Experiences of Transformative Learning in Fashion Design

AG Vlok

Experiences of Transformative Learning in Fashion Design Education

by

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Thesis submitted in fulfilment of the requirements for the degree

Doctor of Technology: Design

in the Faculty of Informatics and Design

at the Cape Peninsula University of Technology

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Co-supervisor: Prof. Johannes Cronje

Cape Town

October 2017

DECLARATION

I, Anna Gloudina Vlok, 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.

25 September 2017

Signed   **Date**

ABSTRACT

This exploratory study identified aspects of transformative learning in fashion design and teaching practice. These aspects enabled fashion design graduates to distinguish transformative experiences retrospectively through the lens of reflection. The guiding research question in the study investigated how fashion design graduates make meaning of their learning experiences while students, on later refection in their work environment.

The question is supported by three sub-questions:

What are the components of transformative learning that can be identified in the reflection of the graduate?

To what extent did participants engage with the phases of transformative learning?

How did the graduates make meaning of their learning experiences with specific reference to aspects such as personal and emotional transformation, social adaptably, and disciplinary knowledge in use?

The seminal works underpinning the research were those of King (*Handbook of the Evolving Research of Transformative Learning Based on the Learning Activities Survey*), Mezirow (*Perspective Transformation*) and Kolb (*Experiential Learning: Experience as the Source of Learning and Development*), all of which formed the scaffolding for the development of the Learning Activity Narrative or LAN. The LAN advances King's Learning Activities Survey (LAS), to include narrative data, which fashioned a significant modification of the LAS model. A further adjustment to the approach was that this study focused on graduates, while previous studies were conducted with students.

In this exploratory study, I adopted the dual role of researcher and student. As student I had a journey of personal growth during engagement with participants' storytelling and narrative contributions. At the same time, I could identify with the personal development and growth that the participants experienced through interaction with one another.

A methodological approach that drew on elements of narrative and numeric data was applied. Data sources included a pilot study, online questionnaires, and face-to-face individual interviews with graduate participants. Participants in the study reported that their traditional perspectives of personal and emotional transformation, social adaptably and disciplinary knowledge acquired during their study period, were shaped and changed considerably in the context of interactions with peers and lecturers, and in specific class activities. The graduate participants' narratives reveal how interaction with peers and educators served as a means for transforming the ways in which they prepared for life in the work environment, and subsequently in the work environment which contributed to making them more resilient and adaptable in various professional and interpersonal circumstances. The value of the study is located in the domain of *diffraction,* an advanced, iterative and methodological expansion of the reflective model, which resulted in resonant narrative data.

Diffractive analysis necessitates the engagement in the experience of reading data, rather than reading the data as separate or independent. The diffractive analysis process engages the data as a co-constructive force that works with the researcher. The study contributes to the conceptual discussions of the connections and interruptions between diffraction and reflection.

Key words: Transformative learning, reflection, higher education, design education, diffraction

ACKNOWLEDGEMENTS

DEDICATION

- I dedicate this thesis to my parents, Franso and Marlene Olivier, for their being, love and support that provided me with the foundation to find my passion and purpose in life, fashion and education.
- This work is further dedicated to my Jaco, Chris and Franco for their continued confidence in me. Thank you for all the cups of tea and the meals you had to provide.
- Lastly, I should like to dedicate the work to the research participants for sharing so willingly their personal experiences with me.

Table of contents

LEARNING ACTIVITIES SURVEY

LAS Format

This survey helps us learn about the experiences of adult learners. We believe that important things happen when adults learn new things. Only with your help can we learn more about this. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being part of this project; your cooperation is greatly appreciated.

1. Thinking about your educational experiences at this institution, check off any statements that may apply.
   - ☐ a. I had an experience that caused me to question the way I normally act.
   - ☐ b. I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)
   - ☐ c. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.
   - ☐ d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
   - ☐ e. I realized that other people also questioned their beliefs.
   - ☐ f. I thought about acting in a different way from my usual beliefs and roles.
   - ☐ g. I felt uncomfortable with traditional social expectations.
   - ☐ h. I tried out new roles so that I would become more comfortable or confident in them.
   - ☐ i. I tried to figure out a way to adopt these new ways of acting.
   - ☐ j. I gathered the information I needed to adopt these new ways of acting.
   - ☐ k. I began to think about the reactions and feedback from my new behavior.
   - ☐ l. I took action and adopted these new ways of acting.
   - ☐ m. I do not identify with any of the statements above.

2. Since you have been taking courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed?
   - ☐ Yes. *If "Yes," please go to question #3 and continue the survey.*
   - ☐ No. *If "No," please go to question #6 to continue the survey.*

APPENDIX B – CPUT PERSONAL INFORMATION STATEMENT AND CONSENT

FACULTY OF INFORMATICS AND DESIGN

Individual Consent for Research Participation

Title of the study:	Experiences of Transformative Learning in Fashion Design Education
Name of researcher:	Annadine Vlok (AG Vlok)
Contact details:	email: vloka@cput.ac.za phone: 0834401548
Name of supervisor:	Dr A Chisin
Contact details:	email: chisina@cput.ac.za phone: 021 460 3470

Purpose of the Study: The outcome of this research intends to guide fashion academics to strengthen their graduates' entrance position into the industry.

Participation: My participation will consist essentially of completing a questionnaire and if needed a possible interview.

Confidentiality: I have received assurance from the researcher that the information I will share will remain strictly confidential unless noted below. I understand that the contents will be used only for DTech Design and that my confidentiality will be protected by coding all results and if necessary use of pseudonyms.

Anonymity will be protected by the fact that all feedback will be coded and no individual names will be linked to answers.

Conservation of data: The data collected will be kept in a secure manner locked in a filing cabinet in the office of the researcher and on the premises of CPUT. The data will be kept for quality purposes for the length of 5 years where upon it will be destroyed.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will destroyed.

1

Table of tables and figures

Chapter 1

THE CONTEXT

1. The context

Education is the most powerful weapon we can use to change the world.
Nelson Mandela, 2003

1.1   Situating the project

The future of fashion design education is uncertain. A fast growing knowledge-based economy and traditional academic teaching methods are at odds. This research responds to the reality that fashion design education evolves and the industry, internationally, nationally and locally, experiences great uncertainty. This uncertainty is linked to the economic climate and impacts on the role the future designer will play (Faerm, 2014:147). As educator and practising curriculum development officer, I increasingly became aware of the importance of relevant, market-aligned higher education that combines hands-on learning experience and creative problem-solving skills. Developing leading-edge programmes only, will not be of benefit in the future; therefore, educators must also take notice of the challenges graduates experience through their transition stage from university into their careers. As a result, my path towards constructing a clear picture of the transformative abilities of the current fashion education curriculum became significant. This research is necessary since it will empower educators and curriculum officers when they address new curricula through focusing on the shortcomings identified and together building on the strengths recognised. The outcome of the research intends to guide academics to strengthen their graduates' entry into the industry.

Higher education (HE) environments throughout the world are constantly defined as turbulent and dynamic (Meek et al., 2009; Coates & Goedegebuure, 2012; Barrie, 2006). Both global and national forces constantly drive the changes in higher education. These forces are prevalent within and across individual countries as well as their higher education institutions (Brookes & Becket, 2007). In addition, the future of fashion design education is being transformed owing to the changing industry, growing knowledge-based economy, and consequent change in the designer's role. Curricula should best respond by emphasising theory, inter- and cross-disciplinary studies, innovative design processes, and student collaborations. These changes require faculty to adopt new teaching methodologies to improve methodologies that have remained largely unchanged since the start of fashion education. (Faerm, 2012).

Design evolved as a professional practice, and as we increasingly improve our world with design, so design education needs to improve as well. Requirements dictate that students develop collaborative and divergent thinking skills as demanded by today's economy, society and students (Robinson, 2013). To address the changes in the design industry, education should not be exclusively about adding to students' existing knowledge but rather getting them to see the world in a new and different way. Kevin Sundheim, contributor to Forbes Online, states: "When hiring for any size business, it's not what the candidates know today. Information can always be taught. The most intelligent companies hire on future success and heavily weigh personality when determining the most apt employees" (Sundheim, 2013).

This study aims to establish to what extent participating graduates experienced a purposive growth in their own assumptions, beliefs, feelings, and perspectives during their studies in order to mature in both personal and intellectual ability. The dilemma is that students enter higher education with existing knowledge, backgrounds and

frames of reference, and this personal meaning-making perspective may very well obstruct the development of new solutions.

In a HESA/SAQA report by Griesel and Parker (2009), the main issue addressed was what employers expect of graduates and their evaluation of what they currently receive. The report indicated that although employers value the conceptual (foundation, knowledge and intellectual) approach graduates show as a result of their higher education, there is an unquestionable necessity to address gaps between employer expectations and higher education outcomes. The report concludes by stating that higher education "must take its rightful place in producing thinking, responsive and intellectually well-grounded individuals who are flexible and can readily adapt to new demands and challenges" (Griesel & Parker, 2009:20).

In addition, fashion design education is facing rapidly advancing changes in a highly unpredictable academic landscape. The entry of private education providers, the fashion design industry's uncertain future and the increased demands made on designers are affecting the modes in which design education is delivered (Faerm, 2012). Tom Friedman (2005) describes how the world is getting smaller and the trans-silo sharing of knowledge and business and the unpredictable future are largely due to globalisation. As a result, higher education curricula are increasingly influenced by various factors such as philosophy, innovation of technology, ethical considerations, and sensitivity towards cultural differences and environmental issues (Marshall, 2009). It is important to conceptualise the complexities of real-life design in order to construct models and theories for education.

In addition, the latest design theorists promote the drive towards transitional design. It is described as a design transitional phase, not a discipline (Manzini, 2013) and

explained by Kossoff et al. (2015:2) as "design directed at structural, long-term sociocultural change", i.e. system-level change. This does not imply policy making or strategic planning, but rather that transitional design "be consistent with" aims to bring design's human scale artefact-interaction focus to the transformation of everyday practices needed to enable structural transitions to more sustainable economies. The transitional design principles described by Irwin et al. (2015) underscore that design is an interval of extraordinary progress and transformation and its importance in post-industrial economies is increasing. The fast, pervasive change combined with an increasing demand for design-led methodologies to problem solving both allow and obstruct transition solutions. Understandably, the focus of design curricula becomes even more complex.

Not only is the design discipline becoming more complex; the transformative ability of the design knowledge is equally important. Transformative learning (Cranton, 1994, 1996; King, 1997, 2005; Mezirow, 1991, 1995, 1996a) encompasses the process of effectively changing one's frame of reference. Frames of reference are the structures of assumptions through which experiences are understood, and thus assist students in meaning making of their studies. The concept of transforming learning experiences into real life–work experiences is therefore essential in the design of a new curriculum in design.

A period of change presents a time for new practices and opportunities. Thus this research is conducted using a revised structure of the Learning Assessment System (LAS) developed by King (1997, 2005) to assess the effectiveness of the current fashion design curriculum and education at a university of technology. The study includes relevant data and recommendations that inform the planning of new curricula. Moreover, the research outcome is a potential tool for providing a

framework for implementing successful transformative learning in higher education. A proposed framework could be used as a benchmark for other design programmes considering measuring their effectiveness in transformative learning. Polizzi (2007) did a similar study, but placed the focus on teachers' and not students' perspectives. In addition published literature indicates a lack of research from the perspective of the student. This study stresses the importance of incorporating the transformative experiences of graduates in future curricula.

1.2 The problem

Graduates want to enter a career with the reassurance that they will be able to adapt and develop as part of the professional environment. Thus they need to transfer their learning experiences into their work environment both personally and academically. This research explores the dynamics of transformative learning in the meaning making of fashion design graduates in their work environment.

Much research has been conducted on the academic journey of higher education students, although no documented evidence is available to confirm the value of transformative learning in current fashion studies. Students in higher education transform their perspectives during the course of their educational journey in order to adapt to both academic and social paradigms. Students bring to class different learning styles, personality traits and temperaments, educational backgrounds, and cultural diversity. In South Africa, they often enter higher education in search of an improved lifestyle (Altbach et al. 2009); therefore the learning process is frequently a life-changing experience.

Mezirow and Taylor (2011) and Fink (2013) agree on the importance of recognising the experiences of students in both the classroom and in laboratories or studios.

These experiences contribute to significant learning. Fink (2013) describes this as a process of engagement and high energy, where students can develop the competence to enhance their individual lives and social interactions with others, become more thoughtful and informed citizens, and furthermore prepare for the world of work. Fashion educators engaging in curriculum development in higher education have little information on the specific factors that will heighten experiences. This study uses a lens of reflective practice as means to explore how selected fashion design alumni at a university of technology (UoT) understand and make meaning of their learning experiences. The research examines factors that promote transformative learning during the time of their studies, which in turn contribute to the work environment.

1.3   Purpose of the study

There are particular experiences throughout students' studies that influence their ability to adapt, develop and perform in their professional lives. The purpose of this study is to examine evidence of how students make meaning of their learning experiences in their subsequent work environments. In the ideal educational world there are clear steps towards educational outcomes.

These outcomes are illustrated in Figure 1.1 and are adapted for the outcomes suggested by Le Métais (1999).
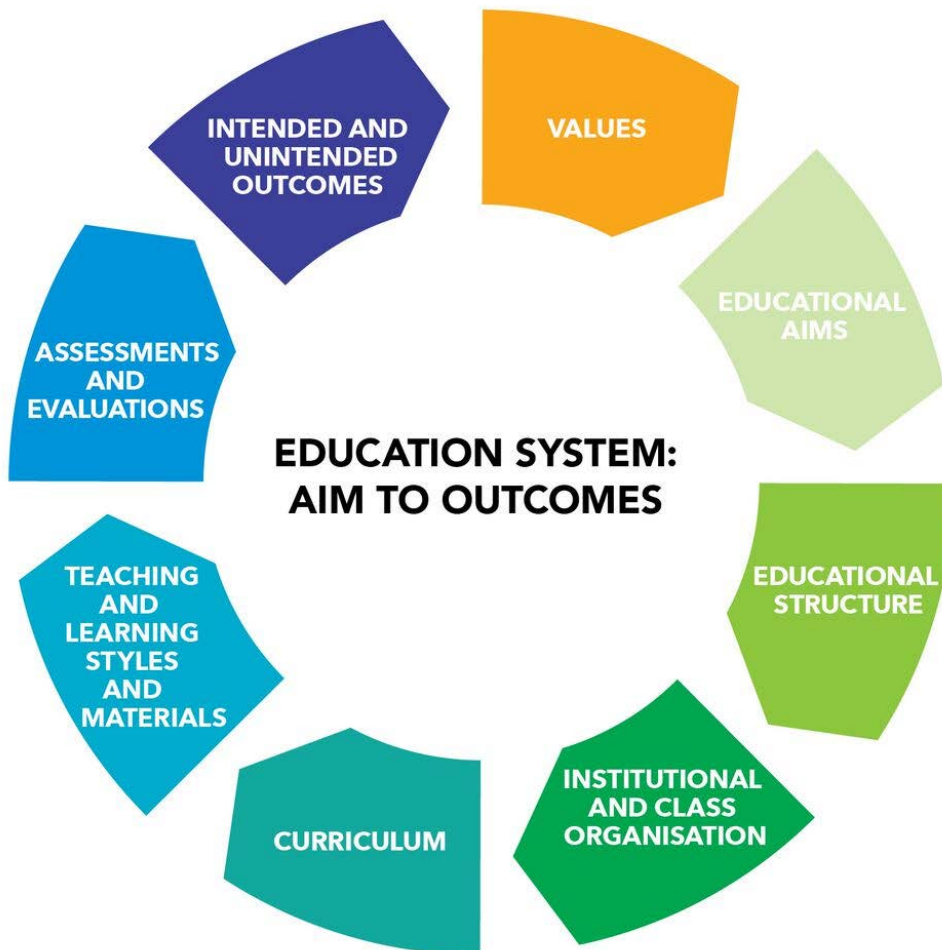
Figure 1.1 Education system: aim to outcomes (Adapted from Le Métais, 1999)

In this diagram there is a coherent flow from educational aims, which are informed by values, through an educational structure such as a university or other type of higher educational learning. This is followed by a school or department structure with a specific class organisation. A set curriculum is followed with determined teaching and learning methodologies and appropriate assessment methods. Producing intended and unintended outcomes completes this cycle. Le Métais (1999:95) points out that

the educational aims of students, educators, parents, and education administrators are often in conflict with those set out in legislation. Part of this study is to determine how other influences may alter the learning experiences of students (Figure 1.2).
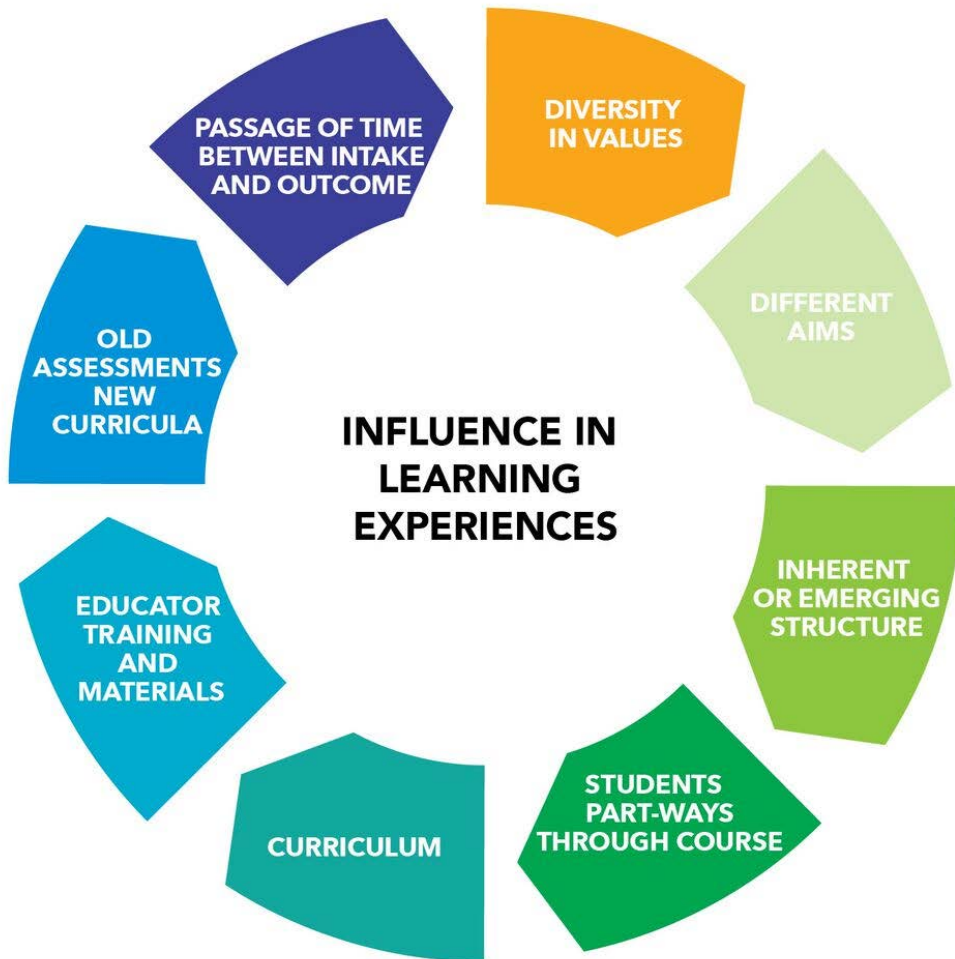
Figure 1.2 Influence in learning experiences (Adapted from Le Métais, 1999)

Education is a long-term project and takes time to implement and complete. During this time political, economic and social changes may affect the relevance of the educational aims. At the same time there are always inherent structures in universities, which students encounter throughout the process that will influence them in their contact with knowledgeable educators. Change in one aspect may not benefit the other until all influences are considered. Thus an educational system is a combination

of the past, the present and the future that has to be examined as part of understanding how students make meaning of their learning experiences.

The study examines factors that promoted transformative learning during graduates' academic years. The research also addresses how graduates connect their experiences to their work environment. This study applies an instrument developed by King (2004), the Learning Assessment System (LAS) (Appendix A), to examine the factors known to promote transformative learning in students and identifies the ways that they make meaning of their learning experiences on a personal, emotional and knowledge level. Furthermore, the research identifies the contribution of meaning making to inform relevant and responsive curriculum development. Although the majority of studies make use of qualitative methods (King, 1997), this study uses a mixed-methods design (qualitative and quantitative) to gather data from the identified target research group to determine the principal factors that promote transformative learning.

1.4   Questions

The aim of this study is to explore the dynamics of transformative learning in the meaning making of fashion design graduates in their work environment.

The main research question driving this study is: How do fashion design graduates make meaning (if at all) of their learning experiences using transformative learning during the time of their studies in the work environment?

The sub-questions posed are:

1. What are the components of transformative learning that can be identified in the reflection of the graduates and to what extent did participants engage with the phases of transformative learning listed below?
   - Confirming an interruption of frame of reference
   - Identifying triggers of transformation
   - Acknowledging a time of withdrawal or apathy
   - Developing a new perspective
2. How did the graduates make meaning of their learning experiences with specific reference to the aspects listed below?
   - Personal and emotional
   - Social
   - Disciplinary knowledge in use

These questions are addressed in the theoretical framework of transformative learning.

1.5   The rationale and theoretical framework

1.5.1   The rationale

The broad rationale underpinning this research was to contribute an explicit understanding of the potential of a market-aligned design practice curriculum. This understanding has a strong association with educators of fashion graduates. The research investigates the social and professional forces shaping design education and its future. For this reason fashion design participants were consulted and constituted the main contributors to the study. I was less interested in where these designers were

employed or what they designed, and more interested in how their educational experiences prepared them for the workplace. An interest in the process of transformative learning supported this enquiry. My interest was not in understanding what graduates learned, but how the knowledge and skills they gained were used in the world of work.

In analysing the fashion industry's instabilities and fashion academics' arguments, it becomes clear that there are noteworthy changes facing the design profession. Singh (2014), chief technology officer at Fashion GPS, contends that the innovations taking place at the intersection of fashion and technology are remarkable and transformative. In many ways, the fashion industry today displays little similarity to the industry of the previous decade, and will change even more in the next. It is also apparent that the re-curriculation process recognises that these forces of change will unavoidably inform future models for fashion education.

This study emphasis why meaning making as a concept is necessary to inform relevant and responsive fashion design curriculum development in a South African UoT. The study confirms the awareness of making meaning during fashion studies and identifies how graduates experience meaning making.

1.5.2   Role of the researcher

As a lecturer in higher education over the last 25 years, I embody a lived experience point of view, which underscores the academic project. The times I have engaged in thinking and reflection have assisted me in identifying my personal landscape of attributes and skills. Over the past three years I have also been part of a re-curriculation programme that is an ongoing process in South Africa. During this time

I contemplated the words of Dewey (1910:1): "No words are oftener on our lips than thinking and thought." This has not changed much in the last century, and holds true to this day.

In contrast to this statement, the 'real' time we allow ourselves (and our graduates) to engage in thinking – and thought – is often inadequate. According to Mezirow (2000:17), we create meaning through transformative learning and these meaning structures consist of two dimensions, namely habits of mind that result in points of view. This does not occur by chance; Kemmis (1985) explains that through a reflection process students can start thinking about thinking, and for that they need to be able to engage in critical thought.

Critical thought and reflection are two undeniable components that prevail in higher education today. Critical thought and reflection do not only refer to classroom activities but also to the time students spend interacting in projects and problem-based learning experiences, and in work placements. Design students in higher education often place more relevance and importance on the outcome of the design process and frequently do not focus on the interpretation and reinterpretation of their sense experiences that are central to creating meaning and thus learning.

This research investigated the social and professional forces shaping design education and its future. For this reason fashion design participants were consulted and constitute the main contributors to the study. In addition, the contributions of fashion academics and industry role players were explored. I was less interested in where these designers were employed or what they designed, and more interested in how their fashion educational experiences prepared them for the workplace. This enquiry was supported by an interest in the process of transformative learning.

After analysing the instabilities of the fashion industry and the arguments from leading fashion academics, it became clear that there are noteworthy changes facing the design profession. Singh (2014) contends that the innovations taking place at the crossing of fashion and technology are remarkable and transformative. In many ways, the fashion industry today displays little similarity to the industry a decade ago and will change even more in the next decade.

Kate Abnett (2015), editorial associate of The Business of Fashion, agrees:

> Conglomerates and venture capitalists have shaken up the way that fashion businesses grow and are managed, bringing their creative and commercial arms closer together. At fashion houses including Burberry and Saint Laurent, the 'designer' has evolved into the 'creative director' — a manager of teams, a brand spokesperson, a director of advertising campaigns, as well as a skilled hand with a sketchpad.

Jane Rapley (2015:1), professor emerita of Central Saint Martins, University of the Arts, London, agrees: "Fashion education faces problems profound, perennial and difficult to predict. Once again it's time to take them on." It is also apparent that the re-curriculation process recognises that these forces of change will unavoidably inform future models for fashion education.

Fashion education in South Africa is no different. With most of the fashion curricula offering similar syllabi, the time has come to re-evaluate the impact and relevance of what is on offer. The section that follows unpacks the reflections of the graduates and the conceptual design for the research.

1.6   Conceptual framework

After a thorough review of relevant literature, I formulated a framework to apply for testing my assumptions on transformative learning by fashion design participants. I adopted a quadrant diagram to formulate the conceptual framework (Fig. 1.3). The four outer parameters guiding the input in each quadrant define the framework. The upper parameter shows the strategies and prevailing outlook and the lower parameter the operational or practical implications. Therefore, the upper parameter of the diagram represents the long-term plans and visions and the lower the strategies and operations for these to succeed. In the same diagram, the left section represents the enablers or 'push' factors essential for success, while the right section shows the needs, or 'pull' factors for success.

The quadrants in Figure 1.3 therefore denote the approach developed to support my research. The research cycle firstly focuses on defining the transformation route that needs to be investigated, secondly discovers the enablers and skills needed to guide the transformation, thirdly identifies the participants that will be appropriate contributors to the reflection on transformative learning, and finally identifies the contributors and required curriculum to succeed with transformative learning experiences.
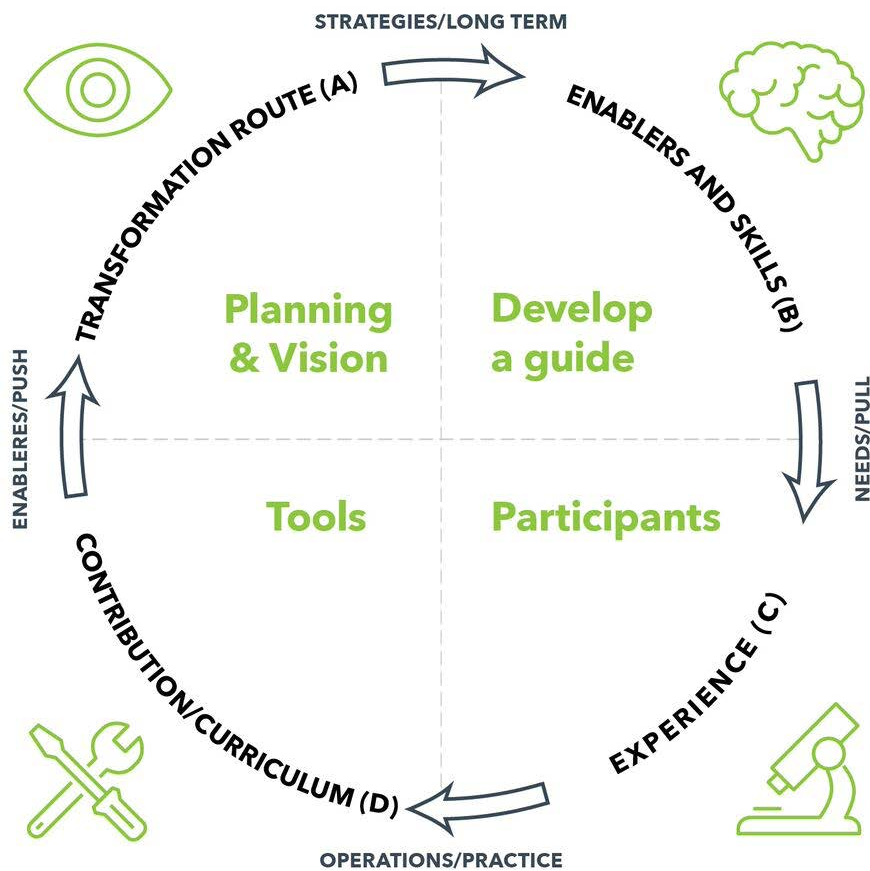
Figure 1.3 Author's conceptual framework for the proposed research

With the structure in place, the framework is underpinned by the theories of Kolb's learning cycle (2015) and the transformative learning theory of King (2004). These theories influenced the methodology of this study. Quadrant A identifies the need for a concept and plan for the research. It is fitting to say that this section focuses on identifying the research questions, identifying appropriate research theories, defining the methodologies used and identifying the role players in this research. Quadrant B focuses on the enabling factors, identified within the research process through categorising the compelling factors on the future of fashion design education. In Quadrant C the focus is on the owners of the knowledge, that is, the contributors to

the research, determining and analysing their experiences as fashion design graduates and the realisation of their experiences into work life. Quadrant D focuses on the implementation of research tools. These tools need to identify transformative learning through investigating factors such as subject matter, teaching and learning styles, and work processes.

Grounding the theoretical framework in the reviewed literature, I identified relevant links with the reviewed literature. The four phases in the Kolb learning cycle link to the conceptual framework as indicated in Figure 1.4.
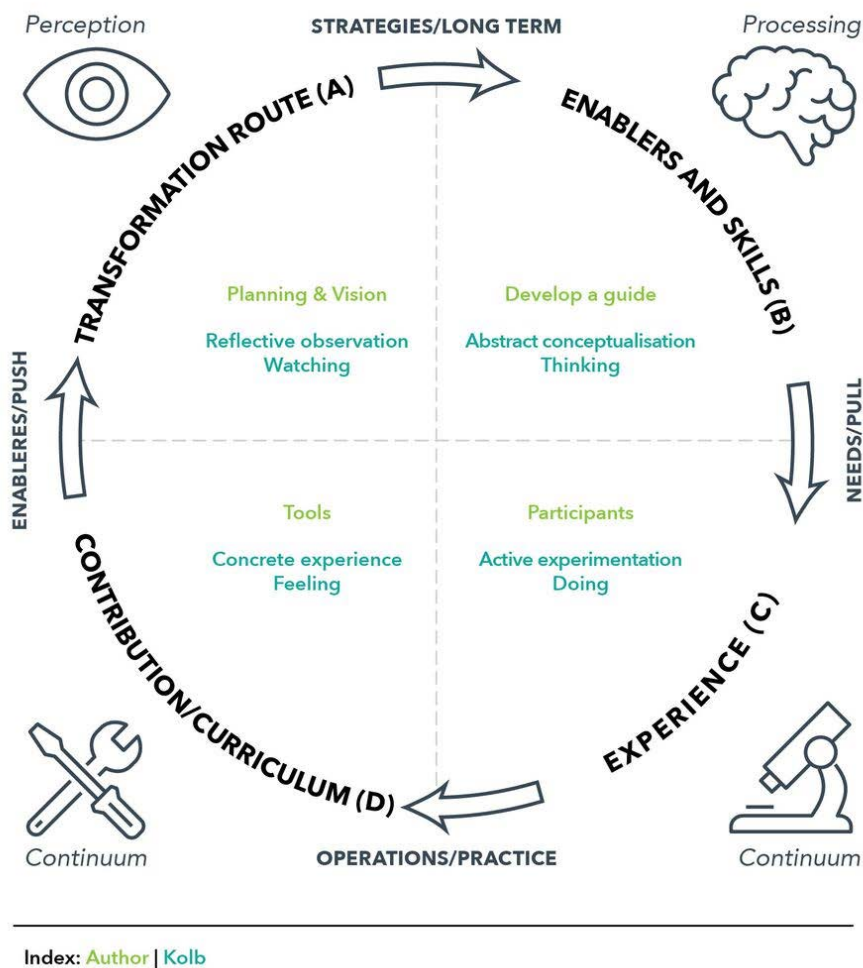
Figure 1.4 Author's conceptual framework incorporating Kolb's learning theories

Further correlations with the four steps in discovering transformative learning in the work of King were identified. Figure 1.5 shows the connections between the framework and theories and how they support one another. The identification of these linkages contributed to the development of the research methodology.
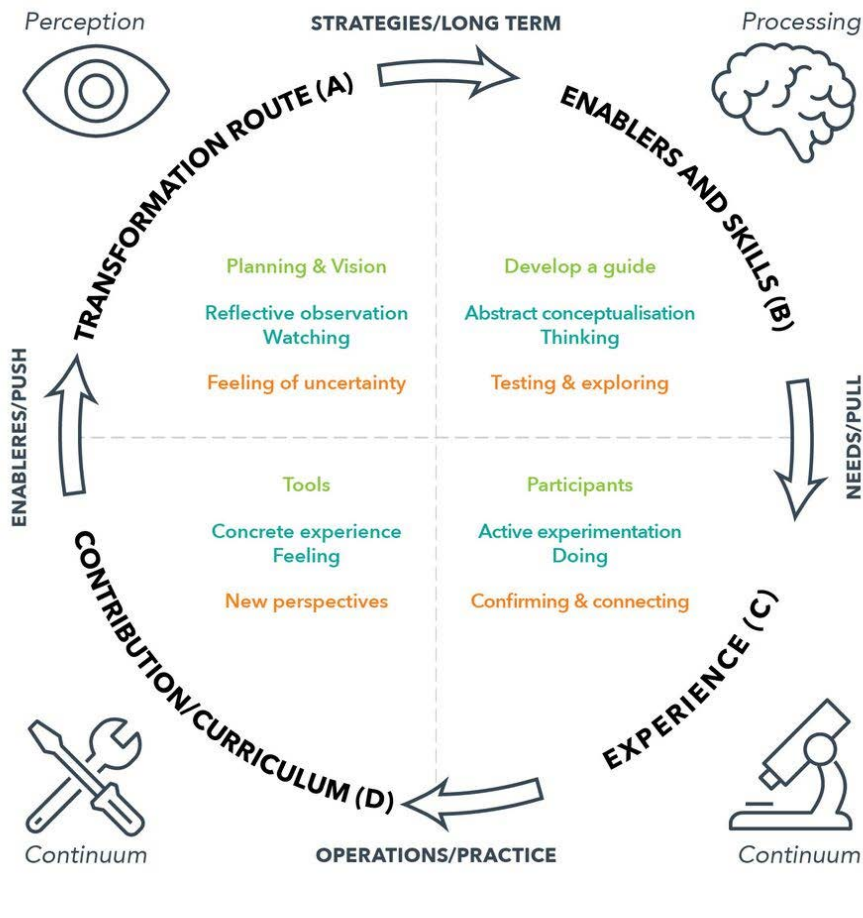
Figure 1.5 Author's conceptual framework incorporating Kolb's learning theories and King's phases of transformative leaning.

1.7   Significance of the research and expected outcomes

The aim of this research is to explore. The results of the exploration inform a conceptual framework for a transformative learning curriculum in fashion design education. Delineated in the framework is a classification of critical success factors for transformative learning.

This research will add additional social scientific knowledge in the field of transformative learning. Most documentation in this field comprises studies completed with students, whereas this study focuses on alumni reflecting on the impact of their studies while being in the world of work. The expected outcome from the research is new knowledge to inform the development of a fashion design curriculum that may improve the transformative learning influence in fashion design education to generate and develop market- and society-ready graduates.

1.8   Objectives of the research

This study focuses on two main objectives.
- Firstly, the aim is to explore how selected fashion design participants at a university of technology understand and make meaning of their learning experiences during their studies through the lens of reflection.
- Secondly the study focuses on how graduates make meaning of their learning experiences with reference to personal/emotional and disciplinary knowledge.

The information gathered is applied to identify the attributes unique to fashion design graduates that may enhance the development of a relevant and responsive fashion design curriculum at a South African university of technology.

1.9   Research design and methods

Research design does not have to be complex; however the design should be appropriate to address the questions in a coherent way. A mixed-methods approach directs the research, where the quantitative data informs the qualitative data. This approach ensures the greatest amount of good quality information and knowledge with minimal clutter and resource inputs (Lankshear & Knobel, 2004:21). This research design offers a logical strategy to show how the different questions were addressed. Lankshear and Knobel (2004:21) concur that "the less complicated or more elegant one's research design is, the better it is". Therefore, the research design strategy enables the collection and organisation of data relevant to the research questions.

To make meaning of the concepts discussed, a qualitative research study was done. A phenomenological model of enquiry is implemented whereby participants' responses are analysed for emerging themes. Creswell (1998) describes this strategy as a study with a typical sample size of individuals with direct experience of the phenomenon studied. Through the use of this approach, I attempt to understand the different perceptions, perspectives and understandings of the participants in the study, their experiences and their application of these to their working lives. In my approach I suspended my own preconceived ideas that could influence the feedback from the participants without disregarding the feedback on their experiences.

The primary research decision follows the path illustrated in Figure 1.6 that presents an outline of the research design and was informed by exploring the research topic.

1 SELECT A SAMPLE GROUP
Fashion graduates of the last 6 years

2 DEVELOP QUESTIONS
Questionaires & Interviews

3 PILOT OF QUESTIONNAIRE

4 DATA COLLECTION

5 DATA ANALYSIS
Coding

6 FINDINGS & INTERPRETATIONS

7 CONCLUSION

Figure 1.6 Research design constructed by author

1.9.1 Methods

Participants were limited to alumni from the Cape Peninsula University of Technology (CPUT), Fashion Department. The sample group identified represented the fashion graduates at CPUT over the past six years as indicated in Table 1.1. This sample selection provided a good representation of recently employed and more established employees. The study focused on the inputs of 60 CPUT participants.

To achieve a suitable cross-section of participants, the follow criteria were applied:

- Demographics/multi-cultural
- Male and female
- Cross-section in educational results
- History of employment

Table 1.1 Longitudinal tracking

CONTINUUM: LONGITUDINAL TRACK 2009-2014

YEARS OF WORK	W1	W2	W3	W4	W5	W6	TOTAL NUMBER OF STUDENTS
YEAR OF QUALIFICATION	2014	2013	2012	2011	2010	2009	
NUMBER OF STUDENTS	7	12	13	12	12	10	66

The research used an investigative approach and focused on fashion design participants who graduated from 2009–2014. The aim was to identify commonalities during the reflective process with the participants. The main data collection method used in the reflective process was a questionnaire with follow-up interviews. Although the existing Learning Activity Survey (LAS) of King (2004) formed the basis of the questions, it was important to adapt the existing LAS questions to link with the four quadrants presented in Figure 1.4.

My aim was to identify possible success factors that contribute towards the realisation of participants' experiences and studies in the workplace, as well as possible inadequacies.

King (2004:58) contends that the LAS instrument does not function in a linear format. The process involves a back and forth action, between finding information through a pilot study, and thereafter using the data to make decisions on how to construct the final research questionnaire and how to situate the follow-up interviews.

King suggests a dynamic, formative interactive cycle as presented in Figure 1.7.

1 **DEVELOP RESEARCH QUESTIONS**

2 **DETERMINE POPULATION SAMPLE SIZE**

3 **METHODS & TOOLS**
Develop research methods and select data gathering tools

4 **START WITH ORIGINAL LAS, SURVEY INSTRUMENT**

5 **SURVEY**
Customise demographic choices and activities to fit the context

6 **INTERVIEW PROTOCOL**
Customise questions to fit the context and develop questions to probe findings for survey

7 **INSTRUMENT**
Customise questions and instructions to fit the context

8 **PILOT DATA RESULTS**
Evaluate findings –what changes need to be done?

Figure 1.7 LAS Interactive Research Process[©] (King, 2004)

In following the suggested steps in the LAS Interactive Research Process, the questions in this study were formulated and categorised into three distinct sets. The first set focuses on general reflection, the second on course content and the last set extracts personal and demographic detail. The majority of the first and second sets of questions are presented as closed-ended and multiple-choice selection questions. Questions 3, 8, 10, 17 and 31 were open-ended questions that required reflective narratives and story-telling types of responses. These responses clarified previous answers in the questionnaire. The questions were linked to the conceptual framework. The last set of questions comprised pre-set questions with the focus on personal and demographic data of the participants.

The research initially started with an explorative stance, while an understanding of the problem was developed (Anastas, 1999; Hancock & Algozzin, 2017). This process was cyclical in character and was anticipated to nurture a deeper understanding of the given problem or situation. The cyclical process was repeated, since the study used both the questionnaire and the follow-up interviews.

This cycle continued until an adequate understanding of (or implementable solution to) the problem was achieved. Kemmis (1985) notes this as "plan – act and observe – reflect", whereas Stringer et al. (2010:1) use "look – think – act". This cyclical process also refers to the notion of diffractive analyis[1] (Barad, 2007). Barad (2007:25) clarifies diffractive analysis as "reading insights through one another". Although Barad makes a distinction between reflection and diffraction, as researcher, I believe that both of these concepts were important during this study. Participants had to share

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[1] Diffractive analysis is an embodied engagement with the materiality of research data: a becoming with the data as researcher.

experiences through reflective analysis whereas I had to use diffractive analysis to find new meaning and knowledge. David Kolb (1984) clarifies the learning cycle when he used the expression: "concrete experience – reflective observation – abstract generalisation – active experimentation". I will be linking the concepts of diffration and active experimentation as the underlying themes in all these constructs.

The cycles in Figure 1.8 represent the repetition in the process of understanding and formulating the data. In every cycle new understanding and classifications can emerge until no further categories emerge. In the final cycle the analysis is done and findings are presented.

Figure 1.8 Iterative research cycle constructed by author

The data collection methods in Table 1.2 represent a visual diagram linking the research problem, the research questions, the sub questions, the objectives and the methods and instruments, offering an overview of the various components.

Table 1.2 Data-collection methods

RESEARCH PROBLEM:
New fashion curricula are being developed for higher education although no documented evidence is available to confirm the value of transformative learning in current studies.

RESEARCH QUESTION:
How do fashion students make meaning (if at all) of their learning experiences using TL during the time of their studies in the work environment?

SUB QUESTIONS	OBJECTIVES	METHODS AND INSTRUMENTS
1 **What are the components of Transformative Learning that can be identified in the reflection of the graduates?**	• Confirming and interruption of frame of reference • Identifying triggers of transformation • Acknowledge a time of draw back or apathy • Developing a new perspective	**Review of literature** **Observations** **Interviews** **Questionnaire** **Coding and analysis questionnaires**
2 **How do the graduates make meaning of their learning experiences?**	• Personal • Emotional • Knowledge in use	**Review of literature** **Observations** **Interviews** **Questionnaire** **Diffractive analysis**

Coding is the process of sorting and organising the data collected both during and after the research process. Using codes helps to label, compile and organise the data. This function also helps with summarising and synthesising the evidence in the data

(Miles & Huberman, 1994). Through the process of linking the data collected and interpreting the data, I was able to develop an analysis. I can therefore accept that coding the data refers to the ultimate analysis of the collected information. Coding systems were used to assist with identifying the interconnections between the categories and subcategories.

Since the questionnaire was distributed through the use of Google documents, the quantitative responses were analysed through the Google coding system. The program offers a quantitative analysis that was useful to extract percentages of various contributions to the study. The narrative and open-ended questions were coded through assigning the data into emerging themes (see Chapter 4).

1.9.2   Ontological and epistemological stance

My ontological position in this research is an interpretivist one. This position is based on the knowledge gained from "anti-positive" observable experiences. Trauth (2001) states that an important influence on the choice of research method is the theoretical lens that is used to frame the investigation. By theoretical lens, he refers to philosophical issues of epistemology and a choice between positivist, interpretive and critical studies, among many others. The researcher's situatedness or contextual starting point is to identify the philosophical and theoretical assumptions leading to the choice of an appropriate methodology. The following paragraphs make explicit my fundamental assumptions about the nature of knowledge (epistemology), and the ways of studying or interacting with epistemology, that is, ontology.

Using an anti-positivist approach permits the study of individuals with various characteristics, different human behaviour, opinions and attitudes (Cohen et al.,

2000). This approach allows the researcher to obtain understanding of the individual by considering phenomena of the world. This allows seeking understanding of others' perspectives, which are shaped by the philosophy of social construction (Taylor, 2008). A qualitative position demands considerable participation on the part of the researcher and a low number of respondents. Anti-positivists consider positivism restricted to phenomena and therefore it is impossible to study freedom, irrationality and diverse unpredictable actions common in individual human behaviour, as often found in design disciplines (Weber, 2017). Interpretivists believe that the lines between the observer/participant and the subject are blurred because reality is co-constructed. Finally, Koul (2008) indicates that the three goals of positivism namely description, control, and prediction, are incomplete, since they omit the goal of understanding and meaning making, that anti-positivists subscribe to.

1.10 Ethical considerations

The research relies on the contributions of a selected group of fashion design participants but was informed by academics, and curriculum and industry specialists. This research depends on participation and reflection, and therefore various methods of documentation were used. The interaction and feedback from the participants was documented through questionnaires and interviews. All participants completed CPUT's Personal Information Statement and Consent (PISC) form (Appendix B). This research does not include any sensitive material and all participants were older than 18.

To protect the identity, confidentiality and anonymity of the participants, they were given pseudonyms. Participation in this study was completely voluntary, and participants had the option to withdraw at any stage of the research if they wished to

do so; any contributions up to the point of withdrawal were destroyed. Participants were not offered any financial reimbursement for their contributions. All databases and records used in the research are recorded in the References section of the thesis. The data gathered, together with the transcripts of the data will be stored at CPUT for five years for audit purposes.

1.11 Delineation of the research

The study was completed with a selected group of bachelor-level fashion graduates who are currently employed or have their own businesses. The participants were alumni of the CPUT fashion department and had completed their studies successfully. Those CPUT participants selected live and work in the Western Cape.

1.12 Contribution

This study contributes to the curriculum design and development of a fashion programme on Level 7 of the National Qualifications Framework of South African Higher Education. The findings suggest that the contribution and importance of industry experience, the influence of the lecturer, and the interaction among culturally different students are the most influential in helping to transform learning experiences into work readiness. The findings show a significant awareness of how the experiences of participants, during their interactions with one another and their lecturers, contributed to awareness and change. Participants stated that the cultural interaction in class was a strong contributor to becoming a more thoughtful, informed and considerate person and consequently better prepared for the world of work.

1.13 Organisation of the study

This study comprises five chapters. Chapter 1 presents an introduction, statement of the problem, purpose of the study, research questions, significance of the research, and ethical considerations. Chapter 2 comprises the literature review that focuses on transformative learning theory and the factors that promote the transformation of learning. It further investigates the use of the Learning Activity System as developed by King (2004). The chapter further focuses on design education, and graduate attributes and skills needed in the future; lastly, it presents the theoretical framework that describes the role of the researcher and the proposed conceptual framework. Chapter 3 outlines the methods used for this study. The chapter presents the theoretical foundations on which the research is based, explains the type of research, the research paradigm and approach, and the methods applied. Chapter 3 also presents the research questions, participant selection, data collection, pilot study and process of data collection. Chapter 4 addresses the findings of the study and Chapter 5 ends with a summary, conclusion of the study, implications and recommendations.

LITERATURE REVIEW

2. Literature Review

By providing opportunities for [students] to exercise autonomy, connectedness and transcendence, educators enable [students] to experience the fulfilment and satisfaction of the way of being human. They learn lessons that living ethically is the fulfilment of human nature.

Robert Starrat, 2017:123

2.1 Introduction

Transformative Learning Theory (Mezirow, 1957) is widely published. Influenced by philosophers such as Paulo Freire[2] and Jürgen Habermas[3], Mezirow (1985) was the first theorist to publish work recorded under transformative learning. Other theorists followed with research on transformative learning; some of the leading contributors include Brookfield (1986,1987, 2000); Cranton (1994,1996); King (2000, 2005, 2009a). Further contributions of Mezirow (1991, 1994, 1995, 1996) confirm that transformative learning is a method of stimulating change within a frame of reference.

This research explores factors that promoted the transformative learning experiences of fashion design graduates. Fashion education research, in respect of maturity and advancement in research and publications, has only gained momentum in the past few years. This is confirmed by the fact that the *International Journal of Fashion Studies*, a scientific peer-reviewed journal that promotes fashion studies worldwide, was published in 2014 for the first time. Since then the publications of fashion studies as an interdisciplinary field of research that produces a broad selection of theories, analyses and enquiries, have steadily grown.

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[2] Paolo Freire was a Brazilian educator and philosopher who was a leading advocate of critical pedagogy and best known for his influential work *Pedagogy of the Oppressed*.
[3] Jürgen Habermas was a German sociologist and philosopher in the tradition of critical theory and pragmatism. He is best known for his theories on communicative rationality and the public sphere.

This research study is in response to an opportunity identified to complete transformative learning research among graduates active in the world of work. To date, publications on transformative learning refer to research done mostly with students. No research has presented a study of participants already working and who then reflect on the application of their studies that encouraged transformative learning experiences in the workplace.

In response to the research questions and more specifically to sub-question 1, the review focused on transformative learning theory as the theoretical framework. Factors that promote transformative learning, reflection and learning, considerations for selecting a research methodology, the *Learning Activities Survey* and research studies using the *Learning Activities Survey* were examined. Sub-question 2 asked how graduates make meaning of their learning experiences. This section was addressed through gaining an understanding of the expectations and demands of a graduate in the world of work in the twenty-first century, understanding what characteristics are true of fashion design graduates, and graduate attributes in general. Reflecting on these themes guided the understanding of how fashion graduates make meaning (if at all) of their learning experiences using transformative learning in the work environment.

2.2   Transformative learning

The study of transformative learning among participants can be categorised as part of educational design research, which aims to provide solutions to problems and shortcomings in teaching strategies, educational interventions and teaching methodologies. Plomp (2007:9) affirms the need for a research approach that speaks

to complex problems in educational practice and that will address the lack of relevant research in the field. Similarly, the Design-Based Research Collective (2003:5) claims that educational research is often removed from the problems of practice, and, therefore removed from the challenges and issues of everyday practice. This separation generates a credibility gap and creates a need for new research approaches to address problems of practice and inform the development of useable knowledge. Investigation into transformative learning has identified the effectiveness of design education as usable knowledge.

Many business writers emphasise the need for useable knowledge. Pink (2005:1-2) contends that the world is shifting from an economy and a society constructed on the logical, linear, computer-like capabilities of the Information Age to an economy and a society built on the inventive, empathic, big-picture capabilities of what is rising in its place, the Conceptual Age. Furthermore Tom Friedman (2005), columnist for *The New York Times*, claims globalisation is changing everything and anything our contemporary societies do: how we conduct business, how we communicate, how we form relationships, and ultimately how we live have been impacted by our societies becoming 'closer' through technology. Therefore the ability of educational experiences to be transformed in the world of work becomes crucial.

Adult learners experience transformative learning in diverse ways. According to King (2005:4), transformative learning can be defined as experiences that adult learners may encounter as they examine previously unquestioned assumptions and try out new strategies. Students may also examine their views on their educational experiences and approaches, and begin to ultimately transition to a significantly new place in their understanding of values, assumptions, themselves and their world.

Through this process, they apply new knowledge to their lives and go beyond the learning of the educator's lessons. Brock (2015:233) confirms the previous statements of Friedman and Pink in that one of the biggest challenges of education in the twenty-first century is to assist graduates with their transformation into dynamic workers who can adapt to fast-changing environments. During the time that students engage in higher education, they experience how new ideas and information can influence and bring imbalance into their beliefs, values and ways of understanding the world. The fundamental changes experienced during transformative learning are often significant steps in a lifelong journey towards their full potential (Cranton, 2001). Often people also experience several perspective transformations through their life journey (King, 2005).

2.2.1 History of transformative learning

Transformative learning was developed by Jack Mezirow (1978) to study the learning experiences of adult women who returned to higher education after an extended absence. Mezirow's study indicated that these women had experienced meaningful change in their meaning perspectives and their ways of being. The research findings of his study denote that these experiences may be similar to what other adult learners experience.

The following three principal theorists influenced Mezirow's early theory of transformative learning: Kuhn's (1962) paradigm, Freire's (1970) conscientisation, and Habermas's (1971, 1984) domains of learning (Mezirow, 1978, 1991, 2000). (See Table 2.1.) More specifically, Habermas (1971) recommended three domains of learning: (a) the technical, (b) the practical, and (c) the emancipatory. Technical learning can be described as learning that is routine, particular to a task, and clearly directed by rules.

Practical learning involves social standards; students who understand how to interact in class experience practical learning, while emancipatory learning is self-examining – the learner is self-reflective and experiences self-knowledge.

Table 2.1 Influences on Mezirow's early transformative learning theory and its related facets (Kitchenham, 2008:106)

INFLUENCE	TRANSFORMATIVE LEARNING FACET (MEZIROW)
KUHN'S (1962) paradigm	• Perspective transformation • Frame of reference • Meaning perspective • Habits of mind
FREIRE'S (1970) conscientization	• Disorienting dilemma • Critical self-reflection • Habits of mind
HABERMAS'S (1971.1984) domains of learning	• Learning processes • Perspective transformation • Meaning schemes • Meaning perspective

Mezirow's consideration of these three areas led to his explanation of perspective transformation as the emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships. To understand and interpret the learning process

of graduates, transformative learning offers a theory of learning that is uniquely adult, abstract, and grounded in the nature of human communication. The theory is formulated around a development process: "learning is understood as the process of using a prior interpretation to construe a new or revised interpretation of the meaning of one's experience in order to guide further action" (Mezirow, 1996b:162). Mezirow proposes that transformative learning is of a cognitive, rational nature which involves reasoning, critical reflection and significant interaction. For Mezirow, transformative learning is fundamentally an epistemic experience that can focus on critical reflection, context, perspective transformation or a combination of all these.

The prominent ideas of various theorists informed the concepts embodied in Mezirow's ten-phase transformative learning theory. Each particular theorist influenced various phases in Mezirow's ten-stage theory. Kuhn's (1962) work had a particular influence on four phases, namely perspective transformation, frame of reference, meaning perspectives, and habits of the mind. Freire's (1970) influences can be detected in disorienting dilemma, critical self-reflection, and habits of the mind. Yet Habermas's (1971,1984) domains of learning shaped Mezirow's theory on learning processes, perspective transformation, meaning schemes, and meaning perspectives. Table 2.1 presents outlines on these early influences on the various facets of transformative learning theory as defined by Kitchenham (2008:16).

Mezirow's notion of transformative learning was based on Kuhn's (1962:viii) conception of paradigms. Kuhn posited the significance of paradigms, which he defines as "universally recognized scientific achievements for a time provide model problems and solutions to a community of practitioners" (Kuhn, 1962:viii). Mezirow's theory (1985, 1991, 2000) adopted the reference to paradigms as frame of reference (Table 2.1). According to Mezirow, there are ten phases (Table 2.2) in transformative

learning that must all be satisfied before transformative learning can be accomplished. Likewise, the participants of this study need to engage in each of these ten steps. The aim is therefore to steer participants, using a questionnaire, to realise their own journey of transformative learning.

Table 2.2 Mezirow's 10 phases in the transformative learning theory (Kitchenham, 2008:106)

PERSPECTIVE TRANSFORMATION PHASES
by J. Mezirow

1. A distorting dilemma

2. Self-examination

3. A critical assessment of epistemic, socio-cultural or psychic assumptions

4. Recognition of one's discontent and the process of transformation are shared

5. Exploration of options of new roles, relationships, and actions

6. Planning of a course of action

7. Acquisition of knowledge and skills for implementing one's plans

8. Provisional trying of new roles

9. Building of competence and self-confidence in new roles and relationships

10. Reintegration of a new perspective into one's life

Since Mezirow first presented his ten steps, transformative learning theory has attracted numerous responses from other theorists. Taylor (2000) contends that although there is much research available on transformative learning, very little of the research provides data supporting Mezirow's comprehensive model. Taylor also claims that most research is retrospective and based on the reflection of the experiences, which might skew the data. Although I have chosen Mezirow's theory of

transformative learning, I am well aware that there are other scholarly critics of the transformative learning theory.

Over the past few decades numerous studies into Mezirow's theory of transformative learning (Brookfield, 1986, 1987, 2000; Cranton, 1994, 1996; Habermas, 1991, King, 2000, 2005, 2009a; Mezirow, 1991, 1994, 1995, 1996a) have agreed that transformative learning can be described as a process of affecting change within a frame of reference. Transformative learning is defined as "a deep, structural shift in basic premises of thought, feeling, and actions" (Transformative Learning Centre, 2015) and speaks to the process the participants of this study engaged with. However, according to Kitchenham (2008:104), this definition "belies the fact that this type of learning is complex and multifaceted".

Mezirow (1978) published his first article on the critical dimensions of learning in adulthood in *Adult Education Quarterly.* Since then, much research has been done to show the application of transformative learning in different educational settings such as group learning (Imel, 1999:58), organisational learning (Yorks & Marsick, 2000:261), adult learning (Mezirow, 2000), and curriculum development (Taylor, 2000).

Taylor (1997, 1998) offers a comprehensive review and even though this information may be viewed as dated, it remains influential and relevant to the development of transformative learning. Taylor did a meta-analysis of 44 published research studies based on Mezirow's theory, and classified unresolved issues in seven categories:

- Individual changes vs. social action
- Decontextualised view of learning
- Universal model of adult learning
- Adult development: shift or progression

- Empathy on rationality
- Other ways of knowing
- Perspective transformation: the model (Taylor, 1997, 1998)

Similar to Taylor, Lytle (1998) also constructed a model based on Mezirow's ten steps and found only 30 percent of his respondents experienced all ten of Mezirow's steps. Likewise Cesar's (2003) research, based on Lytle's model, found only 40 percent of his subjects experienced all ten phases. Furthermore, Scott (2003) suggests that transformation takes place as a result of fundamental changes in the minds of individuals. The context of group structures will therefore influence the individual. Similarly, O'Hara (2003) reasons that the individual and the group frame of reference co-mingle and contribute to a constructive influence in the transformative experience. O'Hara also argues that individuals in a group often describe themselves being lifted beyond their personal best and that they achieve greater learning and understanding. The findings of Scott and O'Hara illustrate that group settings may add more than providing context for critical reflection and reflective dialogue and that the group might influence individual transformation. In this study, alumni were canvassed, and because of organisational constraints for group work, the focus was on individual transformation and did not take the group context into consideration.

Other critics of Mezirow are more specific. Merriam (2004) points out that while transformative learning leads to a more mature and developed level of thinking, Mezirow disregarded the fact that a certain level of cognitive development is needed before transformative learning can take place. Tennant (1993) notes that while perspective transformation could steer to cognitive development, it does not necessarily contribute to psychological development. Illeris (2004) speculates that cognition, emotion, and the environment should be included in a comprehensive learning theory, whereas Robinson (2004) recommends the embracing of the spiritual

aspect of self. With the observations of Mezirow's critics in mind, other adopters of Mezirow's work were explored.

In view of the denseness of the literature, it is important not to lose sight of the true emphasis of the research: learning experiences. Transformative learning is defined as the process of transforming a problematic frame of reference to make it more reliable in our adult life by creating opinions and interpretations that are more justified and allow for the forging of new relationships. Therefore, Mezirow (1991) revised the original ten steps that adults go through to experience a perspective transformation and added an eleventh step to his theory: altering present relationships and forging new relationships.

The changes to Mezirow's transformative learning theory over the past 30 years are outlined in Table 2.3

Table 2.3 A summary of Mezirow's transformative learning theory

YEAR	SALIENT ELEMENT
1978	Proposed initial 10 phases of theory
1981	Adapted Habermas's *(1971)* three domains of learning: technical, practical, and emancipatory *(see Table 1)*
1985	Expanded theory to include instrumental, dialogic, and self-reflective learning Define meaning schemes and meaning perspectives Introduce three learning processes: learning within meaning schemes, learning new meaning schemes, and learning through meaning transformation
1991	Added an additional phase, stressing the importance of altering present relationships and forging new relationships Expanding earlier notion of distorted meaning perspective Argued that there were three types of meaning perspectives: epistemic, sociological, and psychological Presented three types of reflections: content, process and premise
1995	Stresses the importance of critical self-reflection in perspective transformation
1998	Articulate critical reflection of assumptions, which included objective and subjective reframing
2000	Presented a revision of transformative learning by elaborating on and revising his original terminologies Acknowledged the importance of the affective, emotional, and social aspects of transformative learning Introduced habits of mind and points of view
2003	Provided clear definition of his theory
2005	Debated with Dirkx at the 6th International Transformative Learning Conference and conceded that the two points of view could coexist *(Dirkx, Mezirow, & Cranton, 2006)*
2006	Presented an overview of transformative learning Further expanded on the theory in relation to constructivist theory, psychic distortion, schema therapy, and individuation

Mezirow outlines advice on the need to recognise, reassess and modify the structures of assumptions and expectations that influence our thinking, beliefs, attitudes, and actions (Mezirow et al., 2009:18). These structures of assumptions and expectations shape the basis of the frame of reference from which learning starts. Mezirow (2000:16) states that "a frame of reference is a *meaning perspective,* the structure of assumptions and expectations through which we filter sense impressions". He confirms that transformative learning is based on the hypothesis that a coherent body of experience such as assumptions, concepts, values, feelings, and conditioned responses forms the frame of reference that defines the learner's world.

More recently King (2009b) has offered a more contemporary view of Mezirow's ten phases. King identified the need for a tool that could aid in the recognition of perspective transformative learning in adults. She identified four identifiable phases, collapsing the ten phases proposed by Mezirow (Table 2.4). This study focuses on the identification of the significant learning that takes place in the fashion design classroom. The conceptual framework was developed to aid fashion design educators to recognise the transformative experiences students go through. The four steps of King (2009a) (Table 2.4) resonated well with the four quadrants presented in the conceptual framework. Although written permission was granted from Kathleen King (Appendix A) for the use of her Learning Activity Survey (LAS) in this study, more of the philosophical discoveries will be included and therefore the LAS was adapted accordingly for this study.

Table 2.4 King–Mezirow table of transformative learning

THE JOURNEY OF TRANSFORMATION by K.P. King	Perspective Transformation Phases by J. Mezirow
FEAR & UNCERTAINTY	1. A distorting dilemma
	2. Self-examination
TESTING & EXPLORING	3. A critical assessment of epistemic, socio-cultural or psychic assumptions
	4. Recognition of one's discontent and the process of transformation are shared
	5. Exploration of options of new roles, relationships, and actions
AFFIRMING & CONNECTING	6. Planning of a course of action
	7. Acquisition of knowledge and skills for implementing one's plans
	8. Provisional trying of new roles
	9. Building of competence and self-confidence in new roles and relationships
NEW PERSPECTIVES	10. Reintegration of a new perspective into one's life

The process of transformative learning is greatly dependent on reflection. Reflection as an interpretive lens is discussed in Section 2.3.2. It is essential to unpack the

transformative learning concepts to understand the theory in its totality and its relationship with this research.

2.2.2   A meaning perspective or a frame of reference

The first identifiable component of transformative learning is to identify a meaning perspective. Taylor (2000:287) states that "*meaning perspective* was the original term used for one's worldview and together it will form a cluster of meaning schemes"; however, the more modern approach will be 'frame of reference'. Brookfield (2000:126) compares a *meaning perspective* to definitive assumptions, which are structured and framed to filter our outlook on life and are central to our worldviews. A frame of reference includes assumptions and expectations that are built on life experiences, and "has two dimensions – a habit of the mind and the resulting points of view" (Cranton & Roy, 2003:88).

Habits of the mind can be described as a general, wide-ranging, orienting perspective that is used to interpret experiences. This process usually operates below the level of awareness and is accepted as the truth; it therefore plays an important part in learning when a classroom comprises students from a wide range of socio and demographic backgrounds. Mezirow (cited in Cranton & Roy, 2003) clarifies this point in listing six viewpoints on 'habits of mind' that will interrelate and influence one another.

These epistemic habits of the mind relate to the way we acquire knowledge and the way we use that knowledge:

- Sociolinguistic perspectives – the way we view social norms
- Culture, and how language is used
- Psychological perspectives comprise our view of self, personality, emotional responses and personal dreams
- Moral-ethical habits of mind include morality and conscience
- Philosophical habits of the mind are based on religious teaching and worldview
- Aesthetic habits of the mind include preferences and standards about beauty

The six perspectives are conveyed as points of view and influence the learning-specific expectations, beliefs, feelings, attitudes, and judgements. Similarly, these points of view can also be described by the term 'assumptions'. In understanding the certainty that learning is grounded in personal assumptions, it is important to mention two assumptions that will influence learning. Perspective assumptions can be clarified as assumptions we embrace about what best practice should look like and how one should behave, whereas causal assumptions denote cause-and-effect associations such as, if I do A, then B will follow, therefore focusing on the everyday particularities of practice (Brookfield, 2000:126). King et al. (2011:468) point out that the persons in an intercultural group react differently while engaging in experiences with diverse others.

> We found three types of reactions to these experiences: Some students were 'stuck,' unsure of how to respond; some were prone to continue exploring; and some reframed their perspectives to reflect capacities associated with advanced intercultural maturity.

Therefore engagement with the learning in this study will be significant. Learning occurs in one of four ways. It could be by elaborating existing frames of reference, by

learning new frames of reference, by transforming points of view, or by transforming habits of the mind (Mezirow, 2000:19). Ken Robinson, internationally recognised leader in the development of creativity, innovation and human development, confirms this point. Learning and development start from different places in terms of our own characteristics and circumstances (Robinson, 2013:1). Situated learning, as defined by Wenger (2000) and Lave (1991), suggests a similar perspective. Similarly, Ritz (2010) indicates that transformative learning among international students varies, since different cultures, languages, educational backgrounds and personality traits are at play. This is particularly relevant in this research study, considering that graduates from a UoT originate from diverse backgrounds, including economic, demographic and ethnic ones (See Section 2.7).

Hence a frame of reference can be described as a structure of assumptions and expectations that is used as a filter to selectively shape and delimit perception, cognition, feeling and pre-disposition (Taylor, 1998:55-57; Mezirow, 2000:16). Interpretation of experience informs frames of reference and this will always differ from one person to another. A frame of reference regularly denotes cultural paradigms, which refer to knowledge assimilated unintentionally from the culture. A frame of reference could also refer to a personal perspective that is derived from traditions of primary caregivers. This may include theories and orientations that were learned intentionally or unintentionally from philosophy, economics, sociology, and psychology (Mezirow, 2000:17) that are important, considering the diversity of participants.

According to Mezirow (2000:17), "a frame of reference is composed of two dimensions: a habit of mind and resulting points of view". Mezirow describes *habit of*

mind as a set of assumptions that may be broad or generalised and will act as a filter for construing the meaning of an experience.

Variations in habits of mind relevant to this study include the following:

- Sociolinguistics (social norms and customs)
- Epistemic (learning styles, sensory preferences)
- Moral-ethical (conscience and moral norms)
- Philosophical (religious doctrine, transcendental world view)
- Psychological (self-concept, personality types, emotional response patterns)
- Aesthetic (values, tastes, attitudes, standards, judgements about beauty and the insight and authenticity of aesthetic expressions

(Mezirow, 2000:17)

Contributions from the variations mentioned could result in either a liberal or conservative orientation that will either move one towards people or away from people. This may impact on learning interaction such as preference to work alone or with other people, approaching the unknown fearfully or confidently, either respecting or challenging authority, approaching a problem analytically or intuitively, and fear of change, to name but a few. All the mentioned learning interactions are important in design education.

Therefore habit of mind refers to a specific set of beliefs, feelings, attitudes, expectations and judgements, all of which contribute to what are seen and how they are seen. A frame of reference secures personal values and sense of self, and this provides a feeling of stability. Other viewpoints can call our frames of reference into question and this could contribute to a distorting dilemma. However this disposition may be changed through transformative learning.

Transformative learning as defined by Mezirow et al. (2009:19) is a form of making meaning in the learning process and is the main theoretical underpinning of this research. O'Sullivan (1999) suggests a fundamental shift in education is necessary if higher education institutions are going to create educators as change agents who can put an end to the current ecological crisis. In his review of O'Sullivan's book, O'Connor (2000:158) summarises the fundamental question as "a choice for us to make both collectively and individually, both consciously and at the deeper level of our dreams: will we educate for the global marketplace, or will we educate for peace, social justice, diversity and integral development?"

To understand and interpret the learning process of graduates, transformative learning offers a theory of learning that is uniquely adult, abstract, and grounded in the nature of human communication. Therefore, the next section is dedicated to what is necessary to promote transformative learning.

2.3   Factors promoting transformative learning

The best method to encourage transformative learning in adult education is to present adults with learning experiences such as direct, personal engagement, and to encourage them to reflect upon their experiences (Pohland & Bova, 2000; MacLeod et al., 2003; Mallory, 2003; Feinstein, 2004; King, 2004; Kiely, 2005; Taylor 2007; Mezirow & Taylor, 2011 Illeris, 2014). Brookfield (2000) suggests that some of the factors that may facilitate transformative learning could include autobiographies, critical incidents, and collective problem solving. Similarly, in the development of the Learning Activity Survey instrument, King (2005) affirms that there are applied strategies for stimulating transformative learning, with an emphasis on being critically reflective. These strategies include case studies, collaborative learning and

collaborative writing, discussions, interviews, presentations, journals and research papers.

Cranton (2002) lists facets of transformative learning that present more descriptive guidelines to promote transformative learning. Cranton's facets include:

i) an active event that typically exposes a discrepancy between a person's self-reflection and why it is important (questioning and examining assumptions in terms of where they originated from and the consequences they hold);

ii) articulating assumptions, that is, recognising underlying assumptions that have been uncritically assimilated and are largely unconscious;

iii) being open to alternative viewpoints;

iv) engaging in discourse where evidence is weighted, arguments assessed, alternative perspectives explored, and knowledge constructed by consensus;

v) revising assumptions and perspectives to make them more open and better justified and;

vi) acting on revisions, behaving, talking, and thinking in a way that is congruent with transformed assumptions or perspectives.

Therefore, among the many factors contributing to transformative learning, critical thinking skills, self-reflection and discussions and dialogues are the most prominent.

2.3.1 Critical thinking and the information age

We live in the information age and the pursuit of information has become an all-consuming task. Many people find themselves overloaded and constantly multi-tasking; with so many multi-tasking assignments and responsibilities, many of these tasks are executed poorly, which would not have been the case if done one at a time (Crenshaw, 2008). Critical thinking engages the use of cognitive skills or strategies

that increase the probability of a desirable outcome. It is purposeful, reasoned, and goal directed. It is also known as directed thinking (Halpern, 2002: 52). Critical thinking could be compared with non-directed thinking, which encompasses daydreams, night dreams, and rote memorisation. In the pursuit to discover the presence of transformative learning in design education, the thinking levels of participants need to be kept in mind. Various researchers (Shor, 1992; Brookfield, 1995; Cranton, 2006b; Bean, 2011) have argued how critical thinking skills could be used to empower adult learners in their ability to reflect on and improve concepts, beliefs, assumptions and ethics. Thus a worthwhile measure will be to understand the participants' critical thinking attitudes.

A critical thinking attitude is the willingness to plan, be flexible in one's thinking, be persistent, to self-correct, maintain mindful attention to the thought process, and seek consensus (Halpern, 2002:53). It is not possible to be a critical thinker without this kind of attitude. Reviews of literature and individual studies (e.g., Moseley et al., 2005) conclude that instruction in critical thinking can help people think better and that improved thinking will transfer to novel contexts.

According to Brookfield (1995), critical thinking is a practice of analysing assumptions that motivate beliefs, morals and ways of understanding. It is therefore self-directed, self-disciplined, self-monitored and self-corrective thinking (Cranton, 2006b). Thomas (2009) argues that teaching approaches should focus on elements that relate to learning processes. Rather than the accumulation of knowledge, develop graduates with capabilities to improvise, adapt, innovate, and be creative. They should possess skills such as interdisciplinary thinking, problem solving, team working, and holistic thinking. The key is "how to think" rather than "what to think" Thomas (2009).

2.3.2 Self-reflection

When considering reflection as an interpretive lens, the works of Dewey (1910, 1933), Schön (1983, 1987) and Boud et al. (1985a, 1985b) have made a considerable impact. Reflection, as described by Boud et al. (1985a:18-19), will be used as the interpretive lens to investigate the learning processes of fashion design alumni. Reflection is a mental activity used in the process of thinking and learning and is used in everyday life. Boud et al. (1985b:7) depict reflection as "a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation". The significance of reflection on what you are doing in order to inform learning has been highlighted by many other academics. In this study, reflection will be investigated in relation to learning.

John Dewey offered a pivotal philosophy in his book, *Democracy and Education* (1916), in which he challenged traditional philosophies. Although Dewey's contributions were focused mostly on education in schools, much of his thought is relevant to higher education today. Dewey perceived humans as malleable in so far as they have the ability to learn from experience. To learn from experience in itself refers to reflection, and Dewey noted that reflection is an essential component for success:

> Methods which are permanently successful in formal education … depend for
> their efficiency upon the fact that they go back to the type of situation which
> causes reflection (Dewey, 1916:154).

When acquired knowledge has been applied and tested in real work situations, it has the effect of fixing what has been learned. Dewey further implies that only when

knowledge gained has been tried out and applied in practice, can the process of reflection begin.

The views of Dewey link with the term 'reflective practice' that came into use as a result of the work of Donald Schön (1983,1987). In Schön's first book, *The Reflective Practitioner* (1983), he emphasises the use of reflection in professional undertakings as a method of coping with situations that are poorly structured or unpredictable. Schön (1983) identified the ability to reflect on action to ensure a process of continuous learning as one of the significant characteristics of professional practice. The (then) current model of professional teaching, which he called 'technical rationality', where students are charged up with knowledge during training in order to discharge only when they enter the world of work and practice, has never been a especially good account of how professionals "think in action". This type of learning is also quite inappropriate to practice in a constantly changing world. The current research will draw on the capacity of participants to reflect on action (after they have done it) as well as reflection in action (while doing something). Participants will reflect on their studies (in action) while operating in their careers (in action).

Argyris and Schön (1978) distinguish between single loop and double loop learning. Single-loop learning can be referred to as the simple version of the Kolb learning cycle, in which performance is assessed through reflection and followed by correction or improvement. Comparably, Boud et al. (1985:13) suggest a double-loop learning cycle where the entire activity is part of a larger cycle. In this loop, reflection takes place on the detail of engaging in the activity and the assumptions embedded in it.

The concept of reflection is supported by the learning theory of the American educational theorist, David Kolb (1984), well known for his four-stage cycle of

learning. He included reflective observation into his learning cycle as a continuum of four steps as illustrated in Figure 2.1. Reflection was not the main focus of Kolb's work. His interest was vested in exploring the processes related to making sense of concrete experiences and the different styles of learning that may be involved. For this he made use of the work of Piaget, Dewey, and Lewin.
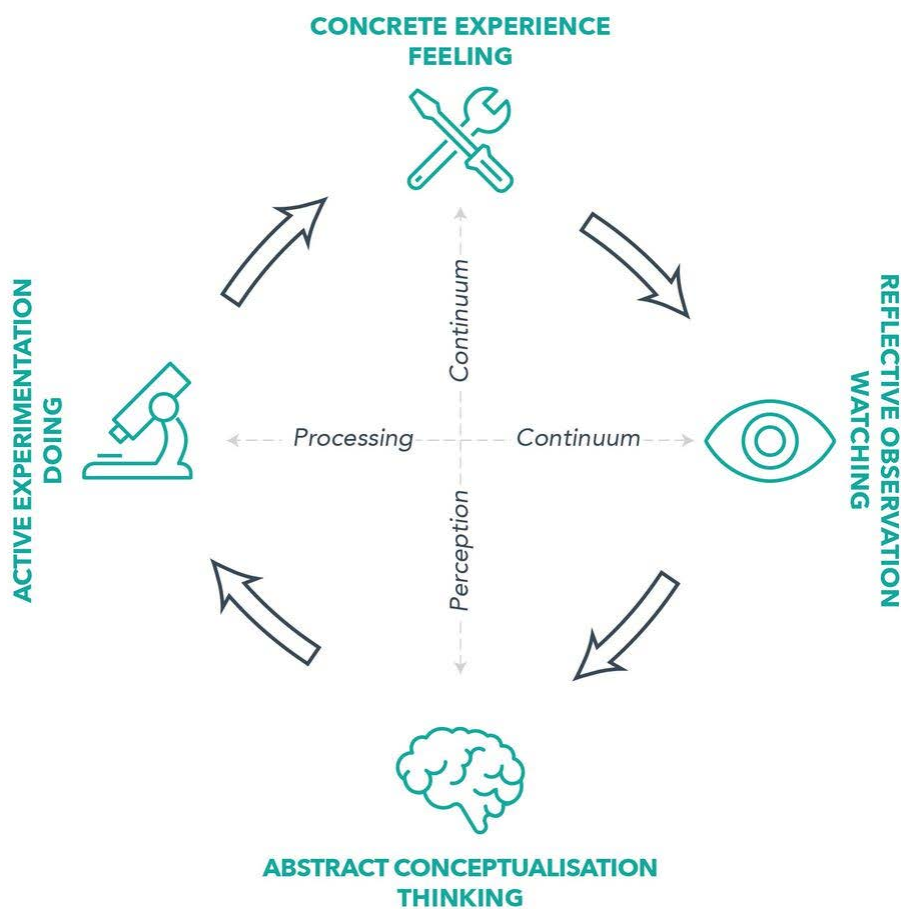
Figure 2.1 Kolb's learning theory (Adapted by Author)

Although the method of reflective practice was initially developed for nursing and teacher education, it is increasingly applied across other professions. Moon (2004) presents a full rationalisation on reflection and dedicates Chapter 5 in her book to the prominence of reflection in the discourse of professionalism in teaching. She

advocates that it is more about reinforcing professional identity than improving practice. Reflection is viewed as an activity or process that is the cornerstone of developing practices (Dewey, 1910; Loughran, 1996). Although reflection is associated with thinking processes and reflective self-examination, in this study reflection is mostly connected with acts of perception and understanding, which are linked to learning 'how' rather than learning 'about' or 'what'.

Higher education comprises a diverse student body and transformative learning attempts to explain how graduate expectations, which are framed within their cultural assumptions and presuppositions, can directly influence the meaning that originates from their learning experiences. This process is strongly linked to critical reflection, which is largely used as a synonym for higher-order thinking (Collins, 2014). Mezirow (1990) refers to reflection as an action that can take place either during or after an activity. This study therefore focuses on the later experiences of participants and not on their reflections during their studies.

Perspective transformation can be individual, but perspective transformation is the process of becoming critically aware of how assumptions and pre-assumptions have come to shape the way life is perceived, understood and felt (Mezirow, 1990:14). In later works, Mezirow's original term 'perspective' was replaced by 'frame of reference' (Mezirow, 2000:287) to describe one's worldview and cluster of meaning schemes. I shall take the participating alumni through a reflective process, which will identify the possible transformation of their meaning perspectives or frames of reference, which they have encountered since entering their work life. The reflective process will evaluate the meaning perspective on the levels of distortion.

In contrast to Mezirow's theory, Paolo Freire (1970) wanted people to develop an "ontological vocation", what he called a theory of existence, which views people as

subjects and not as objects. He defined this as a process of constantly reflecting and acting on the transformation of the world around them in order to make it a more equitable place for all to live in. Mezirow mainly focuses on personal transformation, although like Mezirow, Freire sees critical reflection as central to transformation in context to problem posing and dialogue with other students.

Despite the different understandings, some consensus has been reached among the plethora of definitions of reflective practice. Reflective practice is typically understood as the process of learning through and from experience towards acquiring new insights of self and practice (Mezirow, 2000; Boyd & Fales, 1983; Candy, 1985; Jarvis, 1992). In this research I use critical reflection to explore the relationship between the personal and professional (work readiness) transformation that might have taken place during studies. The methods used to investigate these occurrences are explained in the methodology section of this thesis. Even though this study focuses mainly on the theory of Mezirow, Freire's "theory of existence" will complement this study. Because Freire (1970) based his studies on the teaching of people with limited literacy skills in the majority world context, I can relate to Freire's context, since my study is located in South Africa.

Reflective practice can be seen as professionalised reflective learning (Lyons, 1999); thus the terms 'reflection' and 'reflective learning' will be used interchangeably.

2.3.2.1 Ordinary view on reflection

In understanding the ordinary view on reflection, it is important to view the world in everyday language. Reflection is related to thinking and reflective thinking is performed to achieve a result. Moon (2004:80) states that the reflective process is located between the notion of learning and thinking. This is an echo of the earlier

work of Boud et al. (1985:7) that denotes reflection as "a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation". According to Mezirow (1990:5), this definition includes making conclusions, generalisations, comparisons, discriminations, and evaluations. The definition also suggests that beliefs are used to make the interpretations, to analyse, perform, discuss, or judge, while being unaware of doing so. Reflection is done largely on what is known and is therefore often a process of re-organising knowledge and emotional orientations gain new or further insights (Moon, 2004:82). Moon (2004:82) summation is given below:

> Reflection is a form of mental processing – like a form of thinking – that we may use to fulfill a purpose or to achieve some anticipated outcome or we may simply be reflective and then an outcome can be unexpected. Reflection is applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding that we already possess (Moon, 2004:82).

Using the philosophies of Mezirow and King this study investigates, interrogates, analyses and conceptualises transformative learning or the lack thereof in fashion design graduates in the workplace.

2.3.2.2 Reflection in academic contexts

The theory and practice of reflection became more pertinent in education during the late 1990s; thus ordinary views on reflection developed into a practice within a specific context. Disappointingly, reflection in education is often narrowly defined. It may be described as learning from recognised mistakes or ineffectiveness in practice (Mackintosh, 1998; Hinnett, 2003).

Moreover, powerful sponsors such as government and industry that test educational values such as institutional autonomy, the search for truth and objective knowledge, and academic freedom, often influence higher education. Brockbank (1994:27) contends that central to protection from whatever the likely influences on higher education, rests in outlining rationality and implementing a practice, which facilitates students to challenge existing paradigms. This practice has been labelled in various ways as criticism (Barnett, 1990), critical reflection (Mezirow, 1990), reflexivity (Beck et al., 1994), or critical thinking (Brookfield, 1987). Above and beyond the name given to this practice, in this study the process of critical reflection shows a more holistic view by embracing knowledge, self and the world.

2.3.3 Discussions and dialogues

To achieve deep discussions and dialogues, a safe, supported and stimulating environment should be created. Cranton (2000:181) notes that transformative learning includes a re-forming of one's frame of reference so that it can be more dependable and better justified. People have different learning styles, cognitive styles and personal traits, and therefore construct their frames of reference in distinctly different ways. Cranton (2000:192, 2009:189), Brookfield (2000:143) and Mezirow et al. (2009:22) concur that critical reflection and transformative learning depend on deep discussions and dialogues.

Brookfield (1986, 2010) specifies the need for educators to create a physical environment and an all-inclusive classroom for students to share their experiences. Moon (2004:141) concurs that classroom situations can stimulate reflective dialogue. This can create situations where students can share ideas and additionally support

one another. The learning environment should be a 'safe place' for students to feel supported and free to share their values and assumptions. Boud et al. (1995:102) stated that reflective learning is not a solitary kind of activity whereby the student contemplates or reviews some insight or experience in order to reach new understandings, but often starts with someone talking about their ideas with someone else. An activity whereby someone is used as a 'sounding board' or in everyday language 'thinking out loud'. Candy et al. (1985:102) label this activity as a learning conversation.

Moon (2004:171) concurs that a useful outcome for reflective classroom dialogue or a learning conversation is that it could cause students to shift from one frame of reference to another, and thus recognise that there are two sides to most arguments and viewpoints. Although this research was not situated within the classroom environment, it implemented similar strategies during the group reflective sessions.

According to King (1997, 2000), classroom discussions offer an enabling environment for students at universities to experience perspective transformation since they are afforded the opportunity to share, centred on their individual background experiences. King (2005) further argues that discussion is an essential component for generating transformative learning opportunities. This is in agreement with Mezirow (1995), that in the process of seeking values and assumptions, adult learners examine habits of mind when they engage in discourse with others. Dialogue only results in transformative learning when it motivates adults to question the truth, appropriateness and clarity of what is being expressed.

According to Brookfield and Preskill (2005), discussions should be significant and vibrant to facilitate the questioning of meaning and assumptions. This study engages

design graduates. It is therefore noteworthy to acknowledge the growing concern to encourage a more creative and imaginative approach in higher education (Dewulf & Baillie, 1999; Moon, 2004). The reflective learning process is often based on creativity and imaginative activities. It is a process that frees the mind from the already known time and space and allows for the questioning of habits of mind (Moon, 2004:172).

Cranton (2006b) stated that discourse, as practice, is fundamental to the transformation process. Engaging in discourse, as opposed to regular discussion, may seem artificial. However, when engaging in discourse, it is important to present the optimal conditions for success. These include: having accurate and complete information, being free from intimidation and misrepresentation, evaluating evidence and considering arguments, being open to alternative perspectives, critically reflecting on presuppositions, having equal opportunity to contribute, and acknowledging informed consensus as acceptable knowledge (Mezirow, 1991). According to Cranton (2006b), having one or two students as observers who can notice when participants, for example, resort to persuasion rather than evidence, is beneficial. Therefore discourse, as practice could be beneficial to both students and educators alike. Engagement in conversation contributes to the development of alternative perspectives.

The Brazilian philosopher and educator, Paulo Freire, a leading advocate of critical pedagogy, proposed six attitudes that educators need to demonstrate to achieve a meaningful and authentic dialogue (Freire, 1970):

i)   Love for the world and human beings
ii)   Humility
iii)   Faith in people and their power to create and recreate

iv)   Trust

v)   Hope that the dialogue will lead to meaning

vi)   Critical thinking and the continuing transformation of reality

While Freire's (1970) list shows a more human-centred approach, Cranton (2006b) concentrates on a more pedagogical methodology. Cranton (2006b) lists four broad criteria for educators when engaging in dialogue:

i)   Find thought-provoking ways to encourage dialogue from different viewpoints, provocative statements, readings from opposing points of view, or structure group activities that lead people to alternative solutions.

ii)   Cultivate discourse processes that encourage group members to take on roles of checking and controlling the direction of the discussions, therefore ensuring equal opportunity amongst group members and recognising coercion and persuasion.

iii)   Avoid formulating dismissive statements or conclusive summaries. The educator must be cautious not to steer the dialogue through regulatory functions.

iv)   Create quiet time with no dialogue, which will allow time for reflection.

Given the nature of the preceding literature presented, it is important to re-focus on the purpose of this study: learner experience.

2.3.4 Learning Activity Survey (LAS)

To understand the learner experience it is imperative to use research tools and methodologies appropriate to transformative learning that enable the voice of the participant to become clear. During perspective transformation encounters, adults adjust their understanding and assumptions in order to cope with new information

(King, 2005:4,5). King describes this encounter as a progression, where students go beyond the simple recital of lecturer's lessons.

> These learners experience how new ideas and information can impact and unbalance their beliefs, values and ways of understanding: from their vantage point, the learner's perspectives of themselves and their changing world (King, 2005:5).

King (1997), in consultation with transformative learning scholars, developed a Learning Activities Survey based on Mezirow's (1978, 1990), Cranton's (1994), and Brookfield's (1986, 1987, 1995) work, which highlighted the activities and methods that could be used to assist transformational learning through reflective thinking, critical thinking, and the development of the person's consciousness (Kumi-Yeboah, 2012). The survey instrument was developed to assist the gathering of data related to the transformative learning experiences among adult learners in higher education.

The Learning Activities Survey (LAS) was created to recognise perspective transformation of adult learners with reference to their educational experience and discover what learning activities encourage perspective transformation of adult learners. As stated, the LAS is based on the four phases of transformative learning as defined by King (2004), but incorporates the ten phases of Transformative Learning as defined by Mezirow (Table 2.5).

Table 2.5 King (2009a:92)

THE JOURNEY OF TRANSFORMATION by K.P. King	Perspective Transformation Phases by J. Mezirow
FEAR & UNCERTAINTY	1. A distorting dilemma
	2. Self-examination
TESTING & EXPLORING	3. A critical assessment of epistemic, socio-cultural or psychic assumptions
	4. Recognition of one's discontent and the process of transformation are shared
	5. Exploration of options of new roles, relationships, and actions
AFFIRMING & CONNECTING	6. Planning of a course of action
	7. Acquisition of knowledge and skills for implementing one's plans
	8. Provisional trying of new roles
	9. Building of competence and self-confidence in new roles and relationships
NEW PERSPECTIVES	10. Reintegration of a new perspective into one's life

The first section in the King survey ask participants to discover what makes them reflect and think about their past education and experiences. This section combines the first two steps of Mezirow's transformative learning model where participants are expected to reflect on their beliefs, values, opinions and expectations. The second section prompts participants to recall information on their learning experiences that

enabled perspective transformation. Here a collective of Questions 3–5 of Mezirow's transformative learning model is presented and participants test their own assumptions and beliefs and embark upon testing new discoveries.

The third section includes Questions 6–9 of Mezirow's transformative learning model and places the focus on information about learning activities that facilitated and deepened perspective transformation. In the last section, representing Question 10 of Mezirow's transformative learning model, King finishes the survey with the focus on demographic characteristics such as gender, age, race and educational level. In total, the King LAS represents 14 questions in the initial questionnaire. She developed a follow-up interview section consisting of eight questions where participants are encouraged to contribute in-depth detailed answers. The follow-up interview was generated to confirm and enrich the results.

2.3.5 Research using the Learning Activity Survey (LAS)

The Learning Activity Survey is a survey instrument developed, piloted and first used by Kathleen King in 1997. King (2005:175) stated that ten years after the development of the LAS and during the completion of her revised book, it became unmanageable to include all the people who have used the LAS. Numerous academics have completed research publications, dissertations, and master's theses using the LAS. Taylor (2000) completed an analysis of more than 46 research studies on transformative learning. In conclusion, he recommended that there should be more qualitative research on transformative learning in order to conduct in-depth theoretical component analysis and to seek an understanding of what the task of acting on new perspectives look like. Subsequently, several quantitative studies have been completed on transformative learning in higher education.

These studies include learning activities and transformational learning (King, 1997, 2000; Glisczinski, 2005; Ritz, 2006; Brock, 2007; Wansick, 2007). The studies employed both qualitative and quantitative research methods.

According to King (1997), most of the studies employing LAS have employed quantitative research and produced constructive information about perspective transformation; however they contributed little to an understanding of the classroom methods used. Few of these studies focused on qualified and working graduates. King (1997) piloted a study to explore the activities that stimulate perspective transformation between adult learners in higher education. The LAS was used to examine over 700 participants in three metropolitan universities. King's (1997) research applied various statistical analyses such as normal distribution, percentages, frequencies, Pearson Product-Moment Correlation (PPMC) analysis,[4] Spearman Rank Correlation Coefficient,[5] and a follow-up interview.

This study determined that 37.3% of the sample group experienced perspective transformation. Activities such as classroom discussions, critical thinking and the teacher's role in the class were 25% of the contributions towards perspective transformation. King's study offered credible information for the application of the learning activity survey.

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[4] Correlation between sets of data is a measure of how well they are related. The most common measure of correlation in statistics is the Pearson Correlation.

[5] Spearman Correlation Coefficient is also referred to as Spearman Rank Correlation or Spearman's rho. Spearman's rho measures the strength of association of two variables.

King (2000) conducted a similar survey with 208 participants and interviewed 24 students to identify the experience of perspective transformation among English second language adults. An amended format of the Learning Activity Survey was used for data collection and analysis. The data revealed that learning activities such as critical thinking, discussions, experiential learning and role-play contributed to perspective transformation.

Glisczinski's (2005) doctoral study applied triangulation of quantitative and qualitative methods in a mixed-methods research study. The study focused on 153 pre-service teachers in three different colleges and their experiences of perspective transformation. Glisczinski modified the LAS with triangulation to re-establish validity and reliability. Limitations of the survey involved the small sample size of participants and inadequate demographical variables, and the analysis of the results did not include association elements that facilitate perspective transformation among qualified graduates.

Brock's (2007) doctoral study was to determine which, if any, learning and support actions contributed to transformative learning in undergraduate business school students and to establish if there was a disparity between male and female students' experience. The Learning Activity Survey was used to collect data from 256 undergraduate business students in a large university. The survey was distributed and analysed through in a web-based format. Brock (2007) used various methods in the

study, which include two-tailed chi-squared tests,[6] *t*-tests,[7] partial corrections, and logistic regression. A pilot study was performed to determine the reliability and validity of the instrument. Student experiences were described through survey and correlation data. The study concurred that class maturity and classroom assignments influenced transformational learning experiences.

Another doctoral study done by Wansick (2007) explored evidence of transformative learning in an online master's programme at a university. The study used Mezirow's transformative learning theory as the theoretical perspective in the study. The study included an online survey to form a general observation from a sample population and determine if transformation was occurring. Wansick (2007) correlated Mezirow's ten steps of transformative learning with the LAS developed by King (1997). Wansick (2007) concluded that the online Master of Liberal Arts programme did exhibit transformative learning. The study showed limitations due to the absence of qualitative interviews to gather information on how the students experienced transformative learning.

In summary, although many other studies have been done, the literature covered on the LAS provided an explanation on the use and possibilities of the research tool. As adults develop and mature, their life experiences require them to adopt meaning schemes and perspectives that are increasingly comprehensive and discriminating (Mezirow, 2000; Brooks, 2010). Based on the above, there is evidence that few of the

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[6] A statistical method assessing the goodness of fit between a set of observed values and those expected theoretically.

[7] Examines whether two samples are different and commonly used when the variances of two normal distributions are unknown and when an experiment uses a small sample size.

studies on transformative learning were completed with graduates functioning as working adults. Studies only reflect class activities and their impact on transformative learning. Therefore this research investigated the factors that prompted transformative learning occurrences with design graduates while studying and applied during their working lives.

2.4 Design education

Professional design practice today engages advanced multidisciplinary knowledge and is not dissimilar from that of Gropius who sought to combine imaginative design with technical proficiency (Daichendt, 2010). However design education today is not far removed from the Gropius–Itten conflict from the Bauhaus era (Dearstyne, 1986). During this time, Gropius argued that commissioned work would be the sustaining power of the Bauhaus and its designs, while Itten believed that the highest aim of the Bauhaus education was the awakening and development of the creative individual, in harmony with himself and the world (Droste, 2002:46). This dichotomy is still relevant today.

Adams et al. (2013:142) note that in design education today, some design educators argue the relative advantages of idea-based curricula versus those founded on technical skills. However, there are educators who support the value of developing new thinking embedded in social engagement. This research study focuses on the combination of these two points of view. "Within a specific field there is divergence; for instance, in textile design there can be a gulf between the scientific design practices of textile technologists and the fine art-oriented practices of fashion textiles" (Adams et al., 2013:142).

Therefore the design education dichotomy and the multi-disciplinary approach will have a rational effect on the transformative learning of fashion graduates, because students that are nurtured in results-driven education are those who find it difficult to work independently or creatively. Adams et al. (2013:143) agree that these students are often insecure in decision making and disparaging of practices and tasks that are not directly oriented towards qualifications. The focus was to understanding design and design thinking in the twenty-first century and design learning theories and transitional design as educational construct.

2.4.1 Design and design thinking for the 21st century

In the past twenty years the field of design has experienced significant change and design's universality is described as a catalyst for positive social and environmental change. Progressively design plays a key role in diverse sectors such as business, government, non-profit organisations and grassroots activism (Irwin, 2015:91). Kolko (2015:66) concurs:

> There's a shift under way in large organizations, one that puts design much closer to the centre of the enterprise. But the shift isn't about aesthetics. It's about applying the principles of design to the way people work.

He explains five principles of a design-centric culture he considers important. These principles include:

i) Focus on user experience with specific reference to their emotions.
ii) Create models to examine complex problems. Design can add a fluid dimension to the exploration of complexity, allowing for nonlinear thought when tackling nonlinear problems.

iii) Develop prototypes to explore possible solutions. Innovation expert Michael Schrage refers to this as "serious play." In his book of that title, he records that innovation is "more social than personal." He concludes, "Prototyping is probably the single most pragmatic behaviour the innovative firm can practice."

iv) Tolerate failure. A design culture is nurturing. Although it doesn't encourage failure, the iterative nature of the design process recognizes that it's rare to get things right the first time.

v) Exhibit thoughtful restraint. Products built on an emotional value proposition are less complicated than the competitors' products or services.

The principles proposed by Kolko have a deep connection with the preparedness of graduates for the world of work and can be closely linked to the graduate attributes presented in Section 2.6 of the chapter.

2.4.2   Design, learning theories and transition design

In light of the five principles of Kolko listed above, it is reasonable to accept that educators are challenged in preparing students with the adaptability, knowledge, and skills sets needed to address the difficulties of a changing society in an international interconnected and interdependent world. Design education should be part of the source in social, economic, technological and political systems to assist people to satisfy their needs in ways which establish mutually beneficial relationships between people, the natural environment, and the built and designed world.

According to Don Norman (2014):

> Design today is more human-centered and more social, more rooted in technology and science than ever before ... in order to expand beyond chance successes, design needs better tools and methods, more theory, more

analytical techniques, and more understanding of how art and science, technology and people, theory and practice can commingle effectively and productively.

Norman's statements have a direct link to the new design approach called transitional design.

The term transitional design can be defined as a design process that leads societal transition to sustainable futures. A transition design framework was first introduced by academics from the School of Design at Carnegie Mellon University in Pittsburgh, PA, at the 2013 national AIGA design conference in Minneapolis. Their proposed framework organises transition design into four areas of mutual influence: Vision for Transition; Theories of Change; Posture/mindset and New Ways of Designing.

On further analysis, the four areas identified by Irwin et al. (2015) in the framework of transitional design had a direct correlation with the research framework described in Chapter 1 on page 17).

Figure 2.2 presents a visualisation where the research framework of the author is linked to various contributing frameworks used in the research namely, the four phases in the learning theory of Kolb, the four phases of transformative learning of King and the four areas identified in transitional design.
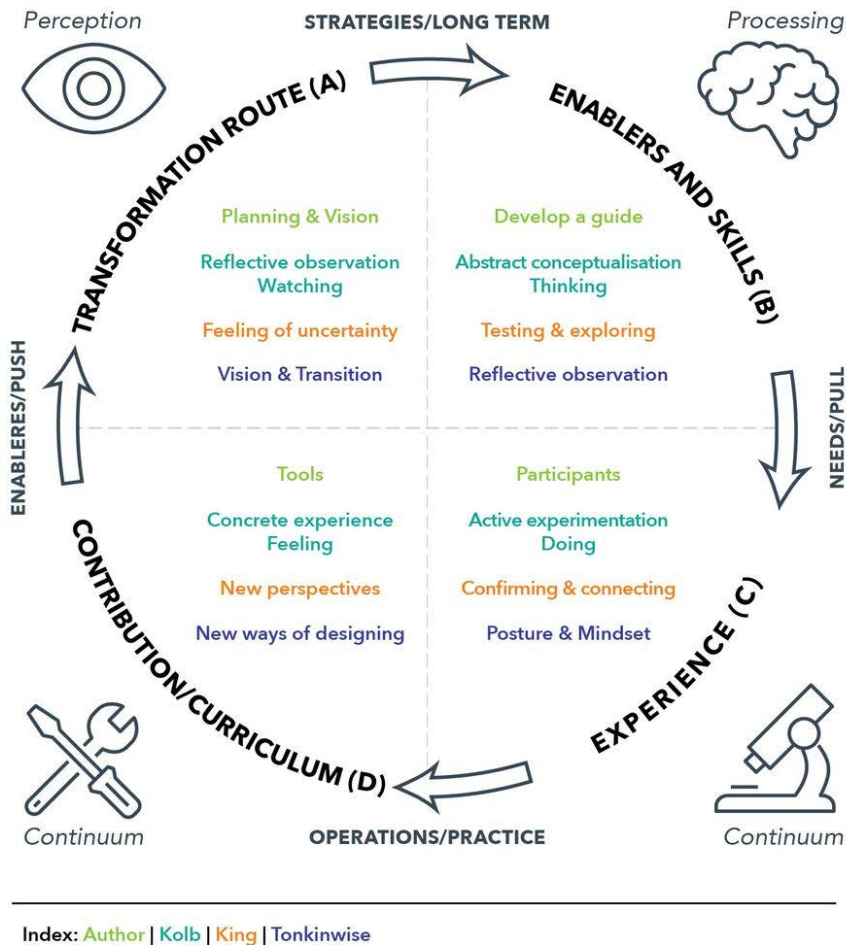
Figure 2.2 Author's conceptual framework incorporating Kolb's learning theories and King's Phases of Transformative Leaning

While following the arrows from A to D the flow process for building the awareness needed for the transformation (A), to the processing of enablers and skills (B), to the identification and analysis of the experiences (C) and finally discovery the contributions to a new perspective (D), illustrate the relationship of these theories.

Although Irwin (2015) and Kolko (2015) refer to design in general, the adaptability, or, as described in this study, the transformation of learning of fashion graduates is facing the same challenges and will be discussed in Section 2.7. Orr et al. (2014) investigated the student-centred perspective on pedagogy in art and design. Their study indicated that sharing responsibility for learning, expertise and meaning making and managing diverse feedback should be the most important focus. Project-centred learning is a foundational element of design education (Reid & Davies, 2001). Therefore design disciplines share various teaching and learning practices such as studio work and self-reflection. Kennedy and Welch (2008) confirm that learning in design disciplines develops students' ability to reflect on their own learning and development while supported by the studio environment.

A study by Morkel (2011) defined the design studio as a physical space where learning is supported through social interactions. She considered the social interaction in three parts, namely the conversations with self (internal dialogue), consulting with peers (horizontal dialogue), and discussions with educators (vertical dialogue). These three parts closely link to Mezirow where he refers to a "critical assessment of epistemic, socio-cultural or psychic assumptions" in Stage 3 of his 10-stage transformative learning theory (Mezirow, 2000:22). Furthermore, the phases link to the fact that design is inherently a problem-solving process where a designer identifies meaningful problems, frames them within an appropriate context and designs a process or product as a solution.

Irwin (2015) highlighted that students need to identify problems, their symptoms and their interconnections first before they can effectively solve them. He further emphasised that design curricula for the twenty-first century should introduce students to the elements of a holistic worldview where students acquire the ability

and skills to collaborate with those from other professions and disciplines. Mendoza and Matyók (2013) concur that design education needs to move away from narrow, insular practices. They propose 'design without borders', which has the ability to be globally situated within a transformative and socially engaging practice. This emphasis resonates with this study where the focus is on the relevance and adaptability of the skills and attributes of fashion graduates when functioning in the work environment in a transformative and socially engaging manner.

2.5 Graduate attributes and skills

Graduates should acquire strong skills in areas such as language, arts, mathematics, and science to thrive in a rapidly evolving world (World Economic Forum, 2015). They should also be adept at skills such as critical thinking, problem solving, persistence, determination, collaboration and curiosity. Awareness of the skills needed in the twenty-first century, the responsibility of design students, and graduate attributes in general are paramount.

2.5.1 Twenty-first century skills

For graduates to survive in an innovation-driven economy, they need to have a mixed set of skills, far different from those of the past. According to the World Economic Forum (2015:2), "in countries around the world, economies run on creativity, innovation and collaboration" and "skilled jobs are more and more centred on solving unstructured problems and effectively analysing information". The World Economic Forum report identified 16 skills in three broad categories: *foundational literacies, competencies* and *character qualities* (Figure 2.3).

21ST CENTURY SKILLS
Lifelong learning

FOUNDATIONAL LITERACIES
How students apply core skills to everyday tasks

1. LITERACY
2. NUMERACY
3. SCIENTIFIC LITERACY
4. ICT LITERACY
5. FINANCIAL LITERACY
6. CULTURAL & CIVIC LITERACY

COMPETENCIES
How students approach complex challenges

7. CRITICAL THINKING & PROBLEM SOLVING
8. CREATIVITY
9. COMMUNICATION
10. COLLABORATION

CHARACTER QUALITIES
How students approach their changing environment

11. CURIOSITY
12. INITIATIVE
13. PERSISTANCE & GRITT
14. ADAPTABILITY
15. LEADERSHIP
16. SOCIAL & CULTURAL AWARENESS

Figure 2.3 Student skills required for the 21st century, WEF, 2015:3 (adapted by author)

Foundational literacies are described as "how students apply core skills to everyday tasks. These skills serve as the base upon which students need to build more advanced and equally important competencies and character qualities" (World Economic Forum, 2015:2).

Competencies are described as how students approach complex challenges. Therefore competencies include attributes such as critical thinking, creativity, communication and collaboration. *Character qualities* represent how students approach their changing environment through persistence, adaptability, curiosity, initiative, leadership, and social and cultural awareness. The three broad categories identified by the World Economic Forum are appropriate and relevant to the fashion graduate in today's context.

2.5.2   General graduate attributes

Higher education is increasingly acknowledged as a major driver of economic competitiveness. Bester (2014:1) notes that in 2008 the Organisation for Economic Co-operation and Development (OECD) indicated higher education as a significant contributor to social and economic development. The OECD identified these contributions as four major missions, namely, the formation of human capital, the building of knowledge bases, the dissemination and use of knowledge, and the maintenance of knowledge (Bester 2014:1). In both business and higher education there is a shift towards better alignment to accommodate the growing diversity and expectations of school leavers. Barrie (2004:262) defines attributes as the abilities of a graduate in a specific discipline and not just entry-level skills. They are "considered to be an important outcome of university level learning experiences". Consequently, universities and educational systems describe graduate qualities and skills in an array of terms in order to represent the core achievements of a university education.

> Graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the institution. These attributes include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as agents of social good in an unknown future (Bowden, 2000:262).

In January 2013 the South African Council on Higher Education (CHE) published a second draft on qualification standards in higher education. These qualification standards were based on a classification of learning domains, defined as "knowledge", "skills" and "applied competence" (CHE, 2013:18). The aim of setting qualification standards is to underwrite the realisation of graduate attributes. Hager (2006:18) defines graduate attributes as "a range of diverse and fundamentally

different kinds of entities such as skill components, attitudes, values and dispositions". Bester (2014:86) confirms that graduate attributes, termed as generic skills, transferable skills, and employability skills are viewed as a fundamental outcome of university study, employment and life. Worldwide universities aim to provide an outline of generic attributes that every graduate should ideally acquire.

According to Oliver (2011:2), the most common generic attributes defined by universities in Australia, apart from knowledge outcomes, are clustered into the following areas:

- Written and oral communication
- Critical and analytical (and sometimes creative and reflective) thinking
- Problem solving (including generating ideas and innovative solutions)
- Information literacy often associated with technology
- Learning and working independently
- Learning and working collaboratively
- Ethical and inclusive engagement with communities, cultures and nations

Even though attributes could be clustered into these distinct areas, Oliver (2011:3) and Barrie (2004:262) note that key findings in the Australian Learning and Teaching Council study show that the outcomes are best contextualised and embedded in particular disciplines. The enabling concepts of graduate attributes are not parallel learning outcomes to discipline knowledge but should be centred at the heart of the discipline and learning (Barrie, 2004:266). The current study focuses on design education and therefore on the attributes identified by participants that are both present and lacking.

Part of the questionnaire identified three holistic overarching attributes that can be seen as important outcomes in higher education were built in namely:

  i. Scholarship – an attitude or stance towards knowledge
 ii. Global citizenship – an attitude or stance towards the world
iii. Lifelong learning – an attitude or stance towards themselves (Barrie, 20004:269).

Barrie (2004:270) further notes that the three overarching enabling graduate attributes are sustained by the development of skills and abilities in five key clusters. The five clusters represent the next level of the hierarchy, the interpreting concept of graduate attributes as disciplinary clusters of personal qualities, intellectual abilities and skills of application. Barrie (2004:270) and Barrie (2007:159) list these as:

  i. Research and inquiry: Graduates of the university will be able to create new knowledge and understanding through the process of research and inquiry.
 ii. Information literacy: Graduates of the university will be able to use information effectively in a range of contexts.
iii. Personal and intellectual autonomy: Graduates of the university will be able to work independently and sustainably, in a way that is informed   by openness, curiosity and a desire to meet new challenges.
iv. Ethical, social and professional understanding: Graduates of the university will hold personal values and beliefs consistent with their role as responsible members of local, national, international and professional communities.
 v. Communication: Graduates of the university will recognize and value communication as a tool for negotiating and creating new understanding, interacting with others, and furthering their own learning.

In Figure 2.4 Barrie illustrates the enabling graduate attributes and the translation-level attributes in two different ways. He presents the enablers through a three-pointed approach as *scholarship, lifelong learning*, and *global citizenship*.

Figure 2.4 Enabling graduate attributes and translation-level attributes (Author's construct adapted from Barrie, 2004:270)

The diagram shows the building blocks towards each enabler as follows: *scholarship* builds on information literacy, research and inquiry and ethical, social and professional understanding. The next enabler, *lifelong learning*, shares the block of information literacy and adds personal and intellectual autonomy, and communication. The last enabler, *global citizenship*, has two building blocks: each one is shared with the two previously mentioned enablers, namely, ethical, social and professional understanding, and communication.

Throughout the research study these enablers can be linked to the concepts of the head, hand and heart concept (Sipos et al., 2008).

While using Barrie's reference to graduate attributes as underpinning, the objective of this study was to elicit the awareness of these attributes among the participants of the study.

2.5.3 Fashion design: attributes required in the workplace

The occupation acknowledged as fashion design can relate to many different responsibilities. McKelvey and Munslow (2011) affirm that graduating students entering the workplace are often unaware of career possibilities in the fashion industry. This section attempts to explain the abundant possibilities the graduate faces when entering the workforce and why the skills and attributes of fashion graduates are significant. This section also offers insight into the challenges of a fashion curriculum when trying to address all these possible career options. Although most students enter the career market as fashion designers, there are many other options such as fashion buyer, design assistant, visual merchandiser, costume designer, stylist, trend analysis, product developer, and textiles specialist (McKelvey & Munslow, 2011). Considering that there are a great number of employment opportunities in fashion design, it is essential to focus on the transferable skills of graduates and not only discipline-specific knowledge. Classifying employability skills distinct from career expertise makes students understand it is about enquiring and demonstrating transferable skills, not just about getting a job (Confederation of British Industry, 2009:6).

Students are social and emotional beings and these features contribute to their learning and performance. Successful and effective higher educational programmes should consider who students are and take into account their prior knowledge, their intellectual development, their cultural background, and their general experiences and expectations. Brookfield (2006:22) confirms this: "We may exhibit an admirable command of content, and possess a dazzling variety of pedagogical skills, but without knowing what's going on in our students' heads, that knowledge may be presented and that skill exercised in a vacuum of misunderstanding." Design educators should understand that new knowledge is based on current knowledge. Bransford et al. (2000:10) attest to this:

> Students come to formal education with a range of prior knowledge, skills, beliefs, and concepts that significantly influence what they notice about the environment and how they organize and interpret it. This, in turn, affects their abilities to remember, reason, solve problems, and acquire new knowledge.

Therefore, the challenge in fashion education is to guide, direct and empower students through reflective practices and transformative education to attain attributes that will prepare them to be work- and life-ready graduates.

2.6 Summary

The literature presented offered an explanation on the progression of and developments in transformative learning theory. Fashion graduates engaged in multiple learning experiences during their time of study that allowed them to achieve

a wider frame of reference and participate in meaning-making encounters (King, 1997; Cranton, 2002; Taylor, 2008; Brock, 2015). The majority of data on transformative learning in students in higher education does not show uniformity and does not include a mixed-methods investigation (Taylor, 2000). This study focuses on how transformative learning presented in design graduates. Design learning theories have to address the progressive role design plays in diverse sectors such as business, government, non-profit organisations, and grassroots activism (Irwin, 2015:91). In light of this, it is reasonable to accept that educators are challenged in preparing students with the adaptability, knowledge, and skills sets needed to address the difficulties challenging society in an international interconnected and interdependent world. The literature tracked the development of design education for the twenty-first century and the required graduate attributes that fashion design graduates need to be successful in the industry and world of work.

RESEARCH DESIGN AND METHODOLOGY
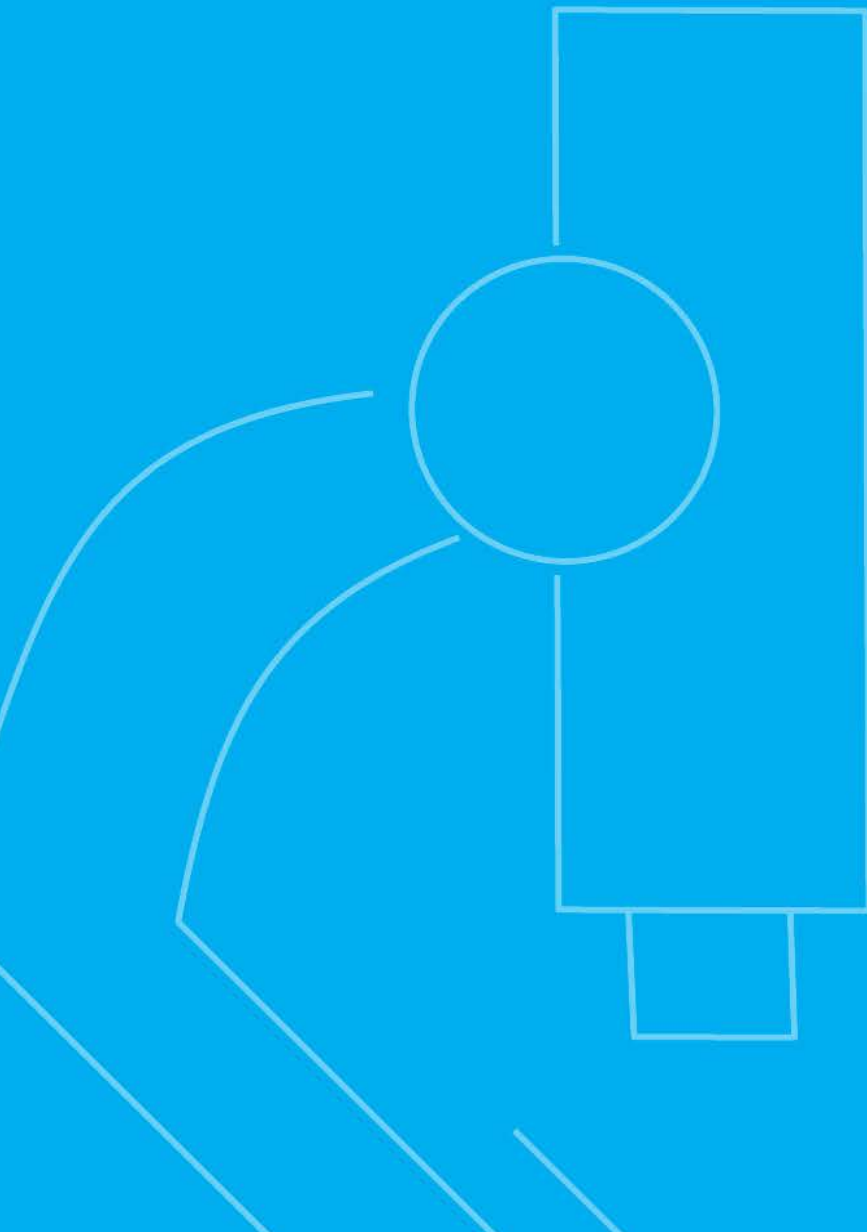
3. Research design and methodology

There is no burden of proof. There is only the world to experience and understand. Shed the burden of proof to lighten the load for the journey of experience.

<div align="right">Halcolm's Laws of Inquiry</div>

3.1 Introduction

This chapter explains how I approached the research study. As educator and practising curriculum development officer I had to find the most suitable framework to apply. I approached this study to answer the question on how qualified graduates attune to their careers once they leave the safe environment of the university. I had to define the core setting and identify the relevant peripheral data sources. My chosen research methods had to address my pursuit towards constructing a clear picture of the transformative abilities of current fashion education.

I was also conscious of the fact that the research design and methods are unavoidably constrained by resources, time and the complexities of the real world (Patton, 2015:244). However, a well thought through design can be full of energy and potential. This chapter presents the research questions, the research paradigm, followed by the research methods, the data collection, the pilot study and the data collection tools.

3.1.1 Research questions

The main research question: "How do fashion graduates make meaning of their learning experiences in the work environment?" directed the research. Two sub-questions and subsequent subdivisions followed.

Firstly:

What are the components of transformative learning that can be identified in the reflection of the graduates and to what extent did participants engage with the phases of transformative learning listed below? In pursuit of clarity, the following points were highlighted:

- Confirming and interruption of frame of reference
- Identifying triggers of transformation
- Acknowledging a time of withdrawal or apathy
- Developing a new perspective

Secondly:

How do graduates make meaning of their learning experiences with specific reference to the topics list below?

- Personal
- Emotional
- Knowledge in use

The responses to these questions signified why meaning making is necessary as a concept to inform relevant and responsive fashion design curriculum development in South African universities of technology (UoTs).

The purpose and aim of these questions were formulated through the discovery that even though the aim of higher education is to prepare graduates for a life beyond higher education, the literature presented in the previous chapter suggests that the transferability of fashion graduates' attributes had escaped scrutiny thus far. With considerable research on transformative learning directed at students and even more done on reflective studies, very little research has been conducted with graduates already active in the world of work. This identified an opportunity for research. Yorke (2006) endorses this by stating that employability reaches beyond the concept of key skills. Employability "is evident in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience", with specific reference to situations of complexity and uncertainty (York, 2006:13). This view confirmed the necessity for further investigation into the transferability and adaptability of qualified graduates after they entered the world of work.

Thus, the purpose of these questions was to explore how selected fashion design graduates at a UoT understand and make meaning of their learning experiences through the lens of reflection during their studies. In this setting, graduates' everyday knowledge is a complex interplay between tacit and explicit knowledge and this creates an interconnection between knowledge and identity, or what they know and who they are.

Brookfield (1986, 1987, 2000), Cranton (1994, 1996), Habermas, (1991), King, (2000, 2005, 2009a), and Mezirow (1991, 1994, 1995, 1996a) agree that transformative learning is a process of affecting change within a frame of reference. However, recent publications by Mezirow (2000), Pohland and Bova (2000), MacLeod et al. (2003), Mallory (2003), Feinstein (2004), and King (2004) include personal engagement and

identities. This study drew on methodologies that described graduates' experiences of their work from their own perspectives. Smith (2015:30) confirms that an interpretive phenomenological analysis has benefited the research on student learning in higher education immensely. Thus phenomenographic work, an important part of the literature, was of specific interest in the development of this study because of its ability to explore graduates' experiences of their work in this way.

The sub-questions also focused on lessons learned in the application of reflection as lens to identify transformative learning. These will contribute to the factors that promote the transformative learning experiences of fashion design graduates. Therefore, the study identified attributes unique to fashion design graduates that may enhance the development of relevant and responsive fashion design curricula at South African UoTs.

3.1.2 Research design

The research was situated within the milieu of exploring and understanding the social and professional phenomena in which design graduates are placed. This focused on defining the research paradigm, explaining my stance as an interpretivist researcher, and the positivist paradigm.

3.1.3 Integrated approach

The research approach was influenced mostly by the work of David Plowright, Keith Punch and Alic Oancea. Plowright (2011) suggest advancing from mixed methods to an integrated approach. Both Plowright (2011:20) and Punch and Oancea (2014:11) contend that the purpose of the research questions is central to the methodology

allowing for the systematic use of empirical data to answer the questions. This argument made me aware of the deliberative process that constitutes my research practice. My research study was motivated by the research questions and because the approach to integrated processes is clear, it supports the small-scale empirical investigation of this study. Although the framework suggested by Punch and Oancea (2014:12) is linear, it links into the conceptual framework of the research as presented in Figure 1.3 in Chapter 1.

Throughout this study I chose not to refer to the terms 'qualitative research' or 'quantitative research' but rather to Plowrights's nomenclature of 'numerical' and 'narrative'. I have however used the terms interchangeably in particular contexts. Nevertheless, the work of Patton (2015: 3-5) and Loevinger and Blasi (1976) speaks to the notion of Plowright's work in stating that qualitative enquiry contributes to the understanding of our world. Patton (2015:3-5) reasons that qualitative research (narrative) seeks to enhance the ability to choose the best methods and designs to achieve a particular research outcome. Patton further refers to Loevinger and Blasi (1976) that the essence of being human is integrating and making sense of experiences and what differentiates us from animals is that humans have the capacity to assign meaning to things. In 1976 the statement of Loevinger and Blasi already referred to narrative rather than qualitative methods.

In this study, in interacting with graduates who differed in their outlook on life and their experiences thereof, I was extremely aware of the different environments the graduates came from and functioned in.

The work of Mason (2002) was very relevant:

> We can explore a wide array of dimensions of the social world, including the texture and weave of everyday life, the understandings, experiences and imaginings of our research participants, the ways that social processes, institutions, discourses or relationships work, and the significance of the meanings they generate (Mason, 2002:1).

An integrated approach allowed for the opportunity to engage in the narrative story-telling responses of the participants. Although there was numeric or quantitative data expressed in percentages and statistical formats, the information only supported the narrative data.

Various factors play a role in the selection of the research design and the best-suited methodology and method. Merriam and Kim (2012:57) note that design, method and methodology can be used interchangeably and they identified these as critical to the selection of a research methodology. Likewise, these contributed to my philosophical perspective; the research questions were designed around an integrated approach to embrace a research approach designed to enable participants to express their opinions in terms of voice, attitude, communication and problem solving.

A narrative research study concentrates on how people and groups build meaning; therefore, this methodology gives significant attention to how qualitative analysts determine what is meaningful. A qualitative enquiry focuses on understanding the context of the phenomena; how and why it matters. To determine what is meaningful and what matters, Berkowitz's (1997) characterisation of qualitative research is fitting in stating that qualitative research follows a loop-like pattern of many cycles, revisiting the data and making new connections to reach a deeper understanding of the material. The process is not a mechanical task but a deeply reflexive process. The

principal ideas directing qualitative research are different from those in quantitative research. Important features of qualitative research, adopted by Flick (2009:14), include the correct choice of appropriate methods and theories.

Thus, the methods and techniques used during the research align with the research questions; the perception and analysis of different perspectives and the methodology to be used; researchers' reflections on their research as part of the process of knowledge production; and the diversity of approaches and methods. Crotty (1998:3) suggests these terms represent distinct hierarchical levels of decision making in the research process. A researcher firstly embraces a particular stance towards the nature of knowledge, such as objectivism or subjectivism. This stance or epistemology will underlie the complete research process and direct the individual theoretical perspective selected such as post-positivism or interpretivism. The theoretical perspective is embedded in research questions and in turn dictates the researcher's selection of methodology. The research methodology or plan of action will in turn inform the choice of research employed (e.g., questionnaires or interviews).

3.2 Research paradigm

My research study was concerned with exploring and understanding social, professional and educational phenomena among fashion graduates. I had to use different paradigms to determine the criteria for selecting and defining problems for enquiry. Thomas Kuhn, who originally coined the term 'paradigm', defines it as "an integrated cluster of substantive concepts, variables and problems attached with corresponding methodological approaches and tools" (Kuhn, 1962:33) With the growth of research in social science, various research paradigms have been developed.

Graduates are complex and intricate individuals with different experiences and each has a different understanding of reality. Therefore my research had an interpretivist approach. I believe that each graduate has his or her own views on experiences and reasons for acting the way they do in the world and these are often very different. As an interpretivist I had to acknowledge the differences in graduates' actions to achieve an empathetic understanding of their views. I consequently needed to adjust the LAS research questions according to the data that emerged from the different interpretations and conceptions of social and professional realities.

3.2.1 Ontological perspective

The phenomenographic approach was a suitable method when I was seeking to discover how the graduates perceived the particular situations they faced when entering the world of work, how they made sense of their personal and social world. As such, phenomenography would lead to better understand the perceptions and experiences of practice. The social ontological stance of my study was to explore and understand the thinking and learning processes of graduates. As a practising educator in higher education, my filters were guided by my meta-programmes (Dilts & DeLozier, 2000). I was constantly aware that my belief system, guiding principles, motives and constraints influenced the themes noticed, the themes ignored, the data collected and the evidence presented in building the argument in this research. As such, the phenomenal flow (Jankowicz, 2005:107) of the research was influenced by my ontological position.

I embarked on this research conscious of the importance of recognising and defending my own ontological position, which had a direct influence my

epistemological perspective. In line with the work of Blaikie (2000:8), I was aware that my assumptions of what constitutes my reality, and what it looks like, influenced the way I approached the research. I therefore placed myself, as educator, at the centre of my research. I recognised the fact that I have preconceived ideas and points of view and acknowledged this as a possible shortcoming, but remained deeply aware of the fact that people's ways of experiencing and understanding the world they live in will differ. It is therefore not difficult to understand how cultural context can generate diverging points of view of the world.

3.2.2 Epistemological perspective

During the study of the knowledge in this research I had to define what the necessary and sufficient conditions of knowledge were. Further, I had to discover the sources suitable to use for my investigation. My research questions dictated the need for intuitive and empirical knowledge; therefore the research process had to integrate all of these sources of knowledge. My epistemological perspective focused on the details of the situation, the realities behind the details, and the subjective meanings that motivated the answers and actions of the participants. Another important fact was the delineation of what was justified and deemed reliable evidence.

Epistemology relates to "how we know what we know" (D'Cruz & Jones, 2014:51) or "the nature of the relationship between the knower or would-be knower and what can be known" (Guba & Lincoln, 1989:201). I was aware of the issues relating to the structure and the limits of knowledge and justification. In this study the reflection on transformative learning included knowledge contribution from participants through perception, introspection, memory, reason and testimony. The epistemological stance provides a philosophical grounding for identifying the kinds of knowledge

appropriate and how to ensure that these are adequate and legitimate (Maynard, 1994:10). Epistemology therefore relates to ontology, "the study of being" or "the nature of reality" (Fry & Kriger, 2009:1671). This research distinguishes many aspects of the development of the full person, and in order to achieve an understanding of the participants of the study, it was important to obtain knowledge through a narrative method. Through this method a better understanding of the participants' reality was obtained.

3.2.3 Interpretivist

As an interpretivist researcher, I believe that reality embodies people's subjective experiences of the world they live in. Furthermore taking on an inter-subjective epistemology with the ontological belief that reality is socially constructed. I valued the graduates who participated in this study for being individuals with intricate and differing complex experiences. The graduates were perceived as individuals, and not just puppets reacting to external forces. Through my approach as an interpretivist, also referred to as an anti-positivist, I believe that reality is complex with multi layers (Cohen et al., 2000) and a single phenomenon has various clarifications. I attempted to understand phenomena through the meanings that the graduates assigned to them. My viewpoint subscribes to the interpretivist paradigm that has its origins in the philosophical traditions of hermeneutics and phenomenology, and the views of the German sociologist Max Weber (Crossman, 2017), commonly credited as the central influence.

This study looked for meanings and motives behind the graduates' actions and how they influence their adaptability in the work environment. The research focused on identifying the significance of the way graduates behave and interact with others in

society and among different cultures (Ferrante, 2013:84; Whitley, 1984). In the same way, society and cultures can be studied through people's ideas, way of thinking, and the meanings that are important to them (Boas, 1995).

Therefore, this approach allowed a study of individuals with various characteristics, human behaviours, opinions and attitudes (Cohen et al., 2000), and within this, I obtained an understanding of the graduates' experiences by considering phenomena of the world and the individual. This paradigm allowed me to seek and understand the perspectives of the graduates and to discover how they had been shaped by their philosophy of social construct (Taylor, 2008). Interpretivism is concerned with significant participation on the part of the researcher with a low number of respondents as presented in this study. My interpretivist outlook considered a positivist approach restricted to experiences, therefore making it impossible to study freedom, irrationality and diverse unpredictable actions common in individual human behaviour, and frequently found in design disciplines. I also believe that the lines between the observer and the subject are blurred. I agree with Koul (2008) that interpretivists argue that positivism has three goals, namely description, control, and prediction; therefore positivism confirms a lack of understanding.

This study focused on social and behavioural patterns in design. During the development of my methodological design I remained aware of the opinion of Greene (2006) who advocates that a mixed-methods approach should consider four interrelated but conceptually distinct domains: (a) philosophical assumptions and stances, (b) inquiry logics, (c) guidelines for research practice, and (d) socio-political commitments. I further acknowledged that my philosophical assumptions and stances influenced my choice of method (Onwuegbuzie et al., 2011:1254). As per my interpretivist perspective, I had to consider my stance and assumptions towards

matters such as "single versus multiple-constructed realities, subjectivity versus objectivity, time-free versus time-dependent generalizations, context-free versus context-dependent generalizations, the role of values in research, and the relationship between the knower and the known" (Onwuegbuzie et al., 2011:1254). Greene (2006:93) states that the first domain directs the researcher's outlook to the phenomenon in specific ways, while at the same time tendering appropriate philosophical and theoretical justification for this way of seeing, observing, and interpreting.

3.2.4 Positivists

As stated above, this research was grounded in the social and behavioural sciences and therefore a positivist paradigm, based on the ideas of the French philosopher, Auguste Comte, was never considered. The emphasis on observation and reason as ways of understanding human behaviour does not allow for the personal and independent interpretation of graduates' experiences. Positivism can be criticised for its lack of considering the subjective views of individuals and these views of graduates participating in the study are significant. Critics of the positivist paradigm argue that objectivity should be replaced by subjectivity in the enquiry process and this initiated anti-positivist or interpretive enquiry.

3.3 Research methods

The methodological approach to my research discards the traditional dichotomy between 'qualitative' and 'quantitative'. This study was grounded on the theory of David Plowright (2011), whose work goes beyond the mainstream mixed methods approach to research. Plowright (2011:15) fully and emphatically rejects the use of the

terms and distinctions between 'quantitative methods' and 'qualitative methods'. Instead he introduces two types of data, namely 'numerical' and 'narrative' (Plowright, 2011:29). In this research study I use these terms and in the rest of this document the terms 'qualitative' and 'quantitative' only appear when referred to in titles of references or when it is used interchangeably to support the text.

My research focused on higher education and the transformation of the learnt into the world of work. Similar to my research study, Plowright's research project was a small-scale social and educational study. An integrated method was considered the most suitable for this study. This approach relates to the theory of applied research, which illuminates a societal concern or problem in the search for solutions (Plowright, 2011).

3.3.1 Applied research

Applied research has two major phases: *planning* and *execution* (Bickman & Rog, 2009:3), with four phases embedded within them (see Figure 3.1). Bickman and Rog (2009:3) note in the planning phase the researcher defines the scope of the research and develops a comprehensive research plan. During the execution phase the researcher implements and monitors the plan that will include the design, data collection and analysis as well as the management procedures. This phase is then completed by the reporting and follow-up activities. In combining applied research with an integrated method, I became aware that there are frameworks within frameworks to consider.
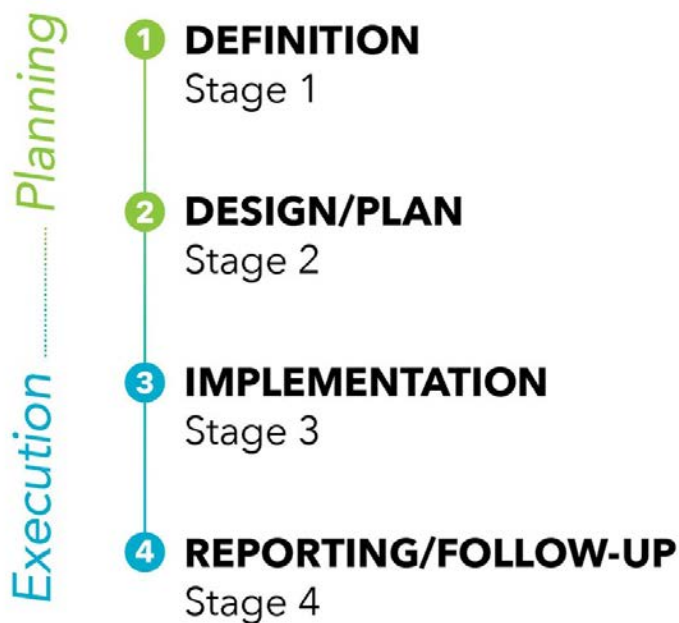
Figure 3.1 The Conduct of Applied Research (Bickman & Rog, 2009:3)

The objective of this process was to illuminate how the transferable qualities of fashion graduates contribute to fashion students' making meaning of their learning experiences during the time of their studies. Graduates enter the industry and the world of work with attributes accumulated during their studies. Thus delimited in the study is the classification of critical success factors for transformative learning. With the use of active research I attempted to understand sources of human and societal problems (Patton, 2015:250).

Through applied research the study identified shortcomings and recognised the strengths in the current fashion programme, while striving to contribute new knowledge to fashion educators and curriculum officers. The new knowledge could guide academics in strengthening their graduates' entry into the industry. This

research contributes to social scientific knowledge in the field of transformative learning.

3.3.2 Integrated methodology: mixed methods

I acknowledge the origin of mixed-methods research, which can be positioned mid range between quantitative research on one end of the scale and qualitative research on the other. A framework for integrated methodology that goes beyond the mainstream mixed methods approach to research, was introduced by Plowright (2011:29). Mixed-methods research attempts to appreciate and respect the wisdom of both these viewpoints while seeking a workable solution for many (research) problems of interest (Johnson et al., 2007). The primary philosophy of mixed-methods research is that of pragmatism. Mixed-methods research is an approach to knowledge (theory and practice) that attempts to study multiple viewpoints, perspectives, positions, and standpoints where the perspectives of narrative (qualitative) and numeric (quantitative) research are always included. Patton (2015) describes this method as a three windows approach (Fig. 3.2). An investigation that may flow from an inductive approach where the researcher establishes what the important questions and variables are, followed by a deductive hypothesis testing or outcome measure that is aimed at confirming or exploring the findings, and finally back again to an inductive analysis to look at unanticipated or unmeasured factors.
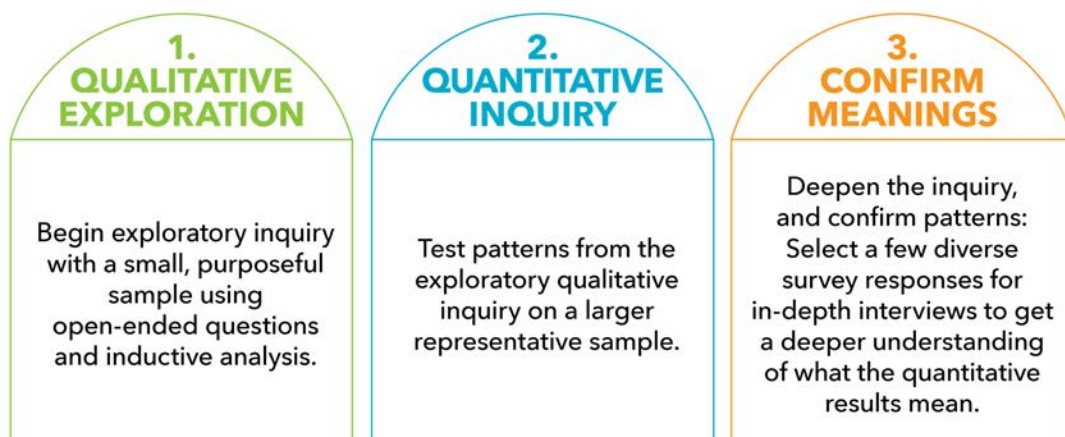
Figure 3.2 Classic Mixed-Methods Inquiry (Patton, 2015:65)

Keeping in mind the foundations of mixed-methods research, this research implemented an integrated methodology with phenomenography as a narrative approach. Extensive studies conducted by various researchers (King, 1997, 2000; LaCava, 2002; Glisczinski, 2005; Ritz, 2006; Brock, 2007; Wansick, 2007; Harrison, 2008; Fullerton, 2010) confirm that a mixed-method approach is appropriate for transformative learning as it relates to adult learners in higher education. Therefore, this study used a sequential explanatory mixed-methods design with an integrated approach to identify factors that promote transformative leaning experiences in fashion design graduates.

There is consensus that the field of mixed-methods research is changing and developing, and therefore presents researchers with various challenges. Greene (2008, 2012) describes how mixed-methods research has its own methodology. Furthermore, mixed-methods research leads to more meaningful outcomes than studies using only one methodology. This is true of the approach to this research

study. While the study focused on the themes in the narratives of the participants, there was numeric data to underpin the narratives.

Teddlie and Tashakkori (2012) outline the twenty-first century debates in this field. There are four issues that researchers should consider before engaging in a mixed-methods study. These include training mixed-methods researchers to have methodological diversity (i.e., having the ability to use both narrative (qualitative) and numeric (quantitative) techniques), using paradigm pluralism (i.e., the possibility of having more than one paradigm underlying one study), developing research and analytic techniques specific to mixed methods, and utilising an iterative approach to research (Teddlie & Tashakkori, 2012:774).

Keeping in mind the various debates involved in a mixed-methods approach, this study followed a two-phase method. The first phase involved the collection and analysis of the data, mining both narrative and numeric data, from the research questionnaire developed from the original Learning Activity Survey (LAS). This was followed by the collection of narrative data through follow-up interviews and discussion. In accordance with the work of Creswell (2009), a sequential mixed-methods approach helped in the description and analysis of the relationships between the variables. The purpose of using this approach was to discover primary effects of independent variables in those participants who had experienced or had not experienced transformative learning.

3.3.3 Phenomenography as research method

The purpose of the study was to provide a basis for reflection by graduates. The phenomenographic methodology enabled a range of different ways to express experiences in a narrative way (Linder & Marshall, 2003:272). The phenomenographic

approach concentrates on the relation between the experiencer and the phenomenon (Marton & Booth, 1997). It is noteworthy that although phenomenography and phenomenology share the term 'phenomenon', which means to 'make noticeable' or to 'bring to light', they have different focuses on research. Phenomenography, with the suffix -graph, signifies a research approach that describes the different ways a group of people understand a phenomenon (Marton, 1981), whereas phenomenology, with the suffix -logos, clarifies the structure and meaning of a phenomenon (Giorgi, 2006). This study subscribed to phenomenographic methodology.

Phenomenographic theorists such as Ference Marton and Lennart Svensson remind us that phenomenographic research is about human experience, since it is recollected from a second-order perspective. The strengths of a research methodology are shown through the typical interpersonal nature of phenomenography within the manner in which the subject and object of the research are explored for shared relationships and the pursuit of narrative variations.

Phenomenographic investigations focus on answering *What?* questions and not *How?* or *Why?* types of questions. As a phenomenographic researcher, I was satisfied to use the discovered differences as a source for the examination of pedagogical implications of the research results.

Rod Gerber, in his introduction to the annotated bibliography of Bruce et al. (1998) states:

> Whether the outcomes of the phenomenographic research are seen as the endpoint of the research or as a means to another end is really not the issue for the phenomenographic study has usually yielded valuable, rich results which have offered an alternative description of people's experience of the phenomenon.

The power of phenomenography exists in the acknowledgment of the difference in the experience, as is the case in this study.

The phenomenographic approach to research originated from work led by Ference Marton when he investigated discrepancies in student learning outcomes. I found Marton's first study of a phenomenographic nature (Marton, 1975; Marton & Säljö, 1976) particularly significant because my research focused on the transformation of student learning outcomes to the world of work. Furthermore, this research approach has historically been concerned with investigative questions concerning learning and exploring; how individuals learn and how knowledge is perceived within a particular context (Marton & Booth, 1997; Svensson, 1997). Edwards (2007) agrees, stating that the focus of phenomenography on learning and the experience of learning in different contexts have meant that learning-related phenomena comprise the most typical experiences investigated using this research approach. Moreover, the historical foundation of phenomenography, in the discipline of education, has endured. Its on-going development, as a research approach, has primarily occurred in this sphere (Marton & Booth, 1997; Svensson, 1997; Limberg, 2000).

3.3.4 The application of phenomenography in this study

This study focused on the narrative feedback of the participants, therefore phenomenography could be used as a research specialisation that aims to map "the qualitatively different ways in which people experience, conceptualise, perceive, and understand various aspects of, and various phenomena in, the world around them" Marton (1986:31). Bruce (1997) and Marton (1986) agree that people collectively experience and understand phenomena differently but in interrelated ways. The different ways can be described as misconceptions or incomplete conceptions.

This research used phenomenography as an approach to establish in what different ways the participants perceive the concept of transformative learning. The outcomes were analysed into narrative themes that were developed in line with the concept. Phenomenography is concerned with describing things as they appear to and are experienced by people (Pang, 2003) because it is considered to be a relational approach to research in so far as the object (the phenomenon studied, in this case transformative learning) and the research subjects (the graduates that experience the phenomenon) are not viewed separately. Therefore, phenomenographic research centres on investigating the relations formed between the research subjects (the graduates) and the object (the transformation of the learning outcomes) (Bowden, 2000; Limberg, 2000). Phenomenographic experiences are represented only when the close subject-object relations are presented as a whole.

As mentioned, this research applied a mixed method, and more particularly the integrated approach for an evaluation model with phenomenography as a qualitative approach. The questionnaires collected numeric data, which upon analysis, were regarded as supporting evidence in relation to the narrative data in the study.

On reflecting on the narrative data from the participants, it is unmistakable that experiences encompass notions of conception, understanding, perception and comprehension of which none is an isolated unit but rather relational (Bowden, 2005). Phenomenographic research seeks the relations between the subject and a phenomenon in the world, and is identified as a relational approach (Limberg, 2000).
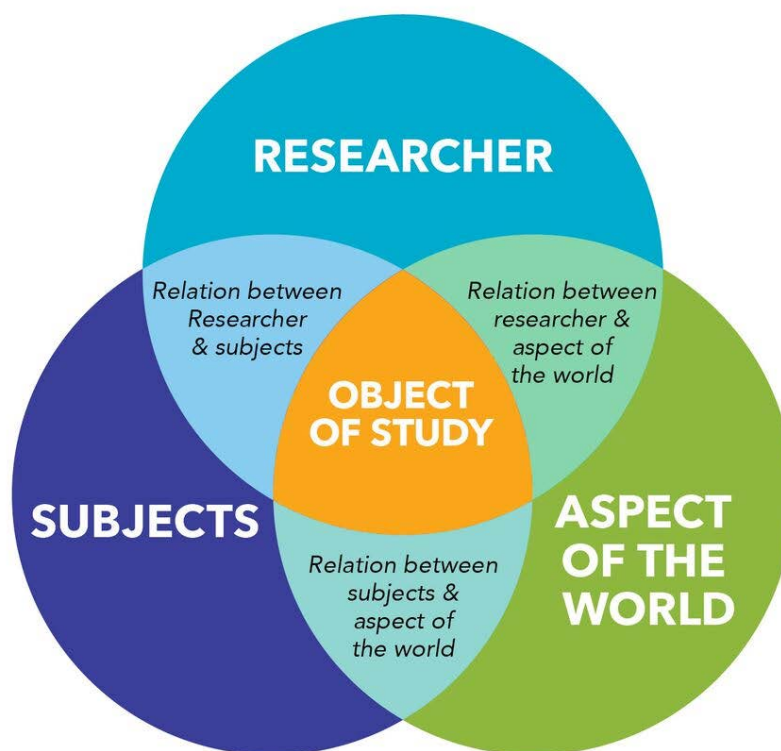
Figure 3.3 Focus of phenomenographic study (Bowden, 2005)

As mentioned in Section 3.2.1, non-dualist ontology has implications for the relationship between the researcher and the phenomenon in the areas under investigation (see Figure 3.3). The importance of this relationship is that some understanding of the research topic is needed to interpret the statements made and keep the research focused. However, it was important that any assumptions or

theories about the research I had from my own experiences had to be set aside (Sandberg 1997). This allowed me to be open minded to different ways of experiencing aspects reported on by the graduates under study. Therefore I could present their experiences as authentically as possible.

3.4 Data collection

According to Åkerlind (2005:109), "the quality of the final research outcomes starts with the quality of the data collected". This is true of all research; however in a phenomenographic study the data-collection method is determined by the phenomenon and context of the study and should elicit reflection on experiences as far as possible (Ashworth & Lucas, 2000:302). This type of research uses various forms of data collection such as questionnaires, focus group discussions, email or online communications, drawings, photographs, video recordings, observation, and most commonly, semi-structured in-depth interviews (Marton, 1997; Bruce et al., 1998; Edwards, 2007).

To ensure the quality of the data collection, I referred to the tested method of King (2004) as starting point. She developed the Learning Activity Survey (LAS) research tool, which she and numerous other researchers used to engage with transformative learning studies. I devised a modified version of the survey that was more appropriate for my study.

3.4.1 Participant selection and sample size

This study applied purposive sampling (Mason, 2002) commonly used in a phenomenographic study. Through purposeful sampling I selected information from informative cases, which would by their nature and substance illuminate the research

question (Patton, 2015). Purposeful research has a strategic focus and is not accidental, ad hoc or indeed representational (Mason, 2002:124). This research was based on the learning outcomes of the fashion curriculum. It was an in-depth study that offered deep insights into the phenomenon and served as a source of considerable knowledge with a strong contribution towards the improvement of and changes to the fashion curriculum as well as the teaching and classroom interaction.

Participants were limited to alumni of the Cape Peninsula University of Technology (CPUT) Fashion Department. The research used an investigative approach and focused on fashion design participants who graduated from 2009–2014. The aim was to identify commonalities during the reflective process conducted with the participants. The sample group identified comprised the fashion Baccalaureus Technologiae/Bachelor of Technology (BTech) graduates at CPUT over the past six years as indicated in Table 3.1. This sample selection provided a good representation of recently employed and more established employees. Another consideration was the fact that the focus of the BTech had slightly altered over the past three years. Lecturers confirmed that the course had been offered in a more integrated manner over the past three years and subject matter was linked in a more constructive manner (Lecturer 1, 2015; Lecturer 2, 2015). Influential shifts were that the business subject was completely integrated and focused on the research project and design range, as well as the utilisation of seamstresses for the production of the range. The difference in educational focus between the graduates from work years 1–3 and work years 4–6 (Table 3.1) provides meaningful understanding in respect of the application of their studies.

CONTINUUM: LONGITUDINAL TRACK 2009-2014

YEARS OF WORK	W1	W2	W3	W4	W5	W6	TOTAL NUMBER OF STUDENTS
YEAR OF QUALIFICATION	2014	2013	2012	2011	2010	2009	
NUMBER OF STUDENTS	7	12	13	12	12	10	66

Table 3.1   Longitudinal tracking of BTech graduates

Although all the graduates were approached for the study, the respondents were categorised to achieve a suitable cross-section of participants. The following criteria were applied:

- Demographics/multi-cultural
- Male and female
- Cross-section in educational results
- History of employment

3.4.1.1 Why Baccalaureus Technologiae graduates?

Graduates with a three-year fashion diploma can enrol for the BTech degree, which is an additional year of study. This year equips students to contribute, through research, to the application and evaluation of existing knowledge to a specialised area of fashion design or garment technology, and enhances professional and personal development (CPUT, 2015). There is a strong focus on entrepreneurship and preparation for industry. Currently this one-year qualification is situated on a National Qualifications Framework (NQF) Level 7. However, on 2 August 2013, the new General and Further Education and Training Qualifications Sub-Framework and

Higher Education Qualifications Sub-Framework (HEQSF) of the National Qualifications Framework was published (SAQA, 2013). In the new HEQSF, two new qualifications replaced the syllabus work covered in the BTech qualification. These qualifications are the Advanced Diploma (NQF Level 7) and the Postgraduate Diploma (NQF Level 8). This new development in the qualifications framework necessitates a rethink of the distribution of the syllabus work in the BTech qualification.

The Advanced Diploma in Fashion was developed as an extension to the discipline of fashion, and prepares graduates to enter the industry on a formal and informal level. Therefore, the feedback from BTech graduates of the prior six years on the possible transformation of their learning experiences at BTech level has bearing on the successful development of the Advanced Diploma syllabus. Participants had had the time to transfer their learning experiences into real-world situations and this is why they were deemed suitable for the study.

3.5 Pilot Study

A pilot study was conducted to determine the reliability of the data collection and interview methods. Fashion graduates from the past six years were approached through social media (Facebook and Instagram) to ascertain their willingness to participate in the study. Four participants were contacted by email (Appendix F) to inform them of the purpose and relevance of the study and request their participation in the pilot study. Participants were notified of the elements and motivation of the study. They were assured of the confidentiality of their correspondence and responses to the questionnaire and interviews. The participants of the pilot study were asked to report back on the following matters:

- Clarity of the questions

- Sequential layout and logical flow of questions

- Grammar and numbering

- Additional input

The questionnaires were modified and uploaded into a digital format to be distributed to the bigger group of participants.

The results of the pilot study questionnaire indicated that three of the four participants (75%) experienced a change in their values and beliefs, although the one participant (25%) who answered 'no' to Question 2 did explain that she had not changed her beliefs or values but did question them against the new experiences. Then links between the answers from the questionnaires and interviews were examined. The intention of the interviews was to collect additional information on experiences of transformative learning that might have been omitted in the questionnaire. The four graduates who completed the questionnaire were interviewed. The research questions were applied as framework for the data analysis in order to triangulate and establish the credibility of the data collected.

3.6 Data collection tools

Berg (2004:4) explains that most researchers prefer at least one methodological technique with which they feel confident and therefore previous qualitative research transcripts presented only single methods (observation, interviews, or unobtrusive measures). The data collected for this research was classified into narrative and numeric data. Mixed-methods (integrated) research, as explained in Section 3.3.2,

can include one or both of these types of data. This study focused mostly on narrative data, but a subdivision of numeric data was collected to inform the narrative.

3.6.1 Numeric data collection

This section of the questionnaire surveyed the relationship between participants who experienced transformative learning within educational contexts such as critical thinking, group projects, oral discussions, class activities, industry visits or internships, and personal reflection, and non-educational contexts such as culture, marriage, death, job changes and violence. In addition, demographic data such as gender, race, educational qualifications, age and accommodation during studies were collected. An online version of the Learning Activity Survey was used to collect the data.

3.6.2 Narrative data collection

Glisczinski (2005), King (1997) and Taylor (2000) state that transformative learning has primarily been studied through the use of narrative data. Berg (2004) defines narrative research as seeking answers to questions through examining several social settings and the individuals who participate in these settings. Patton (2015:64) concurs:

> The qualitative analyst seeks to understand the multiple inter-relationships among the dimensions that emerge from the data, without making prior assumptions or specifying hypotheses about the linear or correlative relationships among the narrowly defined, operationalized variables.

The follow-up interviews were done with selected participants who had experienced transformative learning associated with education and reflected on this during their time of employment. The selected participants were volunteers and the interview

questions were formulated based on the results of the online questionnaire. Apart from Question 4, all other seven questions were open-ended, addressing learning experiences and triggers contributing to change in feelings, as well as reflecting on perspectives of change. The interviews were conducted in person with individual participants. Participants were informed of the importance of the study and the questions were explained. However, the interview questions were shared with the participants ahead of the interviews. Participants were also informed that all interviews were recorded and would be transcribed. In the interests of transparency, all transcriptions were shared with the participants to review and make any corrections or amendments to the content if they wished to do so.

3.6.3 Learning Activity Survey

This research applied a combination of a phenomenographic and Learning Activity Survey (LAS) approach. King (2009a) introduced a flexible yet a comprehensive approached to studying transformative learning. The LAS was developed for two main purposes: identifying if learners had had a perspective transformation with reference to their educational experience, and if so, determining what learning activities had contributed to it (King, 2009a:14). Although the existing LAS of King (2009a) formed the basis of the questions, it was important to adapt King's questions to link with the aim of this study.

As indicated in Chapter 1, King (2009b:58) proposed a LAS instrument. This instrument suggested a dynamic, formative interactive cycle as presented in Figure 3.4 on the next page.

1. **DEVELOP RESEARCH QUESTIONS**

2. **DETERMINE POPULATION SAMPLE SIZE**

3. **METHODS & TOOLS**
   Develop research methods
   and select data gathering tools

4. **START WITH ORIGINAL LAS, SURVEY INSTRUMENT**

5. **SURVEY**
   Customise demographic choices
   and activities to fit the context

6. **INTERVIEW PROTOCOL**
   Customise questions to fit the context
   and develop questions to probe
   findings for survey

7. **INSTRUMENT**
   Customise questions and instructions
   to fit the context

8. **PILOT DATA RESULTS**
   Evaluate findings –what changes need
   to be done?

Figure 3.4 LAS Interactive Research Process[©] (Kathleen P King 2009a)

The process includes (1) development of the questionnaire, (2) determining the sample size for the study, (3) developing the research methods and selecting the tools to gather the data, (4) using the original LAS survey instrument to construct the new questionnaire, (5) starting the survey by customising demographic choices and activities to fit the context, (6) developing an interview protocol including customising the questions to fit the context and constructing questions to probe findings for the

survey, (7) developing the instrument through customising the questions and the instructions to fit the context, (8) conducting a pilot study for data results and evaluating the findings to define the changes needed for the main study, (5–8) conducting the main survey and evaluating the findings.

Questions were formulated and categorised into three distinct sets as recommended in the steps of the LAS Interactive Research Process. The first set focused on general reflection, the second set focused on course content, and the last set extracted personal details. The first and second set of questions were analysed using a Likert scale, thus processing on a more scientific measure was possible. The last set of questions focused on deep-thinking responses of the participants.

3.6.4 Research questionnaire

In pursuit of reflective answers, the LAS instrument had to be adapted to become more appropriate to this study. King's suggested steps (Figure 4.3) were followed to develop the most suitable set of questions. Chapter 1 refers to various habits of the mind that are relevant, such as sociolinguistic, epistemic, moral-ethical, philosophical, psychological, and aesthetic values. The questions had to encourage participants to reflect on these values and norms.

Therefore, the instrument has three sections. The first section (#1–17) asked the participants to point out the occurrences they had encountered in relation to the four steps on the journey to transformation (King, 2009a) and the ten tenets of Mezirow's transformative learning experiences. This section took the participants through a process of reflection which adult learners undergo as they think about their pasts and determine the significance of new ideas in their lives. These questions call for critical

reflection on beliefs, values and understanding, while comparing these with new understanding and dealing with conflicting ideas (Mezirow, 2000; Cranton, 2006b; Brookfield, 2010).

The second section (#18–31) focused on fashion as discipline and the transferability of their knowledge and experiences gained during their studies. Participants had to reflect on the usefulness and relevance of the subject matter. The questions also facilitated the reflection on perspective transformation towards building the relevant social, ecological and sustainable contributions towards society. The applicability of philosophy, innovation, ethics, environmental issues and ethical considerations within the fashion industry were also measured in this section.

The last section asked participants for demographic information. The characteristics and statistics of the participants such as age, gender, race, marital status, and educational details were included. The last fourteen questions (#32–45) of the questionnaire focused on these statistics. Owing to the social and cultural differences of the participants, some details of their parents' and siblings' education and occupations were gathered to illuminate possible trends or predispositions (Appendix D – Survey Questionnaire).

3.6.5 Follow-up interviews

The follow-up interview had eight questions as defined by King (2009a:45). Participants had to give a detailed explanation of the factors that caused them to have perspective transformation (Appendix E – Follow-up Interview Questionnaire). Participants were selected for the interview based on two criteria. Firstly, selection was based on the results from the qualitative data analysis and by means of a stratified

sampling method. This method of sampling was selected because it produces characteristics in the sample that are proportional to the overall population. In this case, participants represented a cross-section of age, race, gender and years of employment. Secondly, it was based on the indication of whether they had experienced perspective transformation and their subsequent willingness to participate in the follow-up interviews. The interviews followed a semi-structured approach with closed- and open-ended questions. The first three questions expected participants to elucidate how they had experienced transformative learning and what had initiated it. Question 4 was sub-divided into seven sub-questions to determine who or what had facilitated the change. These sub-sections included possible identification of change through people, class situations, or personal influences. The last four questions (#5–8) asked participants to elaborate on how they had experienced the perspective changes in their personal and educational life.

3.6.6 Validity and reliability of the Learning Activity Survey (LAS)

King (1997) adopted a focused approach when addressing the validity and reliability of the Learning Activity Survey. She did this by implementing various methods of input and evaluation of the LAS instrument, such as including a pilot study and by adapting the instruments according to suggestions from various experts. The pilot study was checked through member checking as means of respondent validation and these activities helped to validate the LAS instrument. King consulted a panel of experts on transformative learning to review, appraise, critique and add possible changes to the survey instrument (King, 2004). Furthermore, the questions were correlated to represent reliable classification of the responses, and questionnaire and interview questions were matched to ensure identification by name. This way the validity of information could be verified.

King (1997) developed the Perspective Transformation Index (PT-Index), a measure for answers from participants and a way to verify the reliability of the LAS instrument with reference to various items in the questionnaire. King has revised and improved the Learning Activity Survey many times and the instrument has been used in various studies. These studies include:

- Higher Education LAS format (King, 1997)
- English Second-Language Learners (King, 2000)
- General Educational Development Activities Survey (King, 2003)
- Adult Basic Education Learning Activity Survey (King & Wright, 2003)
- Face-to-Face Teachers Learning Technology Learning Activity Survey (King, 2002)
- Higher Education Faculty Learning Technology Learning Activity Survey (King, 2003)
- Teachers in Science Education Classes Learning Activity Survey (Kerekes & King, 2008)

Table 3.2 presents a detailed description of the types of information gathered from the questionnaires and interviews and the means of measurement applied.

DATA COLLECTED AND MEANS OF MEASUREMENT

SOURCE	MEANS OF MEASUREMENT
SECTION 1 IDENTIFIERS OF TRANSFORMATIVE LEARNING	Online questionnaire
LAS - REWORKED	The PT-Index verify if experiences of TL with reference to education
LAS Q# 1,2,3 & 5	SCORING: Perspective Transformation experience related to education = PT-Index 3 Perspective Transformation experience on-educational = PT-Index 2 No Perspective Transformation experience = PT-Index 1
Q# 3	Summary of experiences
Q# 4 & 6	Perspective Transformation awareness = PT-Index 3 No Perspective Transformation awareness = PT-Index 1
Q# 5, 7, 9, 12, 14 AND 16	Factors influencing change
Q# 8	Summary of influencers of change related to Q# 7
Q# 10	Summary of University experience on TL
Q# 11 & 13	Identifiers of change
Q# 15	Summary on academic subject influences on TL
Q# 17	Summary of University influence on TL
SECTION 2 RELEVANCE TO CHOICE OF STUDIES	Online Questionnaire
Q# 18 & 19	Reasons for University and discipline choice
Q# 20 - 30	Likert scale measurement
Q# 31	Summary of short comings in course
SECTION 3 DEMOGRAPHIC DATA AND ADDITIONAL QUESTIONS	Online Questionnaire
Q# 32-45	Indications of Age, gender, race, education, marital status, employment, parents and sibling education and employment statistics
SECTION 4 Q# 1-8	Stratified random sampling for follow-up interviews, with participants experienced Transformation. Interviews semi-structured with open-ended and closed questions
Q# 1	Yes/No
Q# 2 & 3	Summary of experiences and triggers of TL
Q# 4, 5 & 6	Identifier of change
Q# 7	Summary on perception of change
Q# 8	Opportunity for additional questions

Table 3.2 Information Collected and Means of Measurement (King,2004)

According to Morse et al. (2002:14), "Without rigor, research is worthless, becomes fiction, and loses its utility." Therefore, research methods have to stay true to the reliability and validity of a study. Numeric research offers mathematical probabilities like *p*-values ranging from 0 (no chance), to 1 (absolute certainty). This provides more concrete evidence of reliability and validity. However, narrative studies are often criticised for their lack of evidence in demonstrating the reliability and validity of a study. Lincoln and Guba (1985) and Creswell (1998, 2009) propose the use of words such as *credibility, trustworthiness, confirmability, verification*, and *transferability* in place of the term *validity*. Thus, reliability and validity have been replaced gradually by criteria and standards for evaluating the overall significance, relevance, impact and utility of the completed research.

This study addresses the trustworthiness and verification of the data collected. Extensive time was spent in the field to observe the phenomenon of transformative learning in fashion design education. The situation analysis identified the need for a 'thick' and 'rich' data source to elicit conclusions.

3.7 Summary

This chapter clarified the purpose of the study, and defined the theoretical foundations on which the research was conducted. This phenomenological research study used an applied research approach in relation to transformative learning theory. The purpose of this research study was to illuminate the transferable qualities of fashion graduates. Thus, delimited in the study was the classification of critical success factors for transformative learning. Applied research strives to understand the nature and sources of human and societal problems (Patton, 2015:250). The research was conducted from an anti-positivist paradigm where the approach permits the study of

individuals with various characteristics, different human behaviours, opinions and attitudes (Cohen et al., 2000), and obtains understanding by considering the phenomena of the world. The research followed a mixed-methods format chiefly comprising of narrative research, with the numeric section representing a smaller percentage of the work. The chapter further unpacked the methodological perspective in a phenomenographic study. The chapter presented the research questions and explained how the participants were selected. It concludes with presenting the data-collection methods and processes.

PRESENTATION OF THE RESEARCH FINDINGS
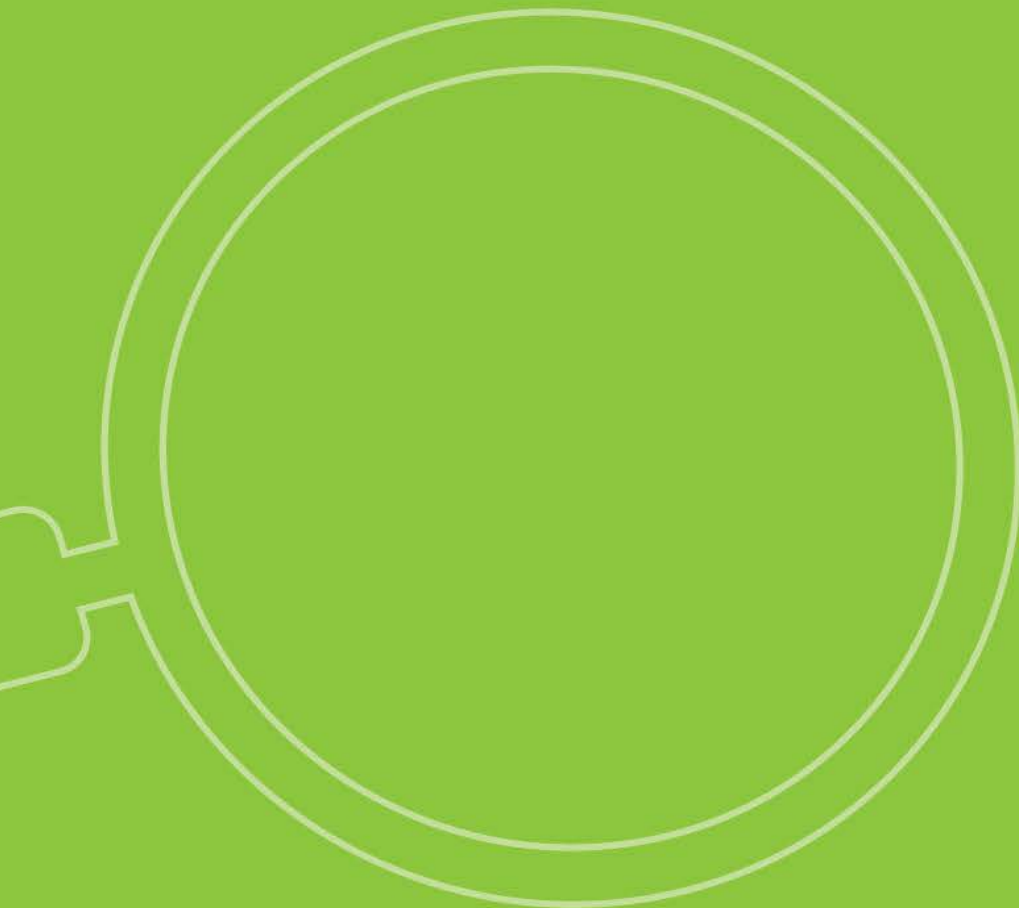
4. Presentation and analysis of the research findings

As in Hamlet, the Prince of a rotten State, everything begins by the apparition of a specter.

Derrida (1994:4)

4.1 Introduction

The purpose of this study was to explore how selected fashion design participants at a university of technology (UoT) understand and make meaning of their learning experiences during their studies through the lens of reflection. By analysing the findings I tried to understand how graduates succeed in the work environment through reaching a deep meaning perspective of their learning experiences; an understanding that goes beyond the apparent knowledge of facts and acquisition of information. Completing the questionnaire and participating in the follow-up interviews allowed participants a period of deep reflection on the content and concepts covered during the learning process. Graduates were directed to use reflective practice during the completion of the questionnaire.

This chapter presents a discussion of the findings, including the response rate analysis, the demographic information analysis, follow-up interviews and the interpretation of the narrative feedback. The data was analysed in several coding sessions through the use of open and axial coding. The correlation of the coded data with the research questions became evident. The data is presented in such a way that narrative and numeric information support each other. The feedback of the numeric data is presented consistent with the reporting style as defined by King (2004). This is also consistent with the same format used throughout the research conducted by

the eleven doctoral studies and two masters studies using the LAS method developed by King (2004:176).

Significant to this research is that the literature survey disclosed that to date no South African research study has applied the LAS survey. Therefore this research study contributes to the field of transformative learning through the use of the LAS survey within the context of South African higher education.

The data is displayed in percentages and is expressed as generated in the LAS coding. The information presented initially indicates the response rate to the questionnaire and feedback interview. This chapter includes a table representing a summary of the responses of the research data with reference to the research questions. The discussions linked to the research questions are only presented in the latter part of this chapter.

The next section relates to the general reflection questions followed by a discussion of the reflections of participants. The last part of the chapter focuses on participants' suggestions on how the fashion programme could be improved.

The responses to the questions in the questionnaire do not necessarily follow in a chronological order but are located within the appropriate sub-heading.

4.2 Response rate and demographic information

4.2.1 Response rate

Of the 47 questionnaires that were distributed to participants, 32 responses were received. This represents a response rate of 68.1%. There was one response with inconsistencies and it was therefore not included in the coding and analysis of the study. The responses were grouped into three main sections: personal input, general reflection on university experiences and reflection on the programme itself. Question 2 asked participants to indicate if they had experienced any change in their beliefs, values or experiences. The participants who answered 'no' were not expected to complete the follow-up Question 3. All participants answered all other questions listed in the questionnaire.

With reference to the follow-up interviews, six participants were selected from the 31 initial responses to the questionnaire. Through stratified random sampling across gender, race and age, six participants were selected for follow-up interviews. There was only one restriction applied during the selection of the six interviewees: they all had to have answered 'yes' to Question 2 that surveyed the realisation of change in their perspective. From the 31 valid responses received, 67% replied 'yes' to the realisation to change and 33% responded with 'no'.

4.2.2   Demographic information

This section presents the demographic setting in which the research took place. Table 4.1 displays the frequency distribution of participants by gender. Female participants accounted for 80.6% and male for 19.4%.

Table 4.1 Participants by gender

Gender	Number	%
Male	5	16.1
Female	26	83.9

N=31

In order to understand the influence of new perspectives on the participants it is necessary to have a holistic view of the participants' profiles. Although both male and female participants responded, 84% were female. In cross- checking their responses to the questions, there were no significant discrepancies because of gender. Historical data on enrolments for the fashion design programme has shown that male students in general represented between 10% and 20% of total enrolments per intake. The response rate in this study is therefore consistent with this trend.

Table 4.2 displays the frequency distribution of the participants by age group. In view of the fact that the participants had qualified during the past six years, this table shows 67.7% of the participants were between the ages of 25 and 29. The second largest group of respondents representing 19.4% was between the ages of 21 and 24. Participants over 30 were represented by 3.2% between 30 and 34 and 9.7% were older than 35. The distribution markers are relevant to the study because they indicate the maturity of the participants. Keeping in mind that the transformation of university experience was explored, this distribution related to the way participants think about the questions posed to them. At the onset of the research the aim was to find a good

representation of the various age groups because maturity influences the way values of education are reflected upon (Le Métais, 1999).

Table 4.2 Participants by age group

Age Group	Number	%
25–29 years	21	67.7
21–24 years	6	19.4
Older than 35 years	3	9.7
30–34 years	1	3.2

N=31

Though the ages of the participants are important, the South African milieu with its diverse ethnic groups requires the inclusion of ethnic group association as well. Table 4.3 presents the frequency distribution of the participants by ethnic group. White participants constituted 48.4%, coloured participants 38.7%, and black participants 9.7%. No Asian participants responded to the questionnaire. Categorising the ethnic group distribution confirmed the proportional balance between the BTech cohort in the sample group and the participant group. The results were measured against the responses received from the BTech cohort who had qualified over the past six years. Therefore the results were satisfying and deemed acceptable.

Table 4.3 Distribution by ethnic group

Ethnic grouping	Number	%
White	15	48.4
Coloured	12	38.7
Black	3	9.7
Asian	0	0

N=31

Critical reflection often challenges existing views of self and other and can involve cultural experiences that foreground issues of race, gender, class, power and privilege. I was very aware of the fact that responses from participants could be

influenced by the differences in cultural backgrounds. However cross-referencing the answers in the questionnaires against the ethnic background of the participants showed no significant variations in the answers based on cultural differences – neither did the responses given by the participants against the four steps in the learner activity survey. The rationalisations in this research were based on the general feedback from participants and not classified according to ethnic profiles.

According to Adamczyk and Segrin (2015), marital status can have a wide range of influences on an individual. Influences on the experiences ranged from social and emotional identifications to decision-making behaviour. Table 4.4 presents the frequency distribution of the participants by marital status. Single participants (71%) had the highest response rate with only 22.6% partnered. Only 6.5 % of the participants were married at the time of the research.

Table 4.4 Distribution by marital status

Marital status	Number	%
Single	22	71.0
Partnered	7	22.6
Married	2	6.5

N=31

The results indicated that a third of the participants were either married or partnered. Although it was expected that life partners might have had an influence on the developmental process of their partners, this particular study indicated that this did not prove to be the case. Reactions from both partnered and single participants were consistent in their reasoning. This could possibly be attributed to the fact that 84% of the participants were 25 years and older and therefore deemed more mature in their self-reflection (Luna et al. 2004:1366; Tanner & Arnett, 2009:41).

Question 38 enquired about living conditions at the time of study. The results of this question relate to the results of Questions 39 and 40 discussed next. Table 4.5 presents the frequency distribution of the living conditions during academic studies of participants. Participants who stayed at their parents' homes represented 58.1%, 22.6% shared a flat or home, while only 12.9% of the participants stayed in a university residence and 6.5% of the respondents selected 'other' as answer. Parental influence on student academic performance has been confirmed many times (Hu & Kuh, 2002; Bempechat & Shernoff, 2012; Rumberger & Rotermund, 2012).

Table 4.5 Distribution of living conditions

Living conditions	Number	%
Parents' home	18	58.1
Shared flat/house	7	22.6
Residence	4	12.9
Other	2	6.5
N=31		

Bempechat and Shernoff (2012:316) and Hu and Kuh (2002:561) note that the higher the student's parental educational level, the better the academic preparation and engagement of the student. Therefore Questions 39 and 40 addressed the education levels of participants' mothers and fathers. Table 4.6 presents the frequency distribution of the participants' fathers' educational level. As seen in Table 4.6, the frequency distribution of education is matric 22.6%; both Standard 8/Grade 10 and university degree at age 18–24, 16.1%; certificate post school and university degree older than 24, 12.9%; while diploma post-school and 'do not know' both recorded 9.7%.

Table 4.6 Distribution of fathers' educational level

Educational attainment (father)	Number	%
Matric	7	22.6
University degree at 18–24	5	16.1

Standard 8/Grade 10	5	16.1
Do not know	3	9.7
Certificate post-school	4	12.9
University degree at older than 24	4	12.9
Diploma post-school	3	9.7
N=31		

As for the mothers' education, Table 4.7 presents the frequency distribution of the participants' mothers by level of educational attainment. Again matric rates the highest at 32.3%; university degree at age 18–24, 19.4%; Standard 8/Grade 10, 16.1%; diploma post-school, 12.9%; university degree older than 24, 9.7%; certificate post-school, 6.5% and 'do not know' scored 3.2%.

Table 4.7 Distribution mothers' educational level

Educational attainment (mother)	Number	%
Matric	10	32.3
University degree at 18–24	6	19.4
Standard 8/Grade 10	5	16.1
Diploma post-school	4	12.9
University degree at older than 24	3	9.7
Certificate post-school	2	6.5
Do not know	1	3.2
N=31		

Results from both parents' educational levels confirm that 51.6% of fathers and 48.5% of mothers have post-school qualifications. This suggests a positive and motivational support for post-school education for their children. This result concurs with the research of Davis-Kean (2005) and Dearing et al. (2001) who note that socio-economic status, with specific reference to parents' education and income, indirectly relates to children's academic achievement owing to parents' beliefs and behaviour. They also

suggest that parental educational levels are an important predictor of children's educational and behavioural outcomes.

4.2.3   Follow-up interviews

As recommended by King (2004), follow-up interviews were done to verify the answers and results of the questionnaires. Six of the 31 participants who responded to the questionnaires were invited to participate in a follow-up interview. These included one male and five female participants representing two black, two coloured and two white participants. Because there were more female than male participants in this study, the participants in the interviews were stratified to represent comparable percentages.

The answers received from the completed questionnaires were used to inform the questions posed to the participants in the follow-up interview. The interview was conducted partly to verify the answers in the questionnaires but mainly to enrich and deepen the qualitative data. The information gathered through the follow-up interviews, together with answers from the narrative questions in the questionnaire, helped to elucidate the qualitative data. The discussion that follows in Section 4.3 presents the analysis of the narrative feedback from the questionnaire and the data of the follow-up interviews.

4.3   Interpretation of the narrative feedback underpinned by numeric analysis

In this section, the narrative feedback obtained from the questionnaire is presented and analysed. The questionnaire posed five questions that required participants to

elaborate on their experiences during studies. The data was coded from Questions 3, 8, 10, 17 and 31. Question 3 required a deeper exploration from their responses to Question 2, which required an elucidation of their change in values, beliefs or experiences during their time of study. Question 8 expected participants to elaborate on their choice selected in Question 7. This question asked participants to choose from a list of activities that were part of their learning experiences. Question 10 asked the opinion of participants of how the university experiences, both academically and socially, influenced their ability to adapt to work life. The participants had to refer to both the academic and social side of their experiences in their response. Question 17 required participants to reflect on when they first realised that their views or perspectives on life and their experiences of life had changed. In this question they also had to state if being at university had to do with the experience or change. The last question requiring narrative input, Question 31, asked participants to describe the shortcomings they had identified to make the fashion course more relevant to industry.

4.3.1 Transformative learning identified

In education, students learn new information and they uncover how to include it in their existing value structures and personal beliefs. During this stage, if the information fits into existing patterns, students continue with an understanding of the information, therefore not requiring any change in beliefs or values or assumptions. However, if the newly acquired information does not fit, students start to question their values, beliefs and assumptions to discover what is out of place (King, 2004). During the search to identify meaning making of qualified students in their learning experiences in the work environment, the focus was on discovering the various phases of transformative learning as identified by King (1997). The questions presented in

both the questionnaire and the follow-up interviews were framed around the association of any kind of confirmation of an interruption to their historical or cultural frame of reference.

4.3.1.1 Identifying changes to a frame of reference

Question 1 focused on identifying a confirmation of interruptions to a frame of reference. In this question participants could choose more than one answer. They were presented with various practices through which they could recognise an affiliation with questioning their original frame of reference (Table 4.8). Choices number 1 and 8 scored the highest with 54.8% and 51.6% responses. These two choices indicated that participants had experiences that caused them to think about their actions, and they had even tried out new roles. This awareness was confirmed in the follow-up interviews in which all the participants agreed that their frames of reference were altered during the time of their studies. One participant stated:

> I had to adjust with working in a closed group with different nationalities and people with different outlooks on life. Previously in a bigger class, I could choose who I group with. This gave me a better insight into other outlooks and a wider experience of life.

Another participant agreed by confirming the enriched learning situation as students from different backgrounds worked together intimately. He explained this with statements such as "we became like a new family" and "there is collective support" in the class. The checkbox also provided the option to indicate, "I do not identify with any of the above statements." Only 22.6% (7) of the 31 participants indicated that they did not identify with any of the above statements. Although Question 2, a more direct question on the awareness of change, showed an increase of 10% to 32%, 10

of the participants indicated that they had not experienced a time that they realised that their values, beliefs or experiences had changed while studying.

Table 4.8 Reflection on educational experiences at CPUT

Reflect on your educational experiences at CPUT	Number	%
I had an experience that caused me to question the way I normally act.	17	54.8
I tried out new roles so that I would become more comfortable or confident in them.	16	51.6
I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)	15	48.4
I realise that other people also question their beliefs.	14	45.2
I gathered the information I needed to adopt these new ways of acting.	12	38.7
I tried to figure out a way of adopting these new ways of acting.	11	35.5
I took action and adopted these new ways of acting.	11	35.5
I thought about acting in a different way from my usual beliefs and roles.	10	32.3
Or instead, as I question my ideas, I realise I still agree with my beliefs or role expectations.	9	29.0
As I questioned my ideas, I realised I no longer agreed with my beliefs or role expectations.	8	25.8
I began to think about the reactions and feedback from my new behaviour.	7	22.6
I do not identify with these statements above.	7	22.6
I felt uncomfortable with traditional social expectations.	5	16.1

N=31

The 68% of participants who answered 'yes' to Question 2 were asked to elaborate on their answer in Question 3. This section allowed for a narrative answer regarding their experiences of change during their time of study.

Participants' responses were measured against indications of recognising the identification of what inspirations triggered transformation. Furthermore, participants were asked to acknowledge a possible time of drawback and apathy that was followed by the development of a new perspective. The research recognises that the

participants were from a variety of backgrounds and orientations and brought their own perspectives to the research. Given that the research resonated in a specific way for each participant, the confirmation of an interruption to their frame of reference emerged in various ways.

The responses of participants quoted in the rest of this thesis indicate their views and expressions verbatim. Participants therefore expressed their awareness of change in a varied fashion. One participant expressed the awareness of how his beliefs and values had to be adjusted to become more forward thinking. Yet another stated: "I had realised that socially imprinted roles are for uneducated people, as [and] through learning I realised that I could shape and choose my own role."

These two statements show that participants became aware that their frame of reference had been influenced. The way they perceived their environment and the people around them had taken on a new perspective. Other concurring statements include:

> I became aware of the frivolous nature of not only the fashion industry, its disregard of the environment, people and their consciousness, but also the grading process which was subject to the opinion of the grader and his/her personal approach that ultimately roots [stems] from their past experiences and personal preferences.

> Though observation and reflection on my environment I learnt how to be my own person and progress at my own pace.

> I believe we are constantly learning about ourselves, and our environment.

4.3.1.2 Changes in respect of values and outlook on life by graduates

The awareness of changes concerning values and outlooks towards life became apparent in different ways. It is evident throughout the responses that engagement with the environment played a significant role in the way they perceived value. The participants indicated an awareness of being a "grader of life". Through this, they confirmed their awareness that they had acquired a new way of looking at life, the environment and the people they interact with. Participants believed this made them question themselves in respect of their belief systems and their general interaction with the environment and other people.

Participants spent their first three years of studies in a class with larger numbers of students and therefore often grouped with friends that had similar outlooks on life, spoke the same language or belonged to the same cultural and ethnic group. This dynamic changed when they entered the fourth year of study. The fourth year class intake is generally smaller and consequently a new group dynamic is created. This calls for new interactions, new friendships and new energy among the participants. The fourth year of study also requires closer interaction with all the class members.

The participants reported awareness of change came through various interfaces and contact with new people. They expressed this as very influential in their personal transformation. As stated before, participants generally referred to class friends they socialised and interacted with during their studies. During further investigation into some of the statements it was noted that one of the students expressed that studying BTech Fashion Design helped put her entire life "in perspective", in terms of her studies, her personal life and life in general. She further stated that she had learned to trust herself more and make decisions based on her own internal gut feelings

instead of what others wanted her to decide. During the interview it transpired that this new awareness of self-assurance and inner strength came about after some time of feeling awkward and uncomfortable. This awareness was similar to the information from the other interviews with participants when they confirmed that feelings of self-consciousness and discomfort contributed to an interruption to the way they perceived life and their frame of reference.

Although the participants acknowledged a time of self-consciousness and discomfort, they stated that this was not a very prominent time in the transformative learning process. They did acknowledge that there was a time where they questioned themselves and everything around them. Accordingly, they responded with acknowledgments such as:

> Yes I have changed in the way I think and look and understand other people … and this made me question myself, what I believe and my general actions.

> I was influenced by my new surroundings and new people that I learned with. My lecturers also played a valuable influence in the way I started thinking.

4.3.1.3 Graduates' reflections as learners and understanding of self: opening minds and hearts to others

In Question 3, participants described their experiences at CPUT as opening their minds and their hearts to a more accepting approach to others and a deeper learning and understanding of self. Reflections in this question were divided into *experiences as learner* and *personal and emotional experiences.* Participants referred to key aspects such as responsibility, confidence, accepting work environment and change

and respect for self and others. Many examples were offered when participants opened their minds to deeper learning. One participant said, "one tends to mentally 'grow up' very quickly"; another confirmed this point by stating, "you realise that you are now responsible for the success and failure of your education". Statements form the participants below affirmed the opening of their minds towards their learning experiences.

> Each journey is a lesson and you grow from each experience. Change is a process and I do value it.

> I also learned to think for myself and not to be spoon-fed thoughts and ideas by others.

Although the *experiences as learner* were present, the impact on the *personal experiences* came across much more convincingly. Reflective statements include:

> My value system has changed. I have learned now of better quality of goods, higher expectations of life itself and I have realised that I can achieve anything I set my mind to. I also started believing that my past does not have to influence my future.

> I put my entire life in perspective, in terms of studies, work, and personal life – I learnt to trust myself more and make decisions based on my own internal gut feelings instead of what I thought others wanted me to decide.

Common themes that recurred were self-realisation, confidence, open-mindedness, respect for others and awareness of values. The reporting of these themes confirms that the participants spent time in thought and noticed their emotions, perceptions and impressions of the learning experience. The feedback described the discovery of how they became able to work towards fulfilling their own potential. This discovery

allowed for greater confidence when entering the world of work. The last three themes of open-mindedness, respect for others and awareness of values emerge from reaching self-realisation and confidence.

Honneth (1996:xii) regards these themes as a practical relation-to-self. He describes the relationship to ourselves not as a solitary thing but an inter-subjective process, a process where one's view of oneself becomes manifest with another's view of oneself. An improved confidence leads to an enhanced open-mindedness which influences participants' respect for their peers. This concurs with Honneth's (1996:xii) view that one's relationship to oneself is not solitary, but rather an inter-subjective process and that one's attitude towards oneself develops in one's encounter with another's attitude towards oneself.

Thus after analysing the answers in Questions 3 and 6, it was important to establish which of the participants engaged in reflection on their past and their experiences in general. Table 4.9 shows the responses and indicates that 87% of the participants reflect on their lives on a regular basis.

Table 4.9 Participants responding to the reflection on life

Reflection on life	Number	%
Yes	27	87.1
No	4	12.9

N=31

Table 4.10 shows that 97% of participants engage in self-reflection on the relevance of their studies. This feedback adds reliability and validity to the responses of this study.

Table 4.10 Participants responding to the reflection on the relevance of their studies

Reflection on relevance of studies	Number	%
Yes	30	96.8
No	1	3.2

N=31

4.3.1.4 Influences which contributed to behavioural change

Table 4.11 shows the frequency distribution of participants who experienced transformative learning in response to Question 4 that asked: Who or what influenced your change? In this section I recognised that there might be more than one of the choices presented that might be relevant to the participants. The questionnaire allowed the participants to select more than one answer. The percentage responses for participants were lecturers' support, 93,5%; a challenge from your lecturer, 83,9%; your classmates' support, 80,6%, and another student's support, 54,8%.

Table 4.11 Support influences on transformative learning

Influences on change in perspective	Number	%
Your lecturer's support	29	93.5
A challenge from a lecturer	26	83.9
Your classmates' support	25	80.6
Another student	17	54.8

N=31

Although the lecturers' support was recorded as the highest score, the classmate support and the challenges presented by lecturers show a significant influence. The choice of 'another student' indicated other students on campus and not classmates.

Therefore the scoring in this table shows the importance of the influences in the class situation from both lecturer and classmates. The high scores allocated for these choices unquestionably indicate that participants accorded high value to the class context.

4.3.1.4 Educational factors functioning as change agents

Question 7 asked for an indication of transformative learning experiences associated with educational factors. Table 4.12 illustrates the frequency distribution of the answers. In this question participants could choose more than one answer. Class or group projects and internship or industry visits scored the highest at 90.3%. This was followed by class activity or exercises at 83.9% and personal reflection at 77.4%. Orally discussing concerns scored 67.7%, self-evaluation in the course and deep, concentrated thought scored 58.1%, assignment reading, 54.8; term essays, 51.6%; laboratory experiences, 48.4%; personal journal and non-traditional structure of the course, 41.9%; and writing about your concerns scored 19.4%.

Table 4.12 Transformative learning experiences associated with educational factors

Educational factors	Number	%
Class/group assignments	28	90.3
Internship or industry visits	28	90.3
Class activity or exercise	26	83.9
Personal reflection	24	77.4
Orally discussing your concerns	21	67.7
Deep concentrated thought	18	58.1
Self-evaluation of the course	18	58.1
Assignment reading	17	54.8
Term essays	16	51.6
Lab-experiences	15	48.4
Personal journal	13	41.9
Non-traditional structures of the course	13	41.9

Writing about your concerns	6	19.4

N=31

Important educational factors that influenced participants to experience transformational changes were class/group projects, internships or industry visits and class activities or exercises. After cross-referencing the results presented in Table 4.12 with previous results in the research, the facts pointed to the strong influence that interaction with other people, either in industry or during class projects and activities, had had in shifting participants' learning experiences. Oral discussion and interactions with classmates and lecturers also proved to be influential on the transformative learning experiences.

In Question 6 participants were asked to choose the two most significant experiences as listed in Question 7 and reflected in Table 5.12. The most important educational factors were (Table 5.13): Internship or industry visits, 21; Class/Group project, 13; Personal reflection, 7; Self-evaluation in the course, 6; Orally discussing your concerns, 5; Lab experiences, 4; Deep, concentrated thought, 3; Class activity or exercise, 2; and Assignment reading, 1.

Table 4.13 Transformative learning experiences associated with educational factors

Important educational factors	Number	%
Internship or industry visits	21	67.7
Class/group assignments	13	41.9
Personal reflection	7	22.6
Self-evaluation of the course	6	19.4
Orally discussing your concerns	5	16.1
Lab-experiences	4	12.9
Deep concentrated thought	3	9.7
Class activity or exercise	2	6.5
Assignment reading	1	3.2
N=31		

4.3.1.4 Non-educational factors functioning as change agents

Taylor (2008:8) indicates that transformation of learning in the classroom is often influenced by non-educational factors. This relates to Honneth's (1996:xii) view that one's relationship with oneself is not a solitary one, but rather an inter-subjective process and that one's attitude towards oneself develops in one's encounter with another's attitude towards oneself. Sipos et al. (2008) state that transforming learning into work life should engage head, hands and heart. The choices in this selection of factors included the learning of new cultures as all the options included the engagement of emotions and feelings. Table 4.14 displays the frequency distribution of the responses from the participants who experienced transformative learning associated with non-educational factors. The percentage responses were Learning new cultures, 77.4%; Moving, 38.7; Death of a loved one, 32.3; Experience of violence, 25.8; Change of job, 16.1; and Marriage, 3.2%. The results were a confirmation of previous indications that the Learning of new cultures was the most significant to the participants.

Table 4.14 Distribution of participants who experienced transformative learning associated with non-educational factors

Non-educational factors	Number	%
Learning about new cultures	24	77.4
Moving	12	38.7
Death of a loved one	10	32.3
Experience of violence	8	25.8
Change of job	5	16.1
Marriage	1	3.2

N=31

4.3.1.5 Reflections on the ability to adapt to work life

Question 10 required the participants to give a narrative reflection on how their university experiences (both academic and social) influenced their ability to adapt to work life. The results from this question confirmed the outcomes of Questions 20–25, where participants had to rate the relevance of the subject matter offered during their studies (Tables 4.24 – 4.27). Participants felt that they acquired the necessary skills and knowledge to enter work life. They also felt that the ability to think and react quickly and to work under pressure made them more adaptable for the world of work. This opinion is substantiated by comments from a participant:

> I have my own business so a large majority of what I experienced at university comes into play in my life most of the days.
>
> Becoming confident among fellow students at university made me confident in interacting with clients and larger groups of people.

Another participant commented:

> My experience at university with my lecturers has been the most valuable and memorable experience in my life to date and I have learned life lessons in this environment to carry me through social circumstances and in a challenging work environment too.

Participants felt that their educational experiences gave them self-confidence in both their gained disciplinary knowledge and the fact that they could apply the knowledge with confidence in the world of work. Participants confirmed that their studies contributed to their understanding and comprehension of the discipline and the mastery of skills and knowledge needed to function in the industry.

4.3.1.6 Reflections on social influences

The social influences on transformative learning experiences were shown to be equally powerful. Comments such as:

> I was becoming confident among fellow students at university and it made me confident in interacting with clients and larger groups of people.

> Exposing me to different individuals and new ways of thinking as well as people from different cultural backgrounds to myself. Understanding and hearing my fellow students' approach to their academic studies interested me.

> As a person I have grown to understand different people and be able to adapt to different situations.

From the narrative answers given in this question, main themes were identified such as social adaptability, strong work ethic, self-confidence, and keeping an open mind. The next two questions asked participants to discover the possible influence of a person/s on the experiences of transformative learning.

4.3.1.7 Identifying persons of influence during the student years

Question 11 requested participants to indicate if there was a person/s who most influenced them to experience transformative learning. The response shows 87.1% said 'yes' and 12.9% said 'no'. Question 12 asked participants to identify the individual person/s and Table 4.15 illustrates the frequency distribution of the responses for individual persons who influenced the change of the participants. The scores indicated: a lecturer, 83.9%; a classmate, 25.8%; and another student, 12.9%. The lecturer's influence was identified as the major influence in assisting the

experience of change. Participants reported that lecturers pushed them into thinking, acting and reacting differently in the learning environment. This was done through class discussions on thought-provoking topics. Participants in the interviews also reported the classes engaging in discussions on life and other important and current topics such as art, films, architecture and culture from both local and international viewpoints. They felt that their general outlook on life was challenged.

Meaningful investigation into the influences on the participants' learning experiences points to the strong inspiration and stimulus lecturers still have in the learning experiences and personal development of students in class. In this question, participants could only choose one answer. It is significant to note that although previous discussion pointed towards cultural experiences and how they affected the development and learning transformation, it shows the lecturer as the single most influential person for change.

Table 4.15 Distribution of individual persons who influenced the change

Influence of a single important person	Number	%
A lecturer	26	83.9
A classmate	8	25.8
Another student	4	12.9
N=31		

4.3.1.7 Identifying class work as change agent

Questions 13 to 15 in Section 1 of the questionnaires related to the influences of class assignments and projects on the experiences of transformative learning. Table 4.16 displays the frequency distribution of the responses in Question 13, namely: Did part of class assignments or projects influence change? The affirming percentage of responses was 74.2% as opposed to negative responses of 25.8%.

Table 4.16 Distribution of assignment or projects' influence on change

Assignment or project influence on change	Number	%
Yes	23	74.2
No	8	25.8

N=31

In Question 14, 74.2% of the participants that responded affirmatively in Question 13 indicated in which type of activity this transformational change was noticeable. Table 4.17 displays the frequency distribution of the responses to Question 14.

The results indicate the percentage distribution for the various activities: internship or industry visit, 48.4%; personal reflection and class/group projects, 38.7%; class activity or exercise, 32.3%; deep concentrating thought, 25.8%; term essays, orally discussing your concerns and self- evaluation in the course, 22.6%; non-traditional structures of the course, lab experiences and assignment reading, 19.4%; personal journal, 12.9%; and writing about your concerns, 6.5%. The results in Table 5.17 show that the participants rated internship or industry visits and class/group projects as the most significant activities for transformative learning experiences in class.

4.3.1.8 Internships as change agent

Various factors could contribute to the fact that the internship experiences were the most influential in these results. In being exposed to real-life scenarios and the world of work, participants came to realise the relevance of the subject content and knowledge offered to them during their studies. Furthermore the participants also reported the awareness of there being a shortage of employment opportunities in industry.

Table 4.17 Distribution of educational factors as influence of change

Educational factors	Number	%
Internship or industry visits	15	48.4
Class/group assignments	12	38.7
Personal reflection	12	38.7
Class activity or exercise	10	32.3
Deep concentrated thought	8	25.8
Term essays	7	22.6
Orally discussing your concerns	7	22.6
Self-evaluation of the course	7	22.6
Lab-experiences	6	19.4
Assignment reading	6	19.4
Personal journal	4	12.9
Non-traditional structures of the course	6	19.4
Writing about your concerns	2	6.5

N=31

Sub-question 2 in this study asked if meaning making as a concept in higher education in design was relevant to inform the curriculum on offer. I pursued this to confirm the claim of Carl Rogers (2012:23): "Experience is, for me, the highest authority". He further stated that the touchstone of validity is your own experience a no other person's ideas, and none of your own ideas, are as authoritative as your experience. Therefore the acknowledgement of meaning making was important for my study. Meaning making is seen as central to transformative learning and Mezirow describes this as "reinterpret[ing] an old experience (or a new one) from a new set of

expectations" (Mezirow & Associates, 1990:1), in order to situate the understanding of experiences and knowledge.

Until now the responses from Questions 6 to 14 reveal a definite indication that the significance of the participants' reflections on making meaning of their studies could have a profound influence on the curriculum offered. While the focus of the last nine questions showed the relevance to the curriculum, it only focused on persons' influences and tasks.

Considering the possible influences that contributed to this awareness, the lecturers' role was prominent. The statements in responses therefore confirm the results of Questions 11 And 12 in the questionnaire that indicate the lecturer as the person that influenced participants most. Through expressing that the lecturer was most influential to change, participants showed that they could identify the possible triggers of change and that the challenges from lecturers that pushed participants into thinking, acting and reacting differently in the learning environment contributed to this awareness. Furthermore participants expressed the feeling that their typical outlook towards life was challenged.

4.3.1.9 Identification of the most important influences on students

The validating responses from participants can be summarised with key words such as *valuable influence*, *open new experiences*, *challenge yourself*, and *change for the better*. In contract, the strong influence of the lecturer in this study could be viewed as alarming. This would only be of concern if the influence were deemed

unacceptable or unsatisfactory. Dukhan (2016:219) refer to the influence of lecturers and their ability to bridge the gap in the student's approach to learning. In this study the responses from the participants did not show concerns of inappropriate influences. It could be argued that in another academic scenario with different lecturers this might be a concern. Nevertheless, further evidence in this study indicated that recognition of change does not always indicate a directional change of 180°, but includes a confirmation of an awareness of self as validated by the statements below.

> I did a presentation on a subject, can't recall what it was, but I did stipulate what my beliefs were in terms of animal rights in this presentation and after seeing the reaction of my class and my lecturer at the time it dawned on me that what I believed was right. It did not change, it only improved and I still believe the same today.

In this comment the strong influence of the lecturer was not explicitly linked to how the student's perspective changed but rather the fact that the lecturer created an opportunity for change. This opinion relates to the research studies that confirmed that in transformative learning the phase of identifying the triggers is often followed by a time where individuals become quiet and spend time reflecting on their new mindfulness (King, 2004:156; Kitchenham, 2008:118).

During this time of uncertainty participants indicated that they experienced the third and forth phases of Mezirow's perspective transformation. Stage 3 refers to "a critical assessment of epistemic, socio-cultural or psychic assumptions" and Stage 4 "recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change" (Mezirow, 1991:168-169). Participants stated that after confirming an interruption of their frame of reference, and a

realisation that their new environment and experiences were triggers of change for themselves, they moved into a period of self-reflection.

Participants often referred to the fact that they critically reflect on their beliefs, values and understanding of themselves and life in general. This awareness was reflected in previous quotes and is affirmed by the following quotes from participants.

I became more mature within myself and started making decisions for myself

I have changed the way I think about, look at and understand other people

I have certainly changed and for the better

Change is a process and I do value it

I have opened my mind about others and life

I believe we are constantly learning about our environment and ourselves

These quotes mirror the new perspective that emerged from the participants. As further confirmation, action words used by participants include "new ways", "changed my way of thinking", "new ways of engaging with knowledge", more open minded" and "my value system has changed". Following the confirmation of changes and gaining new perspectives the focus is now on how this will influence the meaning making for the participants.

Throughout the research the development of self-reflection and emotional capabilities became evident. The participants had to recall experiences where they intentionally developed openness to self-exploration. Using narrative, they recalled the moments of meaning making during their studies and how they affected their

personal and emotional process of making meaning of their work environment. Research has shown that individuals that engage in transformative learning are open to change and are therefore emotionally vulnerable (Daly and Lumley, 2007). Thus, significant importance is placed on the safe and trusting learning environment. The participants confirmed this through using words such as: "feeling secure", "comfortable", "safe" and " becoming a family". This opinion is confirmed in the statement:

> I believe that being at university put me in a position where I was old enough to make decisions and form opinions like an adult, but was still in a protective environment.

The first research question in this study was, "What are the components of transformative learning that can be identified in the reflection of the graduates and to what extent did participants engage with the phases of transformative learning listed below?" The phases were listed as:

- Confirming an interruption of frame of reference
- Identifying triggers of transformation
- Acknowledging a time of withdrawal or apathy
- Developing a new perspective

4.3.1.10 Learning of new cultures as change as agent

Question 16 prompted participants to choose the most significant influence in their personal life that influenced a transformative learning experience. In this question participants were allowed to choose only one answer. Table 4.18 displays the frequency distribution of the responses to Question 16. Of the 31 participants, 29% rated Learning of new cultures as the most significant influence on their transformative

learning experiences. However, 22.6% indicated "Other" as the influence in their personal life that induced a transformative learning experience. It was established during the personal interviews that the choice "other" mostly referred to the category of adapting to new social surroundings. Furthermore, moving and the death of a loved one had a noticeable influence on their personal life during their time of studies.

Table 4.18 Distribution of influence from personal life on change

Influence in personal life	Number	%
Learning about new cultures	9	29.0
Other	7	22.6
Moving	5	16.1
Death of a loved one	4	12.9
Separation of a loved one	3	9.7
Loss of job	1	3.2
Change of job	1	3.2
Experience of violence	1	3.2
Marriage	0	0.0

N=31

4.3.1.11 Self-actualisation and self examination as change agents

The last question (17) in Section 1 asked participants to think back to when they first realised that their view or perspective had changed, and what did their being at university have to do with the experience or change in perspective. This was a narrative response and was coded according to the most relevant themes. The most significant themes identified were self-examination and self-actualisation. In an overview of transformative learning theory, Taylor (2008:13) describes the purpose of perspective transformation as central to free individuals from their unconscious content and reified cultural norms and patterns that constrain the potential for self-actualisation. Participants responded with comments such as:

I believe that being at university put me in a position where I was old enough to make decisions and form opinions like an adult, but was still in a protective environment.

I was in a supportive environment that helped me forge my own growth and personal development.

Being at university helped me to be comfortable with whom I am as a person. It helped me notice things in society I otherwise would have missed. I noticed mundane things that turned into inspirations. Every day issues such as politics influenced me, as well as music or merely watching people walking past.

The responses of the participants relate to analytical psychology that recognises the role of the whole person. Participants referred to the 'self' as the total personality; this is inclusive of the self-worth as well as the collective unconscious in the transformative process (Boyd & Myers, 1988). This outlook offers a framework for exploring a perspective transformation beyond a defined definition or the narrow boundaries of acquiring a greater sense of reason and logic to a more social-emotional definition.

4.3.2 Meaning making of learning experiences

After participants spend time critically reflecting on their beliefs, their values and their understanding of life, they start to compare these with their new perspectives and understandings. This process allows them to negotiate and then cope with their conflicting ideas, making time to find new balance and thoughts. The second question of this research study is "How do the graduates make meaning of their learning experiences"? This research focuses on making meaning that relates to learning experiences on a personal and emotional level, in a social construct, and knowledge use in the workplace.

4.3.2.1 Life skills

Preparation for life was another theme identified. Participants responded with comments such as:

> We all had something to learn from each other in order to learn from ourselves.

> I think that being in the environment just prepared me a little for that next stage in my life.

> It was a safe platform for me to explore new meanings of life without putting myself out there, but at the same time it also toughen[ed] me up for standing up for myself.

> This is when I realised that my future depends on what I put in and that it was only my responsibility to do well.

Analysing the statements revealed a sense of personal change with an improvement in self-awareness and identity. The participants denoted a development of talent and potential with a contribution to the building of human capital. The recognition of these changes facilitates employability, enhancement of the quality of life and the contribution to and realisation of dreams and aspirations of themselves.

There are three general views reflecting the participants' feedback on the experiences of change through transformative learning. Figure 4.2 provides a general view of the various aspects discussed in the next three sections.
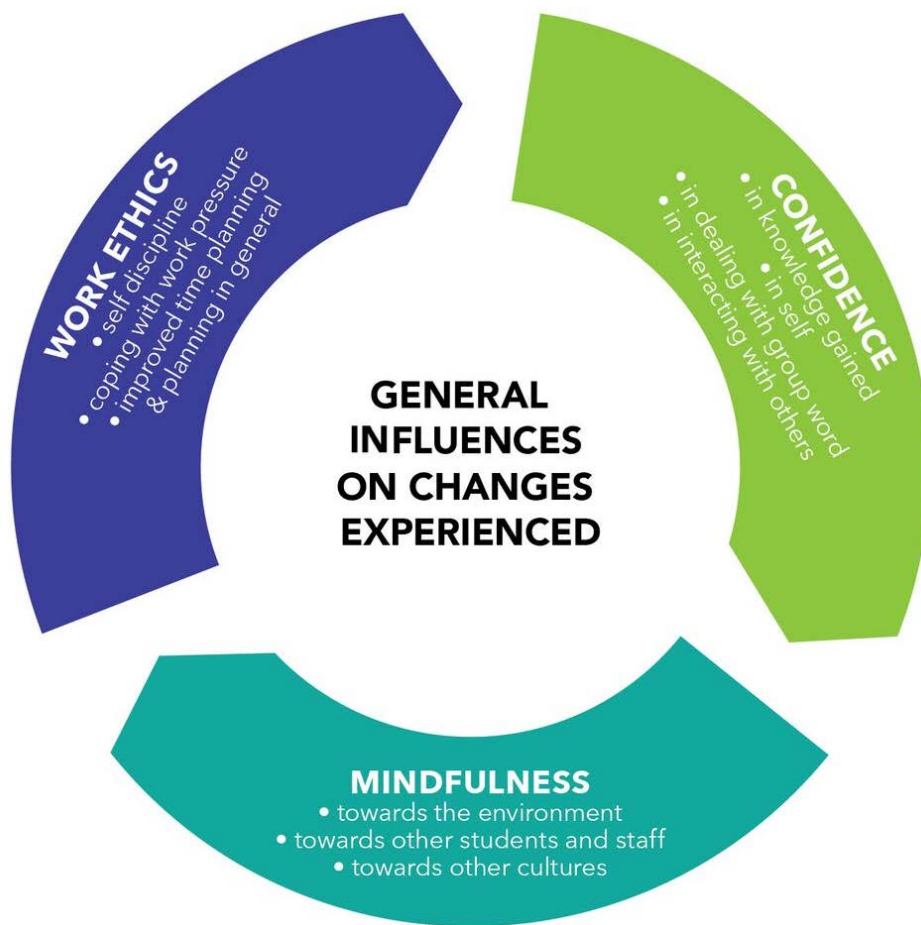
Figure 4.2 General influences on changes experienced

4.3.2.2 Graduates' personal and emotional meaning making

Many of the stated opinions in the research confirm that a supportive environment is essential for positive student engagement. This type of environment fosters learning where students listen to other points of views and other perspectives that contribute to emotional engagement. Results of Question 8 in the questionnaire confirmed that class discussions and class activities were rated among the most influential activities for personal and emotional development during their studies.

Mindfulness as manner of change was referred to regarding three areas. Participants expressed awareness of the new environment that they functioned in. This environment was not necessarily the physical space but more the emotional and social position. This awareness relates to the new- found mindfulness of classmates and staff that they collaborate with. Having to function in a class with small numbers of students and deal with the lecturers on a more personal and individual level than in previous years of study contributed to this situation. The awareness of other cultures was another area where mindfulness was recorded. This is once more a confirmation of the awareness of cultural differences and their influence on transformative learning.

Although all participants agreed that they had grown a lot in respect of understanding others and becoming more mindful, the awareness of this subject could be improved within a more formal approach through developing students' ability to understand, appreciate, analyse and apply knowledge of the humanities. This point relates to the outcome of Question 26 that asked participants to rate the importance of philosophy. More than 60% of the respondents indicated this as very or extremely useful (Table 4.28). Participants also indicated their ability to listen to, understand, convey and contextualise information through oral, nonverbal, visual and written means a challenge. As creative students, they find communicating their ideas and thoughts easier through nonverbal and visual means. However they acknowledged that for employment in the design industry, and for entrepreneurs alike, one needed to be accomplished in written, oral and nonverbal communication.

Other personal and emotional growth areas show holistic and affective processes. These learning processes focus on the affective realm of emotions and other non-

cognitive aspects of the transformative learning experiences. The following quotes signal the awareness of these learning processes:

> One tends to become more enlighten[ed] with others' beliefs, cultures and ways of living. I came to realise that what is very important for me is not as important for others. I also realised how privileged I was but also how protected I was during my upbringing.

> I felt that I learnt to deal with pressure and how to multitask as well. These skills have helped me tremendously. Socially, coming from a coloured only high school into a diverse environment, university life exposed me to different ideas, thoughts and ways of thinking. This made the integration into a diverse work environment easy.

> During university I learned to work hard and not let the negative things in life (like social disposition, like the area you live in, illness or unfortunate experiences) cause you to make excuses for why you did not achieve what you wanted, but rather to achieve the best despite all of these.

These statements support the notion that participants became aware of the journey of personal change. Various participants noted that they had opportunities to develop an own voice and that they had grown in self-confidence.

4.3.2.3 Graduates' social meaning making

As stated in Chapter 2, higher education is facing turbulent times, which among others include conflicting social values (Brock, 2015:233). The recent Fees Must Fall student revolt and intimidation in the higher education environment in South Africa are indicators of these recent unstable times (Booysen, 2016). Thus, with higher education being a knowledge-generating environment, it needs to create new mind frames, which can grapple with the continuous change and provide grounding to expand multicultural sensitivities. When students feel emotionally secure they start to

trust their environment and in turn make their social environment a more secure place as well. Research has shown that during this time the learning environment created by the lecturer includes a democratic, respectful climate for the individual and the groups that support critical discourse (Dirkx & Dang, 2009; Elsey, 2010). Also important are ethical and professional standards in these learning environments (CHE, 2013:55).

The research has indicated that cultural and environmental aspects were the two main areas of growth for the participants. Participants showed appreciation for class activities where there was more time to learn from one another. Sharing points of view and explaining the rationale for beliefs and actions provided clarity to classmates and contributed to open discussions. During this time cultural differences such as belief systems, rituals, customs, food, dress and many others were shared. This is confirmed in the answers to the narrative questions in Questions 3, 10 and 17.

Figure 4.2 shows confidence as one of the three general influences that were experienced as part of change. They recorded confidence in the knowledge they gained. This prompted confidence in self that again led to confidence in dealing with others in a group and participating as part of a work. Participants' responses included statements explaining how they learned different methods of working in class groups that are culturally diverse and adapted to their social surroundings. With reference to social adaptability and meaning making, key words were "became easier to communicate with others", "helped me to understand", "adapted to your surroundings" and "gained confidence in dealing with others". One of the participant's quotes outlines these key words:

> I have learned life lessons in this environment to carry me through social circumstances and in challenging working environments too.

Although most participants identified an awareness of social interaction and change while studying, one participant explained that she was not very sociable during her time of studies. She mentioned that she used to keep to herself and did not participate actively during class discussions or class activities. Thinking back, she would not have rated her learning experience on social interaction high. However, since she joined the work environment the experiences during class allowed her to become more sociable and she now enjoys being part of a group. This testimony is a confirmation of transformative learning and transformative experiences during her time of study.

4.3.2.4 Graduates' meaning making of knowledge gained

Even though participants indicated that there are different times for recognising and appreciating transformative learning, they all indicated the contribution it had made to their lives. This section focuses on the recognition of the knowledge they gained during their studies and how it translates into their work life.

With 44% of the participants in the study running their own businesses, many of the work-related feedback refers to business and entrepreneurship. These participants placed the focus on leadership and business skills, whereas other participants indicated a more general reflection on their adaptability to being an employee. Some of the key words specified by both groups include "good self-discipline", "open minded and conceptual", "holistic thinking", "analyse and process information", "prioritising", and "manage my time". Participants felt that they were well prepared to face the work environment and were given the strength of character to adapt to any circumstances.

One participant stated that:

> My academic experience helped me to be ready to face the world of work with skills and knowledge. As a result of academic studies a certain rigour was instilled in me.

Furthermore the participants that are individual designers stated:

> I have my own business so a large majority of what I experienced at university comes into play in my life most of the days.
> Becoming confident among fellow students at university made me confident in interacting with clients and larger groups of people.

Participants who are currently employed in the industry are mostly employed in the retail sector. Typically, this employment requires group work and therefore coordinated time planning. The keywords mostly used by these participants include "structure and good time schedule", "ability to give advice", "prioritise" and "attention to detail". Participants further expressed awareness of the influence of lecturers and industry advice during their learning experiences. This prepared them for the real-life experiences and helped them to be work ready. Participants responded with statements such as:

> My lecturers played a great role in teaching us to face life. They taught me life lessons that I will always remember and I use them every day in my work.

> I learned how to manage my time because we were always handed many tasks at once during my studies. Prioritising is crucial in the work environment and I believe my studies helped me with that as well. Being part of a team in the class session was also beneficial.

Participants provided well-defined arguments in their responses to how the reflection on the learning experiences transferred to the world of work. The feedback was by and large positive and there was a convincing identification of the added value that their studies brought to the requirements of the world of work.

4.4 Graduates' reflections form a contribution to the responsive curriculum

4.4.1 Understanding students' choices

The questions presented in Section 2 of the questionnaire were aimed at providing an understanding of the reasons why participants chose to study fashion. They could rate the usefulness and relevance of different subject areas in the workplace. In this section students responded in both a quantitative and qualitative manner. While working with this data, I observed students seamlessly moving from qualitative reporting into a more narrative style. Although much of the data that follows is presented in a quantitative format, the rich meaning-making associations that transpired told the story of strong social, cultural and indigenous experience during the time of their studies.

Table 4.19 illustrates the frequency distribution of the responses to Question 18: Why did you decide to go to university? Participants could choose more than one answer to illustrate their responses. The percentages were: To study a course that really interests me (90.3%); I wanted to achieve a degree and to train for a specific job (58.1%); To improve my job prospects in general (25.8%); I enjoy learning and studying (19.4%); Other reasons (6.5%); All my friends were going to university (3.2%).

The results in Table 4.19 show that participants' interest was paramount in their selection of the course.

Table 4.19 Influences on the choice of studies

Why study at university?	Number	%
To study a course that really interests me	28	90.3
To train for a specific job	18	58.1
I wanted to achieve a degree	18	58.1
To improve my job prospects in general	8	25.8
I enjoy learning and studying	6	19.4
Other	2	6.5
All my friends were going to university	1	3.2
I did not want to start working	0	0.0

N=31

Additionally, in Question 19, participants were given an opportunity to indicate why fashion was chosen as the field of study. Table 4.20 on page 161 displays the frequency distribution of the responses given in Question 19. Results listed in Table 5.20 show the percentage responses as interest in the subject (77.4%); wanted to get a particular job and I wanted to get a well-paid job (29%); reputation of the course and advice from family/friends (22.6%); other (16.2%); and advice from teachers (6.5%). Results showed interest in the subject matter was the most important driving force in choosing fashion design as a discipline of study.

Table 4.20 Distribution of the choices made for the field of studies

Choice for field of study	Number	%
Interested in the subjects	24	77.4
Wanted to get a particular job	9	29.0
Wanted to get a well-paid job	9	29.0
Reputation of the course	7	22.6
Advice from family and friends	7	22.6
Other	5	16.1
Advice from teachers	2	6.5

N=31

4.4.2 Rating of subject relevance

To understand the relevance of the subjects in the current curriculum, Question 15 required the participants to categorise the transformative learning indicted in Question 14 in more defined subject subsets. Table 4.21 on page 162 shows the frequency and percentages of the responses to Question 15 that required participants to rate the subjects on offer that facilitated the most personal change during their studies. The percentages for each subject were Design (35.5%); Design Theory (32.3%); Pattern Making (6%); Business Studies (9.7%); and Garment Construction (3.2%). These ratings do not reflect the importance of the subject matter offered but merely show the influence of personal change during the interactions in class. The highest rated subjects, namely, Design, Design Theory and Pattern Making can be categorised as either research- or problem-solving based subjects. These subjects required more lecturer or classmate/s interaction, whereas Garment Construction is mostly a skill-based subject. Business Studies did not rate as a contributing subject to the facilitation of personal change.

Table 4.21 Subjects that facilitated the most personal change

Subject facilitating most personal change	Number	%
Design	11	35.5
Design Theory	10	32.3
Pattern Making	6	19.4
Business Studies	3	9.7
Garment Construction	1	3.2

N=31

The table (4.22) that follows on the next page illustrates the responses to Questions 20 to 25. Because these subjects are interrelated, the ratings are discussed after presenting responses to all the subjects. In these questions participants had to rate the various subjects namely, pattern construction, garment construction, design, business, design theory and textiles according to their contribution and relevance to their current world of work.

Table 4.22 Usefulness of subject content

Pattern Construction	Number	%
Not very useful and relevant (1)	0	0.0
(2)	0	0.0
(3)	1	3.2
(4)	8	25.8
Extremely useful and relevant (5)	22	71.0

Garment Construction	Number	%
Not very useful and relevant (1)	0	0.0
(2)	0	0.0
(3)	0	0.0
(4)	10	32.3
Extremely useful and relevant (5)	21	67.7

Design	Number	%
Not very useful and relevant (1)	0	0.0
(2)	1	3.2
(3)	2	6.5
(4)	6	19.4
Extremely useful and relevant (5)	22	71.0

Business Studies	Number	%
Not very useful and relevant (1)	1	3.2
(2)	0	0.0
(3)	3	9.7
(4)	11	35.5
Extremely useful and relevant (5)	16	51.6

Design Theory	Number	%
Not very useful and relevant (1)	0	0.0
(2)	2	6.5
(3)	3	9.7
(4)	12	38.7

Extremely useful and relevant (5)	14	45.2
Textiles/Materials	**Number**	**%**
Not very useful and relevant (1)	1	3.2
(2)	2	6.5
(3)	1	3.2
(4)	9	29.0
Extremely useful and relevant (5)	18	58.1

N=31

Participants had to evaluate how useful the subject content was for their area of employment at the time of the survey. The results of this survey are therefore linked to the results of Table 4.33, where participants had to state their current employment.

The percentages reflected in the table indicated that all subjects offered in the BTech Fashion programme are seen as important. All six subject areas scored 80% and higher in the 'very important' or 'extremely important' rating. It is significant to mention that although Business Studies did not contribute to personal development as shown in Table 4.21, with a score of 87.1%, it was rated as 'very' and 'extremely important' as a subject. The content and teaching methods in this subject could possibly be subject to review.

4.4.3 The relevance of additional humanities subjects in the programme

With the focus on development of new curricula, the next set of five questions (Questions 26–30) was included in the questionnaire to determine the understanding of the latest design trends as part of the fashion syllabus. Sub-fields in design such as philosophy, innovation and technology, ethical considerations, sensitivity towards cultural differences, and environmental issues were rated.

Table 4.28 Usefulness of other knowledge content: Philosophy

Philosophy	Number	%
Not very useful and relevant (1)	0	0.0
(2)	5	16.1
(3)	6	19.4
(4)	15	48.4
Extremely useful and relevant (5)	5	16.1

N=31

Table 4.29 Usefulness of other knowledge content: Innovation of technology

Innovation of technology	Number	%
Not very useful and relevant (1)	0	0.0
(2)	4	12.9
(3)	10	32.3
(4)	10	32.3
Extremely useful and relevant (5)	7	22.6

N=31

Table 4.30 Usefulness of other knowledge content: Ethical considerations

Ethical considerations	Number	%
Not very useful and relevant (1)	0	0.0
(2)	4	12.9
(3)	16	51.6
(4)	7	22.6
Extremely useful and relevant (5)	4	12.9

N=31

Table 4.31 Usefulness of other knowledge content: Cultural sensitivity

Sensitivity towards cultural differences	Number	%
Not very useful and relevant (1)	1	3.2
(2)	6	19.4
(3)	12	38.7
(4)	6	19.4
Extremely useful and relevant (5)	6	19.4

N=31

Table 4.32 Usefulness of other knowledge content: Environmental issues

Environmental issues	Number	%
Not very useful and relevant (1)	2	6.5

(2)	6	19.4
(3)	15	48.4
(4)	6	19.4
Extremely useful and relevant (5)	2	6.5

N=31

The mapping of the results presented on these five tables indicated some discrepancies in the information shared to this point. Although students regularly indicated the importance of cultural interaction and the development of mindfulness of this area, the results in Table 4.31 did not reflect the same outcomes. I therefore did follow-up interviews to understand the results. During the interviews, students noted that sensitivity towards cultural differences was never offered as part of the syllabus; however this was an essential part of the learning process. It was stated that this awareness came from the practice and processes that was part of their BTech year.

In general the issues presented in these questions were not very well represented during their studies. The usefulness of philosophy and innovation technology scored on average 50–60% as 'useful' and 'relevant', whereas ethical considerations, sensitivity towards cultural differences, and environmental studies scored between 20 and 30% for usefulness and relevance. Some of these topics were referred to in the open discussion question.

4.4.4 Identifying shortcomings in the syllabus

In Question 31, the last question in Section 2, participants were asked to identify shortcomings in the course that they studied. The responses to this question should also be viewed as subtext to Question 41, which asked the participants to categorise

themselves into an occupational grouping. The results listed in Table 4.33 show the range and percentages of the occupations of the participants and outline the frame of reference from which participants answered Question 31. It is significant to understand the breakdown of occupations in Table 4.33, since the results show that 44% of the participants were independent designers with self-owned businesses. The other categories listed all relate to design for either retail or manufacture or manufacture-related functions and represent 56% of the occupations.

Table 4.33 Current occupations of participants

Current occupations	Number	%
Independent designer with own label	11	35.5
Design: Retail	4	12.9
Pattern maker	2	6.5
Buyer: retail	2	6.5
Buyer: manufacture	2	6.5
Garment technologist	2	6.5
Quality	2	6.5
Design: Manufacture	0	0.0

N=31

The responses from Question 31 were categorised and coded. There were two viewpoints significant to the study: those from independent designers and those from commercial or retail designers. The main themes highlighted in the data analyses were listed according to most considered to least considered: career choices information, general business knowledge, start-up for own business, technical reporting, knowledge of local industry, longer workplace learning, and deepened knowledge of advanced textiles and sustainability. The relevance of Business Studies was significant as it was considered the principal shortcoming in the course. The second most important shortcoming was the lack of knowledge on how to start your

own business. This could be contributed to the fact that the most of the participants were self-employed.

4.5 Meaning making as a contribution to a responsive curriculum

As an academic, I was interested in how the research outcomes could contribute to the development of a new responsive fashion curriculum. To achieve this it was important to identify if the participants experienced awareness that their studies had contributed to their preparedness for the world of work. At the same time, the research data had to identify if students made meaning of their studies and if so, in what form did this meaning making contribute to their ability to transform their experiences after they entered the world of work.

The interview sessions validated the answers from the questionnaires, similarly building an enriched and deeper understanding of the qualitative reflection from the answers given in the questionnaires. During the interviews, the concept of work readiness, the attainment of skills, and emerging attributes were discussed. The information gained during the interviews shows strong connections with the recently published article by the World Economic Forum (2015) report (Figure 4.3). The results of the research support the themes highlighted in the report and confirm the relevance of the information given by the participants.

21ST CENTURY SKILLS
Lifelong learning

FOUNDATIONAL LITERACIES	COMPETENCIES	CHARACTER QUALITIES
How students apply core skills to everyday tasks	How students approach complex challenges	How students approach their changing environment
1 LITERACY	7 CRITICAL THINKING & PROBLEM SOLVING	11 CURIOSITY
2 NUMERACY	8 CREATIVITY	12 INITIATIVE
3 SCIENTIFIC LITERACY	9 COMMUNICATION	13 PERSISTANCE & GRITT
4 ICT LITERACY	10 COLLABORATION	14 ADAPTABILITY
5 FINANCIAL LITERACY		15 LEADERSHIP
6 CULTURAL & CIVIC LITERACY		16 SOCIAL & CULTURAL AWARENESS

Figure 4.3 World Economic Forum (2015)

Question 2 asked participants if they had experienced a time when they realised that their values, beliefs or experiences had changed. Although 32.3% of participants responded 'no', analysing the responses in the follow-up questions has indicated the contrary. In cross-referencing the responses to the follow-up questions, all participants reflected a change in their thinking and behaviour. In summary participants identified three main influences: the learning of new cultures, lecturers' influence, and internships. During coding the data was categorised according the two main themes: competencies and character qualities.

4.5.1   Competencies identified

Various competencies were identified in the responses. These include communication skills, ability to collaborate, thinking more creatively, and problem solving through critical thinking. Although the association with all of these competencies was equally persuasive, the most significant was communication skills. This was closely related to the interactive experiences with different cultures in the class situation. Participants stated that they had learned to communicate more effectively through understanding their classmates from different cultural backgrounds better. The group tasks and class activities contributed mostly to this maturity. The classroom experiences had far-reaching effects and continued with participant interactions beyond the classroom as well. One participant stated:

> I tried to push my boundaries socially to be able to network and learn from people in my field. This was relevant for dealing with my peers and interacting with professionals.

Another participant concurred:

> Social influences at the university made it easier to communicate within groups and adapt to different people I met.

Frequently participants used phrases such as:

> I became confident in dealing with people.

> I learned to communicate and understand people.

> I was taught important workplace skills during my studies.

Important to notice was that these statements were offered from participants in all age brackets and from married and unmarried groups.

Similarly the ability to collaborate with peers was listed as an improved competency. Students work in groups within the class situation but often interact with peers from other disciplines as well. One participant stated that she enjoyed working as part of a team with students from different design programmes, which involved students from different cultures and backgrounds at the beginning of her studies. She further stated that working with industrial, jewellery, and graphic design students was an eye opener. Group work can only be successful through strong collaboration and this proved to be meaningful during her studies.

Additionally, participants discussed how interaction in class prepared them for real-life situations. Attributes mentioned included the ability to handle pressure in a healthy manner, to be more creative because of the diverse support around them, the ability to communicate and understand others, being good listeners, and openness to feedback. These attributes concur with the findings of the World Economic Forum (2015) that emotional intelligence would be the most important job skill in 2020.

Critical thinking is the ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. This competency is particularly important in design. The data collected identified various phases of critical thinking awareness among participants. Of the participants, 87.1% participants indicated that they would characterise themselves as people who reflect and think about their actions. It is however possible that the other 12.9% could be unreflective thinkers who are largely unaware of the role that thinking plays in their lives. These types of thinkers often lack the ability to assess their thinking and improve it.

The majority of the participants exhibited the ability to think about their actions and use this skill during their lives. Participants indicated that the process of thinking helped in concept formation, reaching assumptions, and identifying inferences and implications. A number of the participants indicated that they had changed the way they thought about their work and how they approached and executed it. They indicated that they used this skill in thinking when they critiqued their own practice and powers of thought. A participant stated:

> I became a more mature adult and started to regulate my thoughts and decisions.

The understanding of deep and concentrated thought is shared by 58.1% of the participants (as indicated by the results of Question 8). Data indicated that the development of critical-thinking skills could also be accredited to their internship experience during studies. A participant confirmed this:

> Internships and industry visits were fundamental in immersing me into the culture of the fashion industry. It was also beneficial to discuss concerns and topics with others and this allowed me to experience their thought processes.

The process of thinking will remain invisible to students unless they are positively challenged to develop their thinking skills. The data in this study showed that the experiences during their studies have knowingly or unknowingly encouraged them to deepen their thought processes. Consequently, reflection on the competencies revealed that the programme prepared students well for critical thinking and problem solving. They also rated their creative competency level as excellent.

4.5.2   Graduates' identification of character qualities

Over and above the educational knowledge within the fashion discipline, qualifying students need to develop strong character traits during their time of study to be successful in the world of work. The World Economic Forum (2015) notes that people that show strong personal traits such as an improved ability to adapt to change, manage their emotions, and work well with a diverse range of people are valuable in workplaces.

While universities address what they call graduate attributes not as parallel learning outcomes to disciplinary knowledge, attributes can be described as abilities that are placed at the very heart of the discipline knowledge and learning. Graduate attributes are therefore interwoven with knowledge and learning. Barrie (2004:266) argues that these interwoven attributes and capabilities contribute to graduates' ability to gain a particular perspective or worldview. He defines this "as a way of relating to the world, or to knowledge, or to themselves" (Barrie, 2004:266). Although the attainment of these attributes or personal qualities has become a measure of the outcomes of successfully completing a university qualification, it is not that recognisable to the student. The data collected in the research determined the recognition of these attributes among the participants.

A prominent attribute recorded was the development of social and cultural awareness. Even though higher educational settings make for an incongruent community of scholars, cultural awareness and tolerance are central to the success of education. This could not be truer of the South African higher education environment. Participants indicted that they became aware that everybody was not the same and that both similarities and differences were important. Through this acknowledgement they came to understand the multiple ways of reaching the same goal. That they

understood that each situation was different and required different solutions, contributed to their readiness to enter the world of work.

Key words and phrases that reflect this awareness include "admit not knowing", "empathy", "become comfortable with ambiguity"," "not judging and checking my assumption":

> The mix of people fascinated me, and how we all have something to learn from each other in order to learn from ourselves.
>
> I engaged with people from other races and therefore I learned new ways of acquiring knowledge.
>
> I was asked to research the difference between Islam and Christianity and I found them to be the same in structure. This brings into the question all the things I have been taught, and I had to question all I had learned before. I re-evaluated why and who taught me. I then had to either accept or reject certain indoctrinations forced upon me.

These responses demonstrate the ability of the participants to evaluate their lived experiences and make the links between different understandings. The ability to adapt to cultural differences confirms the development of adaptability. This attribute is necessary to be open to change, either positively or negatively, and to the significant variety they will experience in the workplace. This is confirmed in the statement below:

> I think that being in the environment just prepared me a little more for that next stage in my life. Change was inevitable, but the university surroundings and the mind-set you learn to live with while you study prepared me for the change in a way.

As discussed previously, participants saw great benefits in performing group work. Reflecting on this type of activity reveals the attainment of cooperation and dependability as character qualities. Similarly, they identified persistence as a developed attribute. Participants explained that working in groups made them realise that they have to cooperate with others and in turn also depend on them for their cooperation. Participants also identified that successful group work was linked to the persistence of all of the members. They also expressed the fact that they preferred to work with peers with integrity and self-control. Through identifying these attributes in others, participants gained the ability to develop their own social orientation and harness this in the future. A participant summarises this as follows:

> Learning to be self-sufficient and self-disciplined really was influential in my adjustment to work life – especially learning to be mindful of all parts of the work and creative process.

The research question that drove this study was: How do fashion students make meaning of their learning experiences in the work environment? To consider the outcomes presented in this chapter, it is valuable to associate them with the seven reasons why highly emotionally intelligent candidates are important, as defined by the World Economic Forum (2015). The reasons are they can handle pressure healthily, they can understand and cooperate with others, they are good listeners, they are more open to feedback, they are empathetic, they set an example for others to follow, and they make more thoughtful and thorough decisions.

4.6 Feedback on changes to fashion programme

In this section the focus shifts towards the contributions of the participants to how the fashion programme could be improved. In Question 31 participants were asked to describe any shortcomings identified in respect of industry requirements. Various themes were identified from the narrative answers given by the participants and colour coded accordingly to assist the diffractive analysis process. Although many suggestions and recommendations were listed, I identified eight themes as the most significant to contribute to the development of the new curriculum. These, in no order of significance are: retail focus, business, career choices, textile knowledge, industry experience, information regarding the local industry, environmental awareness and sustainability; as well as a theme that indicates satisfaction with the current programme offering.

On closer inspection, voices calling for more information on career choices became evident. The pinpointing of this mindfulness among participants pointed to two possible facts: the current syllabus does not provide further investigation into future employment possibilities for fashion graduates and/or lecturers do not inform graduates of the options through industry exposure or oral communication. Mindfulness has not been explored and can be noted as a possible area for further research. The feedback also refers to the need for additional industry exposure. Although graduates complete a work learning module during their studies, this was identified as "too little" and "not sufficient to contribute to a meaningful and rich experience". Participants articulated the need for this type of experience to be considerably longer in duration or occurring more frequently during the time of study.

Various comments referred to business studies. Participants expressed limitations in business skills and these limitations can be grouped under two headings: skills to engage in a business as start-up and business in general. Question 43 categorised the participants according to their current occupations. The feedback indicated that most participants, 44% (see Table 4.32), are independent designers and manufacture under their own labels. This justifies the request for more business skills to initiate a start-up. The rest of the comments referred to a deeper understanding of the functions in business. This might been seen as a shortcoming in the current syllabus or in the way business is offered, but it should be noted that some comments referred to the fact that as students they did not always value what was shared with them in class (Zhao & Kuh, 2004:118).

This comment might relate to the next theme identified, namely, textile knowledge. This is also a subject in the current syllabus but according to the comments needs to be investigated. The subject should be evaluated in respect of need for improvement in subject content; however, this is also possibly a case of value only realised too late.

4.7   Analysis of the findings

Whilst grappling with the data of the research I looked to the works of Lave and Wenger (1991), in particular their theory of *situated learning* where learning took place in the same authentic context as it was applied. I recognised the patterns of peripheral participation. Lave and Wenger (1991:66) state, "People process, represent, and remember in relation to each other and while located in a social world." This study extended the scope of research to understand the everyday activities and social interactions among graduates. The participants displayed an

awareness of development towards self-actualisation (Maslow, 1943:371). They showed a consciousness of advancing from the point of entering as a first-year student and progressing to the point of reaching self-actualisation during work engagement. (Fig. 4.4)

Figure 4.4 Legitimate peripheral participation. Author's construct from Lave and Wenger

Although I have grounded the research in the principles of transformative learning theory introduced by Mezirow (1978) and more explicitly on the Learning Activity Survey (LAS) proposed by King (2004), the responses from the questionnaire and

the interviews called for mindfulness in my research to embrace the narrative of social and cultural interpretations that transpired from the data. The data collected denoted a learning environment where graduates expressed the interactions in class as valuable intercultural experiences at the time of their studies. Participants further stated that the interactions contributed to an easy transfer from being a student to functioning in the workplace. The narrative stories communicated through both the questionnaires and interviews showed the progression that took place from entering as a first year and growing towards reaching the point of self-actualisation when entering the workplace.

Furthermore I discovered reflection as means of understanding and reporting on the process of development was only the prompt for further progress in this study. I realised that after the process of reflection on the data, my research process followed the methodological practice of diffraction as used by Barad (2007). I came to realise that I was not merely "mirroring the sameness (e.g. coding) but searching for patterns of differences (e.g. analysis after coding)" (Barad, 2007:71-72). I was aware that the data was broad and finding different meanings could only take place through searching for new patterns and/or new connections. Through not using traditional coding as method of analysis I avoided the "pedestrian and uninteresting" (St Pierre, 2011:5) practice of looking at the data. The diffractive analysis took me through a rhizomatic approach rather linear or hierarchical to the data presented. This allowed for the data to move in different directions and contributed to analysis and knowledge production that was unpredictable. Thus the data communicated a convincing argument that participants experienced a significant social, cultural and indigenous learning commitment during their time of studies.

The meaningful social, cultural and indigenous learning was confirmed by 67% of the research participants who specified that they had experienced transformative learning while studying towards their BTech degree in fashion. The data also reflected that the experiences of transformative learning were located at both an academic and non-academic level. New knowledge showed mindfulness from participants of how their experiences at university contributed to awareness of their environment and the influence on their personal adaptability and change. The awareness relates to personal development at social and cultural level among participants, with their lecturers and other entities. Participants recognised the triggers of transformation relative to people and the learning environment.

I could identify the concept of "plugging in" of Deleuze and Gauttari (1988:4) in the way participants diffracted (forming new patterns) and not merely reflected on the meaning of their studies. They exercised a process of "making and unmaking" their experiences. I exercised the same "making and unmaking" process through deconstruction, arranging, organising and reorganising the feedback from the students in order to discover new insights and discover how they were connected. During this process I worked with the same data repeatedly and continued to create new knowledge. Through "plugging in" the data from the texts, I discovered how the data was reciprocally reinforced, and therefore created something new (Jackson & Mazzei, 2011:4). From this new knowledge the mindfulness of intercultural awareness and associations was revealed and how they contribute towards a transformative experience for industry and work readiness.

There was a meaningful relationship between the educational factors (role of the lecturer and classroom activities) and the transformative learning experiences of the participants. The research findings showed a strong statistical relationship

between the personal and emotional experiences and transformative learning experiences. Since social awareness and development are not easy to quantify, the diffraction of participant testimonies was a convincing display of how participants gained transferable learning and skills that they did not always recognise during the actual time of the experience. In some circumstances the recognition and appreciation of transformative learning and the diffraction of the new knowledge is only realised in later years.

The discussions in this chapter confirm that the contemplative process participants experienced through contributing to the questionnaire and the follow-up interview directed them through the reflective process to recognise the means through which transformative learning was celebrated.

IN CLOSING

5. In closing

The purpose of education is to show a person how to define himself authentically and spontaneously in relation to his world – not impose a prefabricated definition of the world, still less an arbitrary definition.

<div align="right">Thomas Merton</div>

5.1 Framing of research

This study explored how selected fashion design graduates at a university of technology (UoT) understand and make meaning of their learning experiences through the lens of reflection. The main research question asked "How do fashion graduates make meaning of their learning experiences in the work environment?" The two sub-questions were; (1) What are the components of transformative learning that can be identified in the reflection of the graduates and to what extent did participants engage with the phases of transformative learning? and (2) How do graduates make meaning of their learning experiences?

The research aimed to understand the manner in which graduates engaged in meaning making of their learning experiences during their subsequent work environment. Kegan (2000:50) states that it is not so much change in *what* we know but the changes in *how* we know that represents transformative learning. This thesis aimed at exploring the relationship between transformative learning and meaning making among qualified fashion design graduates at CPUT. The study examined the narrative and numeric evidence from these students that signified meaning making of their learning experiences and the influences in their subsequent work environments. I recognised that the thought of anticipated behavioural change is complex. Thus unpredictable environmental factors played

a role in the reflective process and constructivist approach used in this study. This chapter presents a discussion of the research, starting with a summary immersed in the research questions as stated in Chapter 1. The chapter further outlines relationships with previous research and addresses limitations of the research. The contribution of the study is unpacked under *The Theory* and *Impact on the Fashion Curricula*. Seven recommendations then follow and an autobiographical reflection and conclusion round off the chapter.

5.2   Summary of the research

My broad motivational underpinning for this research was to contribute an explicit understanding of the potential of a market-aligned fashion design practice curriculum. My interest was not in understanding what students learn – but how the knowledge and skills they gain can be used in the world of work.

In Chapter 1 I presented a conceptual framework for navigating the process of discovering an informed curriculum (Figure 1.3 on page 15). My constructed framework illustrated the process in four quadrants of the proposed transformative route that would contribute to the development of a responsive curriculum. I further stacked and layered my presented framework with the learning theories of Kolb (2015) (Figure 1.4 page 16) by matching the four phases presented in the learning theory to the four development phases in my proposed framework. Additionally, I stacked the four steps in transformative learning as defined by King (2004) (Figure 1.5 on page 17) into my constructed framework.

In Chapter 2 I presented and discussed various studies that confirm the relevance of transformative learning on adult learners (Kuhn, 1962; Freire, 1970; Habermas,

1971, 1984; Mezirow, 1978, 1991, 2000; King 2004; Taylor, 2008; Taylor & Cranton, 2012). These theorists acknowledged that learning encompasses three domains that include the technical, the practical, and the emancipatory. I should like to refer to these domains as the head, hand, and the heart (Brühlmeier, 2010). This research study was designed to explore if there were particular experiences throughout students' studies that influenced their ability to adapt, develop and perform in their professional lives.

Through the use of an integrated methodology (Plowright, 2011:29) emerging patterns and new understandings emerged. The initial numeric results indicated that the participants in this study experienced transformation, since 63% of the participants responded in online questionnaires with an affirmative awareness of transformation in their perspective or world view. During the second interface, namely interviews, it emerged that the participants who indicated that they had not experienced a change of perspective (as reported in the questionnaires) actually did experience a change of perspective when they could express themselves through story telling or narrative. The narrative interface with the participants was a more significant indicator of transformative learning represented by a changed worldview, as opposed to quantitative indicators.

The literature presented in Chapter 2 offered an explanation of the developments in transformative learning theory. It confirmed that as fashion graduates engaged in multiple learning experiences during their time of study, they achieved a wider frame of reference and participated in different meaning- making encounters (King, 1997; Cranton, 2002; Taylor, 2008; Brock, 2015). The majority of data on transformative learning in students in higher education does not show uniformity

and does not include a mixed-methods investigation (Taylor, 2000). This research focused on how transformative learning presented itself in design graduates.

Design learning theories have to address the progressive role design plays in diverse sectors such as business, government, non-profit organisations and grassroots activism (Irwin, 2015:91). In light of this, it is reasonable to accept that educators are challenged in preparing students with the adaptability, knowledge, and skills sets needed to address the difficulties of a challenging society in an international, interconnected and interdependent world. The literature tracked the development of design education for the twenty-first century and extrapolated the required graduate attributes that fashion design graduates need to be successful in the industry and world of work.

The purpose of the study and the theoretical foundations from which the research was conducted are defined in Chapter 3. A phenomenological research analysis was applied to the research and it was explained how it relates to transformative learning theory. The rationale for this research was to identify how fashion graduates achieve transferable qualities that migrate from student to working person. Thus, delimited in the study was the classification of critical success factors for transformative learning. The applied research focused on understanding the nature and sources of human and societal problems (Patton, 2015:250). The research was conducted from an anti-positivist paradigm where the approach permits the study of individuals with various characteristics, different human behaviours, opinions and attitudes (Cohen et al., 2000). This was achieved through understanding phenomena of the world.

The research followed a mixed-methods and integrated format where the majority of the research is classified as narrative and numeric research (Plowright 2011:29). The numeric sections were mainly sections that represented a smaller percentage of the work. Chapter 3 also unpacked the methodological perspective in a phenomenographic study. The chapter presented the research questions and explained how the participants were selected. Lastly Chapter 3 presented the data-collection method which was based on the methodological work of King (2004). This method included a pilot study, a questionnaire comprising both numeric and narritive questions, and follow-up interviews.

While my research does not propose a significant difference in the four steps of transformative learning as defined by King (2004), it does introduce a significant difference in the way the study was applied and analysed. The application and analysis of King's Learning Activity Survey (LAS) make extensive use of quantitative applications and results during the analysis of the findings. While the LAS instrument scored the four reflective questions in a PT-index,[8] therefore layering a set of codes onto the data, I applied the use of a *diffractive* analysis method resulting in "multiplicity, ambiguity, and incoherent subjectivity" (Mazzei, 2014:743). The diffractive analysis therefore presented not just coding but required interpreting the data while conceptualising "holding" the theory, therefore making new links and connections. This approach towards the discovery of new knowledge was piloted through the integrated steps of the original framework, and allowed me to develop a new proposed Learning Activity Narrative (LAN). The LAN will

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[8] PT-Index refers to Percona Toolkit, which is a collection of, advanced command-line tools used by Percona support staff to perform a variety of MySQL, MongoDB®, and system tasks that are too difficult or complex to perform manually.

assist in exploring in what ways the students at the UoT understand and make meaning of their learning experiences and how they, as graduates, make meaning of their learning experiences with reference to personal/emotional and disciplinary knowledge in the workplace.

Numerous quotations that reflect the sentiments of the participants were presented in Chapter 4, confirming the awareness of self-discovery during the time of studying. Participants repeatedly stated how interaction with classmates of different cultural and economic backgrounds changed their perspectives on life. Of particular importance was the reporting of the strong awareness of becoming open-minded and building respect for the values of others. Statements such as these I associated with Lave and Wenger's (1991) theory of situated learning where learning takes place in the same authentic context as it is applied. I recognised the patterns of peripheral participation. Often the answers in the closed questions differed from the narrative answers. I acknowledge that in this study the closed questions did not allow the participants to place themselves in the social context. It was only through writing a narrative or story that the participants placed themselves in the social context. This concept was confirmed by Lave and Wenger (1991:66): "People process, represent, and remember in relation to each other and while located in a social world."

Keeping in mind the construct of the research, I placed importance on the research aim and questions. The study aimed at exploring the dynamics of transformative learning in the meaning making of fashion design students in their work environment. Question 1 examined components of transformative learning that could be identified in the reflection process of participants and to what extent participants engaged with the phases of transformative learning. The four phases

of transformative learning, namely the feeling of uncertainty, testing and exploring, confirming and connecting, and finding a new perspective (King, 2004), were built into the questionnaire. A combination of open- and closed-ended questions was built into the questionnaire. After gathering the data through the questionnaire, I discovered that storytelling and narrative discussions constituted a far richer data source and responses in the narrative contributions shed significantly more light on participants' changed worldviews. The data collected highlighted that graduates were better prepared for the world of work by way of experiencing practical and emancipatory learning through self-examining, self-reflection, and experiences of self-knowledge.

The selection of questions that offered preset answer choices often showed that participants indicated that they did not engage in transforming their perspectives during the time of study. The narrative and story-telling answers revealed different views on the experiences and changes in perspectives experienced by participants. It was through the "plugging in" (Jackson & Mazzei, 2011) of the various texts, numeric analysis of the closed-ended questions and answers to the follow-up questions that I was able to discover the triggers of transformation. The triggers that were indicated by the participants included the influences of the lecturer, the influences of intercultural experiences and interaction, and experiences during industry placements. The method of reading the data through one another and not analysing the information separately to discover new knowledge and views, confirmed the phases of transformative learning. Keeping in mind that not all participants might report an awareness of transformative learning in Question 1, I changed the lens of enquiry in Question 2.

In Question 2 I asked participants to report meaning making of their learning experiences with specific reference to three aspects. The reflection on meaning making was focused on the participants' personal and emotional experiences, social interaction and disciplinary knowledge in use. All three of these areas show discrepancies between the answers collected through numeric analysis as opposed to narrative answers. Numeric analysis mostly showed reduced importance to some of the topics investigated, but when telling their story, the participants contradicted themselves by reporting significant changes in worldviews.

Answers in the narrative questions often included data that could be transferred to Question 1. I had to adjust my approach to the analysis of the data. Consequently the analysis of the data in the study deviated from a merely reflective analysis to embracing the concept of a "diffractive analysis" in order to uncover the narrative thread that linked both questions of my research. This was done by not looking at sameness but by focusing on patterns of differences and new knowledge realisations (Barad, 2007, Jackson & Mazzei, 2011).

The diffractive analysis (Barad, 2007) of the research data to understand how students make meaning of their experiences became central to the study. It was evident that the activity of transformative learning involved more than just gaining factual knowledge. The importance of reading the narrative answers 'through' the lens of numeric analysis of other answers contributed to the understanding of how learner development and maturity towards a socially, emotionally, academically and professionally 'ready' individual can be achieved. Fink (2013) notes that learning is a process of engagement that requires high energy. Engaged learners develop their individual lives, enhance their social interactions with others, and become more thoughtful and informed citizens prepared for the world of work.

Through the method of diffraction, the narrative contributions suggested that cultural interaction in the class setting was a strong contributor to 'transitioning' a graduate to becoming a more mindful, informed and considerate person, and consequently better prepared for the workplace. The new knowledge discovered during this process showed meaning-making experiences of the qualified fashion graduates as significant outcomes. The three meaning-making experiences that emerged as most significant were the importance of intercultural experiences, the significance of industry experience and exposure, and the influence of the lecturer during studies.

This mindfulness emanated through, among others, gaining valuable industry experience and collaborations. Graduates reported both awareness of personal growth and development, but also indicated the awareness of how academic subject matter helped them develop attentiveness to industry requirements. Industry experience was also revealed as an indicator for acquiring a heightened awareness of transformative learning experiences as a work-ready individual.

Additionally, the influence of the lecturer during the time of studies was highlighted as significant. Feedback in both the numeric scoring in the questionnaire and the narrative in the discussion question showed the influence of the lecturers to be of great importance. Participants reported the responsiveness and openness of lecturers during the time of studying. This mindset from lecturers allowed for a 'safe space' for participants to experience and undergo the phases of transformative learning. The validating responses from participants were summarised with key words such as *valuable influence*, *open new experiences*, *challenge you*, and *change for the better*.

I therefore proposed a new approach to investigate transformative learning by means of the Learning Activity Narrative (LAN), which is not survey based.

5.2 Relationship with previous research

Since the publication of King's Learning Activity Survey (LAS) (King, 2004), numerous research studies have used her instrument to analyse the impact and relevance of transformative learning theory in higher education and in particular in healthcare as disclosed in Chapter 2. King's LAS contributed a trusted method of systematic analysis in transformative learning, but the survey is numeric in approach. This method served as a sound starting point for my study, but as the study developed, it required a reworking of the questions posed and analysis of the data recorded. King's LAS approach to transformative learning research focused questions and answers that could mostly be analysed through the use of a Likert scale.

After completing the pilot study, I realised that I would have to include significantly more opportunities for answers through narrative and story telling. I also became conscious that my data analysis would have to be different from the traditional coding of qualitative data. The statement of Jackson and Mazzei (2011:12) made me appreciate that coding would take me back to what was known, not only to the experiences of the participants but also to my own. This process would bar me from creating new knowledge and would produce knowledge that might be mere repetition of the already known. I therefore preferred to use the method of manual coding of the narrative and engaged in a diffractive analysis process to discover how participants' feedback could be threaded together.

I used diffraction to establish links manually between the data from the questionnaire, interviews and narrative feedback. I was analysing the feedback "through one another" meaning, I wove questionnaire responses, interviews and narrative responses into a tight construct that explains (Jackson & Mazzei, 2011) new meaning and understanding of the transformative process the graduates engaged in. Alongside that, the most significant differences of the study compared with similar doctoral studies using LAS (LaCava, 2002; Glisczinsk, 2005; Brock, 2007; Wansick, 2007; Harrison, 2008; Kitchenham, 2008) is the fact that this research focused on addressing graduates who had completed their studies and were no longer enrolled at the university. It concentrated on design students that had graduated and were now part of the world of work and active in the fashion design industry.

Other scholarly work (King, 1997, 2000; LaCava, 2002; Glisczinski, 2005; Ritz, 2006; Brock, 2007; Wansick, 2007; Harrison, 2008; Fullerton, 2010) dedicated their research to student groups who were registered at higher education institutions and active in their studies at the time of the research.

5.3   Limitations of research

This study covered the past seven years of fashion graduates' transformative learning experiences (2009 to 2014) and I acknowledge that after every year new graduates will contribute new narratives and stories. There has been significant development with regard to a decolonised curriculum in higher education since 2015, but my research did not address the theme specifically. I do not disregard, by any means, the importance of decolonised education in the South African

context, but I chose to focus on work readiness, an aspect that goes hand in hand with some constructs of decolonised education, namely personal empowerment, emancipation, and economic equity (Gay, 1995) among others.

Additionally the research study has limitations that should be considered alongside the data findings and analysis. The study is based on a small sample of 33 participants and although a wider group of contributors was selected, the responses were random and no purposive race and gender distribution selector was applied. The questionnaire was sent to all graduates qualifying over the six-year research period. Even though the responses were random, it was notable that the result ratios of race and gender between the invited graduates and the responses received were of similar percentages. The study is retrospective in nature and thus the reflective process of personal experiences is subjective. The result could therefore be biased; idealisation and advocacy for a preferred memory of experience may have been operational (Zatzman, 2006). Furthermore, the small sample size does not allow for generalisability to a larger group. In addition it would be noteworthy to examine if the format of the study, which was online following the LAS model, would have yielded different results if it had been conducted face-to-face from the start.

5.5 Contribution of this study

The contributions of the research are related to the theory and the research process of transformative learning and the contribution to the development of fashion curricula in the future.

5.5.1 The theory and the research process of transformative learning

Taylor (2007) states that since Mezirow theorised on transformative learning in 1978, it has been the most researched theory in the field of adult education. This study positions transformative learning in relation to Kolb's learning theory and my own conceptual framework. This study proposes a new framework for exploring transformative learning towards emancipated work readiness. The study also contributes to the research on transformative learning by adding to understanding beyond the classroom and extending the research to qualified graduates in the workplace.

The new framework proposes a focus on student development through concentrating on the praxis referred to as product/hand, on the technical referred to as the process/head, and on the emancipatory relating to the person/heart (now called the three P's). The key to relevant education, which made a difference in the transformative experiences of graduates and that had an impact on their education, does not only lie within the scope of the three P's. The focus on the three P's has to be contextualised within the narrative and story-telling aspects of the data. The interface of the three P's can be reflected on and diffracted towards new knowledge through the narrative that had to be adapted in order to make educational outcomes relevant to the individual by extension and to society at large. The key therefore is in the narrative that is the fundamental underpinning to individualised learning, and subsequently to advancing decolonised education.

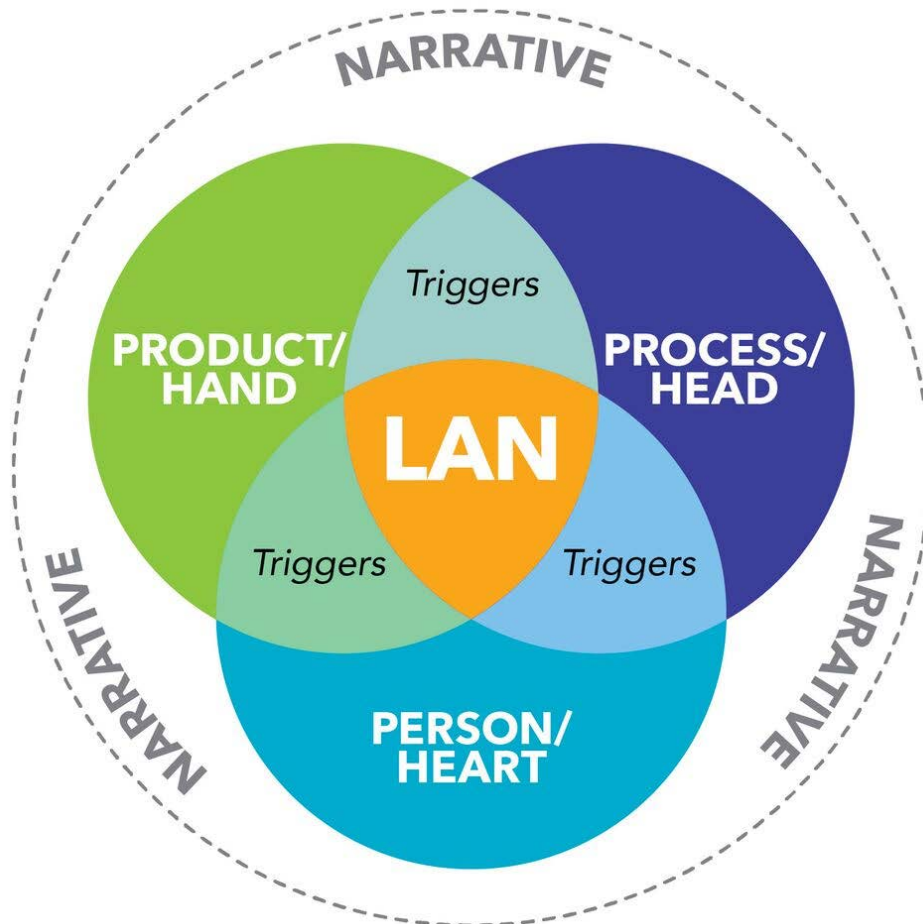Thus the narrative would be the key to make learning relevant to the time and place where it is delivered.

Figure 5.1 Learning Activity Narrative (Author's construct, 2017)

5.5.2 Impact on future fashion curricula development

Transformative learning theory has expanded my understanding of the meaning-making process during student learning through the narrative data collected. I became particularly aware of the fact that it is not *what* graduates know, but rather *how* they know, which contributes to a new perspective and new knowledge. Future curricula should be constructed with a focus on student narrative that

reflects their interaction with the environment while studying, with people and with knowledge gained.

The research findings confirmed that meaning making through transformative learning experiences might well contribute to a relevant and responsive fashion design curriculum in the future. This came by way of insight into the importance of relationships, feelings, and context in the new knowledge that transpired from the data.

In relation to the proposed LAN on page 197 (Figure 5.1) the journey towards individualised and emancipated learning could be illustrated as follows:
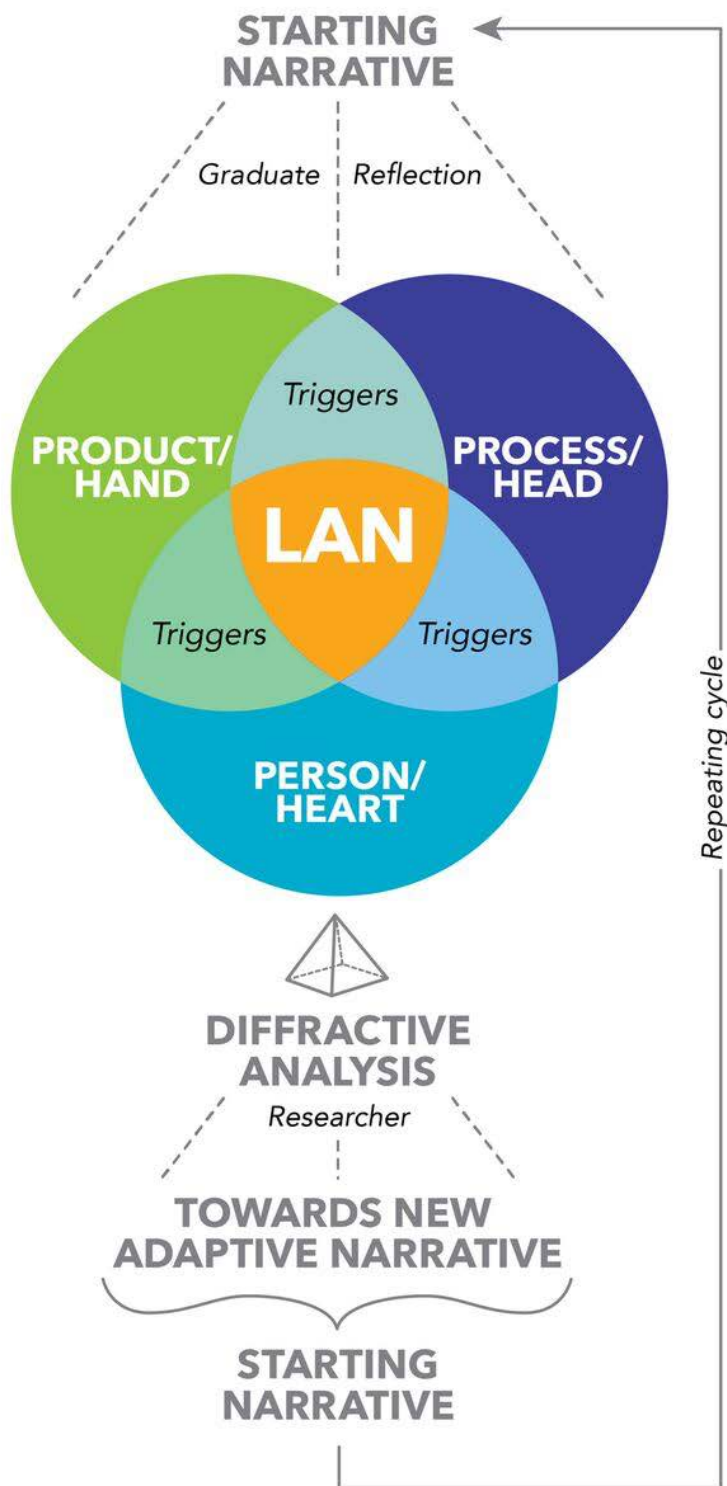
Figure 5.2 Journey towards individualised and emancipated learning

New narratives must not be seen as a final or ultimate outcome. They are merely the start of the adaptive narrative for the next cycle of reflection that should be followed by a diffractive analysis. This will lead towards the new educational outcome that should be relevant to the individual, and by extension, to society at large.

5.6   Recommendations

Based on the findings in this research study there are various recommendations for further study.

5.6.1 Using the LAN method of investigation in design research

The research instrument used in the study was based on the Learning Activity Survey (King, 2004). Although King suggested that each researcher adjust the survey according to his/her own study, the method of analysis stays the same. The data is analysed in a manner where narrative data do not appear to contribute much except to verify the statistical findings.

A future study where a combination of numeric and narrative data is collated could be valuable. This study found that through story telling or narrative feedback, participants share considerably more than responding to closed questions. It is further suggested that a diffractive analysis be used to analyse the feedback and that the narrative not be manipulated through leading qualitative analysis software that will find, interconnect, and manage the data mechanically. I further propose a manual interaction with the narrative data and through the use of diffractive analysis, to find new meanings and cultivate new knowledge.

5.6.2 Further examination of the perspective transformations of fashion graduates is warranted

The study of awareness of transformative learning among fashion design students covered a six-year cohort of which the last graduates completed their studies in 2014. There have been significant changes in both the fashion industry and the higher education environment over the past three years, and the outcome of a similar study may produce new insights. Job opportunities in the fashion industry and the success of starting a business have been influenced by global financial changes and this directly impacts fashion graduates. Participants reported the highest percentage of current jobs as having an own business. Therefore, a follow-up study may be relevant.

Since this study was completed, South African higher education has experienced severe disruptions. The Fees Must Fall (FMF) movement had a severe impact on the fashion students who often are dependent on the equipment and technology on campus. The violence and aggression many students have experienced will certainly have an unquestionable impact on a follow-up study of this kind.

5.6.3 A comparative study between local and international design graduates is required

The South African fashion participants that participated in the study showed significant differences from and similarities to some of the known facts of international students. A similar study that focuses on a comparative analysis between the South African fashion student and an international fashion student may demonstrate if factors that contribute to transformative learning in a local context are similar in a global context.

The indication of work readiness through social interaction with other cultures may resonate with international students as well. The recent state of affairs in European countries opening their borders to refugees may relate to the South African scenario.

The study investigated the awareness of transformative learning in fashion students that will prepare them for the job market. There appears to be a higher percentage of South African fashion students who start their own businesses after completing their studies compared with international students. Therefore another motivation for such a study is that most international fashion students seem to enter the corporate job market. This perception is built on reports in online fashion publications and will only prove true and valid if a study of this nature is conducted.

5.6.4 Replicating this study with other design students or graduates

Fashion is situated in the discipline of design. The graduates of design disciplines enter work environments similar to those of fashion students. Completing a similar study in the greater domain of design, including other design disciplines such as jewellery, product and graphic design, may be of value. This is again particularly relevant in the changing educational and socio-cultural contexts in South Africa.

5.6.5 Further research to focus on the non-educational factors that facilitate transformative learning, namely, socio-economic and social aspects

The data collected in the research showed awareness among the participants that socio-economic and social aspects played a significant role in experiencing perspective transformation in learning. The narrative and numeric data underpin the concept that the way students interact and experience others and information will be grounded in the socio-economic circumstances and social settings. A new study investigating other aspects that influence perspective transformation of graduates could include realities such as income groups, places of residence, living conditions, parental support, mode of transport, school background, etc.

These realities appeared briefly in some of the narrative data and were noted as possible influences on participants' acceptance of, identification with and understanding of their situation.

5.6.6 Further research to highlight the influence of lecturers on students' transformative learning experiences and the development of mindfulness in graduates.

The influence of the lecturer emerged as of great importance among the participants of this study. This question was not placed in a very prominent position but through working through the narrative, the role of the lecturer became increasingly evident. As I did not anticipate this outcome, very few other questions attempted to elicit a better understanding of this phenomenon.

A further study could show why and in what manner the lecturer makes a difference in the participants' progression towards transformative learning experiences. This study identified only a few of these influences such as directing students towards self-assurance and self-confidence. It will be valuable to determine if the influence of the lecturer plays a similar role in other disciplines.

5.6.7 Informing the current teaching and learning strategies and activities at this university of technology

The results of this study were twofold. The discipline-specific contributions showed the relevance and importance that participants ascribed to the subject matter taught. Although the data contributed relevant and useful information towards a new curriculum, it should be noted that the data did not always triangulate between the questionnaire, the narrative questions and the interview. The discrepancies could be caused by different reasons. The answers in the closed-ended questions were often the data that did not correlate with the narrative of the open-ended questions or the interviews.

Even so, the suggestions of new subject matter and changes to the current syllabus are seen as credible. Participants indicated the additional knowledge of sustainability and ethics as important. Knowledge of business aspects was highlighted as insufficient and needs attention. Other feedback suggested a longer and more focused industry experience was needed throughout the period of study.

It was significant that participants indicated that multi-cultural interaction was of high importance, but when asked if it should be part of the taught syllabus the answer was negative. Participants felt that multi-cultural interaction should be built into the general principles of the course content and not be isolated into a "thing".

5.7 Autobiographical reflection

As a researcher and academic, nothing is more important than the development, improvement and growth of the students I interact with. The writing of this thesis had a profound impact on me as both student and academic. As student I had a journey of personal growth during engagement with participants' storytelling and narrative contributions. I could identify with the personal development and growth that they experienced through interaction with one another. At the same time, I viewed the process from the perspective of the educator, the one that is part of the participants' personal educational journeys. Although the effects and impacts were numerous, as student I experienced a consciousness of reaching a level of competence and assurance in the techniques and processes of qualitative research.

As educator I embedded the integrity of this research in my personal commitment to ethical teaching to engage with sensitivity in my interactions with the graduates from the past seven years of fashion studies. I often found myself evaluating my position and viewpoint and placed myself in the position of the participants (Dwyer & Buckle, 2009). This process was both demanding and emotionally taxing.

During the research process my aim was to discover to what extent participating graduates experienced a purposive growth in their own assumptions, beliefs, feelings and perspectives in order to mature in both their personal and intellectual abilities. I experienced remarks and comments such as *growth, self-improvement, self-confidence, support and encouragement* and *personal growth*. This feedback gave me a feeling of contentment and satisfaction. As educators we strive to support students to develop themselves to enter the world of work as positive and emotionally mature adults. Interacting with the research and learning landscape of transformative learning I became aware of the greater need for a sense of

community, discourse and sharing in our discipline. As an academic who contributes to curriculum development, the exploration into the different phases of transformative learning contributed to a new awareness of the importance of mindfulness in a curriculum.
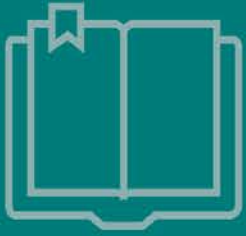
5.8 Conclusion

The research study has implications for future research. Understanding the journey of transformation's dynamic forces allows for considering how transformative learning could be otherwise conceptualised. Further exploration on how LAN may be experienced in other design educational settings is required. At the beginning of this study it was stated that there was no particular emphasis on cultural differences during the questioning, although the influences of cultural diversity and interaction were identified as strong indicators for successful transition into the work environment.

Furthermore, the focus on the role of the educator or lecturer came as affirmation. At a time of technological advances many published works depict the lecturer as becoming an "obsolete teaching tool" (Cohen, 2011:16). This study proved the opposite. The summation of the research confirms the influence that lecturers still hold in fashion design education. Although the result does suggest improvements on subject contribution, the contributions of the lecturer to the greater interpersonal nuances that appear in the class and studio settings were evident. Future curriculum design should be positioned in encompassing the head, hand and heart in a balanced way – particularly in the local context of multi-cultural settings.

These discoveries can contribute to the development of relevant and responsive fashion design curricula that contribute to the shaping of mindful graduates better prepared for the world of work. Thomas Merton contends the goal of education is for the student to define himself authentically and spontaneously in relation to his world (Baker, 2015:7).

A relevant, responsive fashion design curriculum ought to be developed that allows for flexibility and deals with uncertainty as an asset, not a threat. Such a curriculum will focus on social and cultural mindfulness and in this way, a contribution is made to the wider project of the decolonisation of education, more particularly, individualised education. A context-driven learning activity narrative, with emancipated work readiness as an outcome, may indeed kindle a flame and not only fill a vessel (Socrates).

Chapter 6

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Appendices

Appendix A - Learning Activity Survey

LEARNING ACTIVITIES SURVEY

LAS Format

This survey helps us learn about the experiences of adult learners. We believe that important things happen when adults learn new things. Only with your help can we learn more about this. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being part of this project; your cooperation is greatly appreciated.

1. Thinking about your educational experiences at this institution, check off any statements that may apply.
   - ☐ a. I had an experience that caused me to question the way I normally act.
   - ☐ b. I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)
   - ☐ c. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.
   - ☐ d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
   - ☐ e. I realized that other people also questioned their beliefs.
   - ☐ f. I thought about acting in a different way from my usual beliefs and roles.
   - ☐ g. I felt uncomfortable with traditional social expectations.
   - ☐ h. I tried out new roles so that I would become more comfortable or confident in them.
   - ☐ i. I tried to figure out a way to adopt these new ways of acting.
   - ☐ j. I gathered the information I needed to adopt these new ways of acting.
   - ☐ k. I began to think about the reactions and feedback from my new behavior.
   - ☐ l. I took action and adopted these new ways of acting.
   - ☐ m. I do not identify with any of the statements above.

2. Since you have been taking courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed?
   - ☐ Yes. *If "Yes," please go to question #3 and continue the survey.*
   - ☐ No. *If "No," please go to question #6 to continue the survey.*

3. Briefly describe what happened.

4. Which of the following influenced this change? (Check all that apply)

   Was it a person who influenced the change? ☐ Yes   ☐ No
   If "Yes," was it . . . (check all that apply)
   ☐ Another student's support   ☐ A challenge from your teacher
   ☐ Your classmates' support   ☐ Your teacher's support
   ☐ Your advisor's support   ☐ Other: _____

   Was it part of a class assignment that influenced the change?
   ☐ Yes   ☐ No
   If "Yes," what was it? (check all that apply)
   ☐ Class/group projects   ☐ Verbally discussing your concerns
   ☐ Writing about your concerns   ☐ Term papers/essays
   ☐ Personal journal   ☐ Self-evaluation in a course
   ☐ Nontraditional structure   ☐ Class activity/exercise
      of a course
   ☐ Internship or co-op   ☐ Lab experiences
   ☐ Deep, concentrated thought   ☐ Personal reflection
   ☐ Personal learning assessment   ☐ Assigned readings
      (PLA)
   ☐ Other: _____

   Was it a significant change in your life that influenced the change?
   ☐ Yes   ☐ No
   If "Yes," what was it? (check all that apply)
   ☐ Marriage   ☐ Change of job
   ☐ Birth/adoption of a child   ☐ Loss of job
   ☐ Moving   ☐ Retirement
   ☐ Divorce/separation   ☐ Other: _____
   ☐ Death of a loved one

5. Thinking back to when you first realized that your views or perspective had changed, what did your being in school have to do with the experience of change?

6. Would you characterize yourself as one who usually thinks back over previous decisions or past behavior? ☐ Yes ☐ No

Would you say that you frequently reflect upon the meaning of your studies for yourself, personally? ☐ Yes ☐ No

7. Which of the following have been part of your experience at this institution? (Please check all that apply.)
☐ Another student's support ☐ A challenge from your teacher
☐ Your classmates' support ☐ Your teacher's support
☐ Your advisor's support ☐ Other: _____
☐ Class/group projects ☐ Verbally discussing your concerns
☐ Writing about your concerns ☐ Term papers/essays
☐ Personal journal ☐ Self-evaluation in a course
☐ Nontraditional structure ☐ Class activity/exercise
  of a course
☐ Internship or co-op ☐ Lab experiences
☐ Deep, concentrated thought ☐ Personal reflection
☐ Personal learning assessment ☐ Assigned readings
  (PLA)
☐ Other: _____

Which of the following occurred while you have been taking courses at this institution?
☐ Marriage ☐ Change of job
☐ Birth/adoption of a child ☐ Loss of job
☐ Moving ☐ Retirement
☐ Divorce/separation ☐ Other: _____
☐ Death of a loved one

8. Sex: ☐ Male ☐ Female

9. Marital Status: ☐ Single ☐ Married ☐ Partner
   ☐ Divorced/separated ☐ Widowed

10. Race: ☐ White, non-Hispanic ☐ Black, non-Hispanic
    ☐ Other _____
    ☐ Hispanic ☐ Asian or Pacific Islander

11. Current major:
    - ☐ Allied Health
    - ☐ Business
    - ☐ Computer Science
    - ☐ English
    - ☐ General Arts/Liberal Studies
    - ☐ Nursing
    - ☐ Science/Engineering
    - ☐ Social Sciences (Education, Psychology, Sociology)
    - ☐ Other: _____

12. Prior education:
    - ☐ High school diploma/GED
    - ☐ Associates degree
    - ☐ Bachelors degree
    - ☐ Masters degree
    - ☐ Doctorate
    - ☐ Other: _____

13. How many semesters have you been enrolled at this institution? _____

14. Age: ☐ Below 21 ☐ 21–24 ☐ 25–29 ☐ 30–39
         ☐ 40–49 ☐ 50–59 ☐ 60–69 ☐ Over 70

Thank you for completing this questionnaire!

Appendix B – CPUT Personal Information Statement and Consent

FID/REC/ICv0.1

Cape Peninsula
University of Technology

<u>**FACULTY OF INFORMATICS AND DESIGN**</u>

<u>**Individual Consent for Research Participation**</u>

Title of the study:	Experiences of Transformative Learning in Fashion Design Education
Name of researcher:	Annadine Vlok (AG Vlok)
Contact details:	email: vloka@cput.ac.za phone: 0834401548
Name of supervisor:	Dr A Chisin
Contact details:	email: chisina@cput.ac.za phone: 021 460 3470

Purpose of the Study: The outcome of this research intends to guide fashion academics to strengthen their graduates' entrance position into the industry.

Participation: My participation will consist essentially of completing a questionnaire and if needed a possible interview.

Confidentiality: I have received assurance from the researcher that the information I will share will remain strictly confidential unless noted below. I understand that the contents will be used only for DTech Design and that my confidentiality will be protected by coding all results and if necessary use of pseudonyms.

Anonymity will be protected by the fact that all feedback will be coded and no individual names will be linked to answers.

Conservation of data: The data collected will be kept in a secure manner locked in a filing cabinet in the office of the researcher and on the premises of CPUT. The data will be kept for quality purposes for the length of 5 years where upon it will be destroyed.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will destroyed.

1

Additional consent: I make the following stipulations (please tick as appropriate):

	In thesis	In research publications	Both	Neither
My image may be used:				
My name may be used:				
My exact words may be used:				
Any other (stipulate):				

Acceptance: I,

agree to participate in the above research study conducted by AG Vlok of the Faculty of Informatics and Design, Design Department at the Cape Peninsula University of Technology, which research is under the supervision of Dr A Chisin.

If I have any questions about the study, I may contact the researcher or the supervisor. If I have any questions regarding the ethical conduct of this study, I may contact the secretary of the Faculty Research Ethics Committee at 021 469 1012, or email naidoove@cput.ac.za.

Participant's signature: Date:

Researcher's signature: Date:

2

Appendix C – Email from Dr King

Transformative learning in Cape Town request   Perso

Annadine Vlok <vlokag@gmail.com>
to kpking

Dear Dr King

I am a lecturer at the Cape Peninsula University of Technology

My topic is 'Experiences of Transformative Learning in Fashion [
the Evolving Research of Transformative Learning Based on the
your handbook.

I would like to ask you permission to use your survey in my res
my acknowledgements.

I look forward to your response.

Kind regards from a sunny Cape Town

---

drkpking@gmail.com
to me

I would be pleased for you to use the LAS survey and interview. Please r
Please let me see your final work!

Greetings from china..I am here Teaching this week.

Dr Kathy King

-
Thank you,

Dr. Kathleen P. King
Professor, Author, Coach & Keynote Speaker

Cell: 813.422.1451
Drkpking@gmail.com

Appendix D – Survey Questionnaire

Learning Activity Survey

Survey instructions

Thank you for your willingness to participate in my doctoral study.

Before you start, please read the instructions carefully.

This survey is part of my doctoral study on the experiences of graduate fashion design students at CPUT. It is important that you answer the questions truthfully and purely based on your experience related to your education at CPUT. Your responses will be anonymous and confidential.

By agreeing to participate you will also be asked for a follow-up half-hour interview. Please complete the interview sign-up form at the end of the survey and return it with your survey response to me.

The survey is in Word format so that you can complete it online. I have provided extra space for additional input in some of the questions.

I should like to thank you again for your participation. Feel free to contact me for any queries.

Kind regards

Annadine Vlok

Email: vlokag@gmail.com

| QUESTIONS | RESPONSES | 31 |

LEARNING ACTIVITIES SURVEY

This survey will provide detail about the transformative experiences of Fashion Design students at CPUT. This survey is completed on a voluntary basis. The survey will take approximately 30min to complete.
Your responses will be anonymous and confidential.
I believe that your feedback can assist and inform the future Fashion Design education curriculum.
Thank you for being part of this journey.

Section1: General reflection

Please answer this section with relation to your experiences and feeling whilst studying Fashion at University.

1. Reflect back at your educational experiences at CPUT, mark any statement that may apply. *

☐ I had an experience that caused me to question the way I normally act.

☐ I had an experience that caused me to question my ideas about social roles. (Examples of social role include what a mother or fat

☐ As I question my ideas, I realise I no longer agreed with my beliefs or role expectations.

☐ Or instead, as I question my ideas, I realise I still agree with my beliefs or role expectations.

☐ I realise that other people also question their beliefs.

☐ I thought about acting in a different way from my usual beliefs and roles.

☐ I felt uncomfortable with traditional social expectations.

☐ I tried out new roles so that I would become more comfortable or confident in them.

☐ I tried to figure out a way of adopting these new ways of acting.

☐ I began to think about the reactions and feedback from my new behaviour.

☐ I took action and adopt these new ways of acting.

☐ I do not identify with these statements above.

2.   Since you have been enrolled in Fashion Design at CPUT, do you believe you have *
experienced a time when you realised that your values, beliefs, or experiences have
changed?

Answer yes or no

1. Yes

2. No

3.   Briefly explain if you have answered yes in Question 2.

Long-answer text

4.   Would you characterise yourself as one who usually thinks back over previous *
decisions or past behaviour?

1. Yes

2. No

5.   Which of the following have been parts of your experience at CPUT? *

☐ Another student's support

☐ A challenge from your lecturer

☐ Your classmates support

☐ Your lecturer's support

for yourself personally?

1. Yes

2. No

7.   Which of the following have been parts of your experience at CPUT? *

☐ Class/Group project

☐ Verbally discussing your concerns

☐ Writing about your concerns

☐ Term essays

☐ Personal journal

☐ Self-evaluation in the course

☐ Non-traditional structure of the course

☐ Class activity or exercise

☐ Internship or industry visits

☐ Lab experiences

☐ Deep, concentrated thought

☐ Personal reflection

☐ Assignment reading

8. From your answers in question 7 list two experiences that you will rate as most   * influential in your development towards work life readiness

Short-answer text

9   Which of the following occurred happened during your studies at the university? *

- [ ] Moving

- [ ] Learning new cultures

- [ ] Marriage

- [ ] Death of a loved one

- [ ] Change of job

- [ ] Violence experience

10. I your opinion how did your University experiences both academic and social influence your ability to adapt into work life? Reflect on both academic and social in your response.   *

Long-answer text

11. Was there a person that influenced the change?

1. Yes

2. No

12. If your answer is YES in question 11, choose the applicable answers below.

- [ ] Another student

- [ ] A lecturer

- [ ] A class mate

13. Did part of class assignments or projects influenced change?

1. Yes

2. No

14. If question 13 was yes choose the applicable answers below

☐ Class/group projects

☐ Personal journal

☐ Writing about your concerns

☐ Term essays

☐ Verbally discussing your concerns

☐ Self evaluation in the course

☐ Non traditional structures of the course

☐ Class activity or excersize

☐ Internship or industry visit

☐ Lab experiences

☐ Deep concentrating throught

☐ Personal reflection

☐ Assignment reading

15. Which of the following subjects facilitated most personal change? *

1. Patternmaking

2. Garment construction

3. Design

4. Business

5. Design Theory

16. Was there any significant change in your personal life that influenced change? *

Choose the relevant answers

○ Moving

○ Having to learn new cultures

○ Marraige

○ Death of a loved one

○ Separation from a loved one

○ Loss of a job

○ Change of a job

○ Voilence experience

○ Other...

17. Think back to when you first realised that your view or perspective had changed, *
what did your being at University have to do with the experience or change?

Long-answer text

Section 2: Reflection on the Fashion course

Please relate your answers to what you have learnt at University as part of Fashion education.

18. Why did you decided to go to University? *

Please mark the 3 most relevant choices

☐ To study a course that really intrest me

☐ All my friend were going to university

☐ To train for a specific job

243

☐

☐ I enjoy learning and studying

☐ I not wanted to start working

☐ Other...

19. Why did you choose Fashion Design as your field of study *

☐ Reputation of the course

☐ Intrest in the subjets

☐ Wanted to get a particular job

☐ I wanted to get a wel paid job

☐ Advise from teachers

☐ Advise from family/friends

☐ Other...

20. Rate the usefulness and relevance of the following subjects: Pattern making *

	1	2	3	4	5	
Not very useful and relevant	○	○	○	○	○	Extremely useful and relevant

21. Rate the usefulness and relevance of: Garment construction *

	1	2	3	4	5	
Not very useful or relevant	○	○	○	○	○	Extremely useful and relevant

	1	2	3	4	5	
Not very useful and relevant	○	○	○	○	○	Extremely useful and relevant

23. Rate the usefulness and relevance of: Business *

	1	2	3	4	5	
Not very useful and relevant	○	○	○	○	○	Extremely useful and relevant

24. Rate the usefulness and relevance of: Design history *

	1	2	3	4	5	
Not very useful and relevant	○	○	○	○	○	Extremely useful and relevant

25. Rate the usefulness and relevance of: Textiles/Materials *

	1	2	3	4	5	
Not very useful and relevant	○	○	○	○	○	Extremely useful and relevant

26. How comprehensive was Philosophy addressed in your studies? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Comprehensively

27. How comprehensive was Innovation of technology addressed in your studies? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Comprehensively

28. How comprehensive was Ethical considerations in design addressed in your studies? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Comprehensively

29. How comprehensive was Sensitivity towards cultural differences addressed in your studies? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Comprehensively

30. How comprehensive was Environmental issues addressed in your studies? *

	1	2	3	4	5	
Not at all	○	○	○	○	○	Comprehensively

31. Describe the short comings you identified to make this course more industry ready? *

Long-answer text

Section 3: Personal input

This section will inform general personal background

32. You are male or female? *

1. Male

2. Female

1. Single

2. Married

3. Partnered

4. Separated/Divorced

34. Race *

1. Asian

2. Black

3. Coloured

4. Indian

5. White

6. Other

35.Prior education before enrolling to Fashion *

⭘ High shool

⭘ Certificate

⭘ Diploma

⭘ Other...

36. Over how many years did you complete this degree? *

1. 4years

2. 5years

3. more

37. Current Age *

1. Below 21

2. 21-24

3. 25-29

4. 29-34

5. older

38. Where did you live during the time of your studies? *

1. Parents home

2. Shared flat/house

3. Residence

4. Other

39. Rate the education of your father. *

1. Do not know

2. Standard 8/Grade10

3. Matric

4. Certificate post school

5. Diploma post school

6. University Degree at Age 18-24

7. University Degree older than 24

40. Rate the education of your mother. *

2. Std. 8/Grade 10

3. Matric

4. Certificate post school

5. Diploma post school

6. University degree at Age 18-24

7. University degree older than 24

41. Rate the higher education of your brother/sister. *

1. Do not know

2. Standard 8/Grade 10

3. Matric

4. Certificate post school

5. Diploma post school

6. University degree at Age 18-24

7. University degree older than 24

42. Are you currently employed *

◯ Yes

◯ No

43. Your current occupation. *

1. Design: retail

2. Design: manufacture

4. Buyer: retail

5. Buyer: manufaturer

6. Independent designer with own label

7. Garment technologist

8. Quality

44. What is/was your father's last occupation? *

Short-answer text

45. What is/was your mother's last occupation? *

Short-answer text

Appendix E – Follow-up interview questionnaire

The Learning Activities Survey Follow-up

Interview Questions

FOLLOW-UP INTERVIEW QUESTIONS

Name   Date

Year of graduation   Place

This interview is part of research that included the survey you took. The research is about the experiences of transformative learning. I believe that important things happen when graduates re-enter the fashion programme on the BTech level and learn new things. Only with your help can we learn more about this. The interview should only take half an hour to complete, and your responses will be anonymous. Thank you in advance for being part of this project; your cooperation is greatly appreciated.

The interview questions are designed to gather further information about the topics covered in the original survey, so some of them may sound familiar to you.

1. Thinking back over your education, have you experienced a time when you realized that your values, beliefs or expectations had changed?

2. Briefly describe that experience:

3. Do you know what triggered it? If so, please explain

4. Which of the following influenced this change? (Check all that apply)

a. Was it a person who influenced the change?   Yes / No

b. If "Yes," was it . . .

Another student's support

Your classmates' support

A challenge from your teacher

Your teacher's support

Your advisor's support

Other:

c. Was it part of a class assignment that influenced the change?

Yes /   No

d. If "Yes," what was it?

Class/group projects

Writing about your concerns

Personal self-reflection

Classroom discussions/dialogues

Mentoring

Assigned readings

2

Personal learning assessment (PLA)

Term Papers/Essays

Verbally discussing your concerns

Self-evaluation in a course

Class activity/exercise Lab experiences

Other:

e. Or was it a significant change in your life that influenced the change?

Yes / No

f. If "Yes," what was it?

Marriage

Loss of a job

Moving Divorce/separation

Death of a loved one

Change of job

Addition of a child

Retirement

Other:

g.   Perhaps it was something else that influenced the change:

3

5. Describe how any of the above educational experiences influenced the change

6. What could have been differently in the classes to have helped this change?

What specific activities?

7. Thinking back to when you first realized that your views or perspective had changed:

   a. When did you first realize this change had happened? Was it while it was happening, mid-change, or once it had entirely happened (retrospective)?

   b. What made you aware that this change had happened?

4

c. What did your being in school have to do with it?

d. What did you do about it?

e. How did/do you feel about the change?

8. Do you have any questions?

Interviewer comments:

5

Appendix F – Emails of consent from graduates

M Gmail   Annadine Vlok <vlokag@gmail.com>

Doctors - BTech alumni
2 messages

Tamsyn Johannisen <tamcjohannisen@gmail.com>   7 April 2015 at 16:38
To: vlokag@gmail.com

Hi Annadine

I am very keen to assist in whichever way I can.

Kind Regards
Tamsyn

Annadine Vlok <vlokag@gmail.com>   7 April 2015 at 16:45
To: Tamsyn Johannisen <tamcjohannisen@gmail.com>

Dear Tamsyn

Thank you very much for your willingness to help.

I will email you shortly with more details.

Kind regards
Annadine

[Quoted text hidden]

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Annadine Vlok
083 440 1548

Gmail

Annadine Vlok <vlokag@gmail.com>

(no subject)
1 message

Lukhanyo Mdingi <llmmdingi@gmail.com>   7 April 2015 at 18:44
To: Annadine Vlok <vlokag@gmail.com>

Hello !

How are you !??

I got your email and I'm more than happy to help you in any way :)

Lukhanyo

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Sent from Gmail Mobile