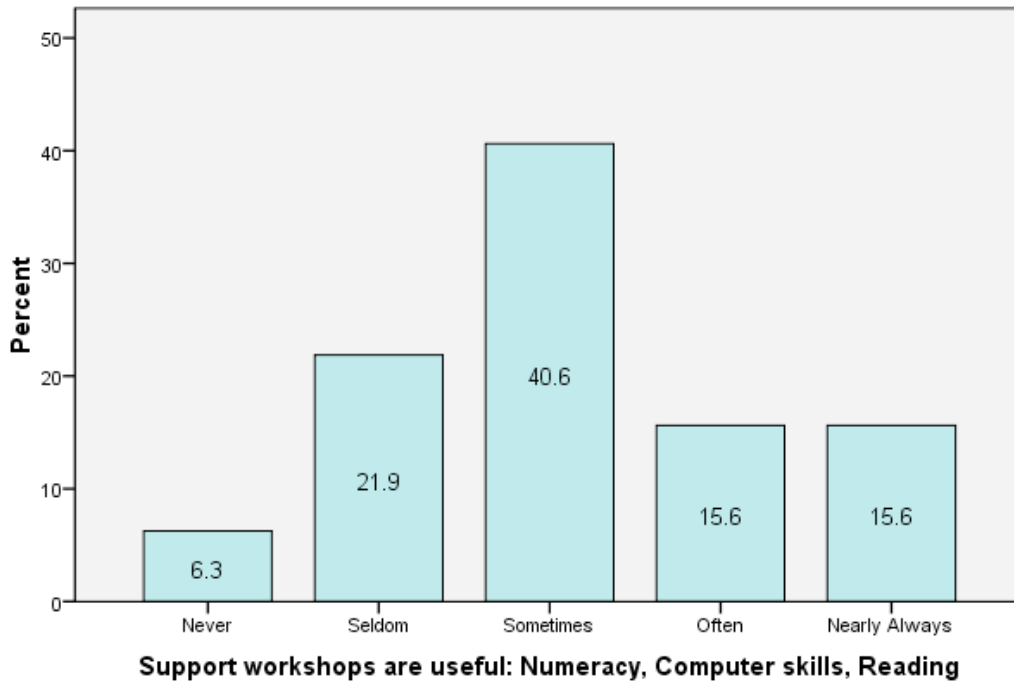
Life Skills workshops are relevant: (stress, time management, AIDS workshops)

The course as a whole is well integrated
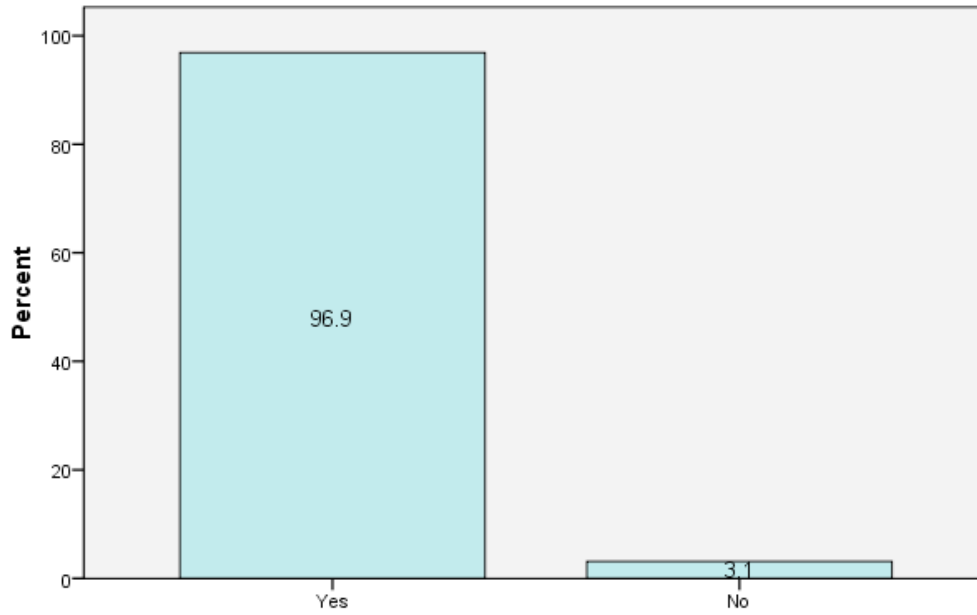
The course as a whole is well integrated

Practical subjects and Communication Studies are sufficiently integrated
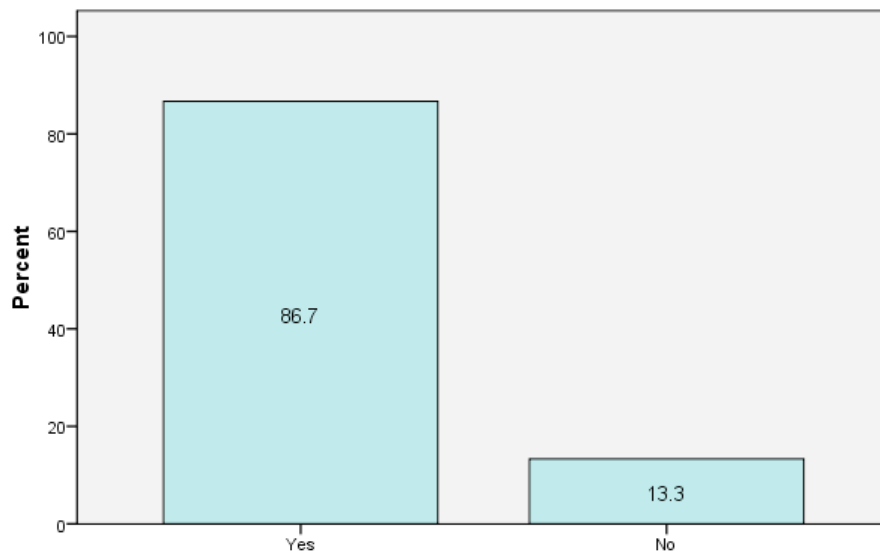
Practical subjects and Communication Studies are sufficiently integrated

Practical subjects and Numeracy are sufficiently integrated

	51.61		48.39
	Yes		No

Practical subjects and Numeracy are sufficiently integrated

Did you do any Art or Design subjects at High School?
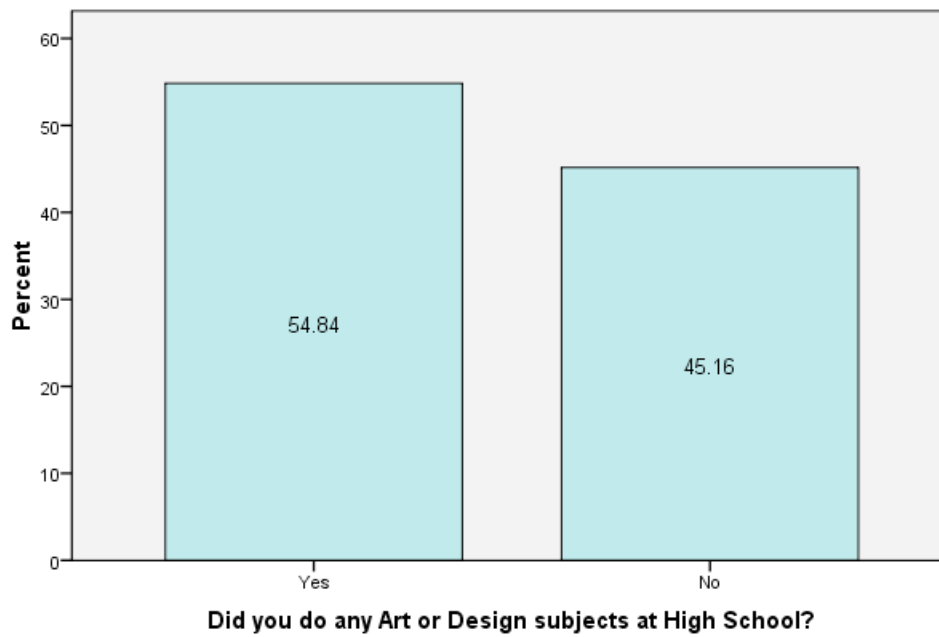
	54.84		45.16
	Yes		No

Did you do any Art or Design subjects at High School?

Prior to coming to do the Foundation Course did you study for anything else in a Higher Education Institution? Do you hold a Diploma or a Degree?
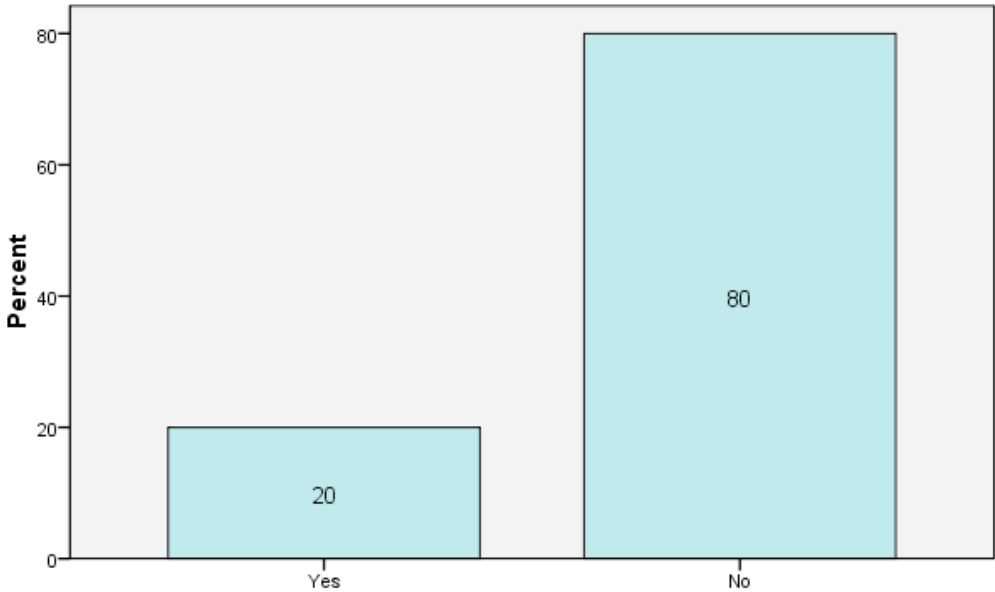
Prior to coming to do the Foundation Course did you study for anything else in a Higher Education Institution? Do you hold a Diploma or a Degree?

APPENDIX J: RESPONSES FROM 2008 STUDENT FEEDBACK QUESTIONNAIRE

Question 13

Questionnaire Number	Y/N	Reason/comment
1	Y	It works most of the time because it is well planned and the time allocations work.
2	Y	Gain experience in all Design principles.
3	Y	Because you get to see what they do in every Design discipline.
4	Y	None
5	Y	The projects are well set out because prior projects helps with future ones.
6	Y	None
7	Y	We usually get an understanding of various problems we should solve such as creative thinking.
8	Y	Projects are easy to understand.
9	Y	Covers all spheres of Design and portrays each field with integrity and value.
10	Y	Because one project leads to another and everything is explained and what to expect.
11	Y	Don't really feel that Numeracy or Communication is integrated.
12	Y	It gives overview of Design and necessary skills are taught ahead of time.
13	Y	It is a progressive designed course, one thing leading to the next, building students up in skills and knowledge. Each project is challenging yet the course is designed so you can use your last project as a reference / guide.
14	Y	There is good variety of different projects in each design.
15	Y	Things learned in one area can be used in all other areas.
16	Y	Help shows your strength and weaknesses in Design.
17	Y	None
18	Y	None
19	Y	Every project we do follows well from the previous ones and skills we develop we use them a lot.
20	N	Numeracy and computer lessons are irregular and unreliable. Otherwise practical and theory work together.
21	Y	Each project whether or not from the same discipline has helped a lot with the following project.
22	Y	As the year progressed each project was helpful and encouraging for the next project.
23	Y	Projects are well laid out and graded from simple to more complex. One learns skills from each project and can use that knowledge for the next project.
24	Y	We start off with simple concepts and more towards more complex concepts with building blocks.
25	Y	Yes the course is. We developed and became stronger / better with more skills learnt.
26	Y	None
27	Y	Most projects we do prepare us for the next one, but sometimes I feel certain projects could have been set later in the year where we are more confident with ourselves to do well.
28	Y	None
29	Y	None
30	Y	Students get a good overall idea of all the subjects due to different projects we do.
31	Y	The course allows us to expand our ability to design in all design areas so that we can see which design area we are stronger in.
32	Y	The course really brings out your creative ability and test you.

Question 14

Questionnaire Number	Y/N	Reason/comment
1	Y	It gives the basic understanding of the Desing disciplines offered and you get a good understanding of what is expected of you for the next year.
2	Y	It makes it easier for the student to choose at the end of the year.
3	Y	It gives you a better understanding of what you have to do.
4	Y	None
5	Y	The projects are good examples of next year's work.
6	Y	None
7	Y	By doing certain tasks it also has fundamentals and principles which we must know.
8	Y	Design disciplines are well explained and demonstrated.
9	Y	Covers all spheres of Design and portrays each field with integrity and value. Very impressed.
10	Y	There is a clear indication why each discipline is different.
11	Y	Understand a lot more about all the subjects and changes your perceptions of the different Design disciplines.
12	Y	I feel I understand Design very well and I think I am prepared for next year.
13	Y	Each discipline is presented and constructed as an individual process yet in terms of skills and knowledge it's progressive and well guided.
14	Y	None
15	Y	None
16	Y	Helps us because it allows us to do 3D and 2D Design.
17	Y	None
18	Y	It's an excellent course for huge knowledge about designers.
19	Y	The principles are clearly stated in our briefs and during the conceptual part we are pushed to use these elements.
20	Y	It gives a clear representation of what the discipline entails and what we can expect in 1st year.
21	Y	The research of each project helped to explore each discipline and gain more knowledge. The course has also improved my thinking process and problem solving skills.
22	Y	There is more to designing than I thought there was.
23	Y	I have learnt skills in each subject and applied that knowledge to the next project. Each project's skills serves and progresses as a stepping stone.
24	Y	Although very simple I did gain a slight perspective of the Design in seven Design principles. We did not have enough time to delve further.
25	Y	Definitely one cannot study Design without going through the developing status of understanding the principles of Design – researching, trying new things and projects.
26	Y	One now knows the basic of all 7 disciplines. Allows to students to have a true idea on each.
27	Y	None
28	Y	One really gets a feel of all Design departments and can make a decision of where your talent really is.
29	Y	None
30	Y	None
31	Y	Principles of Design are used in all our projects of all Design areas. It allows us to show our knowledge on these principles so we can see how well we apply them with help from our lecturers.
32	Y	I didn't do art in high school and this course taught me many things that I did not know like colour, composition etc.

Question 16

Questionnaire Number	Y/N	Reason/comment
1	Y	It's placed on the right days and gives time for us to complete practical tasks in remaining days between them.
2	Y	None
3	Y	None
4	Y	None
5	Y	Communication Studies helps you with your practical work.
6	Y	None
7	Y	None
8	N	Often facts are badly explained in Communication Studies.
9	Y	None
10	Y	It helps give a background about all the elements in Design and how it progressed over the years.
11	Y	None
12	S	For some projects it was. Others not so much.
13	Y	There could be a slightly more detailed and better link at some stages in the year. Generally the link / integration is sufficient.
14	Y	None
15	Y	None
16	Y	None
17	Y	None
18	Y	None
19	Y	During the Communication Studies lectures the principles of Design are well explained.
20	Y	None
21	Y	None
22	N	Some of the lessons were long and boring but the History on Greek and Roman Architecture was well planned out.
23	Y	When understanding theory one can easily apply oneself to practical work. One can understand concept better.
24	Y	When we did portraits both Communication Studies and Practical subjects were in line with each other.
25	Y	Because as we learn new things in Communication Studies we can use that knowledge for influencing our developing / brainstorming / beginning stages of projects.
26	Y	For the Self Portrait project Communication Studies was very useful, as a background in each artist was given.
27	Y	None
28	Y	None
29	Y	None
30	Y	What we do in theory classes with Lee helps us with the Design process in practical and vice versa.
31	S	Our practical subjects are sufficient integrated in that we apply what we learn throughout the year. Communication Studies is often insufficient and briefs can be often in comprehensible. Duration for projects are not sufficient.
32	Y	Due to the fact that I did not do art in high school I didn't know anything about the History of Art which is very important when it comes to Design.

Question 17

Questionnaire Number	Y/N	Reason/comment **Practical subjects and Numeracy are sufficiently integrated Yes / No Give Reasons**
1	N	I think that Numeracy could fall in after Communications.
2	Y	Doesn't interfere with the practical subjects.
3	Y	We need Numeracy in everything that we do.
4		No response
5	Y	Numeracy is OK but I didn't use it much.
6	Y	None
7	N	None
8	N	Numeracy has not been used in prac.
9	N	Events such as lectures (briefs or prac handins) often clash with Numeracy times or tests.
10	Y	Numeracy helps although it is not necessary in this course but it could help at a later stage in my studies.
11	N	Don't really do much Numeracy and the numeracy that is done has very little to do with Design.
12	N	Numeracy is useful in other areas but not in our practical subjects.
13	Y	Numeracy should be in more detail and taken more seriously.
14	Y	None
15	Y	Learning about areas went together with drawing plans for Interior project. (Working out the area of a space – then drawing the space)
16	Y	None
17	Y	None
18	N	None
19	N	The skills we learn in Numeracy has almost nothing to do with our practical work but also carries great weight for the life after our studies.
20	N	Numeracy is irregular and unreliable.
21	N	Nothing of what we learnt in Numeracy could be used in our practical subjects.
22	Y	It is necessary to have knowledge of Numeracy before you can draw anything to scale.
23	Y	Lecturer interacts with students sufficiently.
24	Y	Especially calculating how many tiles fit into a specific area …. handy in Interior Design.
25	Y	For those who need maths it is there. What is taught helps with certain projects.
26	N	Numeracy was interesting but had no connection with any of the practical subjects.
27	N	Numeracy was well integrated but the numeracy lecturer was very unreliable.
28	N	I have no idea why we do Numeracy.
29	N	None
30	N	I found Numeracy had no relation whatsoever to our practical subjects.
31	Y	Numeracy is often unnecessary in that we seldom use what we are taught in our projects.
32	N	I am not really sure how the Numeracy that was taught links to Design.

Question 18a

Questionnaire Number	Y/N	Reason/comment **How did you find out about the Foundation Course?**
1		When I never got accepted into the course I wanted to go into.
2		I came to Open Day.
3		Letter sent by CPUT.
4		Through CPUT.
5		When I entered for Architecture they sent me for this instead.
6		Was sent to after being not accepted into first year.
7		Family
8		Was given as an option when for Architecture first year.
9		Got rejected from the Architectural faculty.
10		I attended the Open Day with my high school.
11		Applied for choice subject and was told about the Foundation Course.
12		It was recommended by the CPUT.
13		It was recommended to me from the CPUT after failing to be accepted into the Industrial department.
14		My sister heard about it and mentioned it to me.
15		I applied for Architecture and was referred to the Foundation course.
16		A letter in the post.
17		I went on CPUT's Design department website.
18		Through my mentors, came to the Open Day in 2006 and that's where I decided.
19		They referred me here after failing to get into first year.
20		From a friend in high school.
21		At CPUT Design Open Day and in the CPUT Design prospectus.
22		My dad took me to the Design Open Day two years ago.
23		My brother who is a student at CPUT.
24		CPUT website.
25		From the Faculty Manager.
26		Was automatically re-registered when I was not accepted into Architecture.
27		Malinda (Foundation secretary)
28		When I didn't get accepted into Fashion they told me about this projects.
29		By lady in the admin building.
30		At the Design Open Day.
31		A previous student.
32		Through my mother.

Questionnaire Number	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18c	Q19a	Q19c	Q20a	Q20t
1	4	4	4	3	3	3	4	4	5	5	3	3	1	1	1	1	2	1	2	2	1	1
2	5	3	3	4	3	4	2		3	4	5	1	1	1	1	1	1	1	1	2	1	1
3	4	4	3	4	5	4	4	3	3	4	3	2	1	1	1	1	1	1	2	2	1	1
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5	5	4	5	4	5	5	4	3	4	3	3	2	1	1	1	1	1	1	2	2	1	1
6	5	4		4	4	4	4	5	3	3	3	2	1	1	1	2	1	1	2	2	1	1
7	4	4	4	3	5	3	4	2	3	3	2	3	1	1	1	2	2	1				
8	5	4	5	4	4	4	5	5	5	4	3	3	1	1	1	1	2	1	1	2	1	1
9	5	4	4	5	5	4	5	4	3	2	3	3	1	1	1	1	1	1	1	2	1	
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13	5	4	3	5	3	4	4	5	2	5	5	1	1	1	1	1	1	1	2	1	1	1
14	5	4	5	3	5	4	3	4	5	5	2	4	1	1	1	1	1	1	2	2	1	1
15	5	4	4	5	4	5	5	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1
16	5	5	5	5	5	5	4	5	4	5	5	5	1	1	1	1	1	1	2	2	1	1
17	5	5	4	4	4	4	5	5	5	4	3	2	1	1	1	1	2	1	1	1	1	1
18	4	3	4	4	4	3	4	5	4	3	2	2	1	1	1	1	2	1	1	2	1	1
19	5	5	4	4	4	5	5	3	4	3	3	3	1	1	1	1	2	1	1		1	
20	4	5	4	4	3	4	4	5	3	3	3	3	2	1	1	1	2	1	1	2	1	1
21	5	5	5	5	5	4	3	4	3	3	2	1	1	1	1	2	2	1	1	2	1	1
22	4	4	4	4	4	3	4	3	3	4	3	3	1	1	1	2	1	1	2	1	1	1
23	4	4	4	4	4	4	4	3	3	3	4	3	1	1	1	1	1	1	2	1	1	1
24	4	3	4	4	4	5	4	5	5	5	5	5	1	1	1	1	1	1	2	2	1	1
25	4	5	5	4	4	4	4	5	4	4	4	2	1	1	1	1	1	1	1	1	1	1
26	4	3	4	4	3	4	3	4	5	5	4	3	1	1	1	1	2	1	1	2	1	1
27	3	4	4	4	4	5	5	3	3	5	2	3	1	1	1	1	2		2	2	1	1
28	5	5	4	4	5	5	5	5	4	5	4	3	1	1	1	1	2	1	2	1	1	1
29	5	4	4	5	4	3	4	4	5	4	1	4	1	1	1	1	1	1	1	2	1	1
30	5	3	4	3	5	3	2	2	2	3	1	1	1	1	1	1	1	1	2	2	1	1
31	4	3	4	4	5	5	5	4	3	5	2	4	1	1	1		1	1	1	2	1	1
32	4	4	3	5	4	3	4	3	5	3	3	2	1	1	1	1	2	1	2	2	1	1

Question 1

Questionnaire Number	Y/N	Reason/comment
		Do you think the integrated Design Foundation Course is of benefit to underprepared students? Please support your answer.
GD1	Y	Creatively and conceptually – the students have a good basic understanding of a creative brief and the research and thinking process required to complete this. I see evidence of this in integrated projects like the toy/puzzle in the packaging/box Technically, (hand skills like mounting, work storage and presentation, appropriate media use Technologically, (software skills, Word skills, basic hand skills using all media of design courses Socially, (with peers, culturally diverse group, across design disciplines and silos, upwards as they learn to relate to lecturing staff in a way that is not like school- interrogate, question, consider solutions in an open environment). The gap between school and university is bridged Academically (research skills, language, academic conventions, writing skills, English development)
GD2	Y	(also see point 4) I think that many of the students that are targeted are underprepared in their knowledge about design in general, and do not have the understanding or information available to make an informed study and career choice. Further they do not have the experience that speaks to their own strengths, abilities and inclinations (likes and dislikes) that would help them make the decision about what design area they could pursue.
GD3	Y	Students are given a thorough grounding in the basic language of Design. They are introduced to diverse design disciplines in integrated course thereby equipping them to make informed choices regarding their preferred area of study. They benefit from the experienced teaching staff directly and by extension from the contact with their peers in the 1st year, 2nd & 3rd year courses by being part of the university ethos.
GD4	Y	These students, in my experience, when at third year level have acknowledged on many occasions, that they often draw on knowledge generated on the foundation course. Most say they had no idea about what design entailed when applying at CPUT, and have said that they were made fully aware of their possibilities in the various disciplines. I have never heard a negative comment from a third year student.

GD 5	Y	I believe the course is of benefit - the course provides students who come from under privileged schools the opportunity to understand more about careers in design. It helps them come to grips with the design process and to exercise their abilities in a nurturing environment.
INT 6	Y	The Design Foundation Course is definitely of benefit. The course clearly equips the student in resolving 3 dimensional problems. It assists them in understanding space and scale. They are very clear on what the expectations of Interior Design would be after completing the Design Foundation Course.
INT 7	Y	I teach first year students. I am also part of the portfolio committee. When we see potential in a student's work but due to poor school results or other factors cannot be accepted into the course, we refer them to foundation. The Foundation course allows us to see whether that student then has showed enough growth and improved their marks to be allowed into first year. That is one of the benefits. There has been a case: Mandy Thomas. She improved her marks but still showed a 3D problem. Through her hard work she managed to pass first year design, but due to poor marks in theory subjects, had to repeat the year. The foundation helped but there is still a learning problem. But had this student been accepted the first time she probably would not have been able to cope. The foundation improved her abilities and she remains motivated. Another factor is that when students are unsure as to the specific career in design, the mini projects helps them to gain focus and to see which course suit their abilities. Students who does have a language problem benefits from the communication modules. Students who did not have art or design at school benefit: In first year it is expected that a student can communicate through the use of drawing. If the student cannot draw then it is doubtfull whether the picture in their mind can be communicated. (Yet, put them on a computer in second year and they can draw, but still not design..)
FASH 8	Y	Many students come from schools with no art as subject – or even in their communities art is seen as unnecessary. Apart from art they also seem to be unprepared for studying in general,

		and find it difficult to concentrate on a task for long. I have seen students coming from the foundation course more focused – they know how to approach projects, with a better understanding of time management. Simply a little bit more mature than a student straight from school.
FASH 9	Y	Underprepared students get in contact with many different fields of design and that happens in a more supportive atmosphere that straight into the first year.
SURF10	Y	I think it is essential that students enter any design discipline through the Foundation Course because it is a holistic introduction to a design attitude with experiential multi-media and an introduction to design principles. Students have a very narrow understanding of Design and when they enter the first year of their chosen field, the curriculum doesn't either afford them a more general experience of the possibilities of exploring breadth across multiple fields of interest.
SURF 11	Y	students have a much more holistic approach to their work in general.
ID 12	Y	The students in our regular first year who have gone through the foundation course are coping very well although they were considered marginal when they first applied. They've learned skills and developed a design focused attitude.
ID 13	Y	Design begins long before students arrive at the doorsteps of CPUT (or any other tertiary level-institution for that matter). Underprepared students often reveal a limited exposure to design stimuli in the form of material culture; as well as poor primary and secondary school-level appreciation of the creative processes – often as a consequence of historically skewed geopolitical realities. The Foundation Course thus brings such students 'up to speed' by accelerating their exposure to design skills and creative thinking processes.
ID 14	Y	Not only does it open eyes to other courses but also matures the design sensibility/maturity that seems to me to be what is lacking in the younger students.
ARCH 15	Y	It provides design background and skills not attained at high school. It also builds confidence to levels similar to those of "advantaged" students.
ARCH 16	Y	Most students that come from the course in the past years have done well.
ARCH 17	Y	They have a better understanding of course content.
ARCH 18	Y	It gives them exposure to what the first year course is about and allows them a chance to make personal adjustments in order to deal with the pressures of first year. An underprepared student has a very high chance of failing first year. By the time they get to grips with the programme, it is often too late to catch up.

DFC 19	Y	It gives the students an opportunity to explore the different design disciples before they make a decision. Often students who rush into their first year have chosen a course that does not compliment their abilities in the same way another might. I also feel that this course is essential to the underprepared students because it brings them up to a level whereby they will cope well in first year as opposed to struggling through the year. Subsequently, these students often have a very low self opinion of their potential which is unfortunate and unnecessary. The Design Foundation Course helps them to be able to learn with the class, keep up, and excel in their chosen field of study. In this way, this one year of 'extra' study is invaluable to these students. It makes the difference is many cases between failing and excelling.
Design HIST 20	Y	as the student is introduced to all the design disciplines and they undergo a diagnostic process during their Foundation Course on what discipline they are more suited to.
Design HIST 21	Y	In the theory subjects language skills, basic visual analysis skills and literacy skills benefit students greatly. At first year level students are expected to take in so much and they are bombarded with information - having the basic skills mastered means that they can focus on new problematic areas and the content.
Arch Hist & Theory 22	Y	I find in the History of Architecture subject that I lecture that they largely deal with the subject much better than those with no history background as there is some familiarity with the content and the terminology.

Question 2

Questionnaire Number	Y/N	Reason/comment
		If you teach in first-year, how do the students in your first-year classes who have completed the Design Foundation Course compare with students who were accepted directly into first-year?
GD1		They cope well, and we have an excellent throughput rate as a result. They (on the whole) can handle the technical aspect of media, and presentation pretty well if I think about Graphic design 1 2009, there is one ex Foundation student who is a bit low on hand skills- but he's stronger conceptually. They can draw/paint/mount pretty competently, and are not the ones who need special attention.
GD2		From my experience the students who pass into GD1 from the Foundation course are students who have varying abilities – i.e. they do not all have the same level of skill or capacity. Some will be stronger than others much as is the composition of a first year class. This means that there are students who are stronger than the regular intake of first years as well as those who are weaker than the first year group. An obvious relationship therefore exists with the exit point result of the Foundation student and how they compare with first year students. However, there are a number of assumptions that can be made about all Foundation students which are not necessarily the same for the regular first year intake. What all the students come to the course with is an exposure to the basics of graphic design and a knowledge of the interrelationship of design in the broader sense. Having had a full year of drawing, they come in most cases with a sound drawing ability which is often better than that of the average first year student. They are familiar with the process of design – from research through scamping to final solution, which is something that the other students still have to learn. They also know how to present their work. From their communication course they have a knowledge of the theory and history of art within a design context which also puts them at an advantage.
GD3		If we compare them with those students who have entered 1styr without high school art or design then clearly the integrated foundation course students perform with more skills at their command. I have seen this over many years in relation to Drawing generally and more specifically in Life Drawing class.
GD4		I taught in first year quite a while ago, but in my experience, the foundation students were able to aquit themselves easily alongside other first years.
GD5		n/a

INT6		I do not teach in first-year.
INT7		In my 4 years I have had success and failure. I could not say it is all academic; social and life problems are contributing factors. But here is my theory: they make friends in foundation, which helps them socially and academically. The skills learnt in foundation are useful but since the two projects in foundation are structured so that we can see whether they can design, communicate and have 3D perception it does not provide them any more or better skills than a straight of the street student. Just as student who did woodwork or technical drawing has a better understanding of the technical drawing component: They still have to find the solution to the design problem!
		They are just better prepared for the challenge. It is still as difficult for them to manage time, juggle between deadlines and give in good quality work.
		If they were better or at the top of the class, then clearly the selection procedures are at fault. The successful foundation students either did not apply for first year interior design and went straight to foundation (Lauren Matthee, Elzette Kotze) or they change to Interior while in foundation (Tina Matsimela)
FASH8		They cope better with the longer hours, tackle projects with more maturity, and understand the system and continuous evaluation better than school leavers. They also now posses the necessary basic skills they did not get at school.
FASH9		I found that although they fit right into the class dynamics they have more experience and are more self assured when in to comes to drawing subjects, they also know the campus and are often of great help to the new students.
SURF10		Students from the Foundation Course are more confident and find it easier to understand briefs and to interact in class.
SURF11		These students have confidence when executing projects that other students lack. They also display a sound knowledge of drawing and handling of different mediums. Presentation of projects are of a better standard than the rest.
IND12		They need far less adaptation to the design environment and the way design education works. They seem to understand the self-discipline it takes and have basic useful manual and visual skills. They are familiar with certain techniques and materials. This gives them an advantage over other students starting from scratch which in turn builds their self-confidence amongst their peer
IND13		I do not have any formal contact with the first-year classes.
IND14		I teach third years.
ARCH15		They compare well.

ARCH16		Some do very well, in fact about some you wonder why they went to the foundation course to begin with................
ARCH 17		They are definitely more prepared and are always responsive
ARCH 18		The foundation course graduates generally fair better than most other students directly accepted. They tend to produce work of a relatively high standard from the start of the course and understand the importance of meeting deadlines. Most other students take a while and learn what is expected of them via trial and error. The process of understanding the expected standards & quality of work can take up to a few months for some students. There are many cases of directly accepted students who fair as well as foundation students do. There are also exceptions where a small percentage of foundation course students do not do well. In most cases these individuals displayed signs of struggle, or unable to deal with the workload and/or deadlines - during their foundation course already.
Design Foundation Course 19		I have yet to teach a first year class whereby there have been students from Design Foundation. However, I have heard that the difference between the Design Foundation First Year students and those who have just entered the course is significant. This is also clear to see in the level of work completed by the students in this year – for example, they know how to mount their artwork/designwork, they know about referencing, they hand-in on time and overall, the level of their work is of a higher standard.
Design HIST 20		N/A
Design HIST 21		It depends from student to student. On the whole students from the foundation programme are more confident and have basic skills already mastered which means they can focus on more advanced concepts and help other students. Their confidence also makes them more likely to ask if they problems and this negates misunderstandings and misinterpretations on their behalf.
ARCH HIST & THEORY 22		It really depends. Some of them perform at a very high level while others perform very poorly. However this is due more to student participation in the class and class attendance rather than inherent skills. But this year two of the students with the highest mark for History in the second term were both ex-foundation course students.

Question 3

Questionnaire Number	Y/N	Reason/comment
		In your experience, are the knowledge and skills acquired by past students from the Design Foundation Course of benefit to them in their second and third years of study?
GD1		My experience is more limited here, so will reserve comment.
GD2		I am assuming that the knowledge of other design disciplines will be of benefit to them. This would be in relation to concept development as well as from an understanding of how Graphic Design fits with other design areas and the possibilities that this presents. This is also true for practical skills. Where they specialize in 3D design for example, construction skills they may have had their industrial design slot will benefit them as well as in projects like Sappi where solutions need to be innovative.
GD3		I am not in a position to answer this question, I teach only at 1st year level.
GD4		As mentioned above, yes. Graphic design students use an extremely broad base of skills in solving communication problems. Our students are well-received in industry because of their knowledge of the interdisciplinary approach that is gaining much ground today. Graphics foundation students are often at an advantage, because they can draw on specialised knowledge gained through exposure to the other disciplines. For example, Interior design (able to plan spatially-organised communication opportunities), Fashion design often helps with publishing projects, where students do styling in photography. Three dimensional studies student in third year have extra experience and skills, which gives them an edge. Generally, the foundation year prepares them emotionally to take ownership of their education - an advantage other students only realise at the end of third year. Once they have been exposed to the many facets of the profession, expanding their horizons in terms of imagining a place for their growth and potential seems to come easier to these students. Some graphics foundation students go on to study a further course in their other fields - examples, jewellery, fashion, architecture. They all say that they are glad they did graphic design as well as it places them well for entrepreneurship in their chosen field, because of the marketing and communication aspect. Doing two design disciplines over seven years produces an extremely capable member of society.
GD 5		Yes - I find that students in second year are more likely to have a broader experience of design if they come form the DFC. Students tend to be fairly motivated and apply themselves to their studies. They have a good work ethic generally.
INT 6		I do believe that the skills in the Design Foundation course are only of benefit to them in their first year. It does however create a strong foundation, which would naturally assist them in maintaining a high standard of delivery.

INT 7		For this I can use Nozuko Nqonqosa as an example. She is currently in B Tech. Although her writing is still problematic she has grown from a barely pass in first year to a very good design student in Third year. Albert Chang (B tech 2008) was another student who steadily grew since foundation - writing was also a problem.
FASH 8		In first year they start off with a bit of an advantage, but then the playing fields level and in 2nd and third year they don't stand out particularly.
FASH 9		I have never thought of it but am sure that by having less pressure in certain subjects (because of their very first year) they have more time for other subjects.
SURF 10		It applies to all years of study
SURF 11		The knowledge and skills definitely benefit students in 2nd and 3rd year.
IND 12		I think so, although as the students progress to following years, the initial differences become smaller and less visible. However, they seem to find it easier to live with the unavoidable multi-disciplinarity of complex design projects. The great advantage is that they know students in other departments and often consult with them.
IND 13		Yes – definitely. They usually maintain their contacts with students in other disciplines (their former classmates at Foundation Course level). Consequently, they settle in a lot better into the academic life of the Department.
IND14		Yes, I have witnessed ex-foundation students teaching others from the skills they acquired in the foundation course.
ARCH15		Yes, definitely. Their foundation year has given them a grounding in design skills, which their 2nd and 3rd class mates did not receive, except for (possibly) a minority of them. Design is only one of the three or four key skills which are developed in these years. The other skills include technology, documentation and theory.
ARCH 16		Not so sure about that one.
ARCH 17		Yes
ARCH 18		I do not know. The skills acquired by the end of first year, generally prepares all students for second year. I have not lectured at third year level. I don't know if there is correlation between academic record and practical implementation in the second year. As an employer of second year students, I find that academic achievement gives some clues about their abilities, but mature & responsible personality traits are as important to me when choosing a candidate that will perform successfully under pressure.

DFC 19		Completely. If they are underprepared when entering into their first year they constantly are playing catch-up. Very seldom are the students able to catch-up and often, these students remain the weakest in the class through their studying. There is an example: A girl in her third year of studying Surface Design has struggled throughout. She has potential but her skills are behind that of her classmates. Her marks are amoungst the lowest in the class but she is also one of the hardest workers. This is sad because I feel that if she should have done the Design Foundation Course she would have had a much stronger chance to graduate as one of the top students. She would have had an introduction into drawing, seeing, the design principles and conceptual thinking and this, I feel, is her biggest weakness. She never had this and so jumped in the deep end only to have to teach herself to swim which is not ideal in her example.
Design HIST 20		I teach on 2nd year level and have noticed that those students who did the Foundation Course have a better understanding on where the different design disciplines overlap. Thus, they understand the notion of inter-disciplinary studies better.
Design HIST 21		First year in theory subjects tends to level the playing field a bit. Foundation students do enter the progamme with an advantage and during the first year the same skills are developed in all student. At second year level the drive to exceed and how first year skills are applied and developed by the individual student because indicator for success.
Arch HIST &THEORY 22		Yes, I have found that foundation course students perform better at third year level as they seem more at ease with the tools of engaging with design problems. (I do not have any experience at second year level)

Question 4

Staff Questionnaire	Y/N	Reason/comment
Question 4		**In your view what are the strengths of the Design Foundation Course?**
GD1		The diagnostic aspect is most important. They are very sure about the specialization they have chosen unlike some of the non-foundation students. The quality of the drawing teaching they receive is excellent, in particular, and otherwise pretty much the whole course. The students know the ins and outs of the institution like the library, databases, student services, are acclimatized to the CPUT culture. We should use them more to orient new gd1s.
GD2		I think the strengths lie in years of course development and the sound philosophy that the course is based on: This is that it addresses developing skills and knowledge for students who are underprepared, as well as providing a platform where they can make an informed decision about their future choice of design study. The diagnostic element, which is embedded in the skills and knowledge foundation, allows the students to have a rich design knowledge that will benefit them in any design course that they ultimately enter, rather than limit their knowledge in a particular area of design. I believe that broader knowledge at this level is better knowledge, and that specialisation can happen later in whatever course they enter. I also think that this addresses the issue of uncertainty for many school leavers who are unsure of what they want to do. It allows them to experience and reflect on what they do, (even if it supports their original idea) before making a final decision – which for many school leavers is a very stressful process.
GD3		Learning of the basics of the design and art language. Learning the skills required in prep for the 1st year of study and thereby for the years following. Working and experiencing a collective hands-on approach to learning (experiential). Researching actively e.g. in the library, via the Internet, with a diverse community of fellow students and staff. Giving the students the confidence to participate in tertiary level education by being located on the campus.

GD 4		Mainly the development of emotional preparedness, alongside the exposure to possibility, development of work ethic, development and improvement of skills such as visualisation, colour awareness, and knowledge of the idiosyncracies of the various fields. The ability to discern one's aptitude is invaluable for a students' confidence that they land up registering for the discipline that they are most suited to. This ensures a higher rate of retention, resulting in smoother running of the undergraduate programmes.
GD5		Inter disciplinary exposure - students work alongside fellow students of a similar ability level - students have a year to familiarise themselves with the different disciplines and then choose wisely.
INT6		It is invaluable in that the students leave the Design Foundation Course with good drawing skills and an understanding of a 3-dimensional space. These outcomes have always been achieved by the Design Foundation Course and I would list it as the strengths of the course.
INT7		I feel that it is a nurturing environment where students can experience the world of design freely. It strengthens their academic ability, time management etc. Being invited to the moderations allows me to see how the student developed. If the student did not develop at all (since portfolio submission) it clearly was not an "skill" problem but a lack in talent and ability.
FASH8		Teaching basic skills and work ethic. Helping students to choose the design career most suited for them.
FASH9		The fact that the students work on projects within all the different design courses.
SURF10		Drawing skills are a major strength of the course. The design and printing project each year is very valuable to the students; the course is well structured and well balanced.
SURF11		The Design Foundation Course provides a solid base, and each project is handled with care. The standard is maintained since the inception of the course. It empowers students to be skilled and have knowledge of the various disciplines.
IND12		The undeniable strength of the course is its curriculum. The interweaving of a sequential progression of manual and visual skills with specific discipline context and the exposure students get to lecturers of different departments who bring their departmental ethos with them. Very few people in the faculty seem to understand the value of this as it is a complex structure that could only come about by in depth analysis of specific learning outcomes and careful planning.

IND13		The 'silo-busting' multi- and cross-disciplinary composition of the student population.
IND14		The diversity of the students from all design streams.
ARCH15		Universal design skills and confidence development.
ARCH16		Exposure to many different design disciplines.
ARCH 17		Their problem solving skills are more nurtured and they are exposed to different aspects of design.
ARCH 18		Exposure to other design courses Early exposure to the culture our deadline driven industry. Students get to understand that they are expected to produce work of a high standard. Allows students to make a concerted effort to mentally,emotionally & physically prepare for first year
DFC 19		The Design Foundation course introduces students to all the Design Disciplines equipped them with the tools so that they can make an educated decision about their futures. I also feel that the strong emphasis that is put on drawing is a strength because it is a foundation to designing. The interdisciplinary design element of the Foundation Course is a strength because it introduces students the other design disciplines giving them a broader knowledge of design skill and subsequently, helping them to design in future when a knowledge of the different design disciplines is required. Lastly the Design Foundation Course teaches the students responsibility and time management. The students are taught to be accountable and often this is a problem with students who enter directly into their first year of Design Study.
Design HIST 20		Besides being remedial it is also a diagnostic course.
Design HIST 21		Helping student gain the basic skills to succeed during their first year in their selected discipline Helping students find what disciplines they like and are best suited to (with the ability to still change courses) Developing inter-personal and personal life skills Giving students confidence in their abilities and in themselves. Development of visual literacy
Arch HIST & THEORY 22		Develops good underpinning skills that help students cope with the course. It also exposes students to the whole range of design courses so that they make more informed choices in courses.

Question 5

Questionnaire Number	Y/N	Reason/comment
		In your view what are the weaknesses of the Design Foundation Course?
GD1		Socially Foundation students are very connected to each other, and I'd like to see them making new connections so they integrate better with other first years. ON the positive side they support each other, which is a good thing, but they don't feel socially mainstream. I can't think of any- except that I'd like to see ECP students taking part in orientation with all other students. Many of these students need financial support into the course, and the materials battle hamstrings the quality of their work all the way through (I see this at Bellville too) Students just do not have all the paper, paint, mounting card, printing credits etc to be able to work to their full abilities. This is true for several of the ex Foundation students- even in second an third year.
GD2		I think that it would be beneficial for students to have some interaction with regular design students, although I appriciate this is often logistically tricky.
GD3		Not enough grounding in the history of art and design especially for students who struggle with English. A course in language/writing skills would benefit them should include computer skills. My answer is based on my perception that Foundation/ 1st year students appear (unscientific perception) to experience difficulties in the broad context of the Theory/ History studies part of the course. Generally this group does not seem to assimilate the theory / history component into actual design work.I am convinced that you & all the specific lecturers do your best re. the theory/ history course. I was not being accurate in my brief piece of writing & it is not a direct crit. of the course but more a feeling of despondency I have about some of our students & their pre-tertiary education. What we see currently in the general malaise in society & certainly in the really questionable high school system is as a result of the approach spelled out in the slogan " Liberation BEFORE Education " dating back to the 1970's,80's & early 90's. It is another of the unfortunate legacies we on the ground are having to confront. My comments re. Qu. 5 need to be seen this context BUT they are of a very unscientific Perceptual nature. Further talks are necessary & probably we need some inter disciplinary feedback with inter-alia involvement from the History dept. so as to be more well informed. .I trust that my contribution is of value since I do believe in the work you do.
GD4		I don't know of any.
GD5		Facilities not adequate possibly (no aircon etc) - lack of access to computer work stations.
INT6		The biggest weakness is that students enter the course being

		overwhelmed by the number of Design projects expected from them each year. It would be good to improve on the students time management.
INT7		Students expect to be better than the other first years - that is seldom the case. They have to remain focused on becoming better designers and realized that foundation only prepared them for the challenge - it is still up to them to work hard. Every year after the first marks comes out, there will be ex-foundation students who feel that because this is their 'second first year' they deserve more marks. Or they feel that attending classes is optional. No matter what credits they got, they still are first year and have to work hard.
FASH8		Not discovered yet!
FASH9		Difficult question, can't think of anything.
SURF10		I would site the following weakness in every course because I believe that this should be addressed already at school level urgently! (I am busy with research).

Students need to learn how to JOURNALIZE REFLECTIVELY AND IN THE MOMENT in order for them to understand contextualization. The biggest problem we have in Design is one of students being unable to conceptualize which comes from students not being able to journalize and therefore not being able to understand themselves which means that they cannot perceive, they cannot understand where they are in the world and therefore they cannot design for the world. The problem is a little bigger than this though because they also do not have a language or a vocabulary to write down what they think or worse they do not know how to think. So, we need to teach them first of all English language as a subject and not just as an add-on like we do now, and secondly we need to insist that they read from a reading list so that they are aware of the world, and thirdly we need to teach thinking skills. |
| SURF11 | | Not applicable. |
| IND12 | | The complexity of work and the rationale for justification of appropriate or inappropriate proposals towards design briefs varies substantially between the various discipline-specific departments. A foundation course needs to cater for all, therefore has to operate at a medium level in the various aspects of design work. This is not ideal but probably unavoidable. In the 3D department ex-foundation students suffer from the markedly increased demands in the regular first year. It's a jump they do not expect but they learn to cope with it

The main weakness of the existing course on CT campus is structural. The course has developed through various stages and funding models. Initially it was perceived in the faculty as an independent add-on. Through the current funding model this is no longer the case. Referring a candidate to the foundation course means that a department accepts that particular person as a student in its undergraduate programme. However, this is not reflected in the faculty structure. First, all foundation staff is employed on a temporary basis. This fact doesn't give it the |

		credibility it deserves and there is no guarantee of continuity. The university still treats the course and its staff as a side item. Secondly, there is no clarity around the management structure of the course. The faculty allows itself to abuse staff members by giving responsibility without authority. This leads to repetitive frustration with the course's staff as well as lecturers in the departments that need to cooperate with the foundation course. It's a continuous uphill battle which hampers the further development of the course and the possible increased benefits to students. The course needs more support from within the faculty. Teaching at foundation level is very intense and exhausting for the lecturing staff. This fact is not acknowledged. The course needs permanence and stability.
IND13		The limitation to only students 'at risk' as opposed to being the mainstream for all design students.
IND14		The perception that the students are in any way lacking.
ARCH15		A lack of depth of learning, as opposed to breadth. However, it is accepted that this will be so, out of necessity.
ARCH16		It needs to accommodate more students and focus more on good communication.
ARCH 17		We feel the current students are capable of successfully entering mainstream 1st year. We suggest DFC get involved with the selection process.
ARCH 18		Architecturally – students have great exposure to design, but the technical side/understanding is a bit weak. It is difficult to find a balance between design and a good understanding of technical resolution in the short time allocation.
DFC 19		The Design Foundation Course is limited to what it can achieve by bureaucracy. It needs to be able to operate in conjunction with other design courses but needs to be autonomous because it is offering students a holistic view of design.
DESIGN HIST 20		With regards to history and theory within the Foundation Course there should more synergy with the national diploma history of design course to ensure students' knowledge base and skills development from foundation, to first year, to second year and ultimately to 3rd year.
DESIGN HIST 21		Not really a weakness but it is often problematic starting the year with two levels of student preparation (those from foundation and those coming straight into first year). This levels out during the course of the year however if all student had a foundation year the focus at first year level could be much in depth and will relieve the overwhelming bombardment of first year student with new procedures, skills and requirements.
ARCH HIST & THEORY 22		With the current intake system, it seems that the foundation course is used as a means of getting into the course rather than addressing a real need to prepare students who would not otherwise have been accepted into the course, i.e., some of the foundation course students were strong to begin with.

Question 6

Questionnaire Number	Y/N	Reason/comment
		Do you think that all students who enter the art and design field of study would benefit from participating in an integrated foundation course? Please support your answer.
GD1	Y & N	I think that we do get first years who have been well equipped for the course, and that for them to do foundation would be repetitive in part. I think that everyone would benefit from exposure to the diagnostic aspects of foundation, as the more informed students tend to participate more fully in the course. We do find students with limited understanding of what Graphic design is, ending up disappointed in the course.
GD2	Y & N	I am undecided about this as although there are many students who would benefit, there are also students who would have had sufficient exposure in their schooling or elsewhere, to go directly into a specific course.
GD3	Y	It would benefit all of the students. But does this mean a basic 4 year diploma course? Students coming into the 1st year (without Foundation year) are a diverse group with diverse schooling experiences. A few are O.K. but there are still many who enter 1st year without the required basics for Graphic Design
GD4	Y	I am a strong believer in educating the whole person - The creative field is demanding and unlike any other academic discipline in that it prepares one for much more than just design. To think like a designer, one needs to be educated across a broad spectrum. "Professionals, or graduates of our system are raising the 'professional base quality of our fields yet many concerns remain about the long-term impact of of our present design education system." (McCoy 1990:20) McCoy further states that it might be time to consider a new structural model for higher education in design. A pre-design undergraduate curriculum similar to pre-law or pre-med, may be the best course for the future education of designers. In this undergraduate curriculum, a student would study liberal arts and sciences, art and design history design theory and ethics, and have some initial basic design experiences." "We must do more than train, we must educate." "Designers create culture and they should know the history and dynamics of their culture." (Most design disciplines) involve many different elements: problem-solving methods for-giving technical skills, design theory, art history, manufacturing and production techniques, photography, oral and written communications business practices marketing science, sociology, psychology, and of course a thorough liberal arts and sciences education. This broad array is very hard to cover in a four year university or art school programme". (McCoy, 2005:21) - Damn right!! And people think we don't need foundation?
GD5	N	No not all students - those who are under prepared at school level, yes. Others who come form well prepared schools may feel the pace too slow.

INT6	N	No, not all students would benefit. Many students enter the course having done 'Art and Design' at school, so they have an advantage the other students. The best way of assessing whether the student requires the foundation course, is through the assessment of their portfolio. I also believe that it would be good to integrate an assessment drawing exam, which can be conducted on campus, before admission.
INT7	Y & N	Yes and no. If a student knows what they want to do and are able to do it, why spend an extra year studying? If a student are unsure, had poor schooling, or struggled at school then yes. But if you place a student who has clear purpose and ability in foundation, they might lose focus and/or become bored. (If you passed matric math with 90% and are forced/asked to repeat, it may break their spirit).
FASH8	Y	YES! Students come very ill prepared for tertiary education – there seem to be a lack of general skills – not only art.
FASH9	N	No, I think we should be very careful; we get students who are more than ready to go right into the course and who want to finish their studies to get into the industry.
SURF10	Y	All students should participate in an integrated foundation course where they should be introduced to the same design language and realize the interconnectedness of things. Since the end of the Industrial revolution social trends have turned from specialization to generalization and we have been sadly lagging behind in implementing this offering throughout all our design courses.
SURF11	N	No, not all students need to do the foundation course, because a lot of students have competency regarding basic skills.
IND12	N	All? No. One has to weigh up the benefit against the cost. It depends on the level of personal development a candidate has achieved already. Difficult to measure or judge reliably. Some of our mature students would not benefit substantially as they come with strong motivation and life experience. But in general, yes. I would say that the vast majority of candidates under 20 would greatly benefit from the multi-disciplinary approach.
IND13	Y	Definitely. This could be expanded to integrate the (OBE) student-responsive approach to offering minors/majors and electives/core subjects to enable students from various departments to study courses that they elect from sister departments…
IND14	Y	I do. I'm not sure when it stopped but I witnessed a shared first year in Industrial design and Interior design in 1995 and the joint experience and training lead to a wider knowledge of design and design thinking.
ARCH15	N	No. Many students are sufficiently mature to go straight to the conventional first year.
ARCH16	Y	Yes all students would benefit from exposure to a background in good design. They come from diverse (and often very mundane)

		environments and know very little about what design is.
ARCH 17	Y	Yes, because our staff/student ratio does not allow for us to give and holistic overview.
ARCH 18	Y	Yes. I think many people entering this field of study initially wish to be involved in any form of art or design. Their choice of course is not always based on enough research or exposure to the particular profession. The field is also glamorized by mass media, sometimes giving students false expectations regarding their chosen career. The integrated course allows students to experience the various courses first hand and gives them an opportunity to asses if they made the correct career choice. They can change career path before making a full commitment to a particular course.
DFC19	Y & N	I have two responses to this question: Yes because no longer is a designer limited to his single discipline. Designers today are required to be interdisciplinary and the Foundation Course offers an introduction, teaching the students the basics of the different design disciplines. For this reason I feel that all students will benefit from an integrated foundation course. No because about 70% of the students who enter their first year of Design Study are able to cope equally well. To require all the students to participate in an integrated foundation course might bore those stronger students and would only higher the level of work. The underprepared students would still remain the weakest and underprepared.
DESIGN HIST 20	Y	Yes. Firstly, this is the model of teaching design used since the inception of the Bauhaus in 1919. That all students' had to undergo a compulsory foundation year before choosing a design specialism area. Most art and design institutions in Europe (particularly the UK) and in the states still have compulsory foundation courses that students' need to complete before enrolment on a design specialism course. The value of the foundation course is the opportunity for students' to be introduced to all the disciplines and do experimental studies in these disciplines. Thus, the course becomes more diagnostic rather than remedial. Additionally, students are made aware of which discipline they are more inclined towards and what their strengths and weaknesses are. If CPUT would adopt a compulsory foundation course model, it would be on par with other design institutions in the world and additionally it would be able to lengthen the years of study from a 3 year national diploma course to a 4 year degree course.
DESIGN HIST 21	Y	Yes, please see above
ARCH HIST & THEORY 22	Y & N	Not necessarily, as there are students who know what they want to study and why. I think that it is of benefit to those students who do not have a clear idea as well as those who lack basic underpinning skills.

Question 7

Questionnaire Number	Y/N	Reason/comment
		If you have moderated in the end of year Design Foundation Course exams, or taught in the Design Foundation Course as a specialist in a particular design discipline, any other observations you may have about the foundation course, staff and students will be greatly appreciated.
GD1		As a moderator I have always been very happy with the equality of work and scope of graphic projects. I think the interdisciplinarity is very important for graphic design studies because our students need to be able to solve communication problems, so the more media experiences they have had the better. I 'd like to see better facilities for everyone, including Foundation students- like computer workstations for all levels of students that they can use for academic and design work. Foundation staff is utterly professional and highly knowledgeable, and the tracking systems are excellent. I think the remedial aspects of practical work can go a long way to being addressed in Foundation, but the remedial language and academic issues of underprepared students seems to take longer and these students need support beyond Foundation. They remain at risk with content subjects/writing into first, second and third year.
GD2		I feel satisfied that the material covered by the Graphic Design Foundation students adequately prepares the students to enter into the first year of Graphic Design. This includes projects covered in the other subjects/ design areas. The system of having a specialist project which tests the students' abilities in each field, provides evidence of their potential (or not) to enter the next level of study in that design discipline. It is sufficiently similar to what is asked of regular applicants to be able make valid comparisons and decisions.
GD3		All of the above.
GD4		Through my small contribution, once or twice, all I noticed was the immense engagement and hunger for knowledge that the foundation students exhibited.
GD5		I deliver a typography presentation every year and find that the students are hungry for input - they engage with the material and seem to enjoy the topic. I think that there should be a more co-operative approach amongst lecturers in helping out on the DFC and that with planning these specialist inputs become more formalised and timetabled.
INT6		I moderated in 2005 & 2006. I think it would be of great benefit for the students to have a sketch book, in which daily drawing assignments are done, these need not be given as a formal assignment. The Interior Design Students would also benefit greatly if the foundation course assisted them more intensively with technically constructed interior perspective views.
INT7		My theory (again...) if you are able to draw beautifully it does not

		mean you will be a good designer. Design has a technical component to it that requires a bit of the other side of the brain to work as well. Just like a photographic memory does not make you brilliant, it just helps a lot though!
		And that is just what I have found: Students show great artistic ability and yet when the design is assessed it does not necessarily match. But at the same time, if the student does not manage their time, there will not be enough time to communicate the design.
		I am curious to know what the effect would be if the course was structured more towards skill than courses: Industrial design, Interior and Architecture have technical drawing needs. Industrial and jewelry has prototype manufacturing needs, Graphic and Interior has layout and typography needs. Town Planning and graphic has communication needs....So instead of course per course modules why not modules that could kill two birds with one stone. Many of the Foundation students mention how the graphic module helped them with signage.
		As I was assessing the foundation students a week ago, I realized that model building in interior design has become a thing of the past - so why focus so much attention/marks on it? They can built white models like architecture, all they really need to figure out is space... They build models and things for all the other courses, if they really like to play. It is spacial perception that should be the focus.
		Another bugging element. If they do graphic design related skills, why do they not do better page layouts for their concept boards? A poster is a poster is a poster! Part of laying out the information is layout i.e. graphic design!
		There are numerous overlaps between the design courses. maybe someone should assess what problem first year are experiencing in general and come up with modules that can facilitate learning that is beneficial to various courses (Just like communication!)
FASH 8		Every project is tackled with great enthusiasm by the Foundation lecturers as well as students (maybe lecturers' enthusiasm rubs off onto students). In spite of hard work it always seems like fun, and the results are always very rewarding. The standard is high, and the students who find themselves in that course realise that they are the truly lucky ones on the campus. My group of first years who come from Foundation cannot stop praising the course – the others listen in envy - all whishing they could do the same.
FASH 9		No, I think the Design Foundation Course lecturers are passionate about their course and students and are doing great!!!
SURF10		No response
SURF11		Care must be taken that student numbers do not get too large

		and that the individual attention given to students is maintained to ensure quality interaction between lecturer and student.
IND 12		I think the foundation team does a marvelous job in adverse circumstances.
IND 13		The ethos of the Foundation course appears to be more responsive to student needs as well as being more accommodative of different learning styles and pace of learning. The only significant drawback is the stigma associated with having to 'endure' the Foundation Course whilst other students cruise by. This stigma is further reinforced by the fact that the vast majority of students therin are from previously disadvantaged backgrounds. This could be ameliorated by making the Foundation Course a common first-year for all design students, whilst simultaneously facilitating a more student-centred pedagogical ethos as is presently evidenced. The design disciplines have fragmented ad absurdum. We need to mainstream the 'silo-busting' strategy that is engendered in the Foundation year.
IND 14		The foundation course is obviously understaffed. On hot days most students do not work as hard as they could due to inefficient cooling. I found all staff to be dedicated and caring.
ARCH15		The Course is extremely well run. However, I have noticed a lack of discipline amongst students in some groups, especially when they regard a particular project as being outside of their area of interest.
ARCH16		Do you at all focus on the workplace/industry and expose students to what really happens in each design field in the real world (i.e. what to expect in terms of jobs, salary, work environment, etc.)?
ARCH 17		We are encouraged by the commitment and enthusiasm of the staff teaching the DFC. Most students from the DFC proved to be more diligent
ARCH 18		Perhaps students should not have as much freedom as they traditionally have from first year on. It seems that many matriculants are not ready for the "freedom" tertiary institutions have to offer. They often do not have the discipline or level of maturity to deal with it. These students seem to be easily lost to other temptations of campus life and subsequently suffer time & financial losses. A higher success rate could be achieved if some middle ground was established between the strict school system and the freedom of tertiary education – as preparation to deal with the new found freedom.
DFC 19		My only comment would be time. This is a personal view and opinion but I feel that it is unfair to expect students to be on time when the lecturers are often late. However, I do understand that this is hard to manage because there many different lecturers who come from a variety of disciples and are trying to manage their time (and timetable) as best they can. Often lecturers are required to teach a class at Foundation as well as their usual

		class.
DESIGN HIST 20		When I studied in the UK at Central Saint Martins School of Art & Design, I had to do a compulsory foundation course before enrolling for a degree. It was probably one of the most formative experiences of my undergrad studies due to the exposure to all the design disciplines.
DESIGN HIST 20		No response
ARCH HIST & THEORY 22		**N/a**

Would all students who enter the art and design field of study benefit from participating in an integrated foundation course?

		Frequency	Valid Percent	Cumulative Percent
Valid	Yes & No	5	22.7%	22.7%
	Yes	11	50.0%	
	No	6	27.3%	72.7%
	Total	22	100.0%	100.0%

Would all students who enter the art and design field of study benefit from participating in an integrated foundation course?

Questionnaire Number	Response
GD1	Yes & No
GD2	Yes & No
GD3	Yes
GD4	Yes
GD5	No
INT6	No
INT7	Yes & No
FASH8	Yes
FASH9	No
SURF10	Yes
SURF11	No
IND12	No
IND13	Yes
IND14	Yes
ARCH15	No
ARCH16	Yes
ARCH 17	Yes
ARCH 18	Yes
DFC19	Yes & No
DESIGN HIST 20	Yes
DESIGN HIST 21	Yes
ARCH HIST & THEORY 22	Yes & No

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Cape Peninsula
University of Technology

Study Guide   2011
Design Foundation Course
(Extended First Year)
Faculty of Informatics and Design
Cape Town Campus

Mari Lecanides Arnott/2010 CPUT

Contents

1.0 Design

Design may be described as the creative ordering of components to achieve functional and aesthetic solutions. Design is all around us. It plays a fundamental role in meeting people's needs in varying situations in our society.

Design is applied in infinite combinations for the conceiving, planning and making of buildings, interior spaces, furniture, appliances, equipment, vehicles, clothing, jewellery, adornment of surfaces, and in the communication, promotion and marketing of all of these.

2.0 The Faculty of Informatics and Design

Students can register for study in one of the seven courses in Design that are offered as three-year National Diplomas with an option to do a fourth year B Tech, in the Faculty of Informatics and Design at the Cape Town Campus. For detailed information about these courses refer to the Prospectus and to the specific Design course study guides available at the faculty office.

2.1 Career opportunities

When students have completed their studies in their chosen Design discipline they may consider careers in the relevant design field as follows (*Informatics and Design: Prospectus* 2011):

2.1.1 Architectural Technology

There are career opportunities in the public and private sectors of the built environment as Architectural Technologists performing architectural services in technical research, construction detailing, design, administration and management.

2.1.2 Interior Design

There are career opportunities working in Interior Design firms as consultants and designers for private clients, in shop fitting firms, furniture design, interior design shops offering a design service for offices spaces and furniture and as part of a team in architectural practices.

2.1.3 Three-Dimensional Design (Industrial Design)

There are career opportunities in product, furniture and car design usually working as part of a team in an Industrial Design company. Further opportunities exist as in-house designers for manufacturing companies, model makers, and working in the television and film industry in sets, props and special effects.

2.1.4 Fashion Design

There are career opportunities as fashion designers working for retail stores and clothing manufacturing companies in South Africa and overseas. There are also opportunities to work as a stylist, buyer, garment technologist, fashion illustrator, fashion editor for a fashion magazine and as independent fashion designer.

2.1.5 Jewellery Design and Manufacture

There are career opportunities to work as a self-employed jewellery designer or a goldsmith, a jewellery designer in a jewellery studio, a designer of original models of

jewellery for mass production for a jewellery manufacturer and as a manager of a manufacturing workshop or design studio. There are also opportunities in the retail industry as a salesperson, a buyer, a manager for large jewellery chain stores and as a restorer and evaluator of jewellery items.

2.1.6 Surface Design
There are career opportunities for surface designers in the Textile, Fashion and Interior Design industries. Other career opportunities exist in these industries as fashion co-ordinators, fabric buyers, trend forecasters, merchandisers and colourists. There are also opportunities for surface designers in wallpaper, stationery, tableware, and ceramic design.

2.1.7 Graphic Design
There are career opportunities in the advertising industry (for magazines, television and film), packaging, illustration, book design, magazine layout, story boarding, digital design, corporate identity and photography. Graphic designers may be self-employed as freelance designers, or can be employed by advertising agencies, design studios, printing and publishing houses as well as by state-supported institutions such as museums, libraries, and medical institutions.

3.0 The Design Foundation Course (extended first year)

3.1 Background
A separate Foundation programme has been developed and run since 1994 at the Cape Town Campus. This course was known as the Access Course and initially served as a bridging course to give under-prepared students the opportunity to gain exposure to the different Design disciplines that are on offer for study in our Faculty, as well as the skills necessary for entry into one of our First Year Design programmes. The present form of this course has been in use since 2002, and the course has been known as the Foundation Course since 2004. Since the beginning of 2007 the Design Foundation Course, which incorporates the extended curriculum programme for the different design disciplines, has been integrated into the diploma structure. The existing programme is under constant review and development with close consultation and direct input from the specialist Design disciplines in our Faculty (Interior Design, Industrial Design, Jewellery Design, Graphic Design, Surface Design, Fashion Design and Architectural Technology).

3.2 Target Group

3.2.1 Referred Applicants
The target group for the extended first year of study consists mostly of prospective students who have applied for entry into the regular first year of study in one of the specialist Design departments. These applicants show appropriate potential for study in Design but are not ready for entry into the regular first year of study and are referred to the Design Foundation Course. If accepted these students will be registered for the extended first year in the Design discipline for which they originally applied. Preference is given to applicants from disadvantaged backgrounds.

3.2.2 Direct applications into the Design Foundation Course

Students may apply directly for admission to the Design Foundation Course. If they are accepted they will also have to register for the extended first year of study in one of the Design disciplines offered.

3.2.3 Diagnostic function

The course also serves as a diagnostic year of study as it has been developed as an integrated, multidisciplinary design foundation programme. By the end of the Design Foundation Course students should have a fair idea of where their strengths lie, and they should also be able to make an informed choice as to which Design discipline they should be entering in the regular first year of study. If necessary, after completing the compulsory year work component of Design Foundation Course, students will be allowed to change their registration for study to another Design discipline and complete the extra and exam project in that discipline before entry into the regular first-year of study.

3.3 The structure of the foundation course and assessment criteria

Students who do the Design Foundation Course (extended first year) will complete the national diploma in a minimum of *four* years

3.3.1 Course structure and learning approach

The Design Foundation Course covers all the Design disciplines and the learning process is interactive, with students working individually and in groups, and with critical discussion of the work that has been done. During the design process and when projects have been completed there is peer review of projects in the form of critiques that are guided by the lecturer. The intention is to give the students exposure to an integrated approach to learning during this year of study. Students develop conceptual, formal and technical skills that will prepare them for entry into the regular first year in the Design discipline in which they are registered. Furthermore foundational support is integrated into the regular first year course where it is needed.

3.3.2 Assessment criteria

Completed practical projects are assessed by the presenter and moderated by a lecturer from the regular first-year in the relevant Design discipline. The student is given a detailed written assessment (formative) based directly on the criteria specified in the project brief. If required the presenter will discuss the assessment with the student; and if necessary the student will be given a further opportunity to rework the project.

3.3.3 Minimum requirements for passing the course

Students must attain a minimum of *50%* in theory and practical subjects (Communication Studies, Professional Business Practice, Drawing, 2D and 3D Design), in order to gain entry into the regular first-year of study. It is also recommended that students achieve *60 %* in the design discipline in which they have been registered.

4.0 Course description for practical subjects

4.1 Subject co-ordinators

Mari Lecanides Arnott: Drawing, Graphic Design, Three Dimensional Design (Industrial Design) and Jewellery Design (021 460 3334; mobile: 072 624 2621)

Diane Retief-Steyn: Surface Design, Fashion Design, Interior Design and Architectural Technology (021 460 8347; mobile: 084 362 4132)

Wendren Milford: Lecturer in Drawing, Surface Design, Fashion Design and Graphic Design (021 460 9062)

4.2 Practical subject codes

Students register for the extended first year of study in one of the Design disciplines on offer in the Faculty of informatics and Design under the same subject names as for the regular first year of study in the chosen Design discipline.

4.3 Foundation course subject areas

The extended first year of study is an integrated Design foundation programme that covers all of the Design disciplines. In the practical component of the course the subjects fall under the areas of *Drawing, 2-Dimensional Design and 3-Dimensional Design.*
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4.4 Year mark

(i) Students do projects in Drawing and in the Design disciplines. *This first component is compulsory for all students and accounts for 70% of the year's mark.*

(ii) After completing the first component students then do an extensive further project in the Design discipline of choice under the supervision of lecturers from the relevant Design departments. The final project is the exam project in the Design discipline of choice with minimal supervision in order to assess what students have learnt throughout the year, their ability to think critically and solve problems on their own and their readiness for entry into the regular first year of study in the Design discipline of choice. *The second component accounts for 30% of the year's mark. Students have to achieve a minimum of 60% for the year project in the subject of choice in order to be allowed to do the extra and exam project in the subject of choice.*

4.5 Attendance

Students are required to attend every day and have to be present during the given practical studio work times from 08h30 to 15h30. Lecturers should be told in advance if a student is unable to attend class for any reason. Lecturers should also be notified if a student is ill. A medical certificate is required if a student is away for more than two days. A medical certificate is required for an extension for the hand-in date of all projects.

4.6 Submission of practical subject projects

Students are to hand in projects according to the specified deadlines on project briefs. Some projects will be handed in to the lecturer in class or to the Design Foundation Course secretary Melinda Gordon.

Projects must be handed in *before or by the deadline on the designated day otherwise penalties will apply as follows:*

- In the first term a penalty of 5% per day will be applied for the first two days for projects that are handed in late. Thereafter projects will not be assessed, receiving 0%.
- In the second term a penalty of 5% will be applied for projects that are handed one day late, after which projects will not be assessed, receiving 0%.
- From the beginning of the second semester all projects handed in late will not be assessed, receiving 0%.

4.7 Resubmission

Students who have not met the required minimum of **50%** will have to rework the project after consultation with the subject lecturer. It is also recommended that students who have achieved less than **60%** for a project in the subject of choice should rework the project.

5.0 Practical subjects
5.1 Drawing

(i) The use of drawing in the design subjects
Drawing is fundamental to Design and is embedded in all of the Design subjects as part of the design process. Drawing is used to visualise ideas (putting ideas down on paper). It is an integral part of research and preparation and in the exploration and development of concepts into viable designs. Students make use of technical drawings and accurate plan drawings using the accepted architectural conventions for the designing and building of models. They also do presentation drawings using Design discipline specific drawing conventions for the presenting and marketing of completed projects.

(ii) Drawing as a subject
Graphic Design Drawing 1 (GDD1OMX)
Design Studies 1 (DES1OMX)
Design Studies 1 (DES1OMX)
Presentation 1 (PRE1OAX)
Drawing for Design 1 (DRD10SX)
Drawing for Design 1 (DRA1OMX)
Jewellery Drawing 1 (JDR1OMX)
Drawing is also taught as a separate subject that is divided into Figure Drawing and Object Drawing. These two components are equally weighted and each accounts for 50% of the final mark. Through figure and object drawing students are encouraged to develop observational, perceptual and conceptual skills and to carry these into their Design subjects. In Figure Drawing in order to gain an understanding of the human form, students work from nude and clothed figures. Students will learn to work with different drawing media such as charcoal, pencil, fine-liner, pastel and colour pencil crayons. Students will learn to use composition, line, tone, texture, colour, form and space within a given format when drawing.

5.2 Two-dimensional design
5.2.1 Graphic Design (NDGDSX)
Communication Design 1 (CMD1OSX)
Design Techniques 1 (DST1OSX)
Students learn to communicate ideas through visual design using various techniques, colour and a range of different graphic media. They explore the basic principles of working within a given format, composition, simplification, and stylization, all of which are aspects of the design process that are essential to all the other Design disciplines. There will be a project dealing with the principles of typography and meaning. This is then developed into a more complex project dealing with type and image. Students will also learn how to use images to communicate a story or event and explore illustration.

5.2.2 Fashion Design (NDFDFX)
Applied Clothing Technology 1 (ACT1OAX)
Applied Clothing Technology 1 (ACT1OBX)
The students will be introduced to the colour wheel and colour theory after which they will construct and paint their own colour wheel. Students will then be introduced to basic patternmaking and garment construction techniques in this subject. Students will do a stylistic analysis of the designs of well established international and local fashion designers and based on this understanding they will learn to use concept boards to develop and design their own range of garments. The students will then use storyboards to present these designs.

5.2.3 Surface Design (NDSDFX)
Surface Design 1 (SDE1OSX)
Surface Technology 1 (SDT1OSX)
Surface Design includes textile design and the application of designs onto different surfaces. The students will learn to understand pattern and will do projects using repeat pattern in colour, and apply what they have learnt in colour theory. Researching the concept of the cultural use of colour and pattern, students will also use and explore different printing (block printing and silkscreen printing) and hand-painting techniques and how these are applied in the textile industry.

5.3 Three-dimensional design
5.3.1 Architectural Technology (NDATFX)
Studio Work 1 (STWIOSX)
Construction and Detailing 1 (CON1OSX)
Applied Building Sciences 1 (ABS1OSX)
Students will design an exterior structure for a specific site that meets special requirements as set in the brief. They will have to consider the materials and technology when planning the design. Students will learn to draw scale plans. They will use these plans to describe their understanding of construction methods, using the plans to build scale models of their designs. Students will be required to give a verbal presentation of their project to lecturers and peers, the purpose of which is to explain the concepts informing their work.

5.3.2 Industrial Design (Three-Dimensional Design) (ND3DFX)

Design studies 1 (DNT1OSX)
Technology 1 (TEC1OSX)

Students will create a positive for a mould that could be used for mass production by making a cardboard construction for a low relief ceramic tile. They will learn to work in three dimensions by designing and constructing slot-together structures for children from Corex card. The use of line, pattern and flat colour will be incorporated into these designs. Students will then do a packaging exercise constructing a box and lid in cardboard from accurate technical drawings with strict specifications. They will also make carefully rendered drawings in pencil of manufactured objects made of different materials.

5.3.3 Interior Design (NDIDFX)

Design Studies 1 (DSN1OSX)
Design Technology 1 (DET1OSX)

Students will learn to research and make use of concept boards in developing ideas for designing a specific interior space. They will then learn to draw accurate plans and sections of their design on a 1:20 scale and construct a scale model of their design. They will learn to make axonometric drawings of their model in pencil and to render these drawings in colour using colour pencil crayons. Students will be required to give a verbal presentation of their project to lecturers and peers, the purpose of which is to explain the concepts informing their work.

5.3.4 Jewellery Design (NDJIDFX)

Jewellery Design 1 (JED1OSX)
Jewellery Techniques 1 (JTQ1OSX)

Students will be introduced to drawing techniques used in Jewellery Design such as working to scale, using a grid and making carefully rendered presentation drawings in pencil and in colour using colour pencil crayons. They will develop different jewellery designs and manufacture these using appropriate technology. Students will learn to carve, work in relief, cut brass plates, recycle found materials and use various wire work techniques. They will also make use of lost wax casting and learn to smelt, pour, sand and file metals such as copper and silver.

6.0 Course description for theory subjects
6.1 Subject co-ordinators

Lee van Wyk: Communication studies co-ordinator
(021 557 7299; mobile: 083 9656 853; email: leevwyk@gmail.com).
Lecture times: 08:30 – 10:15 Monday & Thursday
Slide Library: 1.16 (Design Building)
Monika Rohlwink: Language skills co-ordinator
(021 919 3702; mobile: 072 242 1236; email: mrohlwink@cybersmart.co.za).
Monika Rohlwink: Professional business practice (life skills, computer skills and numeracy) co-ordinator
Wendren Milford: Photoshop course (021 460 9062)

6.2 Attendance

Students are required to attend all classes, lectures and tutorials for theory subjects. Students are also required to participate in all assessment tasks. An attendance register will be taken each time. Lecture material will only be given out during lecture time. ***80% attendance is necessary to complete theory courses. The lecture room door will be closed at 08H35 and opened during the break.***

6.3 Year mark

All projects, tests and tasks will contribute toward the final year mark. No projects, tests or tasks may be missed. This is particularly important as the final mark of 100% is cumulative and consists of 25% per term.

6.4 Assessment

It is compulsory for students to participate in all assessment tasks. The emphasis is on practical application of theory. To this end students will be given examples and exercises periodically, to enable active learning and application. Certain exercises as well as assessments will be used to demonstrate competency.

6.5 Research projects

Students will be required to complete a series of projects throughout the year. Projects will include: written reports, image analysis, presentations, short and full academic essays, tests and tasks.

6.6 Reference books and notes

Students should source books from the CPUT and other libraries. Students can also make use of the CPUT library databases for research. Consult with the design subject librarian for assistance if required. Plagiarism in any form is not tolerated. All reference material used in student work must be clearly acknowledged and referenced correctly.

6.7 Submission of assignments

Students are to hand in their work according to the brief outline. Projects will be handed in to the lecturer in class.

Assignments must be handed in ***before or by the deadline on the designated day and time. Projects that are handed in late will not be assessed, receiving 0***%. Students have to submit a medical certificate to the lecturer concerned in order to be granted an extension for a project hand-in date.

6.8 Resubmission

If students receive less than 50% for a project, they will be required to resubmit. All problem areas that have been highlighted by the lecturer must be corrected. The original project plus the corrected project must be handed in ***within a week. Resubmissions (except the final exam essay which cannot be resubmitted), will receive a maximum of 50%.***

7.0 Theory subjects

7.1 Communication studies (History of Art and Design, Design and Visual Literacy, Current Awareness, Communication and Literacy)

History of Art and Design 1 (HOA1OSX)
Surface and Design Studies I (SDS1OSX)
Theory of Clothing 1 (TOC1OSX)
History and Appreciation of Architecture 1 (HAA1OSX)
History of Art and Design 1 (HIA1OSX)
History of Art 1 (HIS1OSX)
History of Art and Jewellery Design 1 (JET1OAX)

7.1.1 History of Art & Design

This subject will be addressed on a theme-basis offering first-time History of Art and Design students a basic overview. Segments from the 1st year History of Art and Design course will be included and students will be required to attend some core lectures, which will be supplemented by tutorials. The analysis of design products is emphasised.

7.1.2 Design & Visual Literacy

This component of the course concentrates on introducing students to design and visual literacy. This introduction will be developed through various visual presentations, written and spoken exercises and assessments.

7.1.3 Current Awareness

Design and visual literacy classes will be augmented by outings and visits to exhibitions. This will be done to develop an awareness of current design and to encourage an attitude of life-long learning.

7.1.4 Communication and Literacy (including Language skills)

This section of the course introduces students to academic reading and writing, as well as the skills needed to research information and present this information in a coherent and effective written and verbal format. Students have the opportunity to ask for support with any of their written and oral assignments from Lee van Wyk and Monika Rohlwink, and where remedial help is needed, such will be given. Furthermore integrated into all theory assignments is an assessable language component that counts for 30% of the final mark.

7.2 Professional business practice (life skills, computer skills and numeracy)

Professional Graphic Design Practice 1 (PGP1OSX)
Surface Design Practice 1 (SDP1OSX)
Business Studies 1 (BUS1OSX)
Professional Practice 1 (PDP1OSX)
Communication 1 (CMM1OSX)
Computer Applications1 (COA1OSX)
Business Studies 1 (BST1OSX)
Business Studies 1 (JET1OBX)

7.2.1 Life skills

This course will include various life skills and study skills workshops. These will help students develop the kinds of individual and academic competencies and attitudes needed to successfully learn on a first year academic level.

7.2.2 Computer skills

Basic computer literacy will be offered in order to familiarise students with the current frameworks of technology. This knowledge will be further developed into word processing and presentation package skills in order to empower students to successfully utilise these resources.

7.2.3 Numeracy skills

The Numeracy course consists of 4 modules designed to give the students a practical understanding of Numeracy as it relates to various facets of life. The modules include a variety of topics such as areas and volumes, data processing and probabilities, as well as financial aspects such as interest rates, inflation and exchange rates.

8.0 Appendices

Appendix A: Theory subjects course outline summary
Appendix B: Practical subjects course outline
Appendix C: Example of a practical subject project brief
Appendix D: Example of a practical subject project assessment form
Appendix E: Progress marks schedule 2011
Appendix F: Subject codes and credit values
Appendix G: Student report
Appendix H: Course feedback questionnaire
Appendix I: Design Foundation Course timetable 2011

Design Foundation: Theory Subjects course outline summary   2011
Communication studies
(History of Art and Design; Design and visual Literacy; Current Awareness)

	Module 1 (5 wks)	Module 2 (5 wks)	Module 3 (4 wks)	Module 4 (5 wks)	Module 5 (3 wks)	Module 6 (4 wks)	Module 7 (7 wks)	Module 8 (4 wks)
History of Art and Design	**Lee van Wyk** Analysis of specific historical examples of design. **Vikki du Preez** First-Year lecture: What is Design?	**Lee van Wyk** Ancient Egyptian Art Comparison: Contemporary designs	**Lee van Wyk** Greek Art Comparison : Contemporary designs	**Lee van Wyk** Roman Art **Vikki du Preez** First-Year lecture: Islam / mosque & Renaissance	**Lee van Wyk** Renaissance Art Baroque, Rococo & Neo Classicism **Vikki du Preez** First-Year lecture: 19th Century & the machine aesthetic	**Lee van Wyk** Baroque , Rococo & Neo Classicism (cont.) Craft vs mass production Art Nouveau Art Deco Bauhaus	**Lee van Wyk** Japanese Art Impressionism Cubism to Conceptual **Vikki du Preez** First-Year lecture: Japanese Art	**Lee van Wyk** South African Design Eco Friendly Design Exam project: intro & briefing Project consolidation
Design and Visual Literacy	**Lee van Wyk** Intro & non-verbal language Visual language Formal analysis of Design images 1-7	**Lee van Wyk** Creative processes Awareness of cultural and religious influences as seen in examples of Ancient Egyptian designs [Selection of appropriate designs]	**Lee van Wyk** Creative processes Awareness of cultural & religious influences as seen in examples of Greek art. [Contextualising con-temporary designs]	**Lee van Wyk** Creative processes Awareness of cultural political & religious influences in Roman. art Understanding of Islamic religion & architecture	**Lee van Wyk** Creative processes Understanding of Classicism. Identification of specific historical images.	**Lee van Wyk** Comparative analysis Post impressionistic stylistic analysis: Portraits Identification of specific historical images.	**Lee van Wyk** Stylistic analysis: of Japanese design **Context & target market in corporate world**	**Lee van Wyk** Identification, selection and researching of visual images of design.
Current Awareness	Design Indaba Expo	Research IN library [Contemporary Design publications]		Mosque visit	Visit to Iziko National Art Gallery.		Outing to city to **analyse corporate identity**	

Design Foundation: Theory Subjects course outline summary 2011

Communication Studies (Study and language Skills; Language support)

	1 (5 wks) 28/01-22/2	2 (5 wks) 25/02-28/03	3 (4 wks) 31/03-23/04	4 (5 wks) 05/05-06/06	5 (3 wks) 09/06-27/06	6 (4 wks) 21/07-15/08	7 (7 wks) 18/08-03/10	8 (4 wks) 13/10-31/10
Study and language Skills	Monika Rohlwink — Lang. Prof. test — Academic language — **Art of Writing:** Sentence & paragraph construction (in support of design analysis assignment) — **Referencing:** Journals/magazines	Monika Rohlwink — Plagiarism and how to avoid it — Bibliography vs List of references — Support with image file — Editing each other's work	Monika Rohlwink — **Research methods:** Note-taking & summarising — Using the internet: evaluating websites — **Referencing:** websites	Monika Rohlwink — **The academic writing process:** Task words – gathering information — Organising info into essay form — **Referencing:** books	Monika Rohlwink — Writing analytical comparisons — Presentation skills	Monika Rohlwink — Interviews — How to record an interview — **Referencing:** Interviews — **Oral presentations** — Analytical site research	Monika Rohlwink — Assistance with preparation for final written exam project	Monika Rohlwink
			Support with grasping conceptual content of practical projects →					
Language support	Monika Rohlwink — Scaffolded reading: making sense — Remedial language: vocabulary for: a) design elements b) practical briefs — More sentence & paragraph construction — Support with image file — Oral communication skills	Monika Rohlwink — Scaffolded reading: extracting main ideas — Refining paragraphs — More vocabulary — Editing & proofreading — Remedial language work (grammar, etc.)	Monika Rohlwink — Critical reading and thinking — Organising information — Remedial language work — 'compare' & 'contrast' — Referencing: websites	Monika Rohlwink — The writing process - Task words — Organising information into logical sequence of paragraphs — Rough drafts of essay — Referencing: books	Monika Rohlwink — Always reading and basic language work — Always vocabulary building — Editing one's writing — Final draft of essay — Check: Referencing of books and internet — **Presentation skills**	Monika Rohlwink — **'Dry run' of oral presentations** — Help with recording interview and site research — [Reading, thinking critically and writing in a disciplined, lucid manner are skills not learned overnight ; they need to be practised over a long period of time.]	Monika Rohlwink — [Tests and tasks at certain intervals right through the year to assess their progress] — [Regular editing of their written work done for Mrs van Wyk's assignments]	Monika Rohlwink — Preparation for final exam project

Design Foundation: Theory Subjects course outline summary 2011
Professional Business Practice (Life skills; Computer skills; numeracy skills)

	1 (5 wks) 28/01-22/02	2 (5 wks) 25/02-28/03	3 (4 wks) 31/03-23/04	4 (5 wks) O5/05-06/06	5 (3 wks) 09/06-27/06	6 (4 wks) 21/07-15/08	7 (7 wks) 18/08-03/10	8 (4 wks) 13/10-31/10
Life Skills	**Monika Rohlwink** **Transition into higher education:** (the academic discourse) * accountability * importance of knowledge * time management	**Monika Rohlwink** Importance of READING **Critical reading (Introduction)** Comparing sources * extracting information : relevant? accurate? authentic? **Thinking modes**	**Monika Rohlwink** Stress management **Reflective / experiential learning** Logical thinking and reasoning (Introduction)	**Monika Rohlwink** Problem solving Critical / analytical thinking	**Monika Rohlwink** Team work vs group work Threshold concepts	**Monika Rohlwink** Personal identity & growth Personality types (Intrapersonal relationship)	**Monika Rohlwink** **Corporate identity** **Market research** **Advertising**	**Monika Rohlwink**
Computer Skills	**Ndileka Mtshizana** (Library) OPAC	**Ndileka Mtshizana** (Library) Databases **Monika Rohlwink** (Library) Microsoft Word	**Ndileka Mtshizana** (Library) Internet	**Monika Rohlwink** (Library) Microsoft Excel	**Wendren Milford** (Surface Design computer lab) Photo-shopping	**Monika Rohlwink** (Library) Powerpoint presentations		
Numeracy Skills	**Monika Rohlwink** **Proficiency test** * accuracy in measuring (tile project) * costing	**Monika Rohlwink** * **converting measurements** * perimeters * more costing * currency conversions	**Monika Rohlwink** * **Geometry:** Total surface areas & volumes of regular prisms	**Monika Rohlwink** **Scale drawing** * human proportions * building plans * grids for enlarging and reducing	**Monika Rohlwink** * **Graphs and pie charts** * direct and indirect proportions * ratios * percentages	**Monika Rohlwink** * **Entrepreneurship** * Marketing and advertising * banks & finances * interest rates	**Monika Rohlwink** * capital * cash flow	

Regular basic arithmetic and mathematics in order to break down the mental barrier where numbers are concerned and help students with necessary calculations.

Appendix M: Responses from past 2008 student group (not part of the focus group) on completion of National Diploma in Design in 2011

Looking back, which aspects of the Design Foundation Course did you find most useful in preparing you for further study in the field of design, particularly in the design discipline in which you are registered?

Graphic design garaduate

Sorry it took so long for me to reply, been packing up as I am moving to JHB next year. I found the foundation course extremely helpful. The graphic design element was obviously helpful for me as I went into graphics. My first year was made easy with the basics that we learnt from Foundation, almost felt that I could have gone straight into second year graphics. What I appreciated most from the course was i learnt a bit of everything for each design discipline. It was helpful to have an idea how everything works specially as graphic design can include other elements of design. As I had intended to study architecture it was a real eye opener as to what it entails and i realised that architecture wasn't for me.

Architecture student

I finished the three year ND course in Architecture at CPUT this year. The Design Foundation Course made my life easier on two levels. Firstly the foundation course introduced me to all the different types of materials, tools and the best ways to use them, working through all the different design disciplines. Although first year does start at the beginning, the classes move fast and I would not have adapted as well as I did if I would have had to try to gain the knowledge of materials, tools and methods of producing drawings on my own.

Having worked through all the different design disciplines gave me a broader outlook on how to solve design problems.

Particularly towards architecture I learned the basic terms I needed to know in first year. We did a project that covered all the basics, drawing a plan to scale, sections… Being familiar with these terms made it easier starting first year. At the end of the foundation course we build an architectural model as part of a project. This helped me a lot later on as I knew the basics of model building after this and in first year and further on it is assumed you know these things. Being familiar with these things made my life considerably easier.

On a second level it introduced me to CPUT, where to pay fees, how to register and use the library and other facilities, where to buy tools and materials. Knowing these things saved me time in first year and later on.

 I enjoyed the foundation course very much!

Fashion Design

I found the foundation course very beneficial. Coming from grade 12 and having not done any art or design subjects, I had no idea about the design process. The foundation course works at a pace that helps you orientate yourself into the varsity lifestyle. I doubt I would have ever coped with First year design straight from high school. The broad basis that is covered I found to be very good. I applied for graphic design, but after the foundation course was lead to an entirely different course : fashion design. If i never did the foundation course I think I would have started something that I would have found out later did not suit me.

I am happy that I took part in the foundation course, and I would most definitely guide any prospective design student in that path.

Architectural technology student

- The first major influencial aspect of the course was learning the general broader terminology of design descliplines such as: **elements of design, design principles and the design process.**These primary guidelines form the crux of any design process without which a successfull design with not develop and progress. I think it was of extreme importance and relevance that these principles were enstilled in us right from the get-go as they are universal tools in developing a design idea of any nature. These were especially beneficial for students without a previous background in design and an unfamiliarity with the temrnology of aesthectics in art.

- Relating to choice of further study, the end of year specialised (chosen field) project simulation was a very well handled and set out project to prepare me for the year ahead - the project included a full range of the general processes that go along with the design of a building and how its is executed in terms of visual representation. ie. floor plans, elevations, sections etc. We were tought how to conceptualise an idea and gained a knowledge for scale and form. From there the process of representing this conceptual idea in 2D form (drafting) was tought to us - we were then able to have a taste of what was to come for the years ahead - and found that (along with my foundation year counterparts who were also studying architecture) in the first year of our studies, we already had the knowledge of the techniques which were being tought to us such as: lineweights, linetypes, drawing and rendering by hand etc. We were able to excersise these previously tought techniques on a level above that of the general standard of the class.

- Due to the vast mount of drawing and sketching done in the foundation course, I found that my skills in drawing had been refined and developed to a very high standard, far higher than when i had entered the course - I turned out to get top of the class marks in the subject of Presentation, first year Architectural Technology, with work that stood out above the rest - i have no doubt that the extended year of building my skills in drawing helped and will keep helping me in my field of study.

- Finally, the most influential aspect of the course was the great hands-on exposure we got to **all the design fields -** touching on the different design options available at CPUT, a foundation course student was able to to decide which way they would branch off into the design world. This decision would have been based on first hand experiences with all the types of design and could truely be made with the knowledge of what each field entails - it is this knowledge i am most grateful for. Being exposed to the range of design discliplines really opened my eyes and helped me analyise whether i was making the right choice for my future.

Industrial design

I found everything useful not only in the the discipline of product design. Learning different processes from jewelry to surface, but what was really useful was our final 3D project, the hairdryers and working with the 2nd year ID designers. getting feedback from the learners and technical help with regards to materials etc.What i learnt through the foundation course in terms were processes, materials, communication, and presentation, which all helped for the continuation of my studies, helped a lot.

APPENDIX N: RESPONSES TO FOLLOW UP INDIVIDUAL FOCUS GROUP INTERVIEWS 2009

Charlie – Graphic Design

It's almost a year since you left foundation and you've been in first year and I would like you to tell me how easily you adapted from, into first year, having done the foundation. So you need to think to the beginning of first year now, was it easy for you having done foundation?

Foundation course was easy but also heavy at the same time because you had to hand in your projects before the deadline, or in at the deadline. But for me, it was good because you get all the basic things for what you want to study for next year, what for you want to apply to. So, I'm doing first year now, so all that I think that I needed was foundation course, because you have everything there but they still, first year, they also give you some basic but they only in the first term, here in foundation they give you a year to do it.

So did you find going into first year easier because you had done Foundation?

I found it easier, but now, I'm doing first year, it is also quite hectic at times. Now that it has moved on, the year has progressed.

Did you notice a difference between the students who did foundation course and those who came straight into first year from school.

Yes.

Was there a difference?

There was a difference. I see my friend, his name is Brandon. He made it from school to first year, it is amazing, and there is another guy, who is in foundation now this year, I do not know what's his name, but they was in the same class at school, he didn't make it for what course he did want to go into, I'm not sure what course he going to do. But I think he also wanted to do graphic design but he made it to foundation and the other one of my friend made it to graphic design.

Now, the question, that was I was asking, was you, having done foundation, those of you who did foundation. How do you compare with the ones who didn't do foundation in first year?

I'm not sure.

Did it, at the beginning of the year, did it seem like you handled things better than the ones who came directly in. Did you have a better understanding of things?

I had a better understanding in the beginning of it, ja.

Did you notice a difference between the people that came straight into first year and those of you who had done foundation first and then gone into first year. So you've got to think of your graphic design first year group this year.

Ja, I notice there a big difference.

There is a difference. Can you tell me how? What things did you notice? I was just asking if you could notice a difference between those who had had a year of foundation and those of you who had gone straight into first year? Were they managing as well as you were.

No, there was a few that were managing and there was a few that didn't manage. No, at the beginning they were managing but as it comes to the middle of the year there was like people dropping out, and stuff

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like that. But there was some of those who were managing but they were like, weren't as experienced as like we were. So…

So do you think that the foundation helped you for first year?

Yes, very much.

In what ways? In what ways did it help you most?

Doing all the courses.

The different disciplines.

Everything. Jewellery, surface, fashion, industrial design, graphic design everything like that. A big influence on me. I did wanted (sic) to go into jewellery but that's not the thing I wanted to do because I am more into art and drawing and computer designing, graphic designing.

So you did want to go into Jewellery? After doing Foundation?

That was my second choice. But as I did my exam project from first year. It went well.

So are you happy with being in graphic design?

I am happy. Yes.

Do you still think of jewellery sometimes?

I still think of jewellery sometimes, I tried to get in there but they say no, you are not allowed, you must have a fingerprint to get in there.

Oh yes, there is security.

Yes, there is security.

So you want to go and see things?

I went in there last year so we could just go in there to do our jewellery design.

But you want to go and look this year?

No, not now.

Is the teaching very different from what you got here in Foundation?

The teaching was similar but also different. I mean like similar in that they do the same drawings and the same briefing.

So they brief in the same way?

They brief in the same way. Ja. Its similar.

Did it help that you got all of that in Foundation first?

Yes.

And the feedback from projects?

They always do that. They make sure that the people that did not get their feedback or did not get their briefs they do feedback with the others as well, so that they can get the others to refresh their memories.

Okay so you have that and when you finish a project do you get just your marks or do they give you good feedback when you've finished projects?

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They give you your marks.

And do they talk to you about your marks?

They talk to you about your work. Those who didn't do well they give you extended (sic) so you get more time but they give you a date but they give you feedback what they want.

So they are very clear about that?

They are very clear.

In the studio situation do you discuss work amongst each other.

Yes we do.

Do you remember how we used to do things here where I would organize you into groups and you would talk about the work and present it. Do you do the same sort of thing in first year?

We do it amongst your friends. The only presentation we had to do in front of a class was architecture. We had to do a model and a mood board and the next day when we had to hand it in and present it to the lecturers.

That was in Foundation?

Yes.

And in first year? Do you do anything like that? Do you present your work?

At the beginning of the year we had to with another industrial designer, that lady came, we had to get some research, we had to come one by one and mark the register and say what we had here and what your designs going to be about and in history …

Is this is graphic design now?

Yes.

In first year?

Yes.

So you do do that.

Yes.

Thinking about Foundation course I would like you to think about what skills that you got from here that are useful to you in first year. Is there anything specific that really helped you?

Drawing. The most specific one.

What about drawing?

The techniques that you had to use for life drawing. The way you use your charcoal, they give you a good effect. Using it for the computers. Even if you are doing now life drawing .. you have more of…

You have a better understanding.

Ja.

How are you enjoying your theory? Your history?

I deregistered. History.

Is that because of the hearing? That it is a problem?

No. My marks was too low and its, I have to complete it next year.

So you are doing it next year.

Yes.

Do you think it has anything to do with your hearing?

No. It was, like, a balance, this was too much, this was too little.

Were you struggling to balance everything? The practical and the theory, was that what the problem was?

But you were just telling me earlier, are you doing a professional business practice subject?

I'm doing a professional practice, I'm doing that subject. I'm not doing history and I'm not doing communications. I'm doing drawing and design techniques. So communications and history I'm doing it next year.

So you are doing it next year?

Yes, so it makes it easier. I have explained to the lecturers over there and they had explained to me that it is better to deregister those two subjects and do them next year.

So you are putting more time/effort into your design. Is it design techniques that you are doing?

Design Techniques.

And your prof prac.

Professional Practise.

And next year you are going to do your communications studies and history. I don't think that is a bad idea.

So it is better that way. It is less things on my shoulders.

So you have a good relationship with your lecturers there. They advise you and help you.

Yes and what I do.

Do you have a lot of contact still with students from Foundation course, that are not in graphic design…that are doing other things like industrial, and surface and fashion…

I see them every now and then. Fashion designers, Candice, Tersha, surface designers … I see them every now and then. Justin and John, with me in the, what do you call that place?

The lecture theatre?

Yes, that. We do history together.

With Vicki.

I see them sometimes. But most of the others I don't see them.

What do you talk about? Do you talk about work at all when you see them?

Not really.

So you don't really communicate that much with them?

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I'm still like a quiet person as I'm working alone. Only at home I'm like a more talkative person.

Things like the computer skills workshops that you had last year. Were they useful to you? The lifeskills and the computer skills workshops like the powerpoint, msword … Did they help this year that you did them in Foundation?

Yes.

Is there anything else that you think that we should be doing here?

I were to come back here I would do jewellery and fashion.

Okay. So you've got this idea. So, now just, think about the foundation course. I just want you to think, I am not going to ask you any questions and you tell me, what did the foundation course mean to you? What was the best thing about it?

The best thing about the Foundation course was the environment in the place. Your friends, your lecturers, everyone that you know. I feel that was like home to me. Because I come here everyday early, like 8 o'clock. I'm waiting outside here, or waiting over there and then I come here. My friends are mainly here. I think that was the best part of it.

So you enjoyed that. The fact that ….

Besides the work. Besides the work.

You liked the work as well?

Yes.

There was a diverse group of people. Lots of different people.

I like to walk around and just look at them and what they are doing and … and they can look at what I am doing.

Don't you have that there in graphic design?

No. In graphic design you can do that if you want to but it is a bigger class. We are all in one, graphic design and then they divide you into your groups A, B and C, smaller groups. So you get to know more or less your own class and not the other class. When they want to do big briefs, together, then it's like a whole crowd. So like you cant go to everyone. Its better smaller groups.

So you liked that here?

Where you fit in with someone. It's easier than bigger classrooms.

Is there anything else you would like to say?

I would like to just say that I miss foundation course. I wish I could change the clock.

Oh dear. Maybe we need to move it forward. Keep it ongoing. Do some things that can take it through. How do you think we could do that? What can you think of?

I don't know. Maybe something like reunions. But I don't think like that's going to happen.

Okay. Well give it some thought because there might be some things that we do here, the way that we do them here can be taken through to first year and second year so that they start to do things in a slightly differently.

Its me, Shameel, Kirsten, Char and the other girl. I said her name now… I don't know

But you are all there still?

Yes, we are all there still.

And you are doing fine?

Yes, we are doing fine. Except Chad, he was quite moody. Last week because of the history. I also think he is not coping so well.

With the history?

Yes, with the history. Shameel also. I think when they going to get their result it is not going to look so good. Because you must have 50 over.

Yes, that is the minimum.

He showed me he got 40 and said that was a pass. I told that was not a pass, he must have 50 over to pass.

But in the other areas you say that they are fine. So it's the history.

Violet – Surface Design

Okay Andiswa nice to see you. I'm just going to, this is a follow up interview from the one that I did with the focus group and I'd just like to ask you a few questions relating to Foundation and first year. The first one is, um, how did you adapt to your first year having come to Foundation first?

Having come to Foundation and for me to go to first year was quite, I adapted very easily because here in Foundation you are always taught about time – time management, so everything I did in time, everything handed in and got good marks and ja.

Okay so that helped you in that way. Have you noticed any difference between students who were in Foundation and the ones who came straight into first year?

A lot. Some of them don't know what, like gouache, what gouache is. So they have to ask us, that, we students from Foundation what gouache is and what colours do you mix and all of that and a lot of, a lot of projects we did there is the same as the ones we did here so we're really ahead of the others that didn't do Foundation.

Okay. Do you think that it helped in other ways in terms of design. Your understanding of design in relation to them?

Yes. It did because most of them didn't understand. Most of them didn't know their strengths: what they are good at and what they are not good with, you know, like drawing. We did a lot of drawing here in Foundation and there we do a bit of drawing but, ja (sic), we, I do better in drawing because I did it here in Foundation than those that didn't start here.

Okay, so you have a better understanding of things.

Ja.

Do your teachers teach in the same way or is it different in first year?

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It is different. They don't explain, the same here in Foundation. They just give you a project and say, they explain the brief, what you must do and ja, you just, you must do it yourself.

Okay, and what happened in Foundation? What is the difference?

In Foundation we were given a brief and the explained everything that was in the brief. They made sure that you understand and they explained everything. They told what you must use and, make sure that you do your research and ja, all of that.

Okay, you say that we make sure that you use research. Is that not done there so much?

Ja, they don't explain that you must always do your research first. They just project and say you must hand in on this date and ja.

And do those of you from Foundation, do you still work with the same process? Research…

Ja, we still continue with that same process and it always works.

So it works for you. So you research and you develop ideas and then you … and has that helped – the students who didn't do Foundation, do they see you doing that?

Ja, they see us doing that and they say, hey, where do you learn this method from? Foundation? Ja, and how do you do it and ja, first do research, then you put ideas on paper then you show your lecturer if this is fine, if you are going the right way and if not then she is going to tell you.

And has that helped them? Do they use it?

Ja.

So they have learnt from you.

Yes.

Okay, that's great to hear. Are the project briefs clear as they were here? Are they explained clearly?

Not always, some of them are explained clearly. For example, we did a vase, a memory vase. It was made mosaics and stuff. So they didn't explain that we must get the, all the childhood stuff that you, that remind you about your childhood, you know, but I do get it and I understand it and ja, for that I feel great.

So you were okay? So you listen carefully. Okay, that's great. What feedback do you get when you have completed a project?

The same with the vase, when you get to present the vase, and that you present it, and lecture said to me, hey Andiswa before you leave, before I leave, come sit down after the presentations, she said that, I must say this, you've got a natural feel for colour and the combination and so…

So you get feedback when you have completed the project.

Yes.

It's not just marks. They tell you how it works …

Yes.

And during the process of making the design?

Ja, we do have crits and they talk and ask questions and all that.

Do your crits, are they run in a similar way? Do you get together and talk about each other's work and present it?

We do get together where we hang all our stuff and then we, and then she, the lecturer just said if we have any questions about what we see here, what's right and what's wrong, would do you have to complain about and ja, but not all the time. Some projects, not always.

Is there a difference between how you work, crits were handled in foundation?

Ja, in foundation we did the crits and we had to also advise the person if he or she has done something wrong and which way is right and if he should have done it this way or that way. They just say 'I don't like that, because the colour doesn't match with that one' or 'your drawing is not in the right position or whatever.'

So there's not-

They don't say, 'Okay, you should have done it this way'

There's no analysis?

No

Okay so you don't open it up and talk about it and…not as much as you did.

Not as much as in foundation, no.

Does that help you with your own work, did that help you with your work, what you did in foundation?

Yes, it did a lot.

And are you confident about presenting?

Yes.

You are?

Yes. I am growing into it, especially as I was always scared all the time.

Yes…you've got confidence now?

But they, yes, I just don't mind it anymore, it just comes naturally.

So do you think it helped doing it here, now you can do it more easily? Okay that's great. Um, how are you doing with your theory subjects in first year, how's that going?

History, I've been passing history. Like, it's, we get essays and it's easier to do it 'cause we started doing it in foundation, 'cause I've got more understanding now, but in business studies, we have to write tests and we never did that in foundation so we find it difficult to study…yes...and we write only one test per term and that determines our term mark, if we pass or not.

Don't you have other assignments?

Ye- no, it's either we get a test or an assignment.

But not little mini ones?

No.

No?

No. So if you fail that test for that term then you gonna fail business.

So maybe they need to look at that.

Yes, they need to 'cause most of us are struggling with that.

Okay well you must make the suggestion, mini things to build up to the test or…

Ya or short tests or class assignments or something.

Because you know here, um, with Lee, she made you do small assignments…

Ya, we do do that in history but not in business science

But not in business science so they've got to follow it through, alright. Um, did the, do you find that the theory content, what you learn in theory is connected in any way to your practical?

Yes it's kind of connected because we do, we do also do practical work in theory because they give us an essay, then they say that we must like, we had to do Islamic, so we had to do, like, cheques, cheques, notes, bank notes for Islamic so we had to…

So you connecting it in that way. Okay, that's nice, okay that's good. What about your skills components that you had here. You know you had your life-skills workshops and your training to use databases and the internet and your computer skills did those, have those helped you?

Yes, it has, 'cause they, they don't teach you, you must click there or you must close, they don't explain anything

So they don't do any of that.

No, they just say, 'Okay click there if you going to do Product-draw, click there, do that.' They don't teach you from the basics.

Okay so that did help you?

Yes.

Alright. Do you think we should have a, do you think towards the end of the year we should have a Photoshop workshop?

Yes.

Do you think that'll help? If we do a bit of photoshop?

Ya.

Okay…alright…that's, I'm asking you because someone, a number of students I have interviewed have asked, now you also said yes so now we definitely have to do it. Um, do you have a lot of contact with students from foundation from last year? Even ones that aren't in your…in surface design?

Yes, I do. Like Darryl in Industrial and Kayleigh and…and Graphics, those two guys that repeated history-

Yes.

But not the architecture ones.

Ja, because they're too far away, hey?

Ja.

And Lusithu, I see you with Lusithu from jewellery.

Ja (laughs).

What do you guys talk about?

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We talk about work. We also stay in the same res, so.

You talk about work, all of you?

Yes, also because I stay in the same place as Lusithu.

You and Lusithu yes, but the other kids? Do you talk to them about work - what you're doing, what they're doing?

Yes, especially with fashion.

Okay and are you, are you learning anything from each other?

Yes, we're learning, I do so at times, I stay with them at night when they're working on the machines.

Okay so you stay with them. And um, do you think there's opportunity there for them showing you their skills and you showing them skills that you're learning now?

Yes, like um, we kind've starting a business. They're making plain T-shirts and we're going to decorate them.

Oh so you really are actively working with them? So they're making T-shirts and you're going to decorate them…Okay, that's great. And is this on your initiative or is this part of the projects that have been set?

No, it's our own initiative.

So you're just doing it, you're getting together and doing it. I like that. Okay, no that's very good. Did you find being exposed to all the different disciplines in foundation useful?

Yes, 'cause, we do draw in 3D at times, so yeah, it's helped a lot 'cause we did a lot of drawing in Foundation.

And other skills that you've gotten from Foundation?

Um, and interior, yes the decorating. We had a project we also did where we had to decorate.

And interior, so you had an idea…did you find it easier than the people who didn't do Foundation?

Yes.

Because you understand about plans and space.

Yeah, all about plans and space.

Okay, okay that's great. Can you think of anything else that you've learnt in foundation that you would like to highlight, to mention, that I haven't mentioned.

Um, when we're doing, the uh graphic project that we had to find, we had to paint, we had to, a box that we did for industrial, we had to build all those puzzles and stuff, so we had to make a box that was going to go with that puzzle-

The labels…

Yes, the labels. So um, I was struggling a lot with the concept, what I'm gonna take and then use and how to put the horse in that box and the colours. So when you asked me to come to your office, on that day…

Oh dear, yes, I remember that too!

(laughs) And you said to me, 'You need to be serious,' and all of that, and that helped me a lot, because although at that time I didn't understand, I was like…

I thought I had been too hard on you.

No, I was like, 'my God,' and you saw that I wanted to cry, and it did help me a lot because I did come up with something that was good, and when I went home that day, I didn't sleep, I had to do this and then I put the horse at an angle then I just painted and then the colours worked and the thing was done.

So what has that taught you?

It has taught me that um, you, you were not trying to pull me down or something, you were trying to pull me up and to be strong and to have confidence in what I do.

So you're holding that? Good.

Yes.

Oh no, sometimes you see I do that and I mean it well, but I don't know how it's taken. Okay, um, do you think there are aspects of this course, things that you did here that would be useful to carry through to first-year? For everybody? For you? Can you think of what they might be?

Uh, yeah, the drawing skills, number one, and, um, patience in everything you do, and research is very important, and um, the figure drawing helped a lot, because we did that for a week and so if…if, we don't do figure drawing, but I think we did it for only three weeks, and so we don't draw a lot but when we draw we just go free, it's not something new that we're doing.

Oh so it's put you into that phase so when you do it you can just do it. Is that what you're saying? Okay so that helped. Okay, so that's great. Do you, what do you think about Foundation? Are you pleased you did it, has it really helped you?

Yes, it did. Because if I had started with first-year I think I would have dropped out or something because the work that they do there they don't explain one thing. They expect you to, they're not there to feed you. Like, okay here the lecturer will explain it to you, then you must do this and that, they don't do that. They expect you to know everything. So here they explain everything. I didn't know anything about brushes and painting and, and um, all of those things, the papers that you msut use and all of that.

Okay so it's the technical stuff as well. And um, history is easier and all of that. Ok, that's great. Is there anything else hat you'd like to say. You can take your time. Usually what happens is I switch off the recorder and then just as I switch it off I have all of these wonderful things being said so I'm leaving it on for a bit.

Okay. And um, there were times when we used to struggled with history, and like, I hated the subject because I see no point of it but now I do understand it more 'cause ya, I've started doing it here in foundation and ya, with Vicky, everything's great.

It's good?

Yes, it is good.

And can you see how it relates to your work?

Yes, I can see how.

Okay, so that's good.

Yes and we're been to Kirstenbosch, to take photos. So we had to pick a flower with colours, with six colours so we had to point out colours in a flower so that was great, and so it was easy for me, and it was six colours so I saw the best picture of a flower so I took it.

That's great. So can I switch off? Thanks very much.

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Bridgitte – Fashion Design

I'm going to take you right back to the beginning of the year.

To the beginning of this year?

Yes, and I want you to tell me, thinking about having done the Foundation course how easily did you find it to adapt to first year?

I found it so amazing because I could be able to tell the first years of fashion that didn't do the foundation course so it was easy for me to show them around and like, I was comfortable because I knew where everything was and because I know how the system works and especially when it comes to briefing and…I mean the machine because we done the fashion like, I knew how to work the machine and I was like, I didn't need to stand by the lecturers and you know, I did go, but at least like I didn't need to like stress about it and everybody was just like so paranoid and I was just so comfortable.

So that helped you sort of ….

Yes.

Did you notice any difference between the people who had done the Foundation course and the people who came straight into first year?

A major difference. I mean, all the students, because we have some classes together, we, like, say for instance we did the colour studies, I mean that was easy for us because we know exactly what colours are because we had that and like, we actually know how to meet deadlines. There's a major lot of students that don't even know how to meet deadlines or time management even. So ja, there's a big difference like, the students that was with us in the Foundation Course are doing extremely well.

Is there still a difference now? Or have the others kind of caught up?

Everybody likes, I mean like all of us in fashion has caught up to, that has done the Foundation Course, we've all caught up to what we supposed to do in Fashion because it is a major difference, but I mean, Foundation course was like our ground, like basically that was, its like a thing you have to do before you do into fashion to get you into the groove because a lot of students that go into first year fashion get really confused and get stressed out. We got major dropouts, major dropouts in first year, really, our group is so small at the moment because they didn't know exactly what fashion was. Basically.

So you really feel that has helped you.

Extremely.

Do you find the teaching different there to what it was here?

It is different. It's really different. So, for instance, the figure drawing, like, the figure drawing we did here was more intense and more like the real thing, like we did weight and everything, there its all about just the gesture. Its totally different but you still know what to do and you know how to do it, like basically if he would tell you to put more weight to it then we would know. And the teaching is different.

Because of what you had here?

What we had here. Because here we did a whole variety of figure drawing. There we only did one thing but what we did as well but just in a different way and the, like the teaching, is much, I don't want to be like totally, okay, here you guys were constantly there for us, like, if we needed advice or just some changes or whatever we got it here, which was majorly awesome because that is how we learnt. There they basically just leave you and you do your own thing. Ja.

Okay. What about feedback with your projects? Is there feedback during the process? Do you have crits?

We do have crits just not as much. Like, we do crits but its only on certain projects that need to be crited, like your creative design, but we don't always do that. It's weird.

Are you encouraged to work together in groups and analyze things? If you think of how we used to do our crits in figure drawing and also with the self portrait and your labels. Do you get together in groups of say 4 and discuss and present?

We don't do that really that often. Like, in fashion, first year, we don't really do the whole criting thing majorly like we going to do in second year. Because it's the lecturer to see how you developed throughout the year because there was major changes from the beginning of the year to the end of the year. So, we, as friends come together and crit each other which is just naturally what happens?

You mean those that were together in foundation?

Ja, we would like actually talk about it. Like, that's we are used to it. It's a good thing.

And has that encouraged some of the other students to work in that way?

Yes, majorly. People actually go to the lecturer, since I, not just me, all of the students from foundation course because we used to crit each other and they don't do that in first year. This, its become a thing that you had to do, like all the students are doing it at the moment, like they go to the lecturer and they say "crit me now" because they don't do it. I saw that today, especially, they say "crit me now". So you basically have to ask to be crit.

So the onus is more on you?

Ja.

Things like your briefs. Are they the same, are they clear?

Um … they are not as clear. They are basically, also as well, they brief you just for a split second or they would like really broaden out or make you confused that you had to go back and back and go ask for it. Its totally different to the briefs we had last time because it was clear and, I mean, the briefs are so, and the lecturers were explaining it step by step..

In Foundation …

At foundation. Here we had, you guys put it in detail. You actually sat with us, like we had a briefing day which was awesome. There we don't get a briefing day. You get a brief in like maybe five minutes and then …

You start working…

Ja, like this last project we had to do was like, we had to like guess, I guess.

Is there the same emphasis on research and preparation?

No, not at all. Your research. Like, we do our projects. The only research we basically do is for history. Like they don't expect us to go and do research on history fashion before you design a garment. Say for instance a cocktail, like they wont go ask us to go look for research that, but I do that automatically.

So you learnt that from here?

Ja, because I find it's a background that you have to do basically before you start designing. You research at least of probably a few years later on the internet maybe. But they don't ask you to do research and give your research, like to show your research at all.

So what about your preparatory designs? You know you do your research and then you start drawing and doing things. Do you do that?

A lot of students that I know, we like, in my class right now, they just go with it. Like, they wont make a few samples first, couple of them do, but they wont make the first couple of designs before they start with the actual thing. They just go for it.

There's no emphasis on that?

No.

Its not required of you?

No.

It's just some of you who do that?

Yes.

Do you find that the rest of the foundation people kind of get involved in that?

They do it. It comes naturally.

...because you've been doing it from here.

Yes because we done it here in Foundation course, for everyday, for every project we had to do so its kind of in our system.

Your briefs, do you have assessment forms that go with your briefs. That relate to the briefs like you had here?

Yes we do, no, not with our practical parts. The only assessment marks, forms that we get is only with history. But we don't get it with all our, okay, with creative design we do, because in the beginning of the year we get one brief and we have to keep that, somewhere, and it says where you get your marks from and that is only from your creative designs but all the other subjects don't have that.

And the marking. Do they…how does the marking happen, the assessment at the end of the projects? Is it clear? Do you just get marks?

We, basically just get our marks on a paper and, ja, but then you have to go on your own to the lecturer and ask where did I go wrong.

So, you do get feedback.

Yes we do get feedback, but only if you ask them. We don't really crit so it was kind of like, okay, you get your mark and you must be, that's your mark. It won't, like here we used to get our marks and you guys would say where our problem was, but we actually have to go alone to the lecturers and ask.

So you go and ask and are they clear about things then?

Ja, they are. It depends as well on the time.

Talking about, are you… what about the theory. Are you coping with your theory subjects?

Um, what was different from us. Okay, we didn't have business, like CMT and that. I'm actually privileged as a student at school, to have business studies which is so much easier. With my history is excellent because we have had that, and that helped me majorly, and especially us doing beforehand, how to do like the formal and contextual and your essays and we know we had, because we also had language, like, foundation course didn't have to have language this year because of the background that we got ..and we had like a whole year to learn how to do it which was amazing and now its for me easier and I do it quicker and I understand.

So all the kind of analysis and everything that you did here helped there.

…and I know how to reference, like, I remember, the history lecturer here at Foundation Course told us after a while, like probably after this year, you would do automatically referencing and that is what happened to me. So, I don't need my study book because I know exactly how to do it. Saves a lot of time.

Do you find your history and your theory subjects, do they relate in content to your practical subjects. Is there a connection?

The thing is, what we do, basically in history, in our theory projects we, for history, we do get a practical part that has to be handed in with our essay or analysis projects and that's our only thing, but all our other projects are basically just, our other theory subjects is just that, is just how to run a company. It does relate to what you are doing at the moment but it's got all the background that you would need to open a business.

So that helps too. Did the skills components that you did here, like the computer skills and your life skills and all of those thing help?

A lot. We do different stuff, like obviously coral draw and photoshop that we never done here. But, my powerpoint presentations that I've had this whole year, is excellent. I've got, like, the highest marks in my class. Because I was presenting my projects to them, we had to do several of our projects, helped me a lot because I can talk much easier.

So, your crit situation where you presented and so on, it has helped you.

Yes and computers helped me a lot.

Do you think that we should do a photoshop workshop, type thing towards the end of the year?

That would help because even in all design disciplines you are going to need that somehow. I mean coral draw would probably just go for fashion and, like the technical drawings, but photo-shop would help almost everywhere I guess.

Do they give you proper workshops for that?

Yes.

Would it be repeating things if we did it here?

It would, I don't know, they would like give us, for instance a figure, and then we had to, maybe render colour and putting colour and its and order. Photoshop is complicated so they actually should show you how the method works, and how the photoshop works as a whole so you can actually.

So you can use it…

Yes, and it works a lot because you will be needing it a lot.

Have you had contact with other students who aren't in fashion?

Always. If I walk past them, we talk, we say how's things, how's your classes going, excellent, that's good.

Have you called on any of them to help with their skills?

Actually, we have. Like, Lindy would come to my house, for instance, and she would bring me her work and then I would like, like we would talk about her work and she would show me and I would be like "oh my word, its amazing" and I would show her my fashion and I talk to Janey, and I would talk to … almost everybody that I see on campus. Obviously … The interior design theory, have some theory classes with us, but not any more because its kind of quiet right now, but we always, every time I see somebody that I know, we walk past..

So you keep in contact?

Yes, we make really good friends here.

That's good. Did you find the fact that you were exposed to all the different disciplines, did that/has that helped you?

A lot because, if I think about it now, all the different disciples (sic), in a way, it brings it all together, I mean, it will bring your creativity much better and like, even like, the still life drawing that we did, and all that stuff, just gives you, kind of, that way how you look at things and ja.

Has it given you a better awareness of design?

Definitely.

Do you think you were at an advantage there over people who have come without being in Foundation.

Yes. A lot. And its weird like everyday I would talk to the students that I have with fashion if we just take a break and I would just, I would probably repeat this twice a day, that I really do miss Foundation because we had such a broad things to do, that it was like, it had to be like a three year course basically - that's how I wish it was.

Okay so you enjoyed that?

I loved Foundation extremely. Because I've learnt a lot, like, I would, say for instance, like we have to do fashion at the moment and if you had to put jewellery on it you would know exactly what would go with it or what would … its really amazing how everything fits together.

Have you used skills that you learnt here? Not computer skills, but your actual designing skills?

Yes. Like typography from graphic design, how to, with gouache, oh my word – that helped me so. Like you know how to work with it, you know how to level it. Absolutely everything. Everything just goes together.

Maybe you can tell me, what did Foundation mean to you?

My future? It definitely made my future. I don't know. I just think, I'm happy that I did the Foundation Course. Its probably the best decision in my whole life that I made. Because it was kind of, it is hard to explain, the Foundation Course was basically the best thing (I've said that a lot of times). I don't know how to explain it, it was, because it made my life much better to be able to cope with everything that I am doing now. I mean, time management is awesome, like I'm really good in time management right now and meeting my deadlines – I've never missed a deadline.

That's fantastic.

I know, its awesome. Yes, everything that I have learnt here I have kept it in mind and I have used it. Its my weapon, not my weapon. Whatever. I love Foundation course. I would really love to have it as a three year course. About thirty students in my class, they wish they had, because they did not know about it, they wish they had the Foundation course.

Ingrid – Industrial Design

Six months on now from your last interview. I want to find out how are you doing in first year? What did you think about Foundation in the first year? How have you found the transcription? I think you must just talk to me and then I can ask you questions.

Okay. Firstly, they are completely different in every sense. The transition, initially, it was extremely different, the course as well. I kind of felt when I started the Foundation course and I didn't know a lot about design and, you know, and you guys progressively built us and encouraged us a lot to do this and see that in every field that we touched base on and when I started doing industrial, it was the complete opposite. You know, you go there and you still feel the same way, as in like, not knowing what this is all about but there's not a lot of encouragement as to do this or do that or read that or see this. They kind of nail you at every end that you go in. Whatever you take to them, or discuss with them, they are not very encouraging. They don't like, work with you. Do you know what I mean? So you have this design or whatever, and you will say "Okay, you've been thinking of this this way" and not everything is going to be correct because you are learning and then they just slate you. They just, they discourage you in every sense.

Don't they give you feedback to develop it or to change it or make recommendations?

Not really. I feel that, you know, we've found over, we do 6 3D projects, we are on our 5th one now and every time you go to them with concepts, the briefing before it, depending on the material you use or whatever, its exactly that – very brief and very vague and quite open.

So they don't sort of explain it…

They do explain it and, um, but for me, a lot of the materials we've used I don't know anything about.

I am sure there are a lot of you in that position?

Ja, exactly. So we will design something that maybe might not be as conducive to the material as it should be or whatever and then, instead of being, like oh okay, instead of looking it this way as you have been seeing it, here is a piece of material and show it to you, or say to you this is the capability of that, or whatever. Which you are kind of doing in other projects and you are finding out but I always feel that you now know what you should have known in the beginning in terms of the capability of whatever you are working with and that kind of kind of effects the overall design at the end. Do you understand?

So things aren't explained clearly in the beginning?

Ja, for me, I feel, maybe it's just on a personal level but its kind of like I'm playing catch up.

What about, if you think about how you researched here and then developed ideas and so on. Is it because there is not an emphasis on research?

No, there is definitely an emphasis on research. I think there is so much to research and, because it is so new and you are kind of grasping your mind around what you are doing and what you can do as well as trying to think about a design, you kind of now need to merge those two things together.

So you think it maybe needs to be a little bit more directed?

Um, I don't know what the solutions are. It's just what I am finding. But ja, maybe, they do try and do that with our subject called technology. If we are doing, like at the moment we are doing this thing with metal, so we have a metals project but its so close together, you know, so we, we will be given the metals brief for technology and you are doing the 3D project at that very moment so you are kind of…

So what you are saying is maybe the order of the course needs to be happening slightly differently. So do you think that if the technology relates to that project came before it, you would then be better prepared for the project?

Ja, something like that. This course is all about timing in every sense. Like, with everything you do, you think, one moment you think you are on top of everything, you've got all these subjects, each project and then the next moment you will get something else and everything kind of needs to be rejumbled. You know, and I think with the actual layout of the course, its very similar because they also, I can see, we had a briefing half way through the year with Veronica and how we doing, and how we finding things and we just like this is crazy, this is so much work, we never sleeping, we constantly like breaking down, and we not really getting to your standard, you are giving us like 50's and 60's and its just like demoralizing us and we don't actually know where to pick up. You know what I mean? And their response was well we are actually giving you less work than we gave the years before, and we were like 'What!' in what time? You know, they were saying they have cut out things here and put things in here and they kind of seem to be judging and restructuring …

Their curriculum…

Ja. I think from the time management factor initially yes because we were mentally prepared to say okay you are not going to have time for anything else and you knew what, well you didn't know exactly what you were getting yourself into but you had kind of suspicion and whereas the other students may have, but I think initially they also struggled to kind of get into a routine.

And in terms of skills. Awareness of design?

Yes and no. A lot of the other students in the class have done something before, like graphic design or worked in the industry or something like that where they have had a lot of contact with design already so, or done stuff at school where a lot of the Foundation students didn't do design thing, or a technical drawing subject or something whereas these students have so we kind of balance ourselves out, I think, with their experience: their past experience and our past experience, in different levels. I think in Industrial there is so much.

What about your exposure to the different disciplines?

It has helped me a lot, you know, when I think about a project, you kind of do, just automatically think about, of all those different elements. When you have something you have to look at the surface of something automatically from this experience I think. As for the other guys, I don't know, I didn't really chat to them.

I mean, its important that you are talking from your experience. That is what counts but also you are in a group so you're also saying, did you find the group as diverse as here. The group of students?

Ja, I think so. Definitely. We have a really nice class, I really enjoy them because, exactly that, it is very different.

You come from different backgrounds.

And different ages as well. I mean, conversation moves very quickly in our class – one topic to the next, and it is nice because of the different age gaps and these past experiences, whatever you are talking about, whatever topic it may be, people are throwing in ah, I've done this or have you seen that or whatever?

So contributes to everything.

Ja.

Do you get sufficient feedback? If you are comparing what you got in Foundation and in first year now? Do you get feedback during the design process in order to develop things and also, what is your feedback like when you have completed a project, what sort of feedback do you get?

With each project this year it has been different but it is not as good as Foundation. There might be a time factor, I'm not used to, but often as a class we are complaining at the end of the day, okay so they said that this was wrong or they didn't like that and they give you a comment with your mark but it can be very

specific or like really bizarre and you are like, well, is that all you have to say? And here, if we had a problem, we had a lot more individual attention and you could say, come to you or whoever be like, so you said this and how could I have done that better or how can I look at that in a different light. Whereas for the feedback here, you know, in the middle of the project its kind of not really there and you've to go your lecturers and like really suck it out of them and at the end of it as well, you know, its kind of, I don't know why its so limited. We've often found it very limited, I mean the one project we didn't even have the little feedback thing. We just got our marks back and we were like …?

So you can't relate the marks to what you did.

Ja. Not always.

What about the briefs? What about the assessment criteria on your briefs. Are they clear?

Ja, they are fairly clear.

Again, compare what, how it was if you think of your briefs …

Im going to sound so negative.

No, not at all.

Last, like the pool light. There was all this controversy on our brief about the mark allocation and was the mark allocation more about the concept or was it more about the hand skills? They broke it down for us and then the first mark sheet that went up it was completely wrong and so they said, for whatever, concept 25% on the mark thing and then on that thing it was 10%.

So your assessment didn't tally with your brief?

No, it didn't. Dougie, one of our classmates realized and was the only one that actually realized it and went to Bart to correct it but we had to correct it three times so the marks were like constantly jumbled up. Which I don't think is a very good reflection of what the brief is saying and the material that we used was actually, while doing the project we realized that we could have other materials that would have been cheaper and a lot more, easier to work with, but you didn't have a choice because it was on the brief. But I mean, like a straight forward brief like technology, you, know, it's a theoretical thing, its straight forward and if you do have a problem with a brief you can always go and speak to the lecturers about it…

…So they are open to it…

..Ja, they are very open about that. And they do go through the brief with an introductory thing…

…So they are quite thorough…

Ja. And then, I think we, go through it again when you actually start the project.

Is it the same teacher who takes you from the briefing session through the project and through the assessment?

Well we have three 3D lecturers and they said to us in the beginning of the year: one lecturer is going to tell you this and the other lecturer is going to tell you that and the third lecturer is going to tell you a completely different story so you are going to have these three different ideas all the time and you must either merge them or make them work. Which is difficult, you know, you kind of go to one person and they think no, this is terrible, this is worst design ever and you must not do that and you go to somebody else and they love it and then when the marks come, it is also marks on that same structure, you know, but design is subjective so you know, you've got to kind of compensate and merge all these ideas. And that's the same with just discussing your idea or you actual product or whatever, so you know, its not as cut and dry as this is a picture how can I make it better? You know, I've done a pencil sketch of that, it doesn't, its not really like that I don't think.

What about the teaching approach? How are you taught? Is it similar to Foundation or is it quite different? In the design, we will talk about the sort of practical design areas first.

With Foundation they took you thought every single step. They held your hand a lot. Where as here, we did this tile project and they taught us four methods, four different techniques, you know, fibre glassing, working with clay, all these kinds of things and there, it was more like Foundation because they actually showed you, if you do this it is going to break, if you do that it's a lot better and that was good because you could actually latch on and be like, okay, you know what's potting considering you have never done that before.

So that was clear?

That was very clear. Maybe its just since over the progression of the year, but with other materials and stuff, like this chromodeck, all of us took designs to them and they had shown us a product that had already been made and like, but we weren't all aware of the strength of just a single sheet, what it would do, how it would be bend, you know, because we hadn't seen a single sheet. You know what I mean? It varies, some projects are constructed better than others and I think when they write the briefs they also try and make them interesting, with new materials for themselves too, or whatever, new and they also, obviously we are all human, they make mistakes as to how that should be done or whatever and then we find out, that's not right or this works better this way. Whereas here we kind of tried the tested methods over a longer period of time and the materials aren't as, you know, wide variety or difficult to work. The skill level, you know, isn't as crazy and here it is a lot more 2D stuff so, that process is very different. From a teaching point of view.

Well, how about the 3D stuff that you did do here. Did the skills learnt from there help you? When you moved into your first year?

The 3D stuff here I felt was very limited, you know we did that project, with the corex card or whatever it is called…

You did the tile project, the 3D puzzle, your interior design, your architecture.

Ja, those things are fine for like the initial prototype of your product that you make at the end of the day so those kind of like, you know, just the initial kind of material that you use, it is just fairly, you know, now I find working with cardboard easy because we have done it so much.

I should hope so, being 9 months into your first year now.

I mean, even when we were doing it here I think initially we were like we have to cut this three times, what a luss, but …

You eventually get the skill for it.

Ja.

If you think of everything that you have learnt here. Have the skills that you have learnt here held you good in stead. I'm thinking, not just about technical skills, I'm thinking about, you know, your design skills, your conceptual skills.

That's what I think the Foundation course is really all about. It's just, you know, preparing to sculpt your mind around what design and art and those kind of things are for. And, ja, definitely conceptual form of thinking, you know, design thinking, whereas when you actually enter into your field of study you are bombarded with a whole new set of things but they are not on that conceptual level, now you are dealing with the technical side so it does, it does definitely make you more reassured as to the way you should be thinking and kind of when you get all boggled down with something and you think you know this is not working so well or whatever, you do immediately revert back what you were/to how you were initially taught. Clear the slate and start again.

With the design thinking phase? So you are thinking about the research and preparation for the design process.

Ja.

You found that useful from here? From Foundation?

Ja.

The process of making ….

Being taught how to do that process and it really is instilled in every project here and all my visual diaries and the little booklets that go with any project it still follows a very similar to the way I was doing it here. And I think in Industrial they like that a lot. You know, my design diaries are usually, I get good marks with that and so now, its just about battling out the technical side of how materials and skills work and that takes experience.

I am sure it will come.

I hope so because its incredibly frustrating when you have all these ideas or you know what you want at the end of the day and, of course there's not going to be enough time to become a professional in a week. Whereas some other guys who have done this or that and the next thing have a little bit more experience with their hands or how the material works and they already know that that is not going to cut it and you still have to go through it and make those mistakes and jo, its breaks you sometimes because you feel like you are constantly trying it out, trying and trying but you are not really if you look at the bigger picture because you just catching up to that technical and skills base. To be able to see something that way or build it that way and if you run out of time you've just got to make those two ends meet quickly and when, I mean, often I find with my 3D projects if I give them in and I am not happy at all with, at the end of the day, because I would of wanted to sit for another week and you know, played some more with that stuff and see what I can do with it. But its, I suppose, it is only your first year and you've kind of got to be content with what is happening because you are actually learning a lot from it.

Do you feel that you sort of, I mean, in relation to your class are you fine? Are you coping? If you think of your class in general.

I am coping. You know, there's, I'm fine in terms of how things are going but you always have your own personal achievement that you kind of want to get to and you get there sometimes and then you think that you can do it every time but there is no way that you can do it every time because you don't know enough yet, you know. I think that's where I personally get very down in the gutter because I'm like but why cant I do that. I think a lot of designers do that though. You know, they think that they are terrible when they are actually not that bad and kind of got to put it relative to the rest of the things to keep sane. But ja, I'm fine with the rest of the class.

In what way do you think that the drawing that you did in Foundation Course helped you in first year.

How, well, ja, definitely. My freehand is, I do really well at freehand and that's purely from this, learning, I draw a lot quicker than I did before. They put a lot of pressure on you there to really churn out stuff but that was nice, being able to learn to see here and learn to really, draw at your own pace, here, you know, which was, that point fast, you know, and I was grasping what I wanted to do with this graphite or this chalk or whatever and that was, I really enjoyed Foundation because I could get completely consumed and involved in the one thing you were doing and now taking that over to Industrial you know, its all about, in your first year, I don't know about second or third, but like, you know your control with your hand, like if you are doing a technical drawing or perspective drawing the lines have to be light or dark or whatever. That, drawing constantly here too, you are already in that mind set and also, for the freehand we often sit a full day, especially in the beginning of the year we just drawing and here we do that as well and you already know in the beginning of the day that you are going to sit there and you have that patience to just go through the whole day and the energy and the kind of stability to just carry on so that definitely suits you for the freehand. I think, on the 2D basis Foundation is really cool because it develops those skills that are necessary for the beginning of the design process and when you get to the prototyping and the skills base, that's where the 3D stuff becomes a bit more challenging but its cool, its exciting.

What about theory? Do you find that your theory subject content relates to your practical subject content, in Industrial? I mean, you've spoken about the technical aspects that does sometimes its

not done in the right, sometimes it should come a bit before but what about the rest of your theory? The history …

Ja, I've really enjoyed history this year. Firstly I think, I've learnt to write a lot better which has been very cool. The actual content, you know, is still very much art history as in art and our history lecturers do always try and relate to what our industry is about, you know, so we do history with graphic students and I like that, that we do it with another discipline because then you get to see, okay, so in the industrial revolution this is what was happening on the graphic side or, you know, in arts and crafts or whatever that's what we are doing at the moment. Its definitely very important to have it as for, if its related directly to what you are doing at that point in time its very difficult to say for industrial because you constantly, you move very quickly through these projects and I think to link it up would be very tough because you only have two history lessons a week and you know, we're going through so many projects – but they do try and Vicki does, I think, very well that like. She kind of makes the relationships between all the subjects herself and says to us, in this thing this is going on and can you see that link or whatever.

Did you find that that worked quite well in the Foundation course. The way the different subjects linked up?

Do you mean on a whole base?

Ja, just the whole course.

Ja, definitely. I think this course is structured well, that way. It is very progressive.

The Foundation Course?

Ja. I mean, I can see it also happening with Industrial as well. I think I'd see it more kind of at the end of the year where I can actually breathe and look at what's happened this year because you do forget and when I spoke to you last I had actually finished Foundation and seen, okay, this is where I was at. You know here there's a lot, it's a different linking system if you want to put it that way, you know, here you're linking, you know, when you have a project at the end of the day, at the end of your year, in Foundation, you are kind of considering every little aspect that you have gone through and you know, the learning process from the beginning, has, as I have said before, it is very progressive. With Industrial now, you know, at the end of the day, you kind of considering what you are doing for that individual project or assignment or whatever and I think subconsciously you already bringing in all these other aspects, you know, its kind of expected.

Do you feel that the way you worked in Foundation - sort of linking things up is helping you now?

I hope so. Ja.

What about the skills component, you know, your life skills, your computer skills, your numeracy. Have they helped in any way?

Not at all. Not in my opinion. I suppose maybe on like a, on one level it must have helped because you know, everything, there's nothing that is completely pathetic and it is important that you have it, I think, to have it here in Foundation but they were so basic that I mean, it wasn't like dramatic thing that changed the way I thought about things. Its kind of things you did in school anyway, kind of a repeat of that. As for whether it helped me in Industrial – not really.

What do you think, what for instance would you build in there … for Foundation?

For computer skills I would definitely start teaching the kids about, like, photoshop, adobe illustrator, become familiar with adobe illustrator because for instance, we have this 2D project now and I have no experience with any of those: illustrator, photoshop, none of them and so throughout the year I've kind of like been getting the programs from friends and teaching myself or sitting with people and learning about them.

Don't they show you how to do it?

You do like a little two day course but it's a huge program, you know, like you forget things and you write them down but I mean, you know, its about sitting in front of that computer and working it out.

So we could start with photoshop.

So you could start with it.

…at the end of the year we could bring that in.

…and say to them, you know, maybe have a little thing, even a little project with them, you know, a little illustrator project or you know, or something like that. I mean, next year I've got to start learning about rhino, or the 3D computer programs.

But, what about the other people in your class? Did they also find the photoshop, I know you said some of them have kind of been in industry and stuff but others havents, have that had more exposure to photoshop and illustrator?

Some of them, I mean some of them had programs before they started the course, you know, they kind of played around with them before. But I mean not all of us and then those who are, are very new to it you do kind of sit – there's no time to waste so you know who has experience with that and then you sit with them and you learn as quickly as you can and I feel that you know, my holiday, I kind of want to sit with illustrator.

So that's maybe something that needs to be addressed there too. We will certainly look at that. What about students from last year who are in other disciplines, have you kept contact with them?

Ja, I've still got lots of mates in other disciplines: fashion, graphics, surface.

Do you talk about your work?

Initially we did, but we actually stopped now because, you know, I'm either constantly talking about my work which frustrates them because they are not on the same work ethic level, you know, as we are. Like, graphics, do nothing compared, if you had to compare the two disciplines. I mean, they have like maybe one or two projects, you know, in a week and they constantly have free time and you kind of like, then, on a social level they're inviting you out or doing this or doing that and you know, you don't have the time to engage with that until maybe one night on a weekend or something like that. Fashion, they are very busy, surface as well, they not, they don't do very much, in comparison you know.

Have you learnt anything from them? The skills that they are learning. Have they learnt anything from you?

We help each other out, initially, at the beginning of the year. I think we were still like very moulded in our friendship groups from here and we said to each other as mates, you know, we don't want to loose contact with each other now that we are doing different things. But, so like I will help Jess out if she has like a 3D thing and she is kind of battling to see it because she cant really see it then I will, you know, help her do this or that, or cut something for her in the workshop or something like that, or vice versa, if I have a poster or whatever. I will chat to her about it, but um, ja, its frustrating on that level because they seem to, and I say seem because everything's kind of, you never know what's really happening – they seem to have a lot more time than we do and its horrible because they have more of the social life and do kind of keep in contact more that way and you, on that level, its not nice.

People in interior design, architecture?

I don't have a lot of mates there, so, I don't really know what their work schedules are like. Apparently, architecture and industrial are very similar in the work place, but I actually don't know.

Can you think of any other things that you learnt in the Foundation course which are useful with your studies in first year. That you have found useful.

I don't think anything specific, like, um, but overall, just the way of thinking. I've found useful from Foundation to Industrial, the way of researching something if its theoretical or practical, was like, I think is like the greatest tool that I've learnt from Foundation. And then, definitely my drawing skills from Foundation, you know, over to Industrial, but I mean, its difficult to say, I think I need to finish the year first.

Are there any aspects of the Foundation course that you feel could be useful to, if they were extended into the first year?

What the skills that you learn here …

…any aspects of it, any part of the course, that you think could be useful if it was continued into first year.

Ja, introduction to the work shop. See, its all really based on the technical and skill level because, that I find, the most difficult transition.

So you feel that would be more useful if you had that in Foundation, is what you're saying?

I feel like started to play with the materials that you use there more.

Did you not do enough of that in your extra project or in your exam project?

No. I mean, so in your extra project I learnt to use, I learnt what super wood which was like your most basic thing you have in industrial and, you know, I remember thinking at the end of my year last year, I've got to actually go and start reading books that tell you all about different metals and different woods because I didn't have that knowledge, or I don't have that knowledge, I still don't have that knowledge and I'm only, its growing and through these technology projects you learn about these different things which you are immediately working with and it kind of scares me because there are so many different kinds of materials and I kind of think, well, do you, am I actually aware of these materials. You know, when it gets to that phase when I am doing something on my own.

You see, how much can you do in one year? I have you saying, that's a quote: "we've consumed so much in this year". This is in your interview last year.

This is the thing, when I look at my like, when I started studying in 2007, and now's its 2009, its like two years or whatever and every, I was sitting making my 3D project the other day at my mates house and I was thinking about my studies, and I was like, you know, at the end of every year I come out thinking: I've learnt so much. So actually you can only take in so much, and we always like expect more than you can consume or whatever, you know, that's just the process of learning and you don't really, how can you prepare yourself better for something else? Its very difficult to say because on which level are you starting at? Kind of, you've just got to be chilled out and know that if this messes up ….

…there's another one coming….

Ja.

…..

You were talking about figure drawing classes when I finish my studies …

That would be cool. I think that for a lot of industrial students they should do figure drawing because you know, you are learning to see things, the anatomy of the body is like the anatomy of so many things if you think about it, like so many projects/products and stuff. It kind of makes me to do, what is the internal, you know, the factor of the body.

Fred - Jewelry

You had this whole change, from architecture to jewellery which is a bit traumatic because you wanted to do architecture.

Yes.

How are you finding jewelry this year after Foundation? Compare them.

I think Foundation was a bit more hectic than what I am doing because in Foundation in we used to do, we used to come in like this week and do, lets say, a graphic design project and then the following week you do a totally different field from what you're doing so you had to adjust yourself from a certain project to another project in different fields. Now we are doing, only focusing in jewelry which is, I know what I am going to do, it's just I am focused one thing.

So in that way it is easier.

In that way it is easier.

But, did the exposure to all the different, the seven design disciplines give you, um, a better understanding of design?

Yes it has.

In what way?

In jewellery we mainly focus, mean, my view of jewellery was only this nice fancy little shiny material but when I came to Foundation I experienced some, I experienced that design is a huge huge industry, their focus, there's so many things that's going on.

You were saying, it's a huge industry …

It was, it was a very huge industry and my knowledge of it was very small. When I came here I was just bombarded with so much information and something that even still burns in my mind in this day because, even my decision for doing architecture was highly inspired by me coming here because I never knew architecture was part of design when I first came. I came here registered for fashion design which, in my location, if you can ask anybody, just about design, a person will automatically tell you about fashion design because that's a well known industry in design. So when I came in here I found out there was so much, Industrial, I had never heard about Industrial, which was surface design, I never knew about, any others expect fashion and graphic design. So Foundation expanded my knowledge so much.

Has that been useful to you this year?

Yes it has because I'm coping with the pressure that we experiencing in jewelry design. I'm confident with my ideas when I come up with a concept. I'm much confident that my lecturers will approve of it because I got training here in the foundation so …

So that has worked for you?

Yes, that has worked tremendously. I'm just confident in whatever I'm doing. They say I'm arrogant but there's a difference …

…no. no, youre not. Who says this to you?

My fellow students.

Oh come-come. No. Are these students who didn't do Foundation?

Yes.

Do you notice a difference between those of you who did and those of you who didn't?

Ja. We are about, I think we are four us, in our department who is doing, who did Foundation and we are just good at it. We are just good. Its kind of like, it comes naturally, we're just, when we are given an assignment we can easily read the brief and interpret it and we just flow with the projects.

You do? So you can see a difference between.

Yes, definitely.

…and what do the other students think? The ones who came straight into first year – are they aware of that?

I don't know if they are aware of that but they, I've heard some of them thinking of coming back to do Foundation and I've advised some of them, which I see that they are really struggling to consider Foundation.

Also in terms of being sure of what they are doing, I mean…

I don't question their abilities of design and everything, but some of them I do question the choices they made to go into jewellery because its not just about making fancy rings and chains and stuff. Its hard work, physical work actually.

…and you find that, um, because it is quite demanding and there is a lot of detail do you find that the skills, the technical skills that you learnt here have helped you?

Yes, most, the skills that we learnt for industrial design, they were, they come in very handy because you have to work accurately most of the time. I didn't do the final year project in jewelry design so, ja, even that, the skills that I've learnt from here, especially I think, in Industrial design and in architecture where we had to build models – that came very handy.

In Industrial design what was it in particular? Which project?

That project where you have to make a tile, to build up. That one because now in jewelry design we are making, we are doing construction work in jewelry, meaning we have to solder different materials on top of other materials to make a piece. It's called construction. It's kind of similar to the project that we made for Industrial Design last year.

So you've been able to take those skills through.

Yes, and to apply it accurately.

Did you find that the other project helped you? Your 3D puzzle?

That one also. Ja. It helped a lot in technology, in terms of putting things together and forming, and creating a form which can stand on its own.

Oh, in that aspect. Standing on its own. That's nice to hear. And the theory – how's that going? Your history and your theory?

Um, first year we're not doing any history.

Are you doing technology?

We are doing technology. But, technology has nothing to do with the history that we did here.

So that they are picking up next year?

Yeh, we are picking that up next year. Probably the things that we have learnt here will come up maybe next year.

Okay, so what I need to ask you there is, has, sort of, did your skills program: the language skills, reading skills, writing skills, learning to analyse things – has that helped you this year?

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Yes, very much because we have crits every now and then about our jewellery where you have to put your work, most basically, in design and in drawing, we put our work and we hang our work, on the pin boards then we have to crit our work and then you have to understand, we have to understand the terminology that you use, your forms and colour, perspective and everything so that you can give accurate crits to other students.

So that you would have learnt from theory and also from practical?

Yes.

Are those crits similar to the ones that we did last year? Has that helped you?

Yes they have, even about those crits of last year Ive learnt not to take things personally.

Good.

At the beginning especially in life drawing when, we had lots of crits, from there I just grew, in just learning not to take things personally but applying the knowledge that my lecturer is giving me and trying to improve.

And do you use that to look at other people work as well.

Yes.

So you analyse each others work.

Yes we do analyse each others work. And even if the lecturers not there, but we go to another student bench and just look at look at what he is doing and try to give advice.

Okay and do you find that the Foundation year helped you with that? Analyse and talk about things?

Yes. Coming from Foundation you just come from another different level because you did design before, I mean, you did design before first year, so you just come in, you come in with this huge confidence, I mean, even the students that come in for first year they see, they always ask me, do you do design before? I say no, I did Foundation,

Okay so they are aware that there is a difference.

Yes, they are aware that there is a difference.

Do you still, well I saw you talking to Andiswa and Cliff yesterday so Im going to ask you this question – do you still see people who were with you in Foundation but are doing other design disciplines this year?

Yes, I still talk to each other, some of them we call each, but those which are in here, this campus, from time to time I just go in and greet them and I still recognize each other.

What do you talk about?

We talk about how's your course keeping up, do you like what you're doing?

So you discuss the work as well.

Yes...and when I, sometimes I go into graphic design I just, when they have their displays there I just go in and have a look. We just talk about the work and …

Do you find that useful? Keeping in touch with people.

It is useful. Very much.

Has it helped you in your other work? I mean, are there things that you are maybe learning from them? Or not really?

Now, we have business, first year, we have business studies we have to make a business plan which includes everything about a business that you want to start, a jewellery business, so we have to create a logo. Now the Foundation guys there, I mean the graphic design guys, they are helpful in that, in that department so, my logo, I will be working on one of the guys, I think I spoke to, this guy, who is he … Jared … I spoke to him, but I never introduced the whole idea yet but I am thinking he is going to do it for me.

So he is going to help …

He is going to help me for the logo.

I hope he is not going to do it. He is going to give you, help you, give you pointers.

Yes. I can't really use that photoshop and …

Oh yes, so he is going to help you with the technical stuff. No, okay, I think its fantastic that you are keeping in touch. How's he doing?

He is doing well. The last time I checked because they were doing some other project, graphic projects – he was, he said he was doing well so I trust him.

That's great. I want you to think about the theory and the practical are they, do they work together? Are they integrated? Did you find them, here, did they work together? Did you find that the theory helped with the practical? In Foundation and do you find that the theory helps you with your practical in jewelry?

Um …

So you do business studies and you do metallurgy.

Yes.

What else do you do?

Language and communication.

Okay, so you are doing that as well.

Yes. Um … in history, the history that we did here, we did lots of research and we explored different sides and everything, we got lots of pictures of different designers and their work and now, when it comes to theory, more specially when it comes to design, when we have to come and do our designs for jewelry, the knowledge and you just know where to go to look for a specific thing. Maybe you want to pendants, then you know where to go to the library, which section of the library to go to and find that.

So that held you, all of that last year held you, is holding you in good stead now.

Yes.

Is there anything in the Foundation course that you can think of that would be useful to carry through into the first year that you think could be built into the first year course that you are doing? That would help students, something, or do you think that it should just be separate. So I just want you to think about that. Is there anything?

For me, personally I always think about life drawings. Drawings - We don't do much drawings because the only drawings that we do is technical and I think one needs to relax and just draw figures. Practise. The more you practise the better you become so the figures increased my skills of drawing from last year tremendously and now, its just, Im starting to lose that part of it, of my skill, if I can say. I think figure drawing, figure drawing, definitely, it would be of great help.

Alright, well then, one of the other students came to speak to me about that. Maybe, what I, should think of doing next year is just having an afternoon class that's open to people to come through to, say from 4 to 7 on a Thursday, whoever wants to come comes.

For figure drawing.

Ja, just come and draw.

That would be nice. I will come.

Because I know there are some lecturers who would like to do that as well. …and then we can just have an open class. Alright, so I will pick that one. Is there anything else that you would like to say about Foundation maybe that we think we should be doing here that we didn't do, that we can add to our course?

Um … I'm not, I'm not really sure about that now. In jewelry design, I think what you guys can do, people go into jewelry design with this knowledge that it is just, that you just design. I think, but its much more, its much more involved in, from your preparing of the metal and to your final project, its just heavy work and you focus, we focus to detail. I remember, I think last year, they did, for final, for the exam project, they did a chain. I mean, that is just …

You don't think that's enough.

Yes.

So for the extra project and the exam project …

Something to do with soldering. Putting together metal, just to give them that because we solder a lot, we put together metal. Just maybe.

And you're right, probably just at the extra project, that's when that should be introduced. That's interesting because someone else spoke about that in the context of architecture as well. They felt that there should be more technical information coming through in the extra project once the subject of choice was chosen.

Yes, definitely.

Okay, no, that's useful. The other thing is, in terms of your feedback. You know assessments and feedback on your projects. Do you get feedback during the design process? You said you get the crits so that is clear and then … we did cover that. What about assessments, coming back to you afterwards. Your feedback when you are completed? Is it thorough? Is it the same as what it was here? Is it different?

No, we just, you just receive your mark, the mark that you, what, the mark for whatever you did.

And you know why you've got that mark?

Um … that is questionable because I remember the last time we did, I did a chain so they wrote on my marks that I did it, the S shape, they just wrote S clasp which wasn't clear for me because I felt that my S clasp was much better than what I've seen from my peer students, fellow students so I went to the lecturer and asked her what is wrong with my S clasp because you just wrote the S clasp, so it wasn't clear, the feedback, is not as clear as what we received here.

So you found that it was clearer here?

Yes. It was much clearer, you just knew, where you went wrong except that, rather than just a person telling you this is wrong …

There was an explanation.

There was an explanation.

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So you are saying there's not always an explanation?

Yes.

Okay. And the way you are taught. Is there any difference between Foundation and first year?

It's mainly, you receive a brief that is explained by the lecturer, the same way it was explained here

…in Foundation …

In Foundation, yes. I don't see much of a difference in terms of delivering briefs to the students.

The briefings.

Ja.

And the actual teaching? The helping during the designing?

Ja, I can say … last year the lecturers were much involved in the, when you doing a project they would come and give you assistance and everything which I experienced the same in also in jewelry.

So that's the same.

Ja.

That's good. Is there anything else you would like to tell me? That you can think of. Anything …

I will just speak from my perspective, um. Last year, as I said, I wanted to do architecture then I don't know if was noticed or not my, I didn't do, I wasn't doing maths for High School but when I asked can I do architecture after Foundation the answer was yes, you can because, once you qualified for architecture in Foundation then you can automatically do it for first year but when it came for, after I did the final project, I couldn't, I wasn't accepted for first year because of the maths which, I was going, I mean I was going to feel much better if I was told before that I …

Yes, that was an oversight that should have been picked up. So I'm sorry about that.

No problem.

Because I didn't know that you hadn't had maths. Did none of the architecture people teaching you the architecture, they weren't aware of it either?

I don't think they were aware of it because I came in time, I think I came in time and asked can I really do architecture with me not having maths and the answer I received was ...

Yes

Yes, you can, once you qualified for architecture then you can automatically go in. So that, I was a bit upset about that but now, even that, the choices that, I think it was Dianne, she advised me to take jewellery design and now I am happy with design, jewellery design and I'm doing really well with my design. I'm happy.

So it sort of worked out.

Yes, it kind of worked out.

So we will have to be more aware of that and things like regulations are spelt out more clearly.

Yes.

…and I don't know, one will have to see if there is a way of maybe building up the maths component in Foundation for those who are considering something like that so that they can get the necessary level in the maths through the Foundation. So I will look into that Fred.

The other question I had because we are doing, the last year we did a bit of maths, my question was what was that, how did it help me in any way. Why did they implement that maths, here in foundation if it is not going to help build up for first year, for those students who don't have maths.

Its more to give students a practical background to be able to do things like scaling up to give them sort of understanding of volume and maths and things like that which they would use, sort of working in a grid, basic sort of business skills like working with your excel and doing a spreadsheet – you know, those kind of things. So I suppose its more general level but for something like, there are some discipline like the architecture where it has to be a lot more than just that. So that's just something I think we will have to look at and it should be made clear so I am sorry that it wasn't.

Its fine. I'm happy. With you are receiving good marks then you have to be.

Katherine – Surface Design

How easily did you adapt to first year having done Foundation first?

I think a lot easier compared to everyone who had come directly into first year from matric. I know as far as like stylization and colour and, kind of just the basic stuff that we were being taught in foundation, it's a lot easier to cope with in surface design and that helps a lot towards meeting deadlines and that sort of thing, to be able to cope in the course. Because I think even though first year is a beginner, kind of, foundation is kind of foundation of the beginning course.

Do you notice any difference from the students who have come through the foundation course and those who went directly into first year.

I think a lot of difference, just as far as presentation of our projects and preparatory studies as well I think, with the girls who did come from foundation have a lot more to show for their work and know how to explain their work better compared to everyone one else and as far as being neat, as far as how you are actually doing your work.

Your application, so your hand skills? Did you find the fact that you were exposed to al the different disciplines useful? Is that helping you now? Is it giving you skills?

Oh yes. Definitely. As well as with conceptualizing as well, that has been a major improvement, in me personally, because I kind of just conceptualise all my ideas and then I bring them into the application of my work. That helps me understand my work better and helps me improve my work as well.

So the exposure from last year to everything.

Oh ja.

So, you think that was an important thing from the foundation course. Okay. Is the sort of work process quite similar. Are the briefs the same?

The briefs are similar. There is a set criteria to what we have to work and as well as just, like having to prepare but whilst we prepare it we have a visual diary that we need to put all our ideas into there before we actually start the designing and then from there it moves onto the planning and then from there it moves into conceptualizing your ideas and then from there it goes into applying them.

So did you find the emphasis on research and preparation and development of ideas in foundation useful for that?

Oh yes. Research especially. I think the more research that you do, it helps a lot more in developing your design and if you do, it doesn't matter how many ideas you have, as long as you have more than 20 designs you won't go wrong in your final design so research is very important.

So that you found useful?

Yes, that helped. I think it helps a lot doing the foundation course and learning how to research, the whole research thing a lot because it helped us know how to research and what to research and it helped us looking at the brief and researching. That's why we always refer to the brief now, especially because of foundation and having to go back to the brief.

What about, sort of, evaluation of your own work. Are you encouraged to do that? If you think about foundation, you know where I would get you sort of to work in groups and discuss things together and present.

We have group crits usually at the end of every project where, the more better works are put up on the wall, as well as least, and we all just crit each others work. It helps a lot because if I get a bad crit on one of my pieces I can see it in my work. I can see it once someone else has said something so about it, it is not like that with everybody but I feel that I can see where I went wrong when I can see the people around me have commented on it.

Do you think that it is a similar process to what you had in foundation?

Ja. Maybe, I think, in first year, we are more forced to crit our work and in foundation we kind of, we just felt a bit shy, of speaking out but now we are kind of forced to so I think it helps a lot.

So did it help? So you have lost your shyness now?

I think so. I think foundation was kind of just, we kind of learnt from the lecturers on how to crit and in surface design, especially the foundation girls we kind of know how to crit everyone's work and how to analyse it.

So that came through. Would you say that was from your practical work? Did you get that in your history as well? The learning to analyse or was it more what happened in design?

More practical, more design. But we can link it now to history very well. So it is easy to combine the two.

Can you explain that a bit perhaps?

We are doing a textile project and we have to get inspiration and we have to research and the inspiration comes from the past and we have to know, what the style was in nouveau and what the style was like in rococo and how it is different and what aspects in rococo distinguish it from the rest and that sort of things. I don't really know how to explain it, it is in my head.

Did you find that useful? So you had this sort of overview.

Yes definitely.

In foundation that helped you contextualise things?

Oh, definitely, ja. It helps with conceptualizing as well.

How are you coping with your theory subjects?

I'm doing a lot better than what I did in foundation I think it was because I applied myself more and I forced myself to learn and now its interesting and now I find it extremely interesting and as I'm learning about different styles and different periods I'm thinking about how to apply them and how to kind of transform them into something new and my own. As far as, especially with deadlines, its really hard to get the history and your practical work on time but when you work with the two together, it makes it a lot easier for both to be done on time. I don't think it's that hard to be interested and understand the historical period and I think if you apply yourself and you are eager to learn and you are interested in it, it is fine.

That's good. Do you think that you can relate that back to foundation, did anything help you to cope with that better now?

I know analysis definitely helped me. In surface design, learning to analyse. Formal and contextual analysis and now we have gone into something new where we have to compare it to contemporary designs from, that we were inspired from by those periods and in foundation the way we have to analyse.

Just generally, how you had to analyse your own work?

It helps with everything, really.

The skills that you gained from working in the different disciplines? Do you use those?

Oh yes. Especially the first graphic design project that we had with the stylizing. We are doing a lot of prints at the moment and we have to stylize a lot and I think that, the one that I did of the butterfly, and I think that helped me a lot.

The very first project. The Less Is More.

Ja, actually, I didn't do that well but the stylizing is so important in design.

So it is the principles, is that what you are saying? The principles that you learnt …

Ja, and there's a process as well from the photographed image into a drawn image and you know, as you go ..

So the process was important.

Ja.

What about assessment. Do you get clear feedback at the end of projects?

No, not in Surface Design. We have our crits at the end of the projects and we get our marks back and if we feel that there is something that we feel needs to be talked about we need to go to the lecturer in our own time. But we, don't really get, we don't really get critted, as well as when we are going to our lecturers for help, as we are designing, we don't really get, our lecturers don't really tell us what to do, they just kind of guide us and I think that that is where some of, well, not the foundation girls, the other girls are getting stuck because they kind of feel as though the lecturers they kind of need to spoon feed them every step of the way and tell them what to do, but then they are kind of just trying to teach us to think for ourselves now and they will just comment on the design.

Well, I hope that you did sort of get the tools to go and do that from foundation.

Yes, definitely.

So you think that has helped you to go and do that now. How about your skills component? Your life skills, your computer skills, workshops and things like that. Have they helped?

Especially in computer technology, the one of the subjects that we have. We are learning photoshop and coral draw and in those we have to use a lot of colour and that sort of thing so …. I'm not really sure.

You had some basic computers: your PowerPoint, MS Word …

I think, especially, with the computer skills such as Microsoft word and power point and also with the whole library thing with researching and stuff like that. We've been at a great advantage in first year in surface design.

The learning to research, working on the internet and data bases and things like that.

Ja, I think we were at a big advantage there. And with PowerPoint and Microsoft Word, those link a lot towards our history projects, and with our PowerPoint presentations and that sort of thing it has helped a lot.

So you have handled that confidently. Do you think that, we should have, towards the end of the year, we should have sort of a photoshop slot/workshop.

I think so, like an introductory kind of thing. I know …, she is not the greatest lecturer, she teaches us quite quickly because there is so much to learn and she does try to get to us individually but I think if the foundation course had like an introductory towards like, especially coral draw, not so much photoshop.

Coral Draw?

Coral draw is more of a surface design one, maybe with the graphic design photoshop. But especially coral draw for surface design.

No, ja, that's interesting because quite a lot of the people in jewellery and in industrial spoke about photoshop.

Photoshop? Yes. I don't know, in surface design we are taught that coral draw is the best to use for surface.

When do you, do you think that would be a useful thing to introduce in the extra project?

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Oh ja. I think..

In Surface design? Or do you think that would be too much? If you think of your extra project. I think of people now, because if it is specifically something you are using in surface maybe that would be the place for it to come in. I don't know, if you think back to your extra and exam project last year…

I think, as far as like repeats and that kind of thing. It's more freehand stuff on coral draw, where you kind of, you just draw your own shape with the freehand tool and you repeat it and it makes a rosette motif, kind of a shape and colour combination and all of that are on there as well. It's quite easy to pick up but I think it would be good to have it …

…it would help a bit. Well, I will keep that in mind.

Photoshop is quite complicated though. It will take quite a while.

Well, ja, maybe that would be just a basic introductory. I thought perhaps one could slot that in with the projects like the self-portrait project. It might help there.

Especially with the self-portrait thing, there is a lot of, little, I don't know what its called, tools that you have to, you use different textures. It's quite difficult though, I've tried.

Okay, well I will think that through. Can you think about other things that you did, that I haven't mentioned, that you did in foundation that you found useful? If you think your, well all you design subjects, your drawing, whatever. Is there anything else that you can think of that you found particularly useful?

Drawing.

Drawing?

Yes. I think, I did improve near to the end of the year in foundation. I found that. And I'm doing a lot better in drawing in surface design, even though we have only had a month of it I have improved a lot.

So it just got things going.

Ja.

Do you have contact with students doing the other disciplines, what sort of contact? From foundation…

Obviously Jared in graphic design. A lot of the fashion girls because we are on the same floor so we get to see a lot of what they are doing and we've worked in groups with them as well. We don't really talk that much about our courses so…

…so there hasn't been like an exchange..

Ja, but I know they are trying to organize it so that we kind of partner up with one of the girls, or industrial designers, or graphic designers and do a project with them. Especially surface design because it is such a wide course. We've been having a lot of problems in the course as far as that but I think right now, first year is just an introductory to surface design itself. We've kind of just been taught how to experiment with different materials, how to stylise…not to…I think, foundation was far more useful as far as stylizing and colour that sort of thing, compared to surface design because we are not really taught like a process, we are not taught the process, its very vague.

Meaning in like foundation you were taken through the process and …

I think it will be very good to have foundation as an introductory course to all of the design fields. I think it should be compulsory. I definitely think.

Are you talking about the partnering …. Now you've had exposure, I know very basic, but you have had exposure to all of those disciplines.

We spend a lot of time in all three of the floors. So we do see a lot of the industrial design work and, but what we really want is to be taught about that as well, to be taught how to apply surface design to industrial design, that's where we are stuck at the moment.

So that's probably where you need to partner up with people from last year..

And there are so many things that I would like to do with surface design, I just don't know where to start.

Well I just kind of hope that it kind of …

I've actually been on Wendren's site a lot. She's go amazing stuff.

Nice hey?

Yes, especially the bags, I've used her bags for inspiration for a bag project that we did.

Have you seen the latest one?

No.

It's probably not on there.

But its really nice.

Its very nice having her teach here with me, drawing, and I have sort of been mentoring her with the drawing and graphic design. So she has come in with the surface but she is actually starting to do all these other things.

So, that's wonderful.

Is there anything else that you would like to tell me. That you feel I should know that is important. In terms of what foundation meant to you or, you've said everything.

I think I have…and I've gained a lot of confidence since foundation. Like, I know when I was in foundation I was kind of too shy to come to the lecturers to ask them for help. I did, now and then, but now I'm just trying to get as much feedback from the lecturers as I can.

So its good that we came to you.

Oh ja. But it has given me a lot of confidence.

… from having been here.

Ja.

That's good.

…and even thought I didn't conceptualise much in foundation I kind of just been, like this thing that has just happened, of conceptualising now. So the

so the whole process has helped you …

Yes it helped me to conceptualise …It made me a lot stronger and design just changes you as a person inside as well because you learn to, kind of, observe everything around you and you link it to design and you link it to the different periods. Like we drive around town all the time and we look at building and you compare it to the different periods, the historical periods, we…I don't know…I don't know how to explain it. But mind wise, its just, kind of exposed you actually think about everything, I actually don't think 'think 'is a strong enough word but you really, really analyse everything.

So the process started here and it's really grown for you.

That's wonderful, but, ja, I really did see that happening.

So, I hope that continues.

I'm more focusing on how much I am enjoying it and I think that's where it helps you with your marks. Because if you learn how to enjoy it first, that's where you will become stronger with what percentage you get or with what mark you get.

So it shouldn't be the main emphasis then.

No, it shouldn't.

So you've been helping the other kids then?

Ja

Irene – Jewellery Design

Are you enjoying your jewellery?

I'm loving it.

Ah, that's great. I want to know, I'm going to ask you a few questions that link up with the ones I did in the previous interview. But basically I want know how you are finding first year and how if you think about having been in foundation and going into first year how they compare.

Like workload and things like that?

Yes, anything you can think of. I will ask questions as well if I think I need to.

In the beginning it was actually quite nice because we had so many advantages having our exam at the end because we did a little bit of jewellery and ja, I was really good in the beginning. But … I kind of fell off the wagon along the year, like in the middle, but I'm like back on track again. Like, I think, the time that they give us is really short. Not short, its fine. But then, for the people that are really slow it is like hard for them and I was one of them. But I mean, I'm back on track again but if I, if I look at design and I look at drawing I think the foundation course has really, really, really helped me. Because, a lot of rendering and things. They don't go through colour wheel, they don't speak about, I mean when we do drawing, there are lecturers who go through while we draw, they guide you, but and you have like an entire week, like for example, figure drawing, it's a process of a whole week and every term you do it and a …

Comparing to last year …

…you people guided us but whereas here, you have to almost be on your own. They explain to you what you must do like theory, but its different, its not one-on-one.

They don't show you…

They tell you what to do but its not very one-on-one, especially with the drawing. I'm not talking about the technique one-on-one. And rendering as well, we didn't go through colour wheel, how to mix colours. We are just expected to know that and I feel sorry for the people who did not do things like that.

Like the people who came straight…

Ja….

That is what I was going to ask you … that.

I feel so bad for them.

Is there a difference?

Ja, there is a major difference. Ja, you can see. Especially with rendering. I mean, we only did a few projects here but it made a difference. You can remember it always. Back to the drawing again, you always said "work with the whole, work with the whole", I remember you …

So that helps.

It works with everything.

When you say it works with everything. Do you apply it to your other subjects?

Yes I do. Even with the theory that we did here, like with design. All the principles of design. We didn't do that either. They said you must go on the CPUT website and you download that book and we don't do things like that. You must just design. They mention things like that but it is not explained in detail, like you know, the line, the rhythm and balance and things like that.

Do the other students, have they, been in communication a lot? I mean, students that haven't done design. Do they notice there is a difference?

They can because they ask me, how do you know how to do these things and I say the Foundation course.

So people didn't know about it really.

No. Not really.

Things like briefs. Are they very different in the way that they are organized? Are they clear? If you compare Foundation…

Yes, they are clear.

…and the teaching approach. Like you have mentioned in the drawing there is not the same kind of input…

There is…. I'm not saying…

In your design work. You were just saying there was quite a lot of focus, quite a lot of focus there, there with the teaching. The technical stuff.

Ja, with the technical stuff. The making of the jewellery, that is more one-one.

..and about ideas. Sort of concepts.

They don't work on a theme. No. Not always. Um… and I quite like the theme. Like sometimes, just come up with a design that you like and where, what do you look at? Because, it is a bit different. In the beginning as well we are so used to be working on themes whereas, in the jewellery department they don't really work on themes. But I suppose you get used to it. Only now that you mention it, I only think of it now.

What about research and planning and developing ideas. Is that stressed to the same extent as we did? Or more? Or is it different?

It is. But not many people actually bother to research because they don't think how important it is and here we had like stacks and stacks of research whereas people just find like one thing and the lecturers are like, fine. They don't push you forward to do more…well they do….but like….how do I say this? Like we had one specific thing that was just about research and then people kind of forgot about it because it was not mentioned again. Like reinforcing of that.

So you found a lot of reinforcing in Foundation?

Yes. And peoples, like say recently, we did, we had to make patterns from lines and things and I went to the library and got some books on patterns. They didn't think of what, like why are you going to the library? Its just lines, you just have to play around with the lines and I said no, you need to look at where lines come from and I found a weaving book and the principles of design book and things like that. And like, okay, I didn't know could actually … they didn't know where to look, what to look for whereas here we knew, we were taught how to look for it and what to … where to look for it.

And you are making use of it?

Yes. I am definitely.

And the other people as well? From Foundation?

Yes, they do.

I am pleased to hear that because I think that will hold you in good stead.

Yes, because people don't think that if the lecturers don't mention go and do research, they won't go and do research. I mean it helps you, we were so used to doing it, I mean like here we were so used to doing research. Even a really simple thing that we did, we did research.

…and your preparation. Do you spend a lot of time preparing work? Developing ideas?

Like the beginning stages?

Like your designing process?

Just the research part.

Drawing. Making, do you ever get ideas through drawing?

Oh.

Is that similar? Do you get sent back to redo or do you just …

We have like time with the lecturer if we have questions and things but we don't necessarily redo things. I mean with drawing, I'm just thinking of drawing.

So there isn't such an emphasis on the design process? The designing process. I'm thinking about your preparatory work, you know like you used to do in your layout pads to get to a design. Is that the same?

Not necessarily. Its just because we have such a short, we only have two days of design, two days of drawing, and the rest is done at home, so, its not nice. It's so nice to work in class, in that time, to speak amongst your peers and things like that.

Do you find that helps?

Yes. It helps a lot.

Working in the studio, discussing things. Do you discuss things a lot?

Yes we do, but we have such a short time in that … like we have a project that we have three weeks to do but we only have two days in class so normally you do the rest at home. We will come back to the lecturer and quickly speak to them and whatever but it is so much nicer to do the process in class.

But why are you doing it at home? Why cant you work here?

We can work here as well but I mean that's after hours because, two days of drawing … designs… its very hard because you get stuck on the way and its normally left for last.

So what do you do in between?

We do technique in between.

What is that?

Technique is the jewellery making.

Just the actual jewellery making?

Yes.

So there's much more emphasis on that?

Ja, it is. You have to because it is the main subject. Both of them are main subjects, the design and the drawing, you have to pass them but there is too little days…

So you think there should be more emphasis on that?

Ummm …there should. And there should have an entire week for drawing and an entire week for design. …and you move out of it because its just two days and then you stop because on like Wednesday you have theory and we move on to design again for just two days. So it's not so nice.

..and the theory. How are you finding that?

Theory, is very. We actually just do business and communications, communications class is really good. But we don't do things like we did here. I mean, its very, you do a lot of like looking at design and we talk about it in class but we don't have the assignments that we had here, like a lot of the analysis and things like that. We didn't do that at all.

So you've got that background. Has that helped you?

Yes, it has helped a lot.

Have you found there is a difference between you and the people who came straight into first year. Are they able to analyse in the same way …

No, not really.

So they don't have that.

No. So like I said, they just touch on, like they will, they will just mention all the principles of design in one project that we did but if you just talk about it just in one lecture you are not going to remember it for the rest of the year.

So you feel at an advantage?

Yes. Much.

Does it show in your work?

Yes, it does. I'm doing really well in drawing and design.

That's excellent. The other thing that I wanted to ask you, do you have crits, what about the assessment of work. Does that happen during the process? Do you have crits.

No, we only had like one, no well, like two crits for the year and that helps a lot. Those are too little in the end.

Too little in the end…So did you find that useful in foundation?

Yes because you could compare your work as well. Again, working with your peers because when you start something, just working on it for two days, you just getting only in the beginning stages. And the rest of the days that you work on it you just going to work at home and whereas here, you worked here, and you could see when you used to walk around and look at each others things and you could speak.

So did you find the crits useful as well? Like getting you together in groups of four …

Yes.

And you discuss, and where mistakes are. So you don't really do that?

We did it twice and that was it. Not design, just drawing.

But surely when you are making the jewellery that happens?

Aah, yes. But its more, like say the one person comes up with something, like with a problem and then it goes around the class. The lecturer would say…

…beware of this?

Yes, beware of this. But technique is like really, its more … like we did here. The lecturers walk around all the time.

Do you find that the projects that you did last year, are there projects that you did last year that helped you? That have helped you with your, like you have mentioned the drawing, with sort of gaining skills. Can you think of particular ones that helped you

Ja, definitely the rendering. The painting. The surface design painting that you did. The culture, the pillow case thing thing that we did. And…. The fashion one and the sweets definitely. The you get back to all the time.

You mean with the pencil crayon drawing.

Yes.

That's with drawing.

What about other skills? The making of things. If you think of the course last year. Did you… your 3D?

I suppose, ja, there was one. We did some diagram in the beginning of the year and we had to fit things into something and I was thinking a lot of the interior design project that we did and the stuff had to fit in there… couldn't go over, it wont fit in there.

So the skills with that…If you think of where you started last year. Your first 3D project. That was your tile.

Oh yes, especially with measuring. We measure all the time. It does help.

It was those sort of skills. I was thinking of technical skills.

What about your extra project and your exam project. Do you think what you did here was sufficient or do you think there should be more sort of technical input into those?

The exam ones?

Your extra project and exam project that you did here in Foundation.

Oh, we didn't really work there we. It was actually very unfair … and we just went in to fetch wire and ask her if this is ok. It was actually terrible.

Do you think more technical things should be done there? More technique things should be encouraged in those two projects?

Do you mean, the idea itself that we did?

 Just the way you work, should there be, just, I mean … you just made birds of wire.

Ja, ja ja, we just cut out.

What about…

I think so. I think the extra project was a bit too simple. It was a bit too simple.

The year work, for the three weeks, that was like a real introduction to everybody. But once you moved into the extra project it's the people who have chosen jewellery so that's why I asked you the question.

Was it sufficiently developed, the extra project? Or do you think that it would help you…

If it were a bit more. Are you talking about the jewellery module as well?

No, not the jewellery module, because I think that is fine because that is for everybody whereas the extra exam is just for those who have chosen to do jewellery.

I think it should have been a bit more complicated because when you get in there, the first few projects are quite easy, similar to those, but … ja, it should have been more technical because all it was piercing, measuring, filing … I thought it was a bit too simple. ..and the thing is, they gave us the pattern they could have given us the design as well. I mean…

You could have designed your own thing.

Yes.

That made it even simpler that we had someone. We had a lot of time. More than enough time.

The exam project was, I think, hard. It was actually hard. Because we had no clue how to draw it as well. I mean I didn't know how to draw it because I had a lot of things on mine and I don't know if I did well or not on that. The drawing or not.

It was fine. But I think maybe that should happen in the extra project so that you can deal with it in the exam project.

Yes.

So we just have to look at that again.

And how to draw it as well.

What about your, you know, do you feel having done the Foundation course that you have a better understanding and awareness of design in general, as a field of study, if you compare yourself to the people who come straight into first year.

They … a lot of people actually struggle to understand design. How you can use things around you, you know, influences around you and how you can put it into your design. They do find it quite hard. They don't understand a lot of it…

They just think it's a pattern that you have to come up with. They don't think of…

They don't think about all the different disciplines.

No….

They don't know about them?

No, they don't. … and they don't exactly. That's how they think of colour – okay we will just use any colour whatever like green. I don't know, they don't think of colour and especially like composition … and things, like drawing jargon. They don't have a clue about. Some people who did art at school, does do, but there are actually quite a few that didn't do art at school.

Do you still see people from Foundation who are doing in other departments? In other design departments?

Yes, some of them. I see Robyn and I've seen quite a few because I am always in there. I see Kirsten a lot because always get each other in the library.

Okay, and what do, do you talk about …

Ja, we talk about what we are doing and how we are coping and things like that.

Has there been any kind of exchange of ideas or helping each other with projects?

Um … not really. No, we just like spoke about what we are doing.

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Do you think you are going to apply some of the things that you learnt form the other disciples in your design. In your jewellery design, or have you? Things that you learnt from like graphic design … or industrial.

Ja, I keep going back to. Like I have some of my research I haven't really used for my projects and I always go back to that and ja, certain things, I always think back on, previous projects and how I can, and how I did that and how I worked it out. So, ja, I definitely do.

So you think of methods of doing things as well.

Ja, and design as well.

Is there anything that you did in Foundation that you think would be useful in first year even if it were just for the first term that was extended into the first year.

What do you mean?

Any of the subjects, any sort of skills programme, drawing. That could be taken through into first year, like for instance, your language classes or…

There was something.

Or was it enough just here. You don't need to take anything through.

There was something I wanted to mention. Oh, what's the programs name? Photoshop – that we did a project on that and I told myself I wished we had done that in Foundation because I struggled a lot with that. Well everybody struggled, a lot of people did not know about it.

How many people actually know how to use it?

Maybe one or two. They didn't know how to use it, they just maybe played around with it once or twice. So it actually would be nice to have that, like we had the PowerPoint and things like that, just maybe a couple of lessons on it. Just basics of it.

So you found those useful? The word, the excel, the powerpoint.

Yes, definitely.

And you think we should just add in a few on Photoshop. I am sure we could do that. I am sure that would not be a problem.

Because I still don't have a clue what's going on there because you really have to sit with that and you need time to sit and they don't really give you much time.

But they expect you to use it?

Ja, well, we had one day where we sat with it, well one and a half days where we played around with it and they showed it how to, well just the basics of it and that many people don't actually have it at home so we have to sit there and work on it. So again, too little time and you don't really work with your peers, working at home on your own.

It makes it easier, sort of working with peers.

Yes it does.

So the studio practice is what you like?

Yes. And there are so many people there. We have like a class of 30 …

Well here there were a lot of people doing very different things. Do you miss that?

I do, yes, I do.

Now you have said bringing Photoshop into here, is there anything from here that you think could be used in your first year?

Like what, like a subject?

Like parts of the subject or extending something that you think would be useful or do you think that it is fine.

Ja like Industrial Design would be nice.

Industrial Design?

Yes, I mean, I love making jewellery, it's nice but….well even Fashion. Because I mean well Fashion and Jewellery is linked, so ja, we should combine it. I thought we would be make like those chairs that I think you guys showed us examples but we didn't, we didn't really make things like that.

Well you might. It might still be coming in second year you know. How about your assessments at the end of the project? Are they clear? Or do you just get marks? Assessment of your work? When have completed your work/project. Do you get clear assessment? Do you get good feedback?

Yes, I suppose. Well, our marks are put up and they write like the things that you lost marks on. They indicate where you lost marks: say you don't stamp properly, filed all skew or whatever…

Are those things picked up and assessed during the process? When you work are you made aware of that?

It is.

So there is a kind of continuity?

Yes, there is.

Is it enough feedback that you get at the end of the project about your work?

Before hand-in or after?

After. When you get your work back.

Well, ja, we have to go and ask them. They will tell us exactly where we went wrong and what you could have done and what you could have prevented and stuff like that …and how you can improve our work.

I would just like you to think of some things. Is there anything you would like to add? About the Foundation course and first year?

Well, I can say that I don't regret doing it. Because I didn't actually get into the Jewellery course at first, with the testing and then I decided to do Foundation but I really don't regret it because like ja, I really learnt so much from this course, its amazing.

Would you recommend the students do this course?

I think if anybody says they want to do design I would say first do foundation because you learn so much and you get … I gained a lot of confidence.

I can see that.

I was so quiet last year and now I'm like ….

Do you express your opinion a lot?

Yes, I do.

That's another thing, do you think you learnt to do that here?

I was very quiet here, but you know so much more than the other people …and you feel confident to say it and you know it is something you learnt and the other person doesn't know it.

Just the thing with working with peers. I just, I really like that. Its nice. It's the way you learn, you should learn with your peers not alone, you shouldn't be isolated in one place.

Is that what you miss?

Ja, I do. Especially with technique, its nice, everyone works together but with drawing and design, I mean, its two really important subjects, you have to know, I mean they both goes together. You cant separate the one from the other and I think that the working together, like here now, its a long process, I liked the way we did, every term, we did figure drawing and I mean you could see, at the end of year, we took that old work out compared to the latest work. It was actually a shock to see how much you progressed.

So the emphasis on progress.

Ja.

What about the teaching, are there sort of styles of teaching, the teaching approach very different in Foundation to your first year?

Our techniques is the same. Its really good our the lecturer and the student, I mean they always speaking to one another but … just with drawing again, its not much. They really good. There teaching is really good but, it's a lot of the time you have to work on your own which is, I know we are not supposed to be spoon fed and we are spoon fed here, but well kind of, but we are starting it.

Were you spoon-fed or were you given the structure in which you could develop things?

It was kinda of. Sometimes we were spoon fed, like maybe with design. But not all the time. Like maybe Diane would give us an example and like use that example, I mean like idea and we would use that idea.

So that happens sometimes?

Sometimes, ja. I mean but its just one, its just occasions, but it is better to learn by yourself but you do need to be guided and you cant just sit there all the time no one's helping you. It's the point of having your lecturers and some times you do just sit there and think and think and ja… it is hard.

So no brainstorming and stuff like that?

What with the lecturers? No, there is. You talk about your ideas and things like that. Sometimes they like, they would, give you an idea on top of another idea but I don't think it was as good as it was here. I think, if I compare the design projects, I think we learnt so much more here than I'm learning now and the jewellery design.

What would you say is the difference? How did you learn more here? Can you pinpoint that?

I think maybe the research because you guys looked at what we researched and you'd say you could actually look at this and you could look at this. You'd broaden our minds. Whereas with the jewellery department you just say well, here is our research and we are going to work that what you've got. Its goes on with the drawing and the designing but I think … the things that helped here was people looked at our research and if it was not enough we had to go back to the library.

So we pushed you…

Ja

Clint – Architectural Technology

Okay Clint, I'm just going to work with these questions, they're quite loose, and then maybe sort of add things according to how you answer.

Okay.

And the first thing I wanted to ask you was how did you adapt into your first-year from having done the Foundation course?

In terms of what the workload or…

Just generally, ya, how did you find it having done the Foundation course?

Well, yoh it's hard to explain, I've been to a couple of winter schools and I can see then what the transition is if you go directly from school environment into a tertiary institution like here, but, um, first doing this, because I'm going into practical course, or practical…how can I put this now, I just got used to the, the workload, which is a lot of, a lot of…it's a lot of practical work that we need to do. So this course really helped me to put my head more into the practical part of the thing, it's very hard to explain, but it's um… I guess it made me, it made me cope with, um when you look at deadlines, it helped me cope with deadlines and manage my time and…um, but one thing that was very useful which was you guys worked very closely with us, where, um, I'm now in my first-year, a lot is left to you to sort out on your own, especially your work.

But did it help you, doing this course first?

Ya, no, really, it really did a lot, just because you guys worked so closely with us, and that helped us to cope with everything and you can carry that knowledge that you have into your first-year.

Okay, did you um, notice any differences between the students who went straight into first year in relation to you having gone through foundation? To students who did the Foundation course first? Was there any difference between them?

A lot of my friends came directly from the school, from a school environment, so they, for them coping with deadlines, like I'm already used to when I entered the first-year, was quite bad, but I always compare our course to the, uh, to Nicole's, which is Interior Design. There, they're just thrown into the work and they have to do their own thing. We, in the Architecture department, they still start slowly with us and gradually build up the workload and stuff, but in Interior Design, day one is full blast working. Um, I think they got their first major project on the first day they were there. Um, but in the Architecture department they made us gradually used to the workload, but still there were people struggling with the deadlines because they're not used to it.

The people in Foundation? Were they struggling? Or were the other ones who…

No, we were the ones that were coping.

You were coping, okay.

We were coping quite well because we know how to manage our time. Just an example, we were finished, like, our first project we got two weeks to do, we were finished in the first week with the project, just because we were able, we managed our time, like, we used to hear, 'You've got a project, you have, like, five days for it,' um, we got that same project with you guys, we've gotten a week to do it, so they gave us a lot of time in the beginning of the year for the project.

So to ease you in.

To ease us in, ya.

Um, what about things like, um, your understanding of the course itself? Was it different, for you people, do you think? From Foundation, for you?

The technical side or the…

Just generally, your understanding about architectural terminology and stuff, did it help you coming from here? Did the other people understand as well, the people who didn't do Foundation?

The Architecture project we did last year, with Trevor and with Heidi, helped us a lot, which we that were in the Foundation course, we already had a little bit of technical background, to what they expect of us in the first-year. The people who came straight out of school, the only background they have is the, um, the knowledge that they gain in a technical school where they did technical drawings but it wasn't, um, they didn't have a building background and the knowledge about a building which we had, which we gained with Trevor and Heidi here, which we gained with our Architecture projects. So we already had a bit of a technical background which is applicable to a building and not just drawing skills, which the rest have.

Ya, but not all of those people in any case do technical drawing…

No, we, they did a…or they ask us which – I was actually stunned when I heard that – um, there were more than half of the kids, they didn't have any art background, any art experience at all. A quarter of them didn't have any science or maths background…and I don't know how they got in there, to be quite honest. How can you accept someone in a Design course, which have no Design background.

Did you feel that the Foundation course made you aware of Design and gave you the necessary background?

Of course, ja. No really, um, you guys, especially when we analysed precedent for our project which we did the whole year through, um, that's helping us now, which we had to analyse one project where we had to gather information for, there we just sailed through, the designing part of the whole thing.

You mean doing your research, analyzing…

Doing our research, analyzing, um, doing the whole design part, we just cruised through there, it was very easy, um, ok but then the technical part we had to get feedback from the lecturers. But the designing part was easy because we already have the background over here. We know how to analyse precedent and how to use the information we get and to apply it to our project.

Okay, did you find that, um, being exposed to all the Design disciplines in the Foundation course useful in your understanding of Design? And the skills…?

Mm, the only way I can answer that is the skills, ja, the skills that I've gained here in the Graphic Design and especially the figure drawing that I didn't really like that much, but it's a personal thing, we actually used a lot because you can't design, or draw or sketch anything, um, you can't do that, you need to, you need 'freedom', if I can put it that way…

Ja…

You need to sketch, you need to work on drawings, you can't just do a technical drawing and then you have your design. You need skills we gained in Figure drawing and Graphic Design and um, and all those. And especially Graphic Design, um, we're doing a presentation now which is only, only Graphic Design, but not the colour part, but more drawing, working with pencils and that? So the skills we learnt from our cupcakes and the…

Your object drawing…

Ja, those skills we used a lot.

Things like the typography?

Um, the typography, we haven't used that much, but the discipline that we learnt in doing the project, working neatly, doing it correctly, accurately, that's is applicable to our technical drawings again. So then we have that discipline, and the, um, your ability to see everything through?

To persevere with something, yes…

Ja, determination…

So that's been developed, okay.

Ja, we learned that all year. And still, still realizing you have a lot of work to do, but you also have a deadline so you have to pace yourself, which we also learn in the typography.

Okay.

Because we have a lot of work to do in a little bit of time so…

Um, do you find that the teaching approach is different to what it was in the Foundation course, the way you're taught?

Okay, in the theory part, we were again helped a lot, this was more in between, um, high school teaching and tertiary teaching, which helped us with that transition, the way of the lecturer standing there and you need to sort out your own thing. Um, that helped us going into first-year, where they just give us the work and we need to sort out, it's left to us, the one lecturer actually said he's getting paid, if we fail, it's not his problem. That's the first time that we had to deal with a situation like that. So it's completely up to you, you need to discipline yourself and do it. And that has been learnt in the Foundation course already, to a certain extent. Um, Lee, gave us a, not spoon-fed, but she encouraged us a lot, where in first-year, they just leave you doing your own thing. But Lee again, she made the transition from school teaching to tertiary teach very easy for us.

And in your practical subjects, in your design…

Oh, the design subjects…

Is the teaching the same?

The teaching…in a certain way, ja, but not the feedback part. We're not getting enough feedback, like we're supposed to. It's not like, 'it's tertiary, you're not getting any feedback.' It's a learning process, we need feedback, but the teachers, they don't give us any feedback, and if they do, it's four different lecturers teaching one subject so each gives their own opinion, or have their own way of doing, and then we need to find a straight and narrow through all of that, and that's basically impossible. Because two lecturers teach you, a third one gives you comment and then the fourth one marks you and he fails you because it's not the way he wants you to do it. We just feel like, the lecturer that teaches you and gives you feedback should also mark you, like you guys did. And then we got a fair mark and fair comments back. But that was a result of the two lecturers in the Foundation course working very closely together with a well thought out plan with what they want us to achieve in the Foundation course. And I just feel that that structure isn't in the first-year. It's not there. If they can refine that structure and know exactly what is expected of the students, then we will also be more sure where we are.

Do they, um, are you encouraged to evaluate your own work during the process and also your peers work?

We have group sessions, okay, we have crits on Mondays and Wednesdays, but a lot of the crits are group crits, general crits and then we have smaller group crits where you have seven, eight in a group with each individual lecturer. Um, then we have, you can go to them individually as well, but then you can go to the one lecturer and then the next day you have to go to another one and he tells you different again. But we do, it's not encouraged of us, but we do it anyway – we sit in the studios and we analyse each other's work and we sort out technical difficulties, not so much design, it's only the technical part of the project we sort out amongst ourselves. The design part is, we do ourselves and we analyse ourselves and we discuss with the lecturer; that's not so much peer-to-peer.

And with the briefing? If you have, you're telling me that you have a number of people teaching in a project, are they all present together when the briefing is done?

Most of the time they're all present, but there are, um, times that one may be sick or absent or something. We had the one problem, one of our lecturers was off sick when the brief was given and then she came back and she crited us and so on, so forth, and then the second last crit that we have, had, she told us that she only found out now that there should be an opening on our wall, you understand, so now, you can't just knock a hole in the wall and expect it to be a pleasant view, so um, that should have been told, we should have been told early on in the project, but she didn't know it because she wasn't there in the briefing, but it wasn't specified in the brief that we should provide an opening…

It wasn't specified in the brief?

It wasn't specified. It was only given later amongst the lecturers, so the lecturers told their groups that they need openings but this one lecturer didn't tell us because she didn't know because she wasn't there and then she only found out later. So there's not clear, communication is not clear between the lecturers.

Did you find it clearer in the Foundation course?

Much clearer, because like I said, you guys worked much closer together and you guys had a well thought out plan what you want us to…that's what we felt because each one of you give, it doesn't matter if I came to you or to Bryan or to anyone else, each one gave us the same, the same information. You each had your own way of criting a project which is normal, but the technical part of the project is the same, it doesn't matter if I go to you or Brian. When the, um first-year, that's not there. Each one says, because the one works in the practice and the other two are lecturers and the one isn't even a architect, so the technical part, the architect wants this amount of detail, and then this guy wants this amount of detail again and this one wants this specific detail, which the others don't specifiy, so it's very hard to explain, so we're all over the place down there. We need to go to one lecturer and stay with him until the marking, until the work's getting marked. But then again, someone else marks it, he doesn't like it, he fails us, so there's no communication between the lecturers.

Hm, now I'm going to ask you something else. Um, in what way do you think the drawing, did it help you, the Foundation drawing, in your first-year, has it helped you in any way?

The…?

The drawing that you did in Foundation, has it helped you with your first-year?

Well, I had art in school, so I had a background in drawing when I came to Foundation, but what the Foundation course then did was refine my technique that I use. And another thing, the lecturers here, like yourself, encourage me to do better sending me back each time and doing this or improving that, forcing me to improve my own skills. That I found very useful. Where someone just coming out from school directly into first-year, he doesn't have that. He just has a raw skill that's not even improved or refined and the lecturers down there don't improve, don't encourage you to do that.

And research and using the development of ideas through drawing, your researching, is that encouraged? Do you do a lot of that there?

Um, like I said, we haven't done a lot of design work, where in third year, we only do design work, so maybe we can do the interview there again, then I'll be able to tell you if that's encouraged, but we did one design project, we're doing our major MIP now, Major Indicator Project which is going to be only design-

So you're starting with that now?

We're starting that on Wednesday, but we had one project and that was…

Was the process similar to here?

Similar but not so much in detail, not to the extent that we did it here.

What do you mean by that?

They fine if you came there with one idea and just developed the technical part. It wasn't so much of how the building worked, it was just the technical part of the building, so we haven't really done any design work yet.

Oh, okay. So in your design project you weren't particularly encouraged to come up with different ideas.

No, no, I came up with the idea my first one, and I just that idea and I defined the form, as well as the technical part, but my first one they found fine, I didn't have improve that, so where if I'd brought that to you, you would have critted me until who knows when and that will force me to improve my whole design, or the whole look of the building. So if I bring that thing to you now you will send me back immediately, tell me to do more present studies, or analyse more, work up the design again, maybe come up with three or four different models and plans, but that wasn't encouraged down there.

Um, okay now this is another thing: what about your theory? Did you, did we prepare you sufficiently here to cope with your theory in first-year?

Um, okay the only theory that we did here were the history and we spoke to Lee just now when we came here, we told her that we will do things in Greek with her, okay we did Greek architecture, fashion all that, but we did it in a period of maybe four weeks, and we did it in very fine detail; we will do the same history part, for instance, Greek, in one period in our class now. They just show you the fundamental stuff, they just run over it and then you have to go back and do some more research and go over it again. So um, the theory, especially the history part is done in much more detail here than you find it down there. I actually I keep my history book that I did here next to me and reference and go back and do some more reading up or something.

What about the research? Were you sufficiently prepared through the foundation course to do research on your theory? Have you been coping with that?

Um, we did a couple of analyzing essays over here, and other projects, but we hadn't done really a lot of research in our history. Um, we'd done a couple of precedent (?) diagrams and analyzing of that now, we just started with that, um, I'm finding that easy because we've already this here, like, form, function, technology and context, we'd already done this here in the Foundation course in extreme detail, so we're finding that very easy now.

What about the other people, who didn't do Foundation, how are they coping?

They're struggling a bit, um, the lecturer in each class has had to explain it again, what is form, function, technology and context.

So that held you in good stead.

Oh ya, when they mentioned those four words, me, Emily and Melissa, we could've…on our toes, we knew what all of them meant. We had no problem with that because it was drilled into us over here, so we got to deal with that a lot. The research part, we haven't done a lot of research in History, did a couple, a few projects, but not in detail like we did here with Lee. Um, so I can't really comment on that right now.

Okay, what other aspects of your theory, does you theory relate well to your practical subjects in first-year?

In first-year?

Well both, you can speak about both, Foundation and first-year.

Well we have, um, a subject called CTD, Construction Detailing, actually all the subjects we have down there, interlinks with each other in some way. Um, Construction Detail adds to studio work, where Construction Detail you learn about all the details and technical side of a building, and that you have to

apply into your studio work projects because they expect of you to have the knowledge to annotate and specify how each thing fits into another…

So they're all related…

…They're all related, then ABS again, we're doing it now, we're working out forces and um, how strong this beam should be…and that's also applicable to studio work. So actually all the subjects interlink with studio work, even presentation; we're doing um, for our Major MIP now, we have to do a presentation to the lecturers and that helps us again with the presentation part, so that interlinks altogether. In the Foundation course, the history we did, to be quite honest I don't think the history interlinked with any project that we did, but that's not- I don't find that weird because the history we're doing down in first-year also doesn't do that, it's just the history part.

Ya, that just gives you a context, but um, surely you learnt how to look at things and how to analyse things.

Ya, in history ya, with Lee, we did that, we analysed buildings and stuff.

Now that, were you able to apply that to your pactical work?

In the Foundation course?

Ya.

Ya of course. The analysed projects we did learnt (sic) us and helped us to analyse precedent for our projects that we did here. Um, I just thinking more in a literal way, the work that we're doing in CTD is applicable to the work that we're doing in studio work, where um, in the history part, in the Foundation part, the skills you learn in analyzing anything from Greek architecture straight through to modern architecture, um, those skills you use again to analyse precedent for your projects that we did, so in that way, ya, it does relate.

And things like colour, as well, did you…

In Foundation course, ya, the colour, um, like for instance, the Egyptian architecture and the Greek architecture that we did, the colours that they used the different palates that they used, we again, because if you don't have the knowledge of colour, you're just gonna throw a whole lot of colour onto a page. You need an understanding of colour to arrange a certain pallet to create a certain and that we learned in History with Lee, and that we applied into our project as well.

Um, the other skills components that you did here, like your computer skills, the life skills, the numeracy, did you find those of any help in your first year?

The image, word, excel, and powerpoint and all of that we got exemption from because we already have all the skills necessary from Foundation course. So we had the whole first-year off. Then we started with … those are totally different. Numeracy again, coming from school and I had higher grade maths in school, coming to numeracy with, I don't know his name…

Jake?

Jake, ya. He kept the basics fresh in our mind, we kept the basics. If we didn't have him, and we just focused on practical and history, I would've lost my numeracy side, but now coming back into first-year, we didn't do any maths. We only started with it now, so basically we have forgotten everything so basically we have forgotten everything because we didn't do any numeracy in the year, but that would've been worse if I hadn't had numeracy last year.

So it did help?

No it did help, just from enabling me to keep that knowledge a little bit longer…

But was it, wasn't it…was it the same as school maths or did it have a different sort of bend? Was it more practical?

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It was the basics. Straightforward basics. It was… I can't even remember…the…I know there were a couple of sums that we did. I don't remember what we did, to be honest, it's really so long ago.

It's too long ago.

It's on the spot now, if I really think about it, I'll come back to it..

Do you think it would help if that was continued into your first year a little bit or not?

No, I think if Jake focused more on a higher standard of maths maybe, made it a bit more challenging, that would've helped. Ah! That's right, we did volumes and areas and all that, which is very much applicable to what we're doing now. That's all we do at the moment – volumes, areas and all that – but we already learned that in standard six and standard 7 and all the way to matric-

If you did maths, ja.

Ja, if you did maths. Okay it's fine if you start the beginning of the year, showing us the basics, but as the year progresses you should make it more challenging. I just felt it stayed on the same level the whole way through.

Okay, so that needs some attention. The other thing is do you have contact with students from the Foundation course but who are from other disciplines and what sort of contact do you have with them? About work, that is, about your studies, is there any kind of…?

Um, well I meet the two Nicoles, who are in interior design now, I meet them a lot. Sophia is on the bus with me everyday, so we talk a lot about work, and their workload compared to ours started off, how can I say, intensely, but coming closer to the end of the year it's basically evening out, but if Sophia, for instance, didn't have the background which she gained in the foundation course, she would never have coped. That's why they only have 30 people left in the class. So maybe it would be advisable if you could talk to her about that.

Oh yes, I will.

I would actually find it quite interesting, what she has to say.

So you are keeping up contact. What about any of the others, the people that are…I know the campuses are different, but the people from industrial design and graphics?

Well, I only came here now the last 3 weeks to come and print in the engineering building, and it was the first time in months that I've been here, so then I ran into some of the Industrial Design students but we didn't really talk about work, just hello, quick quick goodbye. The people that's down, the [] building, I talk to a lot, we talk a lot.

The Interior Design people…

Ja, but further than that we're actually too busy. We kept down there working.

Um can you think of other things that you learnt in the Foundation course which are useful in your studies in first year, that I haven't covered. Are there other things? If you think about the whole course and the exposure to all the disciplines, can you think of other things that are you useful to you?

Well, okay, we've talked about the technical side and the drawing part, but the industrial part of the Foundation course, where we did the tiles, and all that, and the puzzles, that helped us again with the model-building that we're doing now. And also the architecture and the interior design we did in the Foundation course, the model-building side of that helps a lot in the first year and also helped to improve our skills and everything and made us ready for first year. And to be honest before I came in the Foundation course and was still in school I never built models like I did here. Okay, I had industrial design in school, but it was more designing, not so much building. But the stuff that I did build like the labs and stuff like that, it's not all applicable to architecture, where the industrial design which we did in the

Foundation course, where we worked with the triplex, and we knew how to cut it and learnt the different techniques on how to cut it, those techniques we're using now. So I'm actually glad you integrated triplex as a material in the industrial part of the Foundation course because that helped us with the Architecture as well, with model-building. I'm trying to think of maybe something else…

Ja, I think, okay so you're talking about technical things there, what about the whole conceptual thing of designing, do you see relations between the different disciplines? Has that helped in any way?

Well, all the design work we did in the Foundation course we learnt how to analyse different precedent, um, in some way, doesn't matter what discipline you are, analyzing precedent will always be understanding – not so much taking certain elements from a building but understanding how the whole building works. For instance, we're just doing it now. Without taking elements from a building you know how the building is set out, you can design a totally different building and still use the same design concept that you used in the first building, so learning to understand the precedent that you're analyzing, is more important than…

So you're talking about principles?

Ya, so I just find the design principles in each field is basically the same, it's the same. So if you're looking at the amount of research and the amount of analyzing precedent we did in the Foundation course, I just-

So you're talking about the different context of the different subjects…

Ya, the more you do, the more refined and more experienced you get in analyzing precedent. So that helped a lot in that sense. As a result of analyzing so much precedent, we find it easy now to analyse precedent.

So it's also what you were saying about the drawing. Because you did a lot of it, you can work easily with your drawing now.

Ya, um, I'm just speaking…a lot of the techniques I already gained before I entered the Foundation course but what the Foundation course did was it helped me refine those techniques and also learn new techniques from our lecturers and also some of the students that were in our class. So the Foundation course helped me a lot with that, refining my technique.

You mean the students coming from different backgrounds and doing things in different ways, you found that useful.

Ya, especially in the model-building part. Different people have different ways of building models and you can actually take strong points from each one and learn to make it your way.

Is this in first-year or in Foundation course?

No, in Foundation course because we all working so closely together, working in class, you're analyzing everything in class, you see which one, what the students are doing, so you can actually 'steal', or take certain strengths and make it your own, learn new techniques and all that. Um, working together in a group so closely together helps.

Did you find it helpful, um, I did it in various things, sometimes in the drawing, sometimes with your labels project, your stylistic analysis project where you were given a list of things to analyse and put into a group situation, did you find that useful, like in a critting situation where four or five of you would talk about each other's work and present things…do you do any of that?

Oh! Um, we don't do any of that, no. We haven't done any of that this year, but what they do encourage you to do is when they have smaller group crits, the lecturer and all the students are very open to someone interrupting them and maybe giving this idea or talking about this problem, for instance if there's something that needs to be sorted the lecturer on that point doesn't have any solutions, we all put heads together and sort out that problem. I think I only find that easier because I've already done it here, with the crits we had here with each other's work. Especially the interior design, I think it was the interior design

that we all critted on each other? Or…I think it was interior, so ya again, we have the courage to crit each other's work.

Okay, okay, that's good. Are there any aspects of the Foundation course that you feel could be useful to you if they were extended to the first-year and made part of the first year course. Is there anything that you think would be of particular use, that was useful in Foundation, not certain subjects, well maybe there might be certain subjects, but I just want you to think if there was anything that was used here that you think could be used there, or put into that course. It could be anything, it could be language skills, it could be the design programme.

English. We had a communication lecture, and he was, with all due respect, horrible, just because he could speak English. He was a doctor in English, but his way of dialect or his way of speaking - we spent half the time figuring out what the lecturer was saying.

Is this this year?

Ya, in first year, the first couple of months, it was horrible. We all failed almost because we can't understand what the guy is saying. And so he didn't- like Lee and Monica, especially Monica, because I was in her class, if we can have classes like that helping students, because there are a lot of students in our class now where English is their third or fourth language, they can't really understand all the work, especially all the terms, ABS and [?] and all that. SO if we can have maybe a separate class like that in first year, and someone helping us understanding the different terms and terminology, that'll help a lot.

So you think what Monica did could be extended into first year for a while..

Ya, Monica also helped us a lot with speaking skills, with the way of expressing yourself and words, and how to use words in sentences and all that, but I found that was all aimed at presenting your work and enabling you to become confident and express yourself like you want to in English to clients. We haven't done that this year a lot. We haven't done it, so um, what Monica did last year helped me a lot with my presentation on architecture at the end of the year when I had to present my work, so that helped a lot. So maybe we have to present our MIP now, so then I'll see if I lost the skills that Monica gave us, if I did then I'll strongly recommend that someone brings that through. Ya, so that's one of the major things.

Is there anything else that you can think of.

Um…

There doesn't have to be.

So far it's just the language part that's slacking, ya. Um, maybe I don't know if you guys can do it, but just give us more of a technical background in the Foundation course before we go over to first year, because we find that when you go into first year you're bombarded with all the technical information.

What do you mean by technical? What information, the terminology, the drawing? What aspect?

The technical…um…when you have a building, to fully understand it you need to understand how the roof is fixed the trusses, how the trusses are fixed onto the [?], how the [?] is fixed onto the wall and the different methods to fix stuff together.

So maybe that needs to be done in the extra project. I'll mention it to them, because that starts becoming more specific and maybe those of you who have that as a subject of choice- that might help. Do you think in the extra project and then the exam project.

Ya, actually in all the architecture projects, all three, the first one on the design. I just felt that the architecture projects that we did here was more on the design part.

And they didn't give enough of that.

Not much on the technical side, and we only do the technical side in first year. We do the design, but only later. But if you can incorporate more technical stuff as the projects go on, especially in the exam on, expect more detail than design. Because you already did most of your design work so if you can focus more on the technical side.

That will prepare you better. Alright, well thank you very much for your time.

Peter – Industrial Design

What I would like to ask you, just a few questions, did you feel that you adjusted easily into first year having down Foundation?

Yes, it was easily the work to get, the work they give us is, they, we know how we are doing. It was easy to get used to that. The only thing I struggled to get used to was the amount of work they give us. Ja, it's a lot more whereas in Foundation we would have one project at a time and you could focus on that and get it done with, they will give us like three different projects all spaced out, and they are like all overlapping, so you've got to be able to focus on like different things at different time. I find that quite a mission.

So you've got to multi-task.

Ja, you really have to.

Um, did you think that there was a difference between those of you who came from Foundation and those who came straight into first year? At all.

Definitely at the beginning of the year, there was quite a big gap I think. Knowing, like, the design process really helped at the beginning also just, just like being relaxed because you know the campus, you know what you're in for, you've covered what you are going to be doing. Ja, I think it took a lot of stress off at the beginning of the year. Ja, like obviously after a while the other guys catch up and gets to know what's going on in design terms as well but I find personally like especially because I'm not so good at drawing so I think drawing last year has helped me so much with this year. I really would have struggled if I hadn't done all the drawing yet.

Are there other things that you can think of that were useful to you in Foundation? In your design subjects?

Yes, for example, now at the moment we are busy with a metal work project and the project that we did here, for jewelry, has given me a good idea of what I am capable of doing with metal and I was able to actually take a project, take the jewelry project, the cut-out keyring, and show the other guys, look what you can actually do with that saw and look how accurate you can actually be. Ja, so I'm about to start cutting that tomorrow and ja, so I think I'm ready to do that…

Okay, so now, that brings me to your peers. So you discuss things with each other?

Ja, extensive. So much talking about what we are doing. Ja, its just we are always talking a lot.

And you find that helps?

A lot. Ja.

…and you're not just communicating with Foundation people you're communicating across.

Ja, everybody. Everybody. You have to. I don't think you would get by without knowing what everybody else is thinking and just, like other people ideas, like often I will be designing something and I will be like, hey, come look at this and Id be like what do you think of these colours and they no, maybe you need a green instead of a blue there or something and just ideas, like, some people have good knowledge of working with metals so like, I will go and ask them and they would be like no, if you going to join this metals you need to do it like this or … so along those lines.

Is this people who have had experience from other sort of things before coming into first year?

Ja. There's a guy in our class he did metal work for quite a while so he knows a lot about that. People like tech drawing, he's a friend of mine, he's also, he did draughting for quite a while, so if I've got a problem … I know what I'm doing but when I have something I know he knows a lot more than me so I just go James I'm like what do I do here, how do I do this or something.

Do you find that the sort of diversity of the student body in Foundation, people doing all sorts of different things, people coming from all sorts of different places has it made it easier for you to get on with the diverse group that you are in now?

Ja, I think because Industrial is, from a culture aspect, I think, it was, there was a far wider range of different cultures here …

… In foundation …

…ja, Industrial seems to be a lot more white kinds from like, ja, how do I explain it, we seem to be …

Do you find the group to be not as diverse as what I was here?

Ja. Not as diverse as it was up here.

…and how did you find that? Was that useful, did it open up your views with different ways of seeing things? In Foundation?

Ja, not, I don't think it changed me in any way, I think its normal so.

It's normal. Its part of how things are, just happy.

Ja, its just how it is.

What about the teaching? You've spoken about your peer groups, sort of, you obviously help each other and you learn from each other, is it a lot of, is it hands on? Is it similar to the teaching in Foundation?

I did find that most of the teaching in foundation was a lot clearer and more like defined as in what they want whereas now they are very broad and some of the lecturers they aren't that great. They know what they are talking about but I find a lot of them aren't teachers as such. There … ja, so …

When you say that, is it because the criteria aren't clear, the assessment criteria?

Especially if you go for help or something you can tell like the lecturer knows what he is talking about but often to convey it to the student, I find its, they struggle with it sometimes.

What about your feedback from the lecturers during the project. Is there a lot of that or ..

There is quite a bit of help from the lecturers there, they take a bit part in what you are actually designing, so there's an emphasis on the design process, is there sort of feedback in the different stages of development in, is that clear? Or does it only come in at the end of the project?

No, we will, they will give us our brief right, explain it to us and then we will go off and make concepts boards or mood boards, whatever is required and they will, we will bring those in and they will mark those and we will start on our rough scamps and stuff. Generally they start looking at it from, when you've got it down to two or three concepts maybe and they will be like, we like this, we don't like this or work with this more and we will develop on those and then go back to them and again they will just crit you on it. And then from there, if you need more help, you will just speak to them.

Do you usually just have one person or is it a team teaching or … ?

It's a team teaching. For 3D design there is 3 lecturers, 2D there's 2 lecturers so there's always sufficient people to go and speak to.

And they are quite clear about what they are doing from there?

Ja.

…and at the end of the project, how do you find the assessment? How is it done?

As in the marking of the project?

Yes.

It's, its pretty clear.

Is it similar to here, you know where you had your brief and your assessment form?

Ja, they have the mark sheet on most of the briefs. Um, ja, I think its pretty well marked. They are very clear as to what you're getting marks for, each section has its clearly, has its clearly defined for what marks you are getting.

And its not just marks. There's an explanation to why you are getting the mark?

Yes, there is, there is always an... Its just a short, Its generally just a short explanation, like a couple of sentences, like a couple of lines but if you need more they will happily explain to what you got and why you got it.

So that's all clear.

Ja, its very clear.

What about the theory? How are you finding that?

Don't get me started. Theory, I really really struggle with the theory at the moment. Like I get a lot of input from my parents, they help me so much.

Are your teachers aware of your um …

She is, but …

Is it being actively address or not really?

She will, because, she will give us lecturers and every, we get lecturers Wednesday Thursdays, so Wednesdays is a lecture and Thursdays is generally a test on the previous lecture she will help me out with the first couple of tests, like she wasn't quite sure what was going on. I think she started realizing after a while that I needed help and then, like, now she will get someone to read the test to me and I will just write it, so ja, it's hard but, its going, its alright.

Ja, see, that's something that I did raise with them at the beginning of the year to remember that you did need support there.

Ja, I think, also last term, with business its, because business, its like small subject compared to the rest so not much attention's really paid to it and the lecturer based the term's mark on one test which I didn't have any help for so I failed it.

Okay but that needs to be addressed.

Ja, it was brought up at the end of the term when they did moderation. They asked me why did I fail it so I told them exactly like I couldn't read that, because it was a comprehension, and was like, I don't know to read that well.

Do you need more support there? You know, we can organize more support.

Ja, maybe.

Did you find Monica useful last year?

I didn't really use it that much. No. Its just like when it actually comes, when it comes to actually doing something, when I need to read this body of writing, its just that I struggle with. I found like, and I done a test the other day, I had to read it. Just to cover like a paragraph or two, I read for like ages and I like

didn't understand it but then the lecturer came along and she just read it for me quick and I got it like that, perfectly and I answered it.

So, that just needs to be … I will speak to Bart about that.

Okay, that will be really cool.

I think to have a much more structured approach to helping you there.

…and then also like with fencing at the moment, because I'm going away, going away these holidays from the from the 15^5th sorry no from the 25th to the 12th, no sorry from the 25th to the 10th and we just got two theory projects and the ones due for the while I'm away which is alright – she said I can hand in when I get back and the other one is due for two days later after I get back and I'm like, she won't give me an extension on that so that's also, ja, I'm also a bit worried about that but she says I need to go talk to the head of art history, that department so I'm going to do that on Monday and see if maybe I can get an extension.

Where are you competing?

Turkey.

Wow.

Ja, can't wait hey.

Well I hope you really do well.

I hope so too but, my training has been a little bit interrupted by college so we will see, it will be good, ja.

That's amazing. The other thing is, are there, just thinking about your skills component, do you think they helped in any way?

As in … to build, we learnt to build …

As in your language and your sort of, the skills programs, sort of, you know, your computer skills and all of those sort of things, your literacy …

Oh, I think the computers and maths the history as well. The computers I actually, I don't think about it, I use it a lot now, I'm actually glad we did that it was pretty comprehensive, it covered everything I need to do, the powerpoint, office, word …

…and excel. Is there anything else that should be added to that do you think? That you need.

For me personally, illustrator, but the thing is that is it, so obviously, I think they only use it for industrial design, I don't know.

Photoshop?

Photoshop, I've, I use it every now and then but there is only one tool I use in Photoshop and I know how to use it so its really simple. So um, ja, I don't think there is much else that would broad enough to need to be covered in Foundation. The maths, ja, I use it, bits and pieces of it but often, because its maths I find I forget it really quick so I find I don't really remember the stuff I learnt here, um, if I do have a problem I will go and speak to someone and they will be like okay you need to do this and that and I will go do it.

And your design projects. Did those help?

Jo, those helped so much. Majorly. As I said, just the way that you guys taught us, the process of the designing, um, the way you go about it and problem solving, I think it has helped me in design, ja, definitely.

That's good, and the exposure to the different design disciplines – do you think that's helped you as well.

Jo, yes, that was also very useful. Because, ja, I don't know how to explain it, is because its nice to know what is in each discipline and just, ja, you just have a good understanding of what's going on in design generally.

So it gives you an overview.

Ja.

I mean you've mentioned the fact that you spoke about the key ring and how you could use the saw. Are there other things that you use across?

What else? I think, just like the work, I think that a lot of the working with the different, like types of card and just the materials is also, I think especially for industrial I think its been very useful. I cant think offhand, like particular like I've used that but definitely aspects I've taken just …

Did you think that the 3D component, you know all the things that you did 3D were sufficient for or do you think there should be more of that component in our course? I mean, bearing in mind that its just like

…more 3D component

…ja, it's a year course.

I do think that it was sufficiently covered, yes. But, interesting, like I've, the projects here, maybe its just me being weird but the industrial projects here, I didn't actually enjoy them in this course. I enjoyed the, what is it, the architecture projects a lot. But like I knew I didn't want to do architecture although I enjoyed the project but then I found the, actually getting into Industrial …

It was your tile project and your 3D puzzle and then at the end of the year you did the hair dryer.

The hair dryer one I liked. That was really cool.

Because that becomes, it was not so broad its more specific in a way.

Ja. So it was interesting but I think I just, I just knew I wanted to do Industrial so, ja, I just stuck with it and it worked out perfectly.

Maybe it needs to be, you know, the industrial design is like your first 3D stuff that you do in Foundation.

Ja.

Very very first projects. Maybe they need to be placed, maybe there can be some in the beginning to get you going but maybe there's got to be an aspect that's place a little bit later in the year when you've picked up more skills from the other things.

Ja, I think, maybe with like, the idea of what we were getting at with the project, there's nothing wrong with it. I think the reason I didn't enjoy it was the materials. I didn't like working with the, what's it…

The corex

Ja, I think it was the corex.

Are you talking about the 3D puzzle here?

Ja, Im talking about the 3D puzzle, the corex wasn't fun to work with.

It's quite difficult material?

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Ja, it was terrible. Ja,

You know it's an experience.

Ja, it is, and you definitely learn something from it but …

…I mean, that's what you do there, isn't it? You're exposed to a whole lot of materials all the time.

I think first year industrial, its all about materials, and learning to draw. I think, that's the two things that they are trying to get into you in first year from what I've seen and obviously you're learning to design and stuff.

And you found the drawing really helped you?

Definitely, it helps.

What about your history? Is it sort of related to your design subjects quite closely or …

At the moment I feel that it's not very, are you talking about history that we are covering at the moment?

Ja.

…and you can speak about the Foundation one as well if you want to.

I think that we covered, pretty much Foundation is what we covered this year. So, it was for me, personally, it was good to cover it again, I didn't find it a waste of time but I didn't find it, that level of history, like that, ancient history, I don't think that, if obviously yes, it does cover our designs but at the same time its almost like its very abstract to what were busy doing so like you could incorporate it if you tried but its not necessarily …

Its not related enough.

Ja.

But I do think next year we will start covering more modern history and also cover design systems and stuff and like that so I think from next year on it will be fine. I cant complain about it.

What about, are there any other things that, in the Foundation course, that you found useful in the studies? That you can think of? That you want to discuss.

I think we've covered most of it.

Okay, is there anything that we do in Foundation that you think would be useful to continue to the first year?

Nobody is going to like me for saying this but I think you need to stress them out more in Foundation. I find it very relaxing in Foundation compared to what we are doing now. Because like here, I know you guys didn't want us to but we would go home early and just work at home, would relax, it was easy and then this year, you're in for a shock hey it was really something.

Do you know how this group is struggling to time manage?

Really.

Ja.

Jo, really, it was a wake up call of note hey, really was.

Okay, maybe we should pack it in a little more.

I think its just overlapping projects, like putting deadlines close to each other so that you realize you cant, you cant leave this to the last minute, because you need to be working on this thing as well because that deadline is coming in a day or two so, ja, when you realize that it's a different mindset to approach to your work I think.

Is there anything else you want to tell me, Peter? That you'd like to say?

Do you see, oh, I wanted to ask you that – do you see any of the people that were in Foundation with you who are in other areas?

Oh, everywhere. Its great fun, to know just random people walking past and its cool, like now on the way here, I think I passed three people that I knew in Foundation. It's really cool.

Do you discuss work and … ?

Um, ja sometimes. I will be like how's it going, what are you working on at the moment and ja, some people I will go out and look, like my good friends I will go and look at what they are busy working on at the moment, laugh at them if they have a lot of work.

That's mean. Do you learn from each other across disciplines at all do you think? Do you help each other?

Not a lot like but the other day, I went, I went up to, I think Surface Design, Wodad, … Ja, I went to Surface Design and I saw, I was talking to her and she just talking about one of the projects she was doing and for history which we were also doing, we were making a game for like, relating back to the period we were busy doing and like, just to hear what she was doing was actually, it was quite cool, I was quite amazed that they had some really good ideas considering what we doing for …

So its useful having friends in other places?

Ja, especially, like I find, like Jess came to me she was like ah, I need like this stuff cut and I could go do it for her in the workshop and like you just help each other out.

So she might return the favour with something else?

Ja, like I'll make sure she returns it.

Like Jess, I need you to paint this for me, you know. But I think we could use each other a whole lot more than we have been, maybe in the years to come we will.

Do you think there's anything that might facilitate that? That you actually make more use of each others knowledge and skills? Is there anything that could facilitate that?

I think, I think its up to the students to make an effort to get to the other guys and just keep in contact.

Okay, so you think informal is great.

Ja

It doesn't need to be formalized in any way.

Ja. I think so.

Thanks Jay. Okay. I'll speak to Bart about your …

The thing is, like he knows, it's just …

It's fine, I will just mention it to him.

I think they struggle to find a way to actually help.

Ja, I'm sure there are things in place because it's not a very rare thing. I mean, in our field it's relatively common.

Ja, because I know there are two other guys from my school who also have similar difficulties and there's another guy who wants to do industrial next year, he was also at my school and he's also, the same as me. I'm not the only one.

Maggie – Graphic Design

I want to know how easily you adapted to first year having done the Foundation?

It gave me confidence in actually starting first year in the beginning. I mean, where as if I had to go into first year fresh out it would, I think, it would take me like longer to adapt because, I know some background and some information. Its almost like I know what to expect when I go to first year.

Did you feel that, when you went in? You did feel confident.

I was confident when I went to first year.

So it was easy for you, the beginning?

Ja.

Did you notice, have you noticed, because you probably are still aware of it any difference between the students came in directly into first year, in relation to students who came in from Foundation, like yourself. Is there a difference, was there a difference?

There was a difference in the sense that I think, people that came in first, they normally older so they have more experience, they have like sort of like backgrounds, like some are artists and some came from design schools so they have experience.

People who came into first year?

Ja, came into first year. So I don't think there is that much …

Weren't there people that came from school? Straight from school?

There was, but they all had some sort of out background. There was only like one or two that … that did, there was some that did art but not everybody. There are some that struggled but most of them came from some sort of background.

So you don't think there was much difference between people from Foundation and in first year?

Well, Foundation we had, like, I think, people who came from Foundation knew some stuff like cutting and things like that which is very very useful. I mean, people don't know that, some techniques with the gouache and how to mix it right, things like that.

So you had that sort of advantage.

What about your understanding of design as a field?

That's quite good, especially in history as well, we got a lot of, we knew our way around doing projects and things like that, basic things which are very useful.

…and in comparison to the people who came from school?

They had to start out fresh out on knowing like how to, they sort of, I mean some even went as far as asking me how do you do this and how do you do because I knew from Foundation how to do certain things.

Like what things?

Like, cutting your mount, you know like you must turn it around and then cut on the rough side so that pencil marks doesn't smudge on the … stuff like that.

All that sort of things. And what about sort of Design itself? Did they know as much as you?

Some did, some didn't. Certain design elements, like mixing your colour and.

That's interesting…and things like understanding what the different disciplines were?

Well, yes design principles such as with pencil work and/or with techniques and things like that, mixing your colour right, basic things we knew.

So things like your colour wheel and stuff – that helped?

That helped.

What about the way you taught? Have you noticed a difference between how you were taught in Foundation and in first year. Is there any difference?

Ja, I think there is a difference. Here, they simplify everything for you so it makes it easy for you to understand. Whereas lecturers they normally just scheme over things, they don't give you that detail on how to do things, you have to sort of figure it out for yourself. Because of Foundation I do know certain things that other people don't know. Like where to start, for example, with research as well, how to research properly, mind mapping all those sorts of things.

So that did help you.

That helped.

That was the next thing I was going to say. How much time do you sort of spend on research and drawing and developing ideas and planning before you get to doing the end product?

Its actually quicker because I know my way around the library which is also taught in Foundation, like we, the history lecturer took us to the library and showed us, you know, this is where you find this books, this is how you reference, things like that but colour reference is also made very easy.

And then your design, I mean you actual design process? Is there, do you use that? What you learnt here? Sort of researching and…

Scamping and …

… idea drawings and then moving on.

You learn that as well here, so, I use that idea as well, with the pencil scamping and from there we go to colour …

So that's continued. That process …

Ja.

Do you think the introduction to that last year helped you with this this year?

It most definitely did.

In what way?

Like we know, that, okay now, we have to work in a certain format. Stick to that format, scamping out with that pencil, pencil working, actually doing proper scamps than rough scamps which doesn't really make sense. Doing things like that actually helps.

Yes. Okay, so that's that. How clear are your project briefs in first year? Is there a difference between how it was done in foundation and in first year or was it quite similar?

Not really. I think Foundations was a bit more clearer. But, no, not really. I think, its similar, its very similar. I mean, they give you the process, the aim of the project, … they give you all that stuff.

What is different?

Ja, its more elaborate because you get the actual – sometimes you don't always understand what the lecturer is talking about but ja, I don't know, there is some students that struggle with like language and they will struggle a bit more with understanding the brief because sometimes they will leave the lecture or the brief and then they still don't understand what's going on but I think here they make you understand a bit more, like explain more in detail.

You mean in Foundation they do that.

Ja, Foundation.

And do you think that would be a useful thing to have in first year? To have that happening more?

I think so because I have a friend in first year, she comes from Taiwan, so she also struggles with the speech and things and often I have to like explain again to her for her to understand.

So you help each other?

Ja, we help each other.

I also want to know, what sort of feedback do you get when you have completed a project in first year?

We get, I think we do it individually as well, in first year though?

Yes, well you can compare the two because it's easier because you have had one experience and the other.

Its slightly similar where they sit with, we have our crits at the end of the week where they sit down with all our projects lined up on the wall and they ask us, you know, which one do you think is better and why do we think its better and then they all explain, do we agree or do we disagree and this is why.

So you analyse the work?

Ja.

Is this completed work or is it during the process?

Its normally completed work. Ja, some people are not consistent where they attend their deadlines and actually, you know, go to the lecturer and ask them, you know, what do you think or their opinion and that's where they fall out. That's normally where the project is not successful as well.

Because they don't follow through?

Ja, they don't follow through with the project.

What about during the process, the designing process. Do you have crits then?

No, not really but every term we have a crit so it's just per term.

We used to do drawing and then I would get you into groups of 5 to discuss things – you don't do that sort of thing?

We don't do it like as after every project but we do it at the end of the term.

But during the project?

Aha. No. Not really.

If I think of your self portraits and your labels: you finished your roughs and then we discussed them in the group situation. You don't have that?

No.

But do you discuss things amoungst each other?

Ja, we discuss…

…Informally…

…informally.

So you do do it but not in a structured way.

But its up to you to actually go to the lecturer and ask him.

…and with your peers, with your people in your class, do you discuss things?

Ja, we do. We ask for each others advise and things like that which actually it does help. I mean you get other people, I mean, other peoples point of view which also helps stimulate your thoughts on your scamping ideas.

But its not a formalized thing? You don't have the lecturer sort of standing there and saying okay well look at these 5 points and talk about it and then one of you presents it. You don't do that?

No. We do do it like in the beginning of the research stage where we haven't scamped yet but we just researched …

So your brainstorm…

…right at the beginning…

Ja. To get your ideas going.

So you have that.

Are you encouraged to evaluate your own work?

Yes, we are.

In what way do you think the drawing that you did in the Foundation course has helped you in first year. Has it helped you?

Yes, it has. Gestural drawing.

All your drawing. I think, If you think about your figure and you object drawing, that's one side and then maybe you can think about the other drawing that you did, sort of subject specific drawing because its very different in the different subjects.

I must say, it helped because a part graphic designing is drawing, its very important, especially in scamping. To actually make your work clear and to communicate your idea properly across, I mean, that's very important. We still carry on with gestural drawing in, for story boarding and things like that, we need gestural drawing so it's very important. I mean, even your sweets drawing – mixing your colours, the red and the blue and making shadows and things like that. That helps as well.

So all the technical things that you learnt help, so you use that.

…and foreshortening as well with the matchbox that we did. That as well did help.

Yes, perspective drawing.

So all of that has helped with your drawing with your projects, not just your … you said it also helps with your idea drawing – your scamping.

Yes, with your scamping. It improves that as well.

How do you see figure drawing helping with that? What did you learn from that?

From illustration point of view we do the subject, illustration, and then we use, sometimes we have to do human figures and things inside illustration and then, from what I hear from my lecturers they like the movement in drawings which is, gets to it, in figure drawing as well.

How are you coping with your theory subjects now that you're in first year? Your history…

I think Im doing ok. They sort of balance each other out: the theory and the practical side but, Im doing ok.

So, its been fine for you. The transition – what you got here was enough to carry you through to …

…get me started…

…in your first year. And how do you find the theory subject content relating to the practical subject content? Does it relate?

Sometimes. Sometimes it does come in useful, I mean, when you are looking for certain techniques or style for example, illustration, we use theory things so we had to know our Japanese art or what style they use so that we can apply it to work if necessary.

You mean, you did a bit of that here. A bit like the stylistic analysis self portrait.

Yes. Same thing.

The other thing, have you found your other skills components useful? Like your computer skills that you learnt here and your life skills and the language skills and the reading and writing and the numeracy. Have they been useful for you in first year?

Yes they have. We have a subject: professional practice, I mean, just last week we had a project on excel where we had to draw up a graph and I mean that's also useful – they teach you how to do graphs. I remember that I got taught how to do graphs on excel and that computer training helped as well, checking your work on Microsoft word, that helped, the numeracy as well, you need to know to, you know, do your amounts right and things like that with numeracy.

What about things that you learnt in your other disciplines, subjects? Like your sort of working to scale and your axonometric drawings and your technical drawings?

Yes, we need that. Sometimes in graphic design we had to do buildings and things like that where we also used the technical drawings to do that.

…and did you find that, what you did here has helped with first year?

It has helped. It gave me, it started me on technical drawings.

Did you notice any difference between what you, the skills you had and the people who didn't do Foundation here?

Yes, they struggled a bit on some of the projects. When it came to, we had a project we had to work with a view point, we had to sit in one of the passages and draw the passage, I mean, with technical drawing that helps because now you know, like your, what to do. More of less.

So what you learnt in foundation has helped you there.

Just another thing: have you had contact with students from Foundation this year who aren't in graphic design and has it been useful in any way. What sort of contact have you had?

Funnily enough, I have. Sometimes the courses clash so when you need to know something that has to do with fashion design, for example, I made a rose, I asked one of the fashion designers, I think I asked

Carla, I had to make a rose and she showed me how to make a rose and I used that on my project or for example, when I had a portrait project could go to her and ask her would you be my model and I could, you know, …

So there's still interaction with you guys.

With us. Yes, sort of connections.

Can you think of any other things that you learnt in the Foundation course, that I, we haven't discusses yet or that I haven't pointed out that have been useful for you in first year?

Um… maybe with the colour theory, maybe, with okay we learnt about chromatics but if we had to be explained like how to, sort of like mix different colours other than with your usual colours with the paint. Like for example if you mix black and yellow you get green. I didn't know that at first but um, things lie that could have helped, a bit more explanatory.

Are there other things that you learnt here that you think have been useful there? I mean you just explained the colour wheel, maybe anything else?

With sewing. Sometimes we do sewing in graphic design, believe it or not, and other things like lino cutting and things like, weird things like that, I didn't expect to use it in graphic designing.

You mean from your relief printing that you did here.

Something that has to do with architecture, interior, we using in graphic designing and fashion designing.

So there are all sorts of things which you are finding useful.

Ja.

Now, there's another thing: are there any aspects of the Foundation course, if you think of Foundation course, that you think would be useful to continue into the first year that it would help people if one would continued some of the things into first year?

That's a difficult one.

I think you need to look at, take your time thinking about this it is quite a difficult one, in terms of there's the practical design things, there's theory, there's language, there's … just try and think of the whole course. Is there anything here that you sometimes sit there and think, well I wish we had some of this in first year because it would help me. Is there anything like that?

I think, with, I know there is, I cant really think of anything because even though we had like for example, the language, we had this in Foundation course but there are places that we can go to that people don't really know about like the learning center. Except its not that accessible, I think they should bring it to us though: language and history, and actually sit down with people and their projects and work through them because some people struggle with history like a lot, especially because of language.

People who have been through Foundation or other people?

Other people.

Do you feel that you guys are okay or you guys could also …

We are okay.

All right, you don't need more support.

Ja. I think, I am, I was set from Foundation course.

You were set.

Yes.

Is there anything else you want to tell me about Foundation? That you think would be useful to us? Now that you've had, like, how many months there? Going on 4, 8 ,9 months now almost.

I think in Foundation maybe we should get people to talk more and present their work more because we do a lot of that in graphic design where we had to stand and present our work, think of a concept through thoroughly, for history as well, we do a lot of presentations, power point presentations. I think we should add a bit more presentations into our Foundation because that helps. Sometimes, like in the real world, as far as I know, you have to talk to a lot of people, present your things. That would be very useful in Foundation.

So, the sort of, what we did was during the process of getting you to go into small groups and discuss and present. You think we should be doing more of that.

But more from the students side and their input.

Like the individual students. Sort of presenting and talking.

It becomes, I think it becomes hard in first year, talking whereas if we were to have it more in Foundation course then it become more easier.

Jane – Jewellery Design

Are you enjoying your course?

Yes, its lots of fun. Its just that, like, with jewelry, if you make a mistake you have to start over or remelt you cant just fix it, or say like, okay its part of the design or whatever, so it's a bit stressful. Or melt your piece and you have to start again and roll the metal…

Are you finding the technical aspect quite challenging?

Ja, sometimes. Like I had, like today was a good day, yesterday was a bad day. So it depends.

How did it feel going into first year from foundation. Was it an easy transition for you?

Yes it was. I felt, it wasn't like I didn't know anything. When we started at the beginning of the year we started with copper and brass and stuff and we had already done that in Foundation and the jewelry part, and the sawing. So Fatima and I were like: "Ja, cool, we can do this". So yes, it was easier, so my marks were better then because I had already worked the copper and I knew kind of what to do.

So what you are saying is that in the beginning there was sort of quite a difference and now its leveling out a bit.

Ja.

Was there a difference and is there a difference with people who come straight into first year in comparison to those of you who went through foundation.

I don't know, it is difficult because you do get those people who are really good and start out of and they are like getting 80's and whatever. But, I think, maybe, with communications studies and business that, they are not as focused. They have just come out of school and they are still….and how do I explain? We are used to working hard, we were working hard last year and it has kind of just carried on and some people are still, might want to still …

Learning how to do that.

Ja.

And how about having being exposed to all the design disciples in Foundation. Do you think that …

That helps a lot with drawing. Drawing in design classes, I'm doing quite well (or I think so). It helps, we are not struggling with the drawing, like at the moment, we are drawing hands and still lifes and stuff so it helps a lot.

So the drawing that you did here helped to …

Ja, the drawing that we did here helped. A lot.

And your exposure to all the different design disciples last year, has that helped?

Ja, it has/does help. But at the moment we are doing stuff that is completely different. Like, I don't know, it's not the same, at all. But I think it does help. It does make it easier.

It's weird. We are doing weird stuff now. I suppose it does help. I probably helps more than I realize.

I think I am thinking, generally, more you awareness of design.

I don't know. We haven't really. Because we get told what to make at the moment, so you not really having the creative designing part of things. So that part of things is kind of in a box at the moment, like somewhere. Do you understand what I am saying? But I think it will help, definitely, for next year when we start designing our own pieces of jewelry.

So, is there, in terms of that, is there an emphasis on research and developing ideas.

Not really, see in the beginning, our design lecturer changed. We had one design lecturer for three weeks and then she left and now the new lady does completely different things. In the beginning of the year we were designing our own stuff, but we did not make them, but we were designing them and we had to do research for all our projects, which helped, which last year doing all the research for all our projects, it did help, it made it easier to know where everything is, because like most people didn't know how the library works and how to do…and how the whole system works and whatever. It did help.

So you were at an advantage there.

Ja

It got you well settled.

Ja

What about the briefs are they well organized. How do they relate to the Foundation ones. Are they similar, are they different? Your project briefs…

I think they are the same because they are just telling us exactly what to do. It's just different in the way that it is just jewelry stuff and …ja …

And the sort of process of making things. Is it the same as it was here or is it different? In designing and research …

Well here, we always researched things first and then we put our ideas on a paper and then we discuss it and see which idea is the best and you carry on. Where as now, with the technique part, we just told what we have to make and we make it. You get handed your brief and it says you ring must be 5mm wide and you have to make it and that's it, there's nothing…you know….at all

And your design…research?

Not much research. No. Because we are doing things like, we had to make a big ring and draw it on paper, which had to, you know the punch that you get that you punch up and different colours of paper, and you stick your dots but you do it with tones so you had to work out where the different colours of dots go and the only research was to find the ring that you choose to work with.

And the teaching… is it very different the way you are taught or is it quite similar to how we taught you here?

It is a bit different. You guys were more involved, I think with us, and stuff. Where there, the lecturers are there but it does not feel the same. Do you understand what I mean?

I think so.

Well we only have, for like the design, in that we only have one design lecturer. And so it is a bit of, you have to wait. Whereas before, there was few of you so you always had different input whereas there is only one and you can get a bit stuck …

Did you find it useful to have the different inputs?

Ja, definitely so.

And the assessment of your projects. Is it clear, do you know where you are?

No, not really. They will mark your stuff and then you will only get your marks when you get your report. So I still want to go and talk to them and find out….

Don't they discuss things when they hand it back to you?

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No, you just get your stuff back.

…and they don't discuss it?

No.

…and when you are working do they discuss it?

Ja, they will come, she will come, the designer drawing she will come around and will say you need to do this and that. It's more you need to go and ask them as well.

So that's the kind of change as well?

Ja

So they mark your stuff and you only know later on, and then you are busy with technique at that stage and you've got to try and find time to go and see the Design or Drawing lecturer to go and ask her and stuff like that and then it can become a bit hectic.

So ..you say they mark the stuff and then they give the marks. They don't discuss it with you? You don't get any feedback?

No. Not with drawing.

So they wont tell you well, we think this and this…

No, they will just be like, your 60% will just be on the board. You know, everyone's names…

What about crit situations? Like we used to have here? Do you have a lot of crits?

No. We don't. We did in the beginning with our first design lecturer. She would take us outside, it was lots of fun, we would sit like where the mosque is and she would go through everyone's stuff and then we would all talk about it

Who was that?

Vasi, I think…no not Vasi, Verna.

So the other lecturers don't really do that. Or she will take you, when you hand your stuff in, I think she has done that once, she will take you to the office and then you talk and she will be like, okay, so I know you didn't finish the project then she will be like, you need to finish your project, I'm going to take marks off or something and then you just go. But you don't get to see and hear about other people's stuff because that helps a lot. Because I remember the one lecturer, John, took over last week for our drawing classes, our lecturer wasn't there and He did a crit at the end of the day, at 4 o'clock, he was like "everybody come sit here" and he spoke about everyone's and I actually realized, more realized, what was, not wrong with mine, but what I needed to work with mine by seeing other peoples and hearing what he had to say. It helped me a lot. So I went home and fixed it up.

They used to get that here. So you were used to ….

What about just informal, talking to each other?

What, with lecturers?

No, with your peers.

Ja, no, we do, we talk all the time. Let me see what you are doing and …

You discuss things? … that should help.

Yes, that does help. But sometimes they do like in technique they get a bit irritated with us if we ask other people because they say that we must ask them. But that is just maybe sometimes that they do, I don't know, I don't really take that seriously. I always just go look at everyone's, see what they are doing. Its fun.

Do you miss that? That you such a varied group of people to work with?

Yes, I do.

Do you still see your friends? I mean, people who aren't in jewellery?

I see a lot of Bridgitte. I sometimes see them around, but I'm mostly stuck in that world, in the jewellery design.

So you are a bit cut off?

Yes.

What about your theory subjects? Did Foundation help you? Did it help you with that? Did it give you skills to cope with that?

I think so. But we've got different subjects, like business and metallurgy where we learn about our metals and tools and stuff that we work with… and we have communications. Communications is completely different to last year. Last year was a lot of fun, we learnt about, like we did more history and that and this year its more about, learning how to speak, not speak, like orals and I don't really know, like we have done an essay on like a covering letter for a CV so it's completely different to last year.

Does it tie in with what you are doing? With your work and stuff?

No, not with Jewellery. But I think it does help with learning how to write a proper letter and speak … and do discussions and stuff but otherwise…

What about the skills programs that you did here?

Skills programs?

Like your language and reading …

Ja, I think it did help. A lot. Like my essay and things I got a good mark.

And things like the computers, workshops and things like that?

No, we don't really do much. Because they show us because we are first years so they, if we have to do a power point they show us again how to do it, but it did help because I kind of knew what to do.

Do you think there should be more things that we do, that we cover, in computers, other than MS Word, Excel and PowerPoint.

Um… Maybe photoshop would be fun, if you guys could do that, because I stress out when they try to teach us to do photoshop. Because there is also only one lecturer and to try to get each one of us, like 30 of us … it would be nice if you could do some photoshop. Because its lots of fun once you get to know how to use it.

Well, I think we could probably fit that in. In fact.

..and then they will…sometimes I think like ahh…computers, Microsoft word and …um …and then I'm like, ah, Photoshop. And then, I don't know, maybe they will be a bit more excited about it. I don't know.

Thinking about your practical work here, all the different projects that you did and all the different disciplines, design disciplines. Did the skills, technical skills and other skills, design skills that you learnt from those, has that been useful for you, in your first year?

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It has, ja. Like with drawing, and with design, like knowing where to start, start off. Like I know that it has helped me but I don't how to…

…to articulate it…

Ja.

What about your colour? Because you were very good with colour? Did that help you?

Ja, I suppose but we haven't really worked much with colour. But like with the dots thing, like with the toning of where to, because like some people were a bit freaked out that it was actually with dots and you had to stick and how you going blend them together, and it has helped because I did find it a lot of fun, because I kind of knew how, I could see it before I did it…

So your colour wheel, your tints and your tones there…

Ja.

What about exploration of different mediums and materials, from foundation?

I think so. But, what we are doing now, is completely different. But I think it has helped but I am not sure.

Is there anything else that you would like to say about foundation and first year?

Well, I think that doing the Foundation course was a really good idea because then I really knew what I wanted to do. Because like there has been two people that dropped out so far. Because they thought, because when you get there it is completely different to what you think its going to be and you realize its maybe not for you. That's why the Foundation course is good because you get a feel of everything so that you can figure out for yourself, instead of now, going into first year jewellery finding out, its not like going into first year fashion, you know, where you get to do it all in one year… so like….

From that perspective it was a good thing.

Ja.

Is there anything else you would like to tell me about first year?

Well, apparently we must be happy, we must enjoy the free time we have now, because first year, apparently is a breeze, well not for me but to all the second years and third years they say…"I remember first year, it was so much fun, we could just leave whenever we wanted to because apparently in second and third year it gets very hectic that they stay there till like 12 o'clock at night sometimes working and stuff…whatever. So I am going to try to enjoy what's left of this year.

But you are well and you are enjoying it so it was the right choice.

Ja, it was the right choice.

…

We need to learn the basics. We knew how to saw, we knew how to do all that stuff, we knew how to put the mix together and how to make mix, I think if you give too much information to them at once, because we only get about, like three weeks….or how long did we have?

Five weeks with the extra project.

Add an extra, would be too much. Like I had fun with like what we did because otherwise I think I might have freaked out a bit.

Glenda – Interior Design

Okay, Nadine, I just want to ask you a few follow up questions to the interview I did last. I would like to know, having done this course how you found going into first year. Did it help you in any way that you can think of?

Yes, I felt very confident, at ease with what work they were going to give. I felt I knew what sort of preparation was required and I just felt a sense of ease.

Do you think, were you aware of any difference between students who had come through the Foundation year and people who went straight into first year.

Yes, I found the first year students, the direct first year students, they seem to be slightly confused as to what was expected of them, mark wise, work wise, effort wise. In general, the standard that the lecturer was looking for.

So you felt the Foundation people had a better understanding of things.

Ja.

If you think of the Foundation course and it being sort of integrated and having a multi-disciplinary approach in that you were exposed to all seven of the design disciplines that are offered at the CPUT, do you think that held you in good stead in your first year?

Most definitely. I was able to grasp concepts and ideas from the other disciplines and use it in the interior design field. I cant think of an example directly.

I was going to ask you. Was it just in your general awareness that it helped?

Ja, general awareness. I'm trying to think of an example now. What I can think of, is in the figure drawing, it, in the clour analysis, it helped us, it helped me in the beginning with um doing another colour wheel, figuring out what colour to use in our initial project. Also the drawing style from figure drawing … No, I cant make the link now, but generally I thin…I think it mostly gave me more confidence knowing that I've been through all the disciplines and knowing that I've covered the concepts and being familiar with the concepts and knowing that they are at my fingertips should I need it.

Have you made, is the teaching approach similar to Foundation?

You mean to interior design?

Ja.

No. Definitely not. They, the interior design approach is more learn as you, figure it out for yourself. Foundation course gives a good, a good, like, explanation and preparation instructions so that it, a student or a learner knows exactly how to structure their project. The outline is made very clear whereas the interior design outline is very loose. I found it professionally loose in terms of certain instructions that are given to us. It was either here or there. I don't know if it is because it is purposefully done so, to make us think or because the lecturer just by accident forgot to put in those little details but I find that the Foundation is very, is very like suscept and very detailed. Its very, its to the point, you know exactly what you are dealing with.

That was the next thing that I was going to come to. Do you find that the briefs are handled in a similar thing but I think you are more or less telling me that now. You know, things like your assessments. Are they clear? Do you get clear feedback during a project? Do you get feedback during a project that's clear or only at the end of the project.

Um, feedback during the project in interior design is very hairy because there is one lecturer amoungst thirty of us and because there are a lot of students who are direct first years, most of them are very confused and the teaching style of the lecturer is such that it leaves us with a lot of questions. So the

lecturer spends a lot of time during the project answering certain questions that should be in the brief, I feel.

And um, what about working, you know, as a group of people in the sort of, in the class situation. Do you ask each other questions, do you help each other? Do you do a lot of that?

Ja. There's a lot of, um, grouping together trying to figure out what the actual requirement are or you know, does this idea sound great. But, I do get the feeling that with some people there are not like, they are not to keen to share their ideas because of plagiarism and such

So, its not always open.

No.

Do you have crits like you used to do here? You know, where you, is it similar? During the process, if you think of your drawing and your label project and self portrait project and things like that. Do you get together and crit?

Ja, we do crit. It can be harsh at times, but the lecturer does make time for crits.

And does that give you useful feedback?

Yes it does.

Do you crit each others work, the students, do you get together in groups and discuss things and crit each others work?

Yes. I did.

Was it not done in that sort of formal way with your lecturer.

No.

Not. So was, how was the crits conducted?

The informal crits?

Ja, with your lecturer. How does, she didn't get you into groups to discuss things?

No, we did get into groups and small little groups and discuss say our projects and whatever feedback might come out.

And then your assessment at the end of projects – what sort of assessment did you get? Was it clear?

It was more like a crit at the end of our project. We present our project and then there would be some sort of a crit from the lecturer.

How did you cope with the presenting? Where you, do you think you were adequately prepared in the Foundation to cope with something like that?

Yes. The architectural presentation helped a lot to present because there it was quite formal, it was as if we were presenting to the client.

So you applied what you learnt from your architectural technology in Foundation to presenting in interior design.

Ja.

Ok. That's great. What about the skills programs that you did last year? Did you find them useful at all? This year, in first year, you know like your computer skills …

I found it helpful because I had forgotten most of those skills and plus we didn't have computers in interior design they somehow cancelled it.

Ja, I think what they did there was, because you did it in Foundation you were exempt from it.

No.

No that?

We didn't have computers.

Not at all.

No. When I say 'we' I mean the …

… whole group …

… the first year class. I don't know why.

What about the numeracy component. Do you think that helped or do you think it can be further developed?

I found it adequate. I found it actually more than adequate for myself because I didn't think that numeracy would come into play so much, like, what is the area of the room and how many tiles would you need to full up? That didn't actually occur to me until we did it and working out interest and interest on capital, I think that's very helpful for future, for anybody's future. It doesn't matter if you are in design or not.

Those life skills.

Ja.

…that you are talking about that's useful.

Ja.

If you think about your theory that you learnt here. Was that useful? Has that been useful, for your first year?

Yes it has been useful in terms of finding inspiration and finding concepts to use in design.

Did it adequately prepare you for writing and analysis and analyzing things and …

Not really. I think the lecturer was a little bit, she was, I cant find the word for what the lecturer is like but I don't think she adequately prepared us for the level university was accepting because she could of pushed it up a notch and been more strigid on our analysis because the university, the history of art department first year they are pretty strict and I find that this course, the history of art course and the Foundation course can be more strigid and more tight.

Okay, so it needs to be sort of developed in that direction you feel.

The emphasis that we placed on research and preparation for projects before kind of doing the finals. Has that helped you? Do you use the same sort of system when you do your design work?

Ja. Basically there has to be preparation time. I think some of the first years, the other first years, they do realize that the technique, I just call it a technique, of first jotting down your ideas and then developing them can, does help a lot. That's the way it works, well for me, that's the way it works.

Did you find the exposure to drawing in different ways in the Foundation course of use in that sense?

Yes, I did. You mean figure drawing?

Not just figure drawing. Just the emphasis on sort of, concepts, drawing your, visualizing your ideas and yes of course, I mean your object drawing, all of your drawing if you think about it.

Yes because it actually in interior design, I think in all design, a person has a concept in their head, you know, you can't, well I can't, go to a client or to the lecturer and say well this and this and this, I have to draw it. It has to come out, it has to be authenticated by me drawing it out. So, and drawing it out makes it a whole lot more concrete so when the plan gets drawn out in final, there's a whole string of images that I can use, well that have been developed so that the final is as fine and as moulded as possible. So the drawings are very important in developing the concept and also in allowing the person to change and refine and make it better, or just discover new, a new concept.

Do you find that we emphasized that enough. Did that help you? Doing that in Foundation?

Yes.

Has it helped you this year? Is there the same sort of emphasis?

Not really.

Or is it just something that you have taken through from here?

That's what I have taken through from Foundation.

..and then … do you have contact with Foundation, ex Foundation students who are in other disciplines and what sort of contact, if you do have them?

Well, I don't have contact, direct contact, but some of the Foundation students are on Facebook and I see their little comments now and then and I comment back.

So you discuss work amongst other things?

No.

Not really. So its more social?

Ja.

Is there anything that you would like to say, is there anything more you would like to say about the Foundation course? that you think that should be further developed that will help, you know, with first year? Any other thoughts? Looking back now.

No, not really. I think the Foundation course is pretty well rounded and is a good stepping stone for people who have come from matric who want to go into a design discipline. It helped me a lot because I had no training in art or design before and it taught me a lot, it gave me, it taught me a lot in art and design which gave me a lot of confidence and a firm footing to enter into a first year design class. I actually felt like, wow, I actually knew something because I have a bit of an advantage.

Did that advantage go very quickly or did it sort of remain for a while?

It remained for a while because it, another thing that Foundation course taught is time management. And most first years think we don't need to prepare, we don't need to jot down these ideas, we will just draw up the final picture three days before the deadline and its impossible to do that.

So, it taught you time Management, that's great. Nadine, I would like you to tell me what your plans are. I know that you've decided to move onto something else, can you tell me how you arrived at that decision and do you think that what you learnt here is going to help you in some way?

I've decided to go into environmental management basically I'm just picking up on what I left off many years ago and what I've, what I can take with me from the Foundation course is the academic environment, working with lecturers and other learners. Also the deadlines and time management but it's a totally, its science vs art, its very different but what I can take from the foundation course is that it has

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taught me how to utilize in a totally different sphere of things. Its something that I've never, it's a part of my brain that I've never used before and its, its just as hard as trying to understand a theory, writing up a theory, ja, that I can say.

So do you think that the design process, the whole thing of thinking through ideas and drawing them up is going to help you find more creative solutions?

Yes. Hopefully, yes. Ja, wanted to just use that well of creativity and if its not there one has to create it and make space for it.

I'm going to have to interview you again I think.

Why?

No, no, just to see how you are doing with your next thing and how this has helped with that.Why did you decide to leave interior design? What made you make that decision.

Well, I wasn't enjoying it. I think my spacial perception is okay but it doesn't sit well with, we did many drawings with exercises that, okay this is the width that a person needs to move around in a kitchen. It makes sense to me logically but it's not something I can do for, as a career for a lifetime, it bugs me because I don't work well with spaces. Ja, so, and also I felt that creatively I didn't have that edge, perhaps if it had been cultivated in me since a young age perhaps then I would have had that edge but I felt that, as I'm sitting now, I didn't have that passion or that ability to just come up with the, a brilliant idea, the ideas that I was coming up with were based on what I learnt and what Id, the experiences that Id been through or what I had seen but some of the ideas were quite stale I felt.

Your idea.

Ja.

But now, you didn't feel this during your Foundation year?

No, I felt very like fresh, but in terms of interior design, its difficult to come up, I found, the area that there is to come up with like revolutionary ideas is very small.

So you reasons then are, for moving into your environmental management, you just feel more comfortable with the …

…with the sciences. Well, we yet to see actually because I haven't been in the sciences for, about 9 years now and I'm going to pick up, either I'm going to do my masters in physiology or I'm going to do my masters in environmental management. So we will see how that pans out, it depends on where I am accepted. But I'm rooting for environmental management.

Ja, I think that's quite a good choice. I mean, just looking at it broadly. I hope we are going to keep in touch.

Ja, I will do.

Interesting to know how you progress there.

….

Well figure drawing, for me, I feel is a whole life body experience. Ones got to tell ones hand, just draw like this, or feel the movement, or feel the apple. Ah, gosh, it takes a lot and observe, observe means, for me it was just to, oh there's a blue bottle, that's just an observation but when you say to observe it means to take in the shape of the bottle, feel the shape of the bottle, almost be the bottle. I had to get around that. It took me a while because drawing for me, I hadn't been trained in drawing before and figure drawing, although it was the most challenging, it was the most enjoyable, once Id got the hang of it. For those few milliseconds, there's this one drawing that I've kept that I think I'm going to hang on my wall. I think that's when I got into the whole zone of it – I wont, I don't think Ill every throw that picture away but that's, for those few milliseconds, it was really rewarding.

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Well I hope that holds you in stead for all the other things that you do. That sort of ability to, what did you call it, just 'zone' in.

Sophia – Interior Design

I would like you to tell me how you have adapted to first year after your foundation year?

Well, Im comparing myself to all the other students. I think it's definitely a head start. Actually I expected it to be more complicated and more difficult than what it is actually.

Do you think that the Foundation course helped with that a bit to make it less complicated.

Yes, I do. I do think so and also, the type of person I am. I haven't battled at all so far in my first year so it's really been fine.

So you are enjoying it.

Would you say that there is a difference between those of you who have been through the foundation course and those of you who came straight into first year? Can you see any difference?

In our particular course, interior design, not really. I think we have lot of weak students that came from Foundation actually. So that could be a problem. The other students are quite creative and those got in a bit too easy.

Foundation Students?

Yes, I mean, comparing them to the rest of the class, I expect more from them?

I don't know, maybe its laziness, maybe its part of their personality. But for me Foundation course definitely gave me that kick-start. But I don't think they have used that and they are really slacking down and it is a disappointment.

All of them?

No…I wouldn't want to mention names.

Don't mention names…

Majority.

It's definitely the weaker ones that was in Foundation

Did Foundation help you and in what way?

Yes. Definitely. Definitely time management, it helped me with time management. Changed the way I worked in foundation .. from the way I worked here, to interior design… everything was laid out for us we knew exactly what our next project was. This year, everything just comes as it is. It is very unorganized and you really have to adapt to that but definitely the foundation course helped in a way that it set boundaries so, I don't know, it was sort of scheduled in a way, helped me set up my own schedule during …

So it gave you a footprint for becoming organized.

What about your awareness of design as a field of study. Did it help with that?

Yes, I definitely have a wider design.. aspect… I see design fuller other than just interior design. So I try and incorporate a whole lot of other things I've learnt in foundation into my interior space. I always think back and there were always ideas that I wanted to do and I just left and then I went back to them.

Are there skills that you learnt here that you can use? Skills from the other …

Definitely yes.

Can you think of any skills in particular that you applied to your design work this year? Are there things that you learnt outside interior design that you applied to your interior design course?

I think of the interiors that I have done. I have, instead of choosing a chair that is already designed I would rather design it myself. I would say that that is what I have learnt in Foundation…is to be creative and also surface comes in a lot when you use different surfaces, other than using surfaces that are already there, you I design my own. In that aspect, Im designing, Im trying to design everything which sometimes makes my schedule a bit longer, that's the only thing, the downfall. It's a good thing.

So you are thorough.

Yes

But that is also how you are.

What about the briefs? Are they well organized, are they different to the Foundation, the design projects briefs.

I think they are very much the same. The only thing is we don't go through them as long as what we did over here. Also foundation helped me understand a brief, and read appropriately before you do a design because, helped me, read it over and over because there is always something that you leave out.

So you analyzed it.

Yes.

Did your theory help with that over here? Over here, and the skills, maybe, language skills, reading skills.

The way you went through the brief, you went through it thoroughly…

The way *I* went through it…

Yes, the way you went through it…

You started in the beginning, went to the end, explained every detail and we don't get that now. Its just you get the brief and da da da d a..

Do you think It would be more useful if they went through it again with you? Maybe I should rephrase that? Do you think that the Foundation people find that easier?

Yes. I think, I find it easier, because it was the first time getting briefs and things like that straight after high school.

Used to the process…

So I am used to the process of getting a brief and understanding and reading through it.

And the process that we put you through here, the research, the kind of five year planning…some of those? Different?

Definitely. We just don't have that much time to spend on research and getting ideas so we have to push that. So we have to push that, in a way, Foundation also helped me, because I spent a lot of time doing research and now I find it easier to do.

The teaching approach. Are you taught in the same way?

No. Over hear we are a bit spoon fed in a way. In interior design, you only get an answer if you ask.

So it is not as intensive.

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Do you think it was problematic the way you were taught here?

No, not at all. It was a good thing to start off with. It helped me a lot this year.

So you don't need that support.

It also helped me ask questions all the time.

So you are not scared to ask questions.

What about working in the class, in the studio situation. Do you get lots of feedback, about how you design during the process or do you only get feedback at the end of the project?

We get feedback all the time.

Well, its up to you. If you are not in class you are not going to get feedback, you have to make sure you are in class and speaking to your lecturer all the time.

What about the crit situation?

We have crits all the time. I think we can have more, like today, we had crits but not with the lecturer, she put us in pairs and you have to crit your one friend and your friends has to crit you. Also the crits are more straight forward. What I can say is that I do not take crits personally any more, I've learnt that the only way is to learn from it. I think my lecturers picked it up that I am actually very good at it, I like criting, Im very good at criting and she always asks me to crit someone else's work. She also is not scared to crit me in a bad way because she knows I can handle it.

Do you think you learn that here?

Definitely. I never really had that at school. I mean, just basic school, I never had art or anything so it was a first time someone would crit what I am doing.

And the peer crits helped as well?

Yes, you learnt to understand other people way of design.

So you learnt to analyse each others work.

Do you get good feedback after you have finished a project? After you have completed something?

Yes. Basically you are crit'ed and you get good feedback if your work is good.

So its not just a mark, you get feedback and are told why you got given your mark.

It's a presentation, after every project, you have a presentation. You present your work and if the class has anything to say they can say, mainly the lecturer talks and she tells you what you could have done right and what you could have done better, and what you should not have done and she will also say that is a bad thing and that is a good thing.

Did foundation help you with that? Learning to speak about things?

Yes.

How are you finding the theory in first year?

I am very familiar with it because I did it in foundation, and I never ever done it before, so it is much easier because Lee drilled analyzing into our heads, she did it over and over and it really helped me a lot. In the beginning of the year I struggled a bit because the lecturer was a bit different and I didnt actually know what she wanted because I knew Lee's way of marking and eventually I got the … because my history lecturer is not so keen on questions, she does not like questions, she will just tell you go read the brief.

So she is making you stand on your feet.

Do you think that is a problem?

Yes.

Should more of that happen in foundation.

No

So you think the other needs to happen in first year? Do you need more support in first year?

Yes.

Lee was very good at what she did.

But now you are fine so maybe it was just in the first part of the year that you need more support.

Yes it was in the first part because I was not sure what she wants or how she marks.

So what about your theory content, does it relate to your practical? Can you see a relation between them?

Our lectures are very open because you are with graphic design and in our tut, we have tut, she tries to focus on interior design, if you research it, she knows where it came from and the history of it …

So you have a context for it. That you got in Foundation?

Not really. In foundation you focus more on portraits. But… the basic understanding…

But you gained your understanding there.

Yes

… so you can applied it to other things so that is what you are doing?

Yes

How about your researching skills? Do you think that what you learnt to do in foundation has helped you in first year.

Yes, definitely. I am not that good of a researcher but this year I have got the hang of it and am starting to do it faster. Because spend hours doing research when I am ony supposed to focus on what I am supposed to so that was my downfall last year.

So you are finding a balance now?

Yes.

Do you see a lot of the students from last year that are in other disciples.

Yes, I do see my close friends from over here, I see them often, and then, basically I see them in the lecturers.

Do you talk about work at all?

Well, when we do see them we ask how is the course and studies. That's basically what we talk about.

So it is all work related?

Yes,

That's quite good

So you are getting insight into what they are doing.

Yes

Have you called on them for help or advise or anything like that?

Not yet. Um… Glenda, I have, I have asked her, she was my close friend here. I have asked her about a specific design because I wanted her to help me with a specific pattern…

Glenda in surface.

Yes, with a specific pattern for a laundry basket that I wanted to design.

Is there anything that you would like to see from Foundation taken into first year?

We don't have any communications and that is a vital thing to have.

What aspect in particular are you thinking of?

Vocabulary and things like that.

So the language. What Monica was doing?

Yes, I didn't do it last year and I think we need it this year. We are supposed to have it but for some or other reason there was an election.

Is there anything else you want to say about Foundation? Is there anything you feel that we should be doing?

Everyone I spoke to about design recommended Foundation because I really enjoyed it and I am glad I did it. I was not supposed to do it, my parents did not want me to do it. I did not know what to expect when I got here because I did not know what it was about. I thought it was a stupid course. I realized it was actually very educational and I think that all designers need to find wide idea of design other than just their discipline. It helps in a big way. Because design is all linked together.

…

A lot of students in my class that I think they don't know what they want to do and also some of them have talents in other design fields where they are better in something else and they are always going back to the lecturer and asking, do you think that this is the right thing for me to do.

So do you think Foundation would be good for everybody else?

Lots of them don't know about this course and lots of people that I spoke to said they would actually have done this if they had known about it.

Iris – Fashion Design

Ok the first question, Iris, is um, how did you find going into first year, after having done Foundation. Did it help?

Mm, yes I'd say it helped a lot! From knowing things, how things work in design and how to do, okay in terms of drawing and stuff and in history, Yeah, it really did help, in everything actually. Not that we did much in fashion here, but when I got there, then there's a lot that we did here that we're still doing there.

Did you find a difference between the students that went with you from Foundation and the ones who've come straight into first-year?

Yes. I did, because they're like, when they get there, they're so not sure what's going on, and we from Foundation, we like, we know everything, okay we don't know like everything, but we know much stuff. And then they're like, even the marks, we got like, um, better marks than them, because they're still a bit confused, not exactly, they started fitting in round about June after, our holiday.

Okay, so did you feel like in the first half of the year you had an advantage and now it's becoming more even. Okay, um, what other difference did you find between you and those students?

Skills, we've got more skills…

You've got more skills than them, and uh and understanding of design, generally.

Yes.

Okay, is the teaching very different in first-year to Foundation, or is it, um, the same?

Ya, it is in sort of a way, because they, they treating like, uh, in first-year they treating you like okay, you are a mature student, but ya you're like explaining everything of design, if you're giving us briefs then you still explaining to us, but there they can just give you a brief and then just recap on it and then you have to go and everything yourself, you have to go and find everything yourself, so we from here we actually know what's going on in the brief, how we're supposed to look at the brief and stuff, but then the first-year students who wouldn't come to Foundation, they don't know that. So it's kind of like in Foundation but they don't teach exactly the same there as…

They don't, okay. And what about the sort of feedback on the work that you've done. Do you just get marks or do they speak to you about it?

Most, there are a few lecturers that spoke, that speaks with us about the project, otherwise the others just give the marks and then that's it. Maybe two or three.

So the assessment is not like here where we gave you the assessment forms and it was explained.

It's not the same.

Not. Do you go and ask them?

Ya, that's why they say it's your responsibility. If you're not satisfied or if you want to know anything about your work then you have to go and ask.

And do you do that? Do you feel confident to do that?

Yes.

Oh, okay, good. And during the um, the design, when you're designing, in the middle of a project and so on, do you get feedback from your lecturers and students or…?

Ya, if you do, if you go and ask a lecturer, then they give you feedback then they do but if you just sit there and do your work then no one, the lecturers don't even bother to come and ask you, it's your, it's sort of like it's we who must go to them, they don't come to us.

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And does everyone go and do that when they need them?

Mm, not everyone, not everyone.

Do you guys, because there's quite a lot of you who went in from Foundation, do you talk to each other about your work?

Yes we do, but in my group, it's me and a few, uh, girls, so we normally together and then ya, we do talk about that stuff.

Do you have crits during projects? When you're doing projects? Like you did here when I'd get you to go into groups and you'd have to discuss a few points and talk about it.

Hm, not all the time, not all the lecturers do that. Only a few, as I said.

Um, do you crit each others work, though? Amongst yourselves?

Hm, ya, we do.

You do do that.

Yes. We do that before we hand in or after.

Okay.

Ya, we do crit each other's…

Do you use the way of doing things that you learnt from Foundation to do that? Did it help you?

Yes, it helped a lot. A lot!

Um, and, the way you go about your projects, do you still do it in the same way? Do you research and develop things?

Yes, we do research, um, in ever project. Not only for theory but for every project.

And you develop your ideas. Is that encouraged by your lecturers or do you just do it?

Mm, Some lecturers do encourage that but then some they don't even say you can do research. But then they do give us a website at the beginning of the year that we must go and do so, in ever project that we must do. If you kind of forget about that then they don't like reminding you, they will give you, but then you just have to know and have to do so.

You remember that and do you use the way of work that you learnt here.

Yes

Do you do it all the time?

Yes, I do it all the time.

And does it help you?

Yes

What about the people who didn't do Foundation?

Um, they aren't doing it exactly the way we did it, the ones who are from Foundation course, They just…because they told us there is the website that we have to go and use that, but then they don't really think that it helped, it helps to go and do research and stuff. So we, from the Foundation, we using that internet and that, um, the library to do research, and then the website that they gave us, but then they just use the website or they um, the first-year students that come here, or the just use um, the website, now

and then, or they just use it for their own stuff, they don't use it for…okay so we see it the other way and they see the other way.

And do you help each other, have you told them?

Yes, we do.

You do, ok, that's good.

We do tell them that, but they don't really get it, how it helps. But we tell them, 'Ja, it helps, we did it last year', and then they do they research their project every now and then.

And then you can do it, ja. So do you, are you encouraged to evaluate your own work, to look at it, to analyse it, by your own lecturers, and to talk about it with your other fellow students, or do you do it on your own. Do they tell you to do it or do you just do it.

They…ya, they do encourage us to look at our own work and to evaluate it with other students and with other lecturers, we can go to other lecturers and say...

Okay so you can go and ask different opinions. Um, how are you coping with your theory subjects this year?

Theory, um, the one that we did here, the history of art, ya, it helped a lot, you know, when I did it here. I'm kinda getting good marks and stuff. And then, for business and other theory, because it's too much theory for us fashion students, because it's kinda not exactly balancing with the design but at least I am getting there. Not exactly the same way as history, the one that I did here, but I am getting there.

Is it taught in a different way, is that the problem, the business theory…?

It's not taught different from a, but it's the way they evaluate us, because we get one evaluation a term so we don't get to, to get much marks.

So you don't get mini assessments and things.

Yes, so it's only one evaluation a term and then that's it and then if you pass it you pass it and if you fail, you fail.

Okay, so it's a problem.

And then you have to try again next term. And you only have one subject a week. If we have business on Monday this week then then we having business next week. We don't have many times during the week. So it's four weeks a month then we have it for times and then the fifth week we're writing.

Okay, alright, so it's a problem with the timetable as well. Um, what about your skill components that you had here – your life-skills, your computer skills, have those things helped you?

A lot, mm because the beginning of the year, we were doing the powerpoint, Microsoft Word and other stuff so we had to present and they didn't really teach us how to use Microsoft, because we did it here so we were quite ok, we know what to do. And then our first history project we were supposed to present and they said 'Okay, use powerpoint,' and we know how to use powerpoint and stuff so it helped.

So you feel confident doing that.

Yes.

Okay, that's good. And, um, what else was useful for you that you learnt here, in first-year, can you think of things that you learnt here?

3D, doing 3D stuff, ya. It really helped, because i wasn't really having patience to do those things, so now when I do it here I can do it and I can do it very good. And then, the drawing skills. I wasn't that good, I was just drawing, like normally drawing, but now I can really look at something and then draw it, and uh,

and I have like, good drawings. I can draw figures. And the other thing I notice is that the students who are doing BTechs and third-years, most of them, they're like tracing models and stuff, they're still tracing models and stuff, and we don't. Especially the ones from Foundation. We're like ok, you just say I want this position and just draw it and then and say, 'ah this is good, I can do it.'

So your figure drawing really helped you.

Yes.

Well, you made huge breakthroughs with your drawing here, I remember. So you're just going on from there, it's just carrying on. I'm very pleased to hear that.

From life drawing, Deon says, 'hey, good, you're from Foundation.'

Oh very good, that's fantastic. Um, do you have a lot of contact with Foundation students from last year who are in other disciplines, like surface and graphics.

Yes, especially surface because we're on the same floor so we each other now and then, and then we have some other theory subjects together, three subjects we have together so we'll normally be in the same groups, like doing group work and stuff and staying in contact like that. And then in Graphic, no, uh, Industrial, a few, we have like contacts with them and then, um, Architecture, no, it's far. And Jewellery not much,

Except for Esethu?

Ya, except for her in Jewellery. And then here in Foundation, there is this girl that I know, but I don't know her name. I met her through friends and then I found out she's doing foundation. So ya.

So you're in contact. What do you talk about? Do you talk about work?

Um, because I only saw her a few times and then we were just talking about Design in general and then outside there are, because she's normally in Long Street with those designer labels and stuff so we kinda talking about that, how do you get your stuff to be somewhere. We just talk about just general stuff, not specifically Foundation.

Yes, I understand. And the other students, from Surface, Industrial...

Ya, we normally talk about what's happening in Fashion and what's happening in Industrial and how it's different, why it's different and blah blah blah. Uh, Surface, we will talk about common things, because most of their stuff is like, sort of like, we do it together because they were like making, they're supposed to do a design and then self-screen it and then make a bag. So they can't sew, so they have to come to us.

So you help them.

Yes we help them, we give them ideas. If we have projects, they also give us ideas. If we…

Okay, so there's a good dialogue there?

Connection, yes. Because on computers we work on the same programs, and they doing the same thing we do, the repeat pattern, they're doing the repeat pattern and then other stuff, so it's kinda like…

Something happening there…

Yes…

And do you feel the fact that you learnt to do those things in Foundation has helped?

Yes

To understand?

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Yes, it has helped.

Do you think in terms of the computer skills we have, we do MS Word and Exel and Powerpoint, do you think it'll help to do photoshop towards the end of the year, in Foundation?

Photoshop and Coral Draw, it would help, very much.

You think it would help. Just an introduction.

Yes, even if it's one of them. Because photoshop you find some of the stuff in Coral Draw.

OK

Ya, even if it's just an introduction just to get, ya, because when we got there we were kinda like lost, like, ok this is quite interesting but why didn't we do it last year? But even if it's an introduction or something.

Alright. Um, can you think of anything else that you learnt in foundation that is useful to your studies this year that we haven't mentioned so far?

In fashion, um….cause we didn't sew that much so I wouldn't say sewing.

Is there anything that you did here that is useful there, that you think is useful there, for you. That I haven't mentioned. You've mentioned drawing, you've mentioned 3D…

Time management, I'd say.

Time management, okay.

Yes.

So you feel that's helped.

Mm, a lot. I can see that ok, I know how to manage my time, from the point where I came in at the briefing and I know how to…

Are you glad you did Foundation?

Very much, ya. Me and Bridgitte, 'cause we're in the same group, we normally say when you know, if ok this takes us back to Foundation, we normally say, 'Hey this is Foundation, oh it helps, ya,' because now you see we can do this and that and that. We normally talk about it every now and then, every now and then. 'Okay, now we got this from Foundation, that's why we know it, that's why we're doing it like this.'

Okay, so you and Bridgitte are making connections.

Yes (laughs).

That's good, that's very good. Um, ya, is there anything else that you'd like to say, that you can think of…that you can think of that was important or is important that we haven't mentioned?

I'd say everything, it's…everything we did here, it's quite okay, it's not okay actually, it's great, it's working for everyone that's going there 'cause speaking from the industrial students point, they're saying Foundation helped, and then the other, um, architecture, people say, 'Okay, ya, architecture, I mean Foundation, helped in this and that and that.' So I'd say also it helped in everything, Foundation helps in everything, so things just need to be added, like more things here and there, ya, otherwise everything else is just great.

It works well? What other things do you think can be added, we've talked about Photoshop maybe, what else?

Mm, in Fashion, because there, we got there, there's…okay, we did it like, a bit of sewing here and then, a bit of illustration. So, illustration's quite…okay, and then sewing I wish we could, like…

Your extra project? Remember you had your extra and you exam project as well?

Yes, the, um, where we had to do, um, patterns and stuff, that's also okay, but then in terms of sewing…

Do you think…

If we could just add, maybe two weeks to…to introduce the students to the machines, just, uh, just to control the machines, because at the beginning of the year that takes, like, quite a few weeks to get to the first project of sewing where we get…otherwise it's not like…

Okay, but maybe that should happen in the extra project, where people have made their choice…

Extra project, ya….yes.

Because it's going to be very geared for the Fashion people.

Yes.

So you think that there should be more technical input there?

Yes technical input. Because when you get to first-year, it's sort of like, 'Okay, you were in Foundation course, you made this bag…' and everyone doesn't know how to sew but they did make a bag, because they helped us a lot because they sew the bag for us, instead of us sewing the bag.

Oh, okay, so *that* shouldn't happen because you're meant to, that, that period where you're meant to sew with machines is where you need to learn to sew with the machine. Okay, so that needs to be looked at. They shouldn't be helping you that much, you should be doing that.

Yes, exactly.

Okay, and then in the extra project, what other technical skills do you think they could emphasise.

Uh, in the extra project everything is alright because that's the area, that's the same thing that we're doing there. Ya, it's just that, that's it, there's nothing…

There's nothing that needs more, it's more in the introduction week that people should be made to work more? Okay, I'll try and build that into the timetable…. Okay Yandisa, well, if there's anything, nothing else you want to say – you fine? – that you can think of?

What, um, the other thing that I'd just like to say is that, um, they shouldn't take, like okay, in every first-year they should take students who didn't come, you first didn't come here, like, if they don't have an, um, art background…

They should come here first, to Foundation?

First, they should force them to come here, because when they get there, at least those ones who have like an art background, they can cope, they can hope, like, here and there, but then those ones who came from doing medical something or medicine something or anything, they should start here because they just get, lying there, and they get lost.

They should come here. Good, I'm glad you said that, now I can go back to them and say that. Okay and I wish you very well and it was lovely…is there a big drop out rate?

Yes, very much.

And is it the kids who haven't had art who drop out?

Yes, because it's, like, the others said, 'Uh, I think this is not me, this is not mine, I don't think Fashion is good for me,' uh or the way they do things there it's not exactly, but it's because they don't really know how it works in the design field or something because they all just say, 'You know, they think we know *everything*, they think we…blah blah blah. They don't really know how to be responsible and forget about

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the lectures because the lecturer likes giving you what they just have to do and then you have to just work for yourself. That's what we learn here, okay, time management, we have to do our researchm blah blah blah, and then they don't know that, so they just say 'This is not how it's supposed to be,' so they drop out. Whereas we know how to do it if the lecturer can't give us that sort of…

So those kids should come here? That's what you're saying? They should be referred to us.

They should come here.

Okay, thanks very much. I hope you do very well.

APPENDIX O: FILMED INTERVIEW OF FOCUS GROUP FROM 2008 DESIGN FOUNDATION COURSE

Mari: You are the same people you were at the beginning of the year, but, there's (sic) more of you … not physically. So, it seemed to me a very cool thing to have a PowerPoint presentation and to talk into slides. I think it would be much more interesting for you to let people have your views into this course. Um, who didn't do art, at school?

Group: (Together) Me.

Mari: So in this Group, how many of you are there?

Peter: 13

Clint: 14

Mari: Fourteen of us. Only two people did art at school, is that right?

Irene: I only did art for two years, like standard nine and Matric.

Mari: You did do art?

Irene: Just because I chose to.

Mari: For those two years?

Audrey: I did art privately for about nine months last year.

Katherine: I did for a term.

Mari: You did for a term.

Clint: I've been doing art since standard three…and two.

Ingrid: I did two art subjects.

Mari: There are other people who had not been exposed to it all, ever. Who did something else, other than being at school – matric – before coming through to our course?

Glenda: I did.

Mari: What did you study?

Glenda: I studied my BSc Honours degree and then I studied a year of medicine. And then I quit.

Mari: I was just going to say, that's amazing. What sort of subjects did you do in your BSc?

Glenda: I did stuff like chemistry, physiology, microbiology… biochemistry, physics…

Mari: So you're really really really really a head person coming in, well that's what you came in with. For me what was amazing was that you came up with wonderful, creative solutions for a lot of your projects.

Glenda: Thank you. I must admit, when I got to it, it was like a head block. But how I work around it is that when I sit down, I'm forced to think about it, and then I just go with the flow.

Mari: So it's the initial getting into it and then you relax into it and then it starts coming.

Glenda: Mmmm...because I don't have that process, that like, um, thought process…the best I can explain it is that the project is over here and that from a distance I can start thinking about it. I have to be faced with the project and be like, cool, now what, and then move into it.

Mari: And move straight into it…

Ingrid: I studied last year as well. I studied adventure tourism, management, info-trading, but only for a year. I finished my first year in Pretoria so I decided to head to Cape Town.

Mari: And the shift, do you feel you've made the right shift?

Ingrid: Yeah, definitely. Um, ya, I mean it wasn't amazing. It was average.

Violet: I also studied last year: tourism, for a week. There was (sic) too much notes. I think for one week I wrote about five pages of notes and then I thought, 'Nah uh, this is not for me!'

Mari: So does Lee not get you to write many notes, in your theory?

Violet: No, we just paste.

Ingrid: I do miss that though, that whole theoretical side. Like, there is none of that here. I'd look at my notes, my files from last year – I don't know if you feel the same way - and be like 'oooh, okay!'

Glenda: I was ecstatic about no notes, I like to get in there and do it…

Mari: And do things…but the thing with your theory that you've been doing is, considering that a lot of you come from backgrounds where you haven't had art, um, just looking at the project behind us, in order to get there, you did quite a lot with Leigh. Learning to look at images, and analyzing them, putting them into context. Did that all happen?

Group: (murmurs)..yeah.

Mari: It all happened. So that when you came to this project, um, how was it? I mean, because you did a lot of preparation - we sat down and planned that.

Clint: Even so, if we did this project at the beginning of the year, we would never have coped. So even the theory program helped us to prepare for this project at the end of the year.

Ingrid: I think we, cause we started to learn to analyse, or that was like the first thing we learned in theory and basically that's like essentially what we've done throughout the year. And it's, to actually, I still feel now to actually sit down and analyze something properly, it baffles me – I don't know how you guys feel, but anyway – but like I really have to think about what, it, do you guys understand what I'm saying?

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Mari: Yes. Yes but is it better now than it was earlier?

Ingrid: Ya, of course.

Mari: It's all a process and I think that's the beginning of that and I think that it's going to continue, I don't think that that's going to stop, I think that that's just the start of it. But the important thing is that you have started with it.

Clint: If you start next year with this, in our first year, we would have definitely have struggled. I think that's maybe mainly the reason why most first years fall out, because they can't cope with that. So I'm glad that we did this background, I'm very glad.

Mari: Yes, so you get some context. And then with your practical, it was mentioned that you wouldn't have handled all this earlier on. If we take, because this is just a starting point, it's behind us, this project, if you think of, um, your initial projects that you did in gouache, you know you started with your less-is-more.

Peter: Colour wheel

Mari: And then your colour wheel, and then your…

Ingrid: Surface Design

Mari: Surface Design Repeat, and then…you went into your typography, type an image and then this. So would you like to speak about that progression? Did that progression work?

Peter: I think especially the colour wheel helps…especially with mixing colours, it made it so much easier, we knew what we were doing.

Irene: And even the cushion covers, mixing those colours…

Mari: What about your colour theory?

Audrey: We need to learn to work more with the gouache and what colours to use to be able to actually accomplish this because even this is a lot of work. Even the theory work that we've done , without knowing the background behind that story, we also won't have done as well as we've done here.

Mari: So that did help. You feel you need more?

Peter: Colour theory, ya.

Ingrid: Ya, colour's so, like, dynamic, there's so much to know about it.

Clint: And especially someone that had never had art before, comes in to mix all these colours. He doesn't know what to mix with what to get those colours. So, maybe, I think a background in the beginning of the year, which colours makes what. Because you can make infinite amount of colours with those three primaries [colours]. But still, those basics, what to mix with what to get what.

Mari: But still, you did get that. So do you think that that project was aimed at the right level? And I'm asking you that because that's one of the ones that I teach.

Clint: Ya.

Audrey: Yes.

Mari: And the theory, the color theory that we work from is from Johannes Ittens and that is from the famous foundation course from the Bauhaus and we've adapted that to work with process colours, not just working with artist's colours. Did that confuse you or did you come to grips with it? Was that alright?

Group: It was fine

Mari: So that was alright, so you never had a problem with that. But you would like it in more depth next year?

Clint: Ya.

Mari: Would you like a recap of that?...or just for it to opened up a bit more?

Group: Ya!

Mari: Alright, I think we can pass that on.

Maggie: I think it depends on where you're going, cause in graphics we do the colour theory and stuff…

Ingrid: But I think, Like, I don't know, I came to this course with no design knowledge at all and each project for me, was so, as an individual yet when you look at it from a far it is a whole. But that colour theory doesn't really matter what field you decide to go to in the end because you just need that, like, this is what that is about – it's a foundation course – hence basics. And it's like you need that, that initial start line, otherwise…

Mari: You need to apply it in your…

Ingrid: I think what you're touching on is very important because our foundation course isn't just for one specific discipline: we've taken all the disciplines in our – that are offered in our faculty – and we have tried to unite them together, you know. They're working as a whole and we've got more simple ones and more complex ones. Um, do you feel that the course as a whole has given you a good overview of design as a whole? Are you more aware of what it is?

Group: Ya, definitely.

Peter: I find I'll be walking around and I'll look at stuff and I'll analyze it.

Mari: That's excellent.

Audrey: Especially, I take a train from Kuilsrivier and I walk past the library here up the road, and I think it was one Tuesday morning, after we had architecture, Greek architecture, a Greek architecture theory class, and I started looking at these and I was like 'I know what this is! This is a styled painting!' My friend Karen, who isn't here, she and I were like, 'Yes, this is this and this is that' and to actually be able to see things, it was like, wow! To actually see things, to see the theory that we have adapted over the years, and to see it in theory and to see it in real life, it was like wow!

Mari: So there is an awareness of things.

Audrey: Yes.

Glenda: And also observation, through figure drawings, I've really learned to observe. For me, observation is really staring at it, that's the level of observation that a person needs to really see the little tones and tints. Definitely. And, Mari, you taught us to talk to yourself, to see the shape of the apple, and feel the apple and taste the apple.

Mari: That sounds a bit like me.

Glenda: That's a skill, and it's a tool in my box now.

Mari: The drawing, yes, what was really interesting for me was sitting in on the students that had registered for architecture, their presentation, and some of them, and they, some of them worked with their drawing more clearly. In other words: working with the whole, putting their ideas across. No one had an awareness, if I think of the great skills that you've developed over the year, it's incredible to see how you've progressed when you put up that work and look at that drawing, It's quite amazing, you came with these tentative little drawings. Do you want to talk about that, Clint?

Clint: I'm the guilty one.

Mari: You weren't the only guilty one.

Clint: The thing is, when you look at architecture drawings you have this image, these clear lines, only line work, but Heidi really tried to get it across that you must work with your drawings, that you must make it communicate, not that you have to explain yourself – the drawings actually explain themselves.

Mari: I tell you.

Clint: And like, we still struggle with that. I'm still the guilty one with that. I tend to go back, I tend to think about architecture drawings as just lines, no depth and stuff like that and I'm still struggling to get that mindset.

Mari: But if I look at your sketches, they're really clear.

Jano: Ya, the sketches, ya.

Mari: But there mustn't be a shift from that, you must move from the one to the other. So in the drawing, what I was trying to teach you is to use the drawing as a thought process because we are, you were saying earlier on, very much a practical discipline, and to apply that. I was very pleased to see how the industrial design students were using their drawings, for developing ideas. And you had a bit of a hiccup there, Ingrid.

Ingrid: Ya it took me a long time. I think that we've consumed a substantial, so much information this year, that we can't even comprehend that right now. Like for me it's still…

Mari: it's still got to be digested.

Ingrid: Ya ya, so like when you, I don't know, it took me ages to get my final design for my hairdryer. I went through maybe 30 drawings of this damn hairdryer you'd think it would come, you know. But like, just like, a block…

Mari: But you did get it in the end.

Ingrid: Ya, I did.

Sophia: Talking about the figure drawing, I find it quite difficult to work with the form, you're like telling us to work with the form, '*look* at what you're drawing, look at what you're drawing.'

Peter: Especially work from the inside.

Sophia: If you look at my drawings until the first year, it's nothing to compare, because I really couldn't compare, because I really just thought it was about the outline, and it looks just like a scribble. But actually when you're more aware, there's like something. There's a form.

Mari: That's good. I think it's partly similar to what Glenda was saying: when you sit there and start working it out, things start flowing.

Glenda: Ya, it's like a key for a door, and when the door opens…that's what I've learned from this course.

Ingrid: in terms of figure drawing, that is one of the most essential parts of this course, because you know, you like apply it to everything, every project that you do. To conceptualize as a whole, is basically what you're doing when you're doing figure drawings. And to take that back into your projects, I try to think about when I'm drawing I tray and take that into when I'm conceptualizing an idea, like a drawing or a painting.

Mari: Well that's good, that's part of the idea, that's what it's meant to be doing.

Ingrid: But I've heard overseas that a lot of foundation courses have actually stopped that figure drawing classes, which I can't understand why.

Mari: You know trends come and go, there was a strong trend of what I call Neo, kind of conceptual art, kind of performance art. It was very big in the 70's and we've just had it again now: in the late 90's and into the new millennium, so I think everything goes in waves. But in fact if you take a longer view of things and you look right back, um, at the art academies starting at The Renaissance, um, drawing and design, design, that's what it is. Sketching, making something from planning, to make something. And if you think of the great architects of the time, people like Leonardo, I suppose da Vinci, you can see that process. So in a way you've involved in that process. But what I wanted to ask you as well was, um, with research. Has the emphasis on that really helped you?

Sophia: Speaking about research and planning and whatever, for me, when I was in school it took a long time to think of an idea. If you've got an oral or something it really took a long time, because we got our exams and we got an essay, so just the amount of time you have to think of a topic, to speak about, um, I've learned to think of ideas quicker, or use symbols.

Mari: Why is that, what's the shift? What's made it easier?

Sophia: I think at this stage you have to think of where you're heading to, and something, like a symbol, something to symbol what you want to do.

Mari: Can you use an example from one of your projects that made it easy?

Sophia: With surface, there's lots of planning. You have to think what shapes you're going to use, what colours you're going to use. All of that you have to think of and it takes such a long time before you get to the final idea, and the closer we got to the end of this year, it became much easier for me to think of something and to produce the end of it.

Mari: So the process of designing, is that what you're trying to tell me? The process of designing has become much easier.

Sophia: Which is more important.

Mari: Yes, that's very good.

Clint: I'm very much the same as her. When I started with industrial, I think it was standard nine, ten…seven. It was standard seven. I tended to not do a lot of research, just get a couple of images and then, boom, I'd have an idea. But then I don't go further with that idea, I don't develop it more and work with it. I just get this idea and work with it. It's the same with my essays as well. I didn't scribble down, what do you call it, spiders…

Ingrid: Brainstorming

Clint: Ya, brainstorming. I just started and wrote down the whole thing..and that's what forced, actually you guys forced us to go through that design process, to go and get research, go and work with your ideas and get to an end product. And that was very hard for me. At the beginning of the year I struggled.

Mari: I noticed that.

Clint: Ya.

Mari: With the less is more?

Clint: Ya.

Mari: Ya, Clint was there for two hours saying 'here's my thing' and I was like, 'no no, go back.

Clint: I struggled very much with that. That helped me, that approach helped me. That's why I'm so glad we did this architecture stuff at the beginning of the year, because that thinking process you really have to work with that, and that helped me a lot to get to…

Mari: So, by the time you got there you had the process.

Sophia: Also with the festivals…

Mari: That was early on. That is my nemesis project. Every year when I start it, I stand in front of it and think 'Am I doing this project again?' And when I come to it again I think, 'Actually it is very good project because it is making people go out and research. They've got to look world-wide to see what it is they want to work with.'

Clint: Ya, we did a substantial amount of research for that.

Mari: Ya, it's your first real research project. Whereas the less is more, you have to start somewhere. You see, at the beginning everyone is very keen with the less is more. Lots of photographs, and I say, 'Is that

clear enough? I can't see legs there, I can't see pincers, this view's not clear.' There are levels and levels of that where you actually have to find images that are clear to work with and then you are also researching concepts, you know, and Ideas when it becomes more complex, like your hairdryer or your architecture drawing at the end. The festival one was a theme. Now I'm sure that that made it easier to look at cultural colour when you looked at cultural colour for your cushions. So you know we've tried to get the program to slot in, and I need to know where you think it is slotting in and where it isn't. Are there…

Clint: I promise you, you accomplish that very quickly. You think about a lot of…you accomplish that.

Audrey: The process of the year, you've ordered in such a way that develop in the same way and when we come to the final project, you already know, ok this is the process on how to start, with our research, with our concepts, with our drawings and the you start and then you final artwork. And with every project that we had to do, that for me, helped me a lot.

Mari: What was the breakthrough for you?

Francesca: Ya, well I was going to say, what with the research and the design project as well I think deadlines also helped us a lot to help get our brains working faster.

Mari: Good, good.

Katherine: Ya, because I know a lot of us felt with our final projects that we needed more time. And that kinda helped, especially with our extra projects, I came up with one idea and I didn't expect it to come to...because the end part of my project, I was a bit uncertain that I needed to go back and research more, but I was very proud of it in the end. Because I started with one design and I kinda kept that design in my head and I kinda built it up in my head, and that was better.

Mari: So you refined it.

Katherine: Ya, but I didn't change my design at all, it just helped me from stressing out, I think.

Mari: So how did you go about getting it better, what did you do?

Katherine: Well, it was too simple, and then I started adding a few more things, used different images and kinda like put them all together and moving around and stuff like that. And, looking at my time, I was like, ok, this is how much time I have, I've got to think of something. The first thing that worked – I didn't put a whole lot of things to together –I just picked something that worked using all my different elements. So I think deadline was the main thing for me to get my brain working faster.

Glenda: Well, for me, I don't know if it's because I'm theoretically inclined but I feel that if we had a bit of a theoretical – maybe ten, fifteen minutes - of, this is the design process, *a,b c,d*. In retrospect, I know it now, but had I seen it at the beginning, I would have known, Ok this is what I must hone in on.

Mari: if you think about your briefs, let's get down to that, the criteria that I set out and you have your pointers there. These are the things we look at: preparation, research, concept technique, your time management, interpretation of the brief, understanding and interpreting. That gives you your key, what you're explaining, that gives you your structure. Your project is structured in the brief according to those criteria.

Peter: That took me a while to get into. I found, like half-way through the year, like half-way through the project, I'd go back again and read my brief and hope that I'd covered everything, all the aspects in the brief. I never used to.

Mari: Go Peter! That's exactly what's meant to happen. I'm so pleased!!

Peter: I know.

Ingrid: Like, what you're trying to say is that it must be put in the contents. Like, yes, you give us the brief, but that is so unfamiliar to us. When we first get that brief, it means, I dunno to me it meant nothing. As Peter would have done as well.

Mari: So how long did it take you, longer than half a year?

Ingrid: I think design, as a whole, has so much to do with our everyday life...I think we need to in a way, connect with that more. It's just like we have this project, blah blah blah, but there's no actual background to reference. And that is like what you're meant to be doing in your research, but if it were implemented more here, in class, maybe like ten, fifteen minutes of, 'In this field, these artists did this and these designers did that,' you know, and, Go and look at this and go and look at that.' And it is starting to happen, but personally I feel it needs to happen more.

Mari: So it was happening in this project? But you feel it should be happening more with all your other projects. Maybe what we need to do is to look at the projects. Ok, so it happened here, you did the analysis, you looked at the artists from different time periods and different movements.

Sophia: For architecture, we also had a good background, what was that guy's name…Trevor…he even took us outside and showed us a few things, things that we're not even familiar with.

Mari: Like actually kind of pointing things out to you, that's good. And your fashion, did you get a thorough introduction there?

Katherine: For my fashion design project was how like Vivian Westwood would design something, like her background and how she would design something, kinda inspired me for my surface design project.

Peter: I also found with this last theory project that we've just done, I found I actually learned so much. Just looking at the different industrial designers, it was really interesting. I'll probably go and look at more, just because I can.

Mari: But you actually wouldn't cope with that project at the beginning of the year because you have to learn how to analyze things. Maybe it needs to come a bit earlier. How can I say this, that project is set with your exam project. In other words: when you've made your choice. So it lies in with your extra project and your exam project and it's meant to enrich those.

Peter: It worked.

Mari: it worked for you. So that's what that project was about, it was actually meant to fit in with that.

Ingrid: In a different form then. It's just like I didn't know any industrial designers at the beginning of the year, or any designers to actually pull a picture.

Peter: I had to actually go to the industrial designer lecturers to ask who I could look at because I actually don't know anybody.

Violet: I also struggled to find industrial designers for surface, so I had to Google…

Mari: That's good, so your research…

Violet: But I found it a week ago before I handed in my project.

Ingrid: The internet is so broad though. If somebody comes up, it means nothing to you. You can read about them, you can understand them…like with the architecture, they said go and read up about so and so because…

Clint: Ya, they did that very thoroughly.
Ingrid: Ya, and it's like this is what I should be looking for in these designs. So when you look at somebody, you can actually understand their designs because you've actually looked at someone else's design. Am I making any sense?

Mari: Yes, you are making sense. Are there any graphic designers here?

Maggie: Yes.

Mari: When I introduced the extra project to you, with the illustrators, the children's book.

Maggie: I think that figure drawing helped a lot. Ok we did like an animal story but to actually look at an animal from full form is quite difficult. It might look very simple but it's quite difficult.

Mari: What about my introduction where I showed you different famous illustrators, did that help?

Maggie: I actually understood what they actually did. Like some work gesturally, and others work different. I could understand the process that they were going…

Mari: You could understand the process that they were going through. Now there's another thing, you changed from interior design to graphic design. I think it was the right change to make. Can you tell me how you found the way to that?

Maggie: In high school I did woodwork and things like that, I was more a technical person, but once I came to this course and was introduced to each and every design field, I actually liked graphics but I found it really really hard because I didn't do art…

Mari: The drawing…

Maggie: Yeah, I really really struggled with the less is more project and after a while it became easier and I found that maybe, ya, graphics would be…

Mari: What made it easier?

Maggie: Everything, the whole process, everything.

Mari: Everything that you learned from all your subjects, the design subjects.

Maggie: Because when I came to the foundation course, I didn't know anything. Nothing about colour or…but at the end of the year, I was actually fully-equipped.

Mari: And your drawing, did that help?

Maggie: That helped as well.

Ingrid: Everything overlaps though, which is so intricate.

Mari: That's good to hear.

Sophia: And also, say if were given something to do for interior design, the first thing I do is to think of every design field that we've done, like surface and gesture, so that helps a lot, it broadens.

Mari: Violet, you also changed.

Violet: The reason why I changed is because I got colour, I thought fashion was the greatest thing in design, but when I came here I knew nothing about colour…

Mari: So you like doing the colour wheel?

Violet: Yes, I like colours. I found fashion design very simple for me. There weren't a lot of colours I could use to do stuff. Surface design is a little bit easier because you can come up with a separate design and you use patterns, and then you just add colour and it becomes something else.

Mari: So you're very happy with your choice, that's great. And Sophia of course, you came in to do interior design and that's where you've stayed, but you got very involved in all your subjects.

Sophia: Generally I was registered for graphic design, but that is something I definitely didn't want to do. I was forced into it, so I was glad that I wasn't accepted and moved into this course which I knew nothing about. For years I wanted to do interior design, and this course was so easy for me, I enjoyed coming here every day.

Mari: Well I didn't know that, it happened by default, I'm so glad.

Nicole: Well interior design is always what I wanted to do and what I stuck with at the end of the day and I showed my parents.
Mari: Ya, that's great. And what about you?

Jane: I did apply for fashion, but I never got in. I didn't know about this course, so they said I should try here and now I want to do jewelry. I never thought of jewelry design as course, I didn't know it was offered. It was the last thing I thought I was going to be doing, but I really enjoy working with my hands and creating things rather than drawing.

Mari: You like making things.

Jane: Ya, I like making things…I can actually make things that fit my fingers and arms now. Like I've always wanted to fashion since I was a kid – my mom was in the fashion industry – but the projects that we did was a block.

Mari: It wasn't your thing.

Jane: It wasn't my thing. And like the illustration one that we had to do, we had to choose a designer and base our designs on what that designer does. It didn't work for me because I drifted off into what I wanted to do and that's where I lost marks because they wanted it exactly to that person designed. So I was like, that's not for me. I can't work in that way. With jewelry, I could just do what I wanted. I get carried away, it takes a long time to come to a final design because I get all these designs and I don't know what to do with them, I don't know how to put them together. With jewelry it seemed to fall into place.

Mari: Violet was saying with the colour, it's about placement. Iris…

Iris: Ya, I did fashion last year and I found myself really struggling in terms of colour, and research, because in first year they don't really force you to do research, it's up to you. So I didn't know what research to do. I normally work fast, so I was rushing myself and never did my research. Coming here really helped me. I know that I have to do my research so that I can go to another step and from that step to another one. Firstly I used to do my research and find an idea and like Maggie said, jump to the final project, I used to do that, but coming here I do my research really nicely, like step by step. But even last year, in terms of gouache, I never used any gouache before, and they never taught us how to use gouache, I didn't know how to mix colours. Ya, we did have colour studies, but we didn't have the basics. So from here I'm learning from the first how colour works, how to use gouache. So I was lost, I was really really lost. The illustration we did here, I did so much research, Because I knew I had to do research. So firstly, I did illustration before, but I never did research so what I did here compared to the ones I did before, there is so much different.
Ingrid: Where did you study fashion before?

Iris: Here. I was very very bad, they never told me about this course, they never gave me information. When I was in fashion, there was no one telling me that I had to come to the foundation course until I failed. I got a sup for the practicals, for the history of art, I failed it because no one told me about referencing. So when I failed that, they told me about this foundation course that it can help me. I didn't want to give up, but I didn't know what to do next, so I asked them and they told me that there's this foundation course that can help you. They said, 'Maybe you can change from fashion to something else,' and I said that I didn't want to change to something else, but at least they can teach me the basics here. So next year when I go to fashion, I can be able to use gouache, because some of the tools in our kit, they never taught us how to use them.

Mari: But you've learned how to use them. Well I'm very glad you were here, we accepted you immediately when they told us. How about your drawing?

Iris: My figure drawing, I don't know how it happened, I used to do them before, but I never knew that I could do better, that I could do more. But now you are telling us to do this and to do…

Mari: Push push push

Iris: Ya, to push. Here you really, really pushed me, to work with the form, to do more. And so I was like I can do more, but before I never knew that I could do more, I never knew that I could draw the form that I was seeing. But now I know that if I push myself, then I can do well, I can improve.

Mari: But you never knew how to get into it.

Iris: Ya, but I never knew how to, and I never enjoyed it that much, but now I enjoy it very much.

Mari: Will you promise me that you'll continue getting into it and that you'll keep pushing yourself more and more because you know how to get into it. Your progress there was absolutely phenomenal.

Ingrid: It's so interesting what Iris just explained, because Tyler felt the same thing from the interior design and then making the change to foundation. She just felt like she was dropped in hot water, they didn't teach her.

Iris: They expect you to know most of the things, they don't tell you anything. They give you this brief but they don't force you to read the brief. I know now to read my brief, there they give you your brief and you have to go to do your research, and if you didn't do your research, they don't explain exactly how to do it. They tell you what to do, and they give you examples. You don't know exactly how those examples happened: did they use gouache? Did they mix the colours? They don't tell you, you have to find it yourself. So come foundations, they force you to really look at things.

Mari: So you're glad you're here.

Iris: Because over there they expect you to know most of the things, like tools, like gouache, illustrations and doing research. Over there, they do illustrations using like gouache but they don't teach you the techniques how to do it.

Ingrid: But the design faculty should really push this course more, because when I was researching adventure tourism management, theoretical, practical, there is none of the creative side. I didn't know anything about design, and like Jane said, she didn't know anything about jewelry design at all, and then you look at the CPUT website there's industrial and…and that's why I chose industrial. It was the only thing that actually appealed to me, what I could read on the website, and it was so little.

Mari: So we have to get our advertising together on the website.

Ingrid: Nobody knew about this foundation course, did you guys know about it?

Group: No.

Glenda: It was perfect, I knew where I was coming from I knew nothing about art or design, I knew I wanted to go somewhere that incorporated design, and when I found this course I just knew, it was my saving grace.

Ingrid: Where did you find the course?

Glenda: Online, I don't know how, but I got to the CPUT website and there are not many institutions that offer a foundation course and I was lucky that it was here in Cape Town.

Mari: Like an integrated foundation course.

Audrey: My dad knew about these open days and when they would happen, and even when I was in grade 10, I'd been coming to the open days.

Bridgitte: Me as well.

Audrey: I was at one of the open days at one of the years with my dad, and I was like, 'Wow, look at the graphics! Look at the fashion!' And my dad was like, come look here at the foundation course, here's the fashion projects, here's the graphics all the architecture projects that had been placed up from the previous year. And I thought: this is really nice! And I was talking to one of the foundation students and

she told me what it was about. And every year when I'd come back I'd see how people had improved and how this has helped them. So I knew about this course and I wanted to do architecture - because I'm from a technical background – but I thought that this course is great and that I'd first do this and then go into architecture. But when I came here, I was like: I don't like architecture as much as I used to, I like everything else more. And this course helped me decide what is more for me as a designer.

Katherine: I think we all come here with our own creativity and this course just exercises that creativity to lead us to where we want to be. Because when I came here I wanted to either do fashion or interior and one of the students who told me about the foundation course – she's studying masters in fashion design – said that I should come here and do the foundation course first.

Bridgitte: What happened with me was, when the open day was at the Belville campus, I went there and decided that I wanted to do fashion and so I did research the whole time. The next year it was here, and it was the first time that I saw the foundation course and I probably had an hour's talk with the people here and then I decided that I was going to do the foundation course because of all my years when I wanted to do fashion, I registered to graphic just in case – because I did graphic as a subject – and that's how I chose, at the end of this year, that I wanted to do fashion.

Mari: So you went through the whole process and came back to fashion.

Bridgitte: I did *a lot* of research.

Mari: But do you feel that it was worthwhile being in this course.

Bridgitte: Definitely.

Mari: That's great. Irene
Irene: I registered for jewelry as well, and I was upset because I didn't want to do it, I did another course - I did a teaching course for two years and I worked for two years – and it really wasn't for me.

Mari: Teaching as what?

Irene: Preschool. It was a lot of hard work. I enjoyed working with children, but it really wasn't for me. I mainly concentrate on the art part of teaching kids, but when I registered, I didn't get in, until my brother – my brother's here, and a friend of his said it – and so I said: ok well let me do a foundation course, and I thought that it was such a waste of a year. But after doing this course I've learned so much. I mean if I start next year – I'm barely equipped now – If I hadn't done this course I think I would have probably dropped out.

Mari: When you say that, you mean you've learned a lot of skills and it's become more complex so you feel you're up to a point where you feel you'll cope, is that what you're saying?

Irene: Yes. I've become more confident.

Mari: Vey much more confident.

Irene: Ya, the only thing I could do is draw. I did the two-year course and I did a project in visual arts, I just knew a little bit about colour and how to draw, but designing, I didn't know anything.

Mari: So that course at Cape College, if you went straight from them into us?

Irene: Into first-year jewelry I don't think I would have coped.

Sophia: I was going to do that. I think it was Cape College, College of Cape Town? I was going to go and do a year of interior design there and come to the Cape Tech, but I'm actually glad that I came here.

Mari: I'm very glad you did too.

Jane: Next year we're going to walk in chuffed.

Peter: I can't wait for next year, for first year, we're going to be so far ahead of everyone else already, it's going to be fantastic.
Clint: When I applied for architecture and I didn't get in, they referred my portfolio here…

Mari: Yes.

Clint: But then they replied and said that this was going to be a foundation course for architecture. They also told me that the foundation course is the same as the first year of architecture, and I thought: Ok, at the end of this year I'm going to switch over to the end of first year and then next year I'm going to go to the second year of architecture. I was totally confused about this whole thing and how it was going to work, and then at the end of the year we went to this little thing, and Sophia called me and told me that she was also going to be in this multi-purpose thing and that all the disciplines are going to be together, and I thought: Ok. Then we came here and were told that all the disciplines are going to be together for the whole year. And then I realized that I was going to do fashion theory and all that stuff – I didn't even know that I was going to do all that stuff.

Ingrid: I was exactly the same.

Mari: Was it a pleasant surprise?

Clint: Ya, it was very cool.

Bridgitte: There was a form that I had to fill in with my subjects so I just ticked three.

Mari: Fred, do you want to join us? Come, come and sit down.

Ingrid: I actually went to the industrial building and was like: Hi, I'm here for the foundation course in industrial design. And the guy was like: what? What are you talking about? And I was still in like Pretoria mode so I was super early, and you know in Cape Town nothing starts until nine 'o clock, if you're lucky.

Clint: That made it very difficult for me, because I had woodwork and technical drawing at school and I loved working with my hands, but then I came here and started working with the industrial and this less-is-more, and then I thought I'd do industrial. Then we started with the graphics, and I thought I'm not going to do architecture anymore I'm going to do graphics. But then I spoke to you guys and you said: what about graphics? Because I did very well in my typography, but then I spoke to you again and you said that the only course that combines the technical drawing and the graphics and working with your hands and computers is actually industrial. And by then we hadn't done architecture yet, so I thought: I'm going to do industrial next year. And then we started with the architecture projects and I totally fell in love with that stuff. Again with the technical drawings and building models and working with your hands.

Mari: So that's what you wanted to do. Was all the other stuff useful for you?

Clint: Ya, very. I just think that while I'm going through my first, second and third year and even my forth year I can combine this the graphics and the techniques I've learned by building models and stuff and combine all these skills I have to help me during my course.

Mari: Well I hope that they will hold you in good stead, all the different skills that you've learned.

Clint: I just think that they should promote this foundation course a bit better.

Mari: So you're going to help me do that?

Group: Yes!

Mari: Thinktank it, brainstorm it so we can do it.

Peter: Can you handle more of us?

Mari: Absolutely. Then they've got to give us more space.

Peter: I think they should make this course compulsory. Before you go into first year, I think this course is a nice transition course from Matric life through into first year.

Mari: And if you have done something else.

Glenda: What's happened at the university that I studied at is that in first year they make you do something called complementary sciences. They mix, like, Genetics and a whole bunch of sciences that will help you in whatever field you've chosen. So perhaps in all the first years there's a foundation course that's core to each and every design course, so maybe this foundation course can be integrated into their first year into every single term.

Ingrid: I'm a bit confused, do you mean, say I go into graphics, in my first year, I do…?

Glenda: You do the foundation course…

Mari: Our foundation course.

Ingrid: Oh, ok.

Glenda: In the graphic design.

Ingrid: So then our only focus would be on graphics, but at a foundation basis, is that what you're trying to say?

Glenda: No, you focus on all the fields but when you're in graphics.

Jane: I think that some people get scared by foundation extended first year and they think…oh…like I didn't do anything last year, I just sat around at home and worked, and I thought I'd just be wasting another year.

Mari: So what happens now with you is that you're going to be getting your diploma in four years. You've done your foundation and then you'll go into regular first year.

Clint: I generally thought that they're going to learn us (sic) in this foundation course how to work with ArchiCAD and how to make technical drawings and how to build models and all this stuff. I didn't think we were going to be this busy, I just thought it was going to be a laid back year to learn you (sic) the skills you need for architecture, I thought that's what I'm going to do and then I got this pleasant surprise.

Sophia: I think a lot of people thought it was a waste of time – like my parents did – so I think they should advertise it.

Audrey: I was going to go straight into architecture, and my dad was like, 'Do this.' And I was like, 'Okay.' I went to the design open day where they took an hour away from the main open day and you were introduced to what architecture is. My dad came to the foundation one and I went to the architecture and then we shared information and he was like, 'No, this is more interesting, come do this.'

Mari: Fred, what are your feelings about my course, what did you find useful?

Fred: I found everything useful. When I came here I came with a mind that I thought I was going to do fashion, because before I came here, when you spoke about design, I only though about fashion and I never knew about architecture design or interior, I just found out this year. I came here doing art; I'm an art lover, I'm used to doing paintings and sculpture, so at least I came with that background. With the basics of art, I thought that it would be useful and it turns out that it was useful. The reason why I chose architecture as my career for the future is because it fell under the same category as design, and fashion just flashed out of my mind: it became boring for me.

Audrey: We had a nice swap, you went from fashion to architecture and I went from architecture to fashion.

Mari: So the diagnostic aspect of this course, the fact that it introduces you to all the disciplines is pretty essential.

Clint: Not only to help you make a decision for first year but also to learn all the skills to apply to whatever field you choose to go into.

Break in filming from 1:01:50 – 1:07:40

Mari: Marilyn you would like to tell us about yourself, you've been very kindly filming this entire interview.

Marilyn: Well, I'm second year now and I did enjoy my foundation course. What I have gathered now is that all the students are very much focused, as opposed to my first year where I didn't know what to expect. It was mind blowing, I didn't know how to time manage: I landed up working three nights through the night just to I could finish for the Friday morning. And what I've gathered is that you guys have gathered enough confidence to go to your selected course and you can go and finish your selected course easily, where as, still, I don't have enough confidence in myself to know where my limits are. You guys have experienced a lot of different stuff which you can incorporate into your designs. And we've got two girls in our year – they did the foundation course – and they're at the top of the year because they know what to expect, they've got a lot of confidence and they can research properly. So you guys are one step ahead of the other people.

Mari: Thank you for an amazing group of students!

Appendix P: Staff email feedback about Industrial Design 3D Puzzle Project

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Request for brief feedback regarding the 3D puzzle project

Mari Arnott <mari.arnott@gmail.com>   **10 May 2011 12:16**
To: Veronica Barnes <BarnesV@cput.ac.za>, Heidi Boise <boise@cybersmart.co.za>, oriole bolus <orioleb@gmail.com>

Dear Veronica, Heidi and Oriole,

Thank you for teaching the 3D puzzle project with me in the recent industrial design slot in the Design Foundation Course and for the extra time you put in so that we could complete the assessments of the student projects. Your input was most valuable in terms of refining the existing project brief, assessment strategies and teaching approach. It would be much appreciated if you could give me brief written feedback (a few lines as a reply to this email will do) about how you found the 3D puzzle project and your views about what worked and what did not work regarding the aim of the this project.
Your feedback will be most appreciated.

Regards,

Mari

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oriole bolus <orioleb@gmail.com>   **10 May 2011 17:16**
To: Mari Arnott <mari.arnott@gmail.com>

Hello Mari,

It was only a pleasure to have the opportunity to teach in the Design Foundation Course . I truly enjoyed the time i had there.

From what I can remember during my time as a student in the Design Foundation Course in 2006, I was once again challenged by 3d Puzzle Project.
Overall, I would say i was very happy with the way the project was run. The intermediate assessments was a good way of keeping the students on track and noticing those who weren't. Some things may have needed to be more a little more clear from the begging and one of those I noticed was the scale, because many of the students got the impression that final objects needed to 20cm x 20cm, not that each piece could be of that size. From The nature of the material, better detail could be achieved on a larger scale. Therefore i think the brief could say that at least one part must be no smaller than 20cmx20cm (if not bigger). Also i think we should emphasize the importance of reference material and give a small presentation on how to, stylize, refine and isolate the prominent features of an object without losing the proportion.
Thank you again Mari, I hope that this feedback will be of some use.

Kind regards

Oriole

To: Mari Arnott <mari.arnott@gmail.com>

Hi Mari,

It was a great learning experience gained from the interaction between the team and

students realising that there are similar design principals and process in all disciplines.

- **Feedback - As discussed previously:**

    1. the research has to be a minimum of 6 images for both major and minor
       objects
    2. 2 objects major and minor to form a concept worked well into being
       developed as a whole
    3. minor object to have a minimum of 3 pieces
    4. to change the given dimensions of the largest piece to fit in the box in
       all directions

I hope the above provides some useful insight.

Best wishes,

Heidi

Veronica Barnes <BarnesV@cput.ac.za>   12 May 2011 15:00
To: Mari Arnott <mari.arnott@gmail.com>

Hi Mari

The project was a good one, i think. A suitable task with reasonable expectations.

Weaknesses
1. The research requirement is too small, students appeared with images on their phones,
very small blurred reference. They cant' work without adequate reference material, so I
recommend a minimum requirement, eg 8 images/ similar.

2. The handin procedure is a bit chaotic. The deadline should certainly be made for early in
the am, so as to not interfere with the next briefing/ class/ whatever. Hand ins that take place
several hours after the time are not acceptable and should have a penalty eg 5% off
the total.

I am a firm believer in the final handin, with intermediate deadlines. I do however think that
reviewing the work at handin is not a good practice. Rather make it an intermediate deadline -
else it gives the idea that you can always amend your submission. This is certainly not
true for our dept.

Thanks, it was a fun project, sorry I was ill in the middle of it!

Veronica