The impact of a communications intervention on Engineering students (Extended Curriculum Programme) at Cape Peninsula University of Technology

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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and has not in its entirety, or part, been submitted at any university for a degree.

------------------------------------   30 November 2010

Marie-Anne Ogle

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> **'In everyone's life, at some time, our inner fire goes out. It is then burst into flame by an encounter with another human being. We should all be thankful for those people who rekindle the inner spirit.'**
>
> (Albert Schweitzer)

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ABSTRACT

Many students in my Communication Skills class, especially those from rural areas, who had passed their Grade 12 English examination, were unable to express themselves competently, and as a result, they lacked the self-esteem and confidence to express their abilities. It has now been recognised that students are in need of a strong foundation that will bridge the gap from school to university and will allow them to cope with any situation within the workplace. The accent has changed from memorising factual knowledge, to acquiring literacy skills needed in everyday living and the world of work. It has become necessary to find a suitable means of helping these students to cope linguistically.

This study uses grounded theory to focus on whether an intervention based on a natural approach to acquiring a language, could improve students' oral and written skills as well as their confidence. Enthusiasm and the development of a love for language and an 'I-can-do-it' attitude were promoted instead of the traditional language exercises. Reading for enjoyment, participation and speaking out were encouraged – all underpinned by respect.

The results of an oral presentation, a written essay and an interview with each candidate were analysed at the start of the seven-month intervention programme. A post-test of the three procedures was done to gauge change.

An increase in both oral presentation marks and written work was also noted at the end of the intervention period. Themes such as confidence, learning to work with different people and understanding their ideas, an introduction to other cultures, tolerance and respect emerged. All these themes are part of the 'envisaged learner' in the Department of Education's National Curriculum Statement Grades R – 9. The results have guided the development of a prototype intervention, which is central to

the concept of self-esteem as a path for future literacy development in school and post-school education. Bolstering this sense of self-esteem is the key to working with new learners of English in the tertiary context.

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ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Explanation
CPUT	Cape Peninsula University of Technology
ECP	Extended Curriculum Programme
English FAL	English First Additional Language
DoE	Department of Education
HESA	Higher Education South Africa
NBT	National Benchmark Testing
NCS	National Curriculum Statement
FP	Foundation Programme, now known as Extended Curriculum Programme
HE	Higher Education
WCED	Western Cape Education Department

CHAPTER 1 - INTRODUCTION

In 2008, the Department of Education (DoE) released the following figures for the results of the National Senior Certificate (NSC) for English First Additional Language (FAL):

> **Of the 464 179 students that wrote the examination, 438 822 achieved 30%, 327 335 achieved 40% and 24 988 did not pass.**

> (DoE, 2009:13)

These figures show that the pass rate for Grade 12 English FAL is 30%. This means that while 438 822 of the total number of students passed the examination, only

327 335 of this number achieved 40% or more. A report by Keeton (2010:4) adds to this picture:

> **The numbers suggest that every learner does English for NSC, which is a good start as it is the language in which most learners are taught, making communication – written and verbal – a key life skill for all. Almost all learners who take it pass English FAL, but only some 72% do so at the 40% level. This is also a reason why performance in other mainstream subjects remains stubbornly low.**

These figures suggest that many South African learners are experiencing problems with their written and verbal skills that affect all their other subjects. Many matriculation students coming into the Cape Peninsula University of Technology (CPUT) experience learning problems, as the ability to express themselves as students is crucial to any student.

This present study was conducted in 2007 as a strategy to provide remedial language

support for Engineering Extended Course Programme (ECP) students who needed to cope with the demands of academic literacy in order to be able to communicate their engineering knowledge to the best of their ability. The intervention will primarily attempt to help students to look at their basic linguistic skills and then progressively give them the confidence to approach the requirements of academic literacy. This intervention focuses only on language at the primary discourse level, which is everyday conversational interaction and no specialized knowledge or language is required. It is also referred to as home discourse and provides a framework for acquisition of secondary discourses. Gee (1989:7-9) posits that the acquisition of language can be compared to primary discourse where humans learn to make sense of the world and interact with others. Gee further believes that primary discourse can differ culturally, ethnically, racially and economically. Secondary discourse would entail specialist discourses such as academic discourses, which require expert knowledge and the ability to produce and comprehend.

Winberg (2008:356) adds that engineering and higher education studies need to find successful ways 'to identify, explore and negotiate their differences' as students are different as to the way they learn, the knowledge produced and their values regarding knowledge.

This study evaluated a natural approach intervention aimed specifically at improving the communication skills of engineering students on the ECP at CPUT Cape Town campus, by using grounded theory, social culturalism and reflective practice as vehicles for value-added and transformational learning.

This chapter also discusses:

- the origin and background of the study;
- importance of the problem;
- context of the study; and
- approach, purpose and goals of the study.

 It also introduces:

- the research question to be answered;
- clarification of terms;

- the significance of the study;
- limitations; and finally
- the assumptions of the study.

1.1 ORIGIN AND BACKGROUND

The overall 2009 NSC results, as shown on PowerPoint slide 22 as part of a presentation by UMALUSI (2010), confirm that there is a deep crisis in South African education. The annual drop in the pass rate illustrates a problematic trend for the South African education system.

Table 1.1 Senior Certificate examination results and Higher Education (HE) from 2004 - 2009

Senior Certificate examination results and HE

Senior Certificate examination results, all schools, 1994-2009

Year	No. of Candidates	Passes		University Exemption	
		Number	Rate (%)	Number	Rate (%)
2004	467 985	330 717	71	85 117	18
2005	508 363	347 184	68	86 531	17
2006	528 525	351 503	66	85 830	16
2007	564 775	368 217	65	85 454	15
2008	533 561	333 604	63	107 642	20
2009	552 073	334 718	60	109 697	20

UMALUSI — Council for Quality Assurance in General and Further Education and Training

Sources: DoE, 2004, 2005a, 2005b, 2005c, 2007, 2008, 2009

The pass rate for matriculants writing the NSC has declined steadily from 71% in 2004 to 60% in 2009. This decrease indicates that South Africa has a problem regarding the system of education in our schools.

In August 2009, Higher Education South Africa (HESA) chairman, Professor Theuns Eloff, confirmed this information when he informed parliament's higher education committee that most first-year students could not adequately read, write or comprehend. Universities that conduct regular competency tests have reported a drop in standards. In particular, black students who formed 63% of the original enrolment, had a dropout rate of 50% while only 33% obtained their degrees within five years. HESA felt that South Africa's school system is failing its students and that universities will have to repair the 'growing proficiency gaps' (MacGregor, 2009:1).

In 2005 Nan Yeld, Dean of the Centre for Higher Education Development (CHED) at the University of Cape Town (UCT), was commissioned by HESA to establish the National Benchmark Tests (NBT) projects which would assess the entry-level literacy and mathematics proficiency of students. This would investigate the relationship between university entry requirements and school exit outcomes. The NBT consisted of an Academic and Quantitative Literacy test and those students who intended taking a course requiring Mathematics, were expected to write a Mathematics test as well.

Table 1.2 illustrates the Benchmark Descriptors and Recommendations, which underpinned the tests for the literacy tests and described the criteria set for Grade 12 students wanting to enter universities:

Table 1.2 Benchmark Descriptors for Proficient, Intermediate and Basic criteria for National Benchmark Testing

	Description of benchmark category		
	Assessment of required institutional response	**ACADEMIC LITERACY**	**QUANTITATIVE LITERACY**
PROFICIENT	Performance in domain areas suggests that academic performance will not be adversely affected. If admitted, students may be placed into regular programmes of study.	**Grade 12 students at the *Proficient* level should be able to:** Select and use a complex range of vocabulary; understand and interpret non-literal language; understand and critically evaluate the structure and organisation of texts and ideas within these texts; evaluate and use a complex range of different text genres; develop academic arguments; evaluate and interpret the evidence for claims.	**Writers at the *Proficient* level should be able to:** Select and use a range of quantitative terms and phrases; apply quantitative procedures in various situations; formulate and apply complex formulae; read and interpret complex tables, graphs, charts and text and integrate information from different sources; do advanced calculations involving multiple steps accurately; identify trends/patterns in various situations; reason logically and competently interpret quantitative information.
INTERMEDIATE	The challenges in domain areas identified are such that it is predicted that academic progress will be affected. If admitted, students' educational needs should be met as deemed appropriate by the institution (for example, extended or augmented programmes, special skills provision).	**Grade 12 students at the Intermediate level should be able to:** Derive word-meanings from context; recognise non-literal language; recognise the fundamental structural and organisational characteristics of texts; recognise and be able to use a specific range of text genres; understand difference between academic and everyday arguments; make conclusions on the basis of evidence given for claims	**Writers performing at the *Intermediate* level should be able to:** Select and use many quantitative terms and phrases; apply known quantitative procedures in familiar situations; formulate and apply simple formulae; read and interpret moderately simple tables, graphs, charts and text ; do routine calculations accurately most of the time; identify trends/patterns in familiar situations; reason moderately in simple situations.

		Grade 12 students at the Basic level should be able to :	Writers performing at the *Basic* level should be able to:
BASIC	Serious learning challenges identified: it is predicted that students will not cope with degree-level study without extensive and long-term support, perhaps best provided through bridging programmes (namely, non-credit preparatory courses) or FET provision. Institutions admitting students performing at this level would need to provide such support themselves.	Cope with a limited range of vocabulary; summarise key ideas related to the organisational structure of texts; recognise that texts have different purposes; understand the fundamental syntactical features of English language; interpret textually explicit information	Select and use some basic quantitative terms and phrases; apply some known quantitative procedures partially correctly in familiar situations; formulate or apply simple formulae; interpret simple tables, graphs, charts and text ; sometimes do simple calculations correctly; identify trends/patterns in familiar situations.

(National Benchmark Tests. n.d.)

The three categories in this table indicate that only those students on a proficient level regarding academic literacy will not need extra language assistance. These NBT results can be used to help interpret NCS results and help institutions to place their incoming students onto appropriate curriculum routes. The results of the NCS examination (2009) on page 1 indicate that many students would fall into the second and third categories in which they either are in need of help or will be unable to cope.

Kloot, Case and Marshall (2008:800) explain that in order to assist students who are struggling, the DoE set aside over R100 million in 2006 for Foundation or ECP, which were initially defined as 'special programmes for students whose prior learning has been adversely affected by educational or social inequalities.' Kloot et al (2008) further state that universities were required to create their own ECP programmes. Proposals for these programmes were considered for funding by the DoE if they showed signs of extending the duration of courses and if additional teaching would take place. ECP programmes created and funded by 2007 were required to meet only the most basic criterion: 'more time, more tuition' (Kloot et al, 2008).

CPUT had already established its first Engineering ECP class, initially known as Foundation Engineering Provision (FEP) in 2005, when they responded to calls made by the Minister of Higher Education for more learners from poor backgrounds to gain admission to universities. During 2005 and 2006, the ECP course at CPUT consisted of one year and the students received an S1 qualification (a credit-bearing module done over a semester period of 6 months). The following year they joined the mainstream to do S2 (the second six-month credit-bearing module). In 2007, it was decided to extend ECP to a two-year course. The students then received an S2 qualification after their second year and joined mainstream doing S3 and S4 in their third year. Initially the ECP course on the Cape Town campus, as opposed to the Bellville campus of CPUT, consisted of a team that served the Civil, Mechanical, Electrical and Chemical Engineering departments.

Communication Skills formed one of the required modules for their engineering qualifications. My responsibility as the Communications lecturer for the engineering ECP students, was to help them develop the linguistic requirements of their academic subjects and to prepare them linguistically for the world of industry.

This included report writing and oral presentations amongst other business skills. A copy of the syllabus has been included as Appendix 1 on page 153 The ECP students were required to complete the same subjects as the mainstream but the basic criterion of 'more time, more tuition' applied. This allowed time for the intervention to attempt to give students confidence regarding their basic language skills before attempting the requirements of engineering jargon. I was particularly interested in seeing what the effect was of trying a method other than the traditional grammar method at this stage of the students' learning. Most students had already learnt many of the grammar rules at school and could naturally use them to monitor their speech.

1.2   IMPORTANCE OF THE STUDY

As the importance of Communication Skills is being recognised as key skills for every subject, the module has become a credit-bearing subject on many courses, such as engineering, business science and medical science. All students are required to pass

this English module as it is the official language of instruction at CPUT. While I maintain multilingualism is beneficial, especially in South Africa where knowledge of regional languages, like Xhosa and Afrikaans in the Western Cape, is so advantageous, the course is restricted to English. I was required to teach in English at the three local universities that I taught Communication Skills, as English has become the global business language. In South African schools, learners are required to start studying English in Grade 4 as either a home language or an additional language (Howie, Venter and van Staden, 2008:551).

The growth of English as the international business language has made students more aware of its importance and many students have now become eager to empower themselves. A Xhosa student doing an interview regarding the importance of English made the following comment: 'You can't speak Xhosa with Clinton, the president of the STATES' (Vesely, 2000:14). This is supported by their parents who argue that the ability to speak English will offer their children many more opportunities (Vesely, 2000:10). A study by Chetty and Mwepu (2008:334) reinforces the use of English as a neutral language and as the possible answer to a sensitive situation where different ethnic groups speak different languages.

As the use of technology has now made the world much more accessible, it is important that learners can confidently use whatever English skills they have to join in with self-assurance.

1.3   CONTEXT OF THE STUDY

In 2005, when I was part of a lecturing panel that interviewed ECP students, their poor communication skills were obvious. Many students, especially those from rural areas, who had passed their Grade 12 English examination, found it difficult to express themselves competently. Hence, it became necessary for me to find an appropriate solution to this problem.

Many of my ECP students came from cultures where little or no English was spoken at home. Vesely (2000:46) states that only 6% of her 551 students that she interviewed during her study in Cape Town said that they heard English spoken in their communities. This meant that they were not able to practise the English language frequently and found themselves in a situation whereby they were linguistically disadvantaged when they arrived at university. In addition to speaking with difficulty, students within one lecture venue presented very different levels of comprehension and interest in the subject of Communication Skills. In 2005, 78% of my Engineering ECP class at CPUT came from a non-English speaking background. The rest of the class consisted of first language English speakers, all at differing levels of language competency with varying degrees of interest in language matters. All these learners then received engineering tuition in English.

My role in their engineering course was to teach them the basics of Communication Skills that would help them to develop as well-rounded engineers, who could read, write, listen and speak to the best of their ability in the academic and professional world. However, before I could teach my students the requirements of the syllabus in Appendix 1 on page 153, it was necessary to ascertain the degree of their language ability. This would enable me to decide how I could offer them the extra remedial language support they needed, in a meaningful manner. They became part of a seven-month guided intervention programme in their first year at CPUT. On completion of the intervention, they were asked to evaluate it and say whether it had been beneficial to them. They expressed what they had experienced, and discussed their communication skills development.

It is important to clarify that the intervention started as a remedial attempt to improve the students' confidence when standing in front of an audience as they had lacked the opportunity to practice speaking English. The intervention started purely as a discussion class to build confidence in speaking. For the sake of the students' enjoyment, I chose not to do grammar classes at that stage, but rather to focus on motivating them regarding their speaking. The interest the students generated, made me become interested in exploring further possible areas of development. This led to an exploration

of the influence of socio-culturalism in which Freire (1970:69) posits that participants taking part in discussions can compare their lives to those of others and learn from these experiences.

Part of the decision on how to approach the intervention would then mean that I had to decide between teaching grammar versus the Natural Approach to learning a language. In the Natural Approach to language, a learner develops the ability to use a language by using it in natural, communicative situations as opposed to learning the rules of language. The Natural Approach is further explained in the Clarification of Terms in this chapter and more extensively in Chapter 2. Initially I found myself reluctant to take the 90 minutes per week of free time allotted to students in an extremely full timetable, to do written language exercises with them. As an ex-language teacher, I have learnt from experience that such exercises; over such a short period per week do not provide much help in stimulating and motivating students to acquire language skills. I needed an alternative form of language support that would both stimulate and motivate them and then allow them to find the confidence and skills that would help them to handle any situation within their engineering fields and as human beings.

At the start of the intervention, the Natural Approach for me would involve an intervention to improve their speaking skills. In this intervention, students and lecturers could form a relationship based on empathy and respect, which acknowledged that both parties could learn from engaging with each other (Freire, 1970:69). This meant that the intervention would be dynamic as students and lecturers shared knowledge. The resultant success of discussions in a safe environment could also encourage motivation for use of the language outside of the classroom.

As a Communication Skills lecturer, I faced three predominant problems with engineering students:

    1.3.1   a negative attitude towards soft skills;

    1.3.2   different levels of communication skills within one classroom; and

    1.3.3   multi-cultural diversity.

1.3.1 Attitudes towards communication skills

According to Jawitz and Case (1998:239) South African students at the University of Cape Town, University of Stellenbosch and the former Peninsula Technikon (now the Cape Peninsula University of Technology) study engineering for a number of reasons:

- good Mathematics and Science results at school indicate that they should choose a technical subject;

- students enjoy research and problem-solving;

- students from disadvantaged communities have been encouraged by parents or teachers to study engineering as a means of serving their communities;

- they argue that engineering promises a good income; and

- they find that past experiences, such as scientific hobbies, indicate that they should be studying engineering.

None of these reasons indicate an understanding that they will need to be fully rounded human beings as engineers and will need soft skills such as Communication Skills to accomplish this.

At the beginning of the year, whatever their reason for choosing engineering, the first-year students were initially overwhelmingly negative and even hostile to learn that Communication Skills was a subject required for their course. In response to a question I asked in the opening lecture of the year, not a single student had realised that Communication Skills would be a subject required by the curriculum or had heard of the Washington Accord. The Washington Accord (Hanrahan n.d) is an agreement signed by South Africa that states that one module of an engineering degree should be devoted to Communication, Teamwork and Ethics. In the same three universities mentioned above, students, amidst sighs of disapproval, initially interpreted the content of Communication Skills as being grammar. When it was explained that they would be dealing with skills required by industry, their attitude improved.

1.3.2 Differing levels of Communication Skills

The different languages used by South African people of mixed cultural backgrounds

presented further problems as English is used as the international language of industry, allowing communication with countries outside South Africa. However, there is still a wide disparity in the level of English understood in the classroom. Teachers need to cope in the same classroom with students who have attended private schools, ex-Model C schools, previously disadvantaged schools as well as foreign students.

After a report on the senior certificate in 2004 they had the following to say about English FAL and mother-tongue instruction:

> **It is imperative that the Department of Education pay special attention to the position occupied by English Second Language in the school curriculum. A national strategy is required that addresses the issues of curriculum and teacher preparation. This is one problem that will not go away with the introduction of a new curriculum.**
>
> (Umalusi, 2004:9).

According to this report, the teaching of English First Additional Language or Second Language, as it was known, remains a problem that will need thorough consideration. In addition to this, the Umalusi panel discussing the national senior certificate results had the following to say about English second-language learner disadvantage:

> **The statistical analysis revealed that the competency levels of the compensation candidates in the second language have not improved over the last seven years, since they are achieving lower results than their peers in other subjects. Overall, their results are significantly lower than other candidates even with compensation. The content of the English Second/Additional Language curriculum, together with assessment practices at the NSC level for the subject are singularly inappropriate for preparing students for the study of other subjects. Cognitive and proficiency levels are low.**
>
> (Umalusi, 2004:8)

Again, a gloomy picture of English second-language learners was painted by the panel.

1.3.3 Multi-cultural diversity

To compound the difficulties for South African students, there is also a wide range of cultures that follow different patterns of behaviour according to their beliefs and traditions. This implies that unless students are encouraged to research the other national cultures, they may not understand the reasons for behaviour within a work force that consists of many ethnic groups (Grandin, 1988:7). Potential employees in industry need time and exposure to one another's thoughts to enable them to realise how behaviour may differ and why people may think as they do.

1.4   APPROACH TO THE STUDY

During the past twelve years, I have taught Communication Skills to engineers at three local universities. During this time I encountered many students I believed would be very capable in industry, but who struggled to pass because of their linguistic skills. I formed the impression that many students were reluctant to speak in public, as many people are, or to write documents as they had been criticised at school and lacked confidence at this level. This had now become an obstacle to their academic careers. The focus of my teaching has been to help them acquire language skills as well as the self-esteem they needed to address their problems.

This study will also not deal with the issue of students receiving tuition in their home language, as I believe this to be a very important study within itself. I will concentrate on the fact that, as English is the international language and the language of instruction at CPUT, students will need to speak English and it is within my capacity as a communication lecturer to find methods to help them.

There have been many interventions to help learners, as teachers are acknowledging that being able to use English is very important. However, most of the remedial interventions I have encountered are based on the teaching of grammar. In this intervention, I was concerned with the actual ability to use the language orally. Students needed to realise that communication did not rest on the correct use of a preposition or

pronoun. It lay in getting the message across with confidence and self- esteem.

According to thirteen out of my fifteen respondents, they had reached tertiary level without ever having been taught the skills of how to do an oral presentation while at school, or without actually having done an oral presentation. According to the students, as school pupils, they were given the presentation subjects and asked to prepare for a specific date but were not trained how to deliver the presentation. This had left them anxious and insecure about doing their oral presentations. I felt that if I could address this lack of knowledge and confidence, they would be able to approach and cope with any similar communicative situation.

In addition to these factors, the outcomes of the intervention concurred with the critical and developmental outcomes required by the National Curriculum for English FAL Grade 12 (DoE, 2003:10) as below.

The Critical Outcomes require learners to be able to:

- **identify and solve problems and make decisions using critical and creative thinking;**
- **work effectively with others as members of a team, group, organisation and community;**
- **organise and manage themselves and their activities responsibly and effectively;**
- **collect, analyse, organise and critically evaluate information;**
- **communicate effectively using visual, symbolic and/or language skills in various modes;**
- **demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.**

The Developmental Outcomes require learners to be able to:

- **reflect on and explore a variety of strategies to learn more effectively;**

- **participate as responsible citizens in the life of local, national and global communities;**

- **be culturally and aesthetically sensitive across a range of social contexts;**

- **explore education and career opportunities; and**

- **develop entrepreneurial opportunities.**

I was therefore guided by these outcomes, as the DoE require them for Grade 12. The DoE further requires that teachers are aware of the 'envisaged learner' as stipulated by the DoE (DoE, 2003:12):

> **The curriculum aims to develop the full potential of each learner as a citizen of a democratic South Africa. It seeks to create a lifelong learner who is confident and independent, literate, numerate and multi-skilled, compassionate, with a respect for the environment and the ability to participate in society as a critical and active citizen.**

The intervention was further endorsed by meeting all the requirements of the Grade 12 syllabus. These stated that learners should be acquainted with the different forms of oral communication so that they could use it for social purposes such as learning, sharing new ideas or experiences, defending positions, making spontaneous responses, telling stories or reading aloud. Learners should be able to start and be familiar with all the nuances of holding conversations, giving accurate instructions and directions. They should also be able to express their own ideas and listen to and respect those of others when talking about a range of issues such as environmental, ethical, socio-cultural and human rights issues. Finally, they should be able to introduce or thank speakers, apply interview skills and report on findings. For this purpose, the intervention encouraged the participants to bring their own topics so that students could meet their peers in discussion which was valid for them.

I concur with Krashen and Terrell (1983:25) that it is never too late to learn a language and even more so, to acquire the self-esteem that students need.

1.5   PURPOSE OF THIS STUDY

As the level of pass rates continues to drop for students as indicated in Table 1.1 on page 3, it is important for teachers to find methods of teaching that will reach the students and encourage them to learn English by themselves. Learning a language can never be regarded as a task completed, as there are so many new factors developing all the time. In order to motivate the learners, one needs to form an understanding of how these learners perceive their world and be able to reach out to this situation. The days of 'banking education' in which a teacher 'deposits the information into learners' minds like a gift' are over (Freire, 1970:53).

Just as the pass rate for NSC students is steadily declining, the importance of English as the language of business, industry and academia is steadily growing and it is necessary to find the best means of language support that will provide students with the knowledge to improve their lives. My goal is to find the best way to reach students who are struggling and design a programme that will help them to become more confident, motivate them and encourage them to help themselves to learn English.

1.6   RESEARCH QUESTIONS

My search for answers to the following questions guided my study.

1.6.1 Key focus question

The key focus question over-arching the current research investigation is as follows:

> **What impact did a communications intervention have on the Engineering students (Extended Curriculum Programme) of the Cape Peninsula University of Technology?**

1.6.2 Sub-questions

Each of the ensuing sub-questions formed a major category of the findings and they were addressed by the progressive presentation of the stages of the intervention.

1.6.1.1 What impact did the intervention have on the written work of the students?

1.6.1.2 What impact did the intervention have on the oral presentations of the students?

1.6.1.3 What did the interviews reveal about the students?

1.7 CLARIFICATION OF TERMS

The following are explanations of terms offering background information, which will aid the reading of this thesis.

1.7.1 Extended Course

The CPUT Engineering Extended Curriculum has existed since 2005 on both the Cape Town and Bellville campuses. As I am based on the Cape Town campus, I have included the engineering students on this campus for the purposes of this study. The course, initially known as the Foundation course, was created to assist previously-disadvantaged students. Students who qualified were those who needed better Mathematics and Science marks; who had been out of contact with the academic world or who wanted to use the extra time offered to ensure that they completed their first year successfully as the failure rate for first year students changing from school to university is very high internationally. The course was not meant to be a 'bridging' course as students were expected to complete the same subjects with the same criteria for passing as the mainstream students. However, they did so over an extended period.

1.7.2 UMALUSI

'UMALUSI' meaning 'shepherd' in the Nguni language, is the council ensuring the protection of standards of South African education for the National Qualifications Framework (NQF). It has to ensure that educators and educational institutions can provide the information and training that they are offering. This quality assurance

council clarifies goals, motivates individuals, demands good practices and promotes thoughtfulness about what is important in South African education. This new South African body of education, training and development has represented all the people of this country since 2001. In particular its duties are:

- **developing levels of literacy and numeracy;**

- **meeting educational targets;**

- **raising standards in provision;**

- **linking as accessing higher education;**

- **preparing for the labour market; and**

- **improving social and economic development.**

(Umalusi, 2004)

1.7.3 The Natural Approach to learning a language

Krashen and Terrell (1983:26-27) claim that real language acquisition does not rely on drilling grammar rules. Real language acquisition happens slowly and without stress when students receive input that they consider it important to them, that they can understand and respond to when they are ready. Motivation and self-confidence and anxiety are all important when someone is trying to learn a language. This implies that students should not be corrected directly but allowed to absorb a correction by listening. If a learner really wishes to know more about a language, they may, of course, ask about rules.

Krashen and Terrell (1983:27) expand on this theory by stating that initially the classroom may be better for learners to build their confidence and prepare them for the real world. However, the goal in the classroom is only to prepare learners to use what they have learnt there, in the outside world. The role of conversation is that 1) speaking produces comprehensible levels of input and 2) that native speakers will be able to adjust their input to the level of the learner. Comprehensible input relies on common vocabulary, less slang and shorter sentences. Krashen's model of second language acquisition and critique thereof, are examined in more detail in Chapter 2 in the Literature Review.

1.7.4 Multicultural Diversity

Leidman and Wiggins (2010:56) define 'multiculturalism' as a social group that contains different ethnic, religious and family structures, which are, also gender inclusive. South African institutions are faced with the social, educational, gender, disability, cultural, linguistic, religious and racial diversity that South African society reflects. Since the first democratic election in 1994, the South African government has promised to establish a 'non-racial society based on a constitution that embodies equal rights for every person' (Norris, 2000:1). In order to offer decent education for all our people, it is necessary to accept that there are different attitudes, beliefs, values and behaviours from the eleven different South African cultures, as well as foreigners living in the country. Educators also have to realize that their own standards may not necessarily be the norm in a classroom (Carignan, Pourdavood, King & Feza, 2005:381-383). To date the approach of institutions has been to view the diversity in the context of a transformational process, whether this is in the form of student access and support, lecturer recruitment, academic programme development, research or scholarships (Cross, 2004:387).

1.7.5 The term 'student' versus 'learner'

Wherever possible, I have used the term 'student' to refer to people studying at university, while the term 'learner' refers to students, school pupils and learners in general. There are a few cases where the two terms will overlap and the term 'learner' will then cover everybody.

1.8   LIMITATIONS OF THE STUDY

The limitations I experienced during the study included:

1.8.1   Nature of the groups involved

An initial sampling included students whose language results, according to my diagnostic tests, were very strong, average and those who needed attention.

However, the groups that presented naturally in the intervention programme were

- students from an English home language background or those who had attended Model C schools;
- students from outside South Africa who were facing English as a new, second or third language; and
- South African students from previously-disadvantaged backgrounds.

Five students from each of these groups were chosen.

1.8.2   Attitudes of students 'chosen' and 'not chosen'

Many students were acutely aware that they lacked the confidence to speak in front of an audience and were insistent that they all be given a chance to be part of the sample chosen. It was necessary to explain that all students could attend the intervention but only the results of fifteen students would be taken into consideration. This was a distinct disadvantage for two reasons:

- students appeared to observe that the 'chosen' group were the elite and they themselves were not; and
- this attitude led to the irregular attendance of the 'not chosen' group.

1.8.3 Size of the Intervention Programme class

Two consecutive periods of 45 minutes were allocated to the intervention by the Head of Department. All the students on the Engineering Extended Curriculum programme attended the first five sessions. As it was not my policy to turn any students wanting help away initially, it was only possible to make limited contact, as this time did not allow the large number of students to speak. This was a critical part of the structure of the intervention programme. I found that between twenty and thirty students allowed everyone a chance to talk at least once per session. The high numbers (90) meant that the personal contact among the students was lost.

1.9   ORGANIZATION OF THIS THESIS

Chapter 1 is the opening chapter in which the origin and background of the study, its importance, context, approach and purpose are stated. The research questions are introduced and terms are clarified. Limitations to the study are then discussed.

Chapter 2 presents the relevant literature review concerning language theories and the various frameworks that have been used such as social-culturalism, action and social change, interpersonal relationships, transformational learning and reflective practice. A natural approach to language is considered as well as value-added education.

Chapter 3 looks at the research questions followed by the sampling procedure and the outlines of the design research approach. This is followed by an examination of the design instruments, validity and ethical issues.

Chapter 4 offers the background of the analysis of the results of the tests done before looking at the findings of the pre- and post-test results of Groups A, B and C. The themes that students perceived had emerged are systematically discussed in relation to the research and sub-research questions.

Chapter 5 discusses the results, draws conclusions and makes recommendations before making suggestions for future research.

CHAPTER 2 - THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this chapter is to review literature on the pedagogy of an intervention using a natural approach for the teaching of Communication Skills, which emerged, from the data analysis of this study. In looking at the insights of my students regarding the impact of the intervention, it was necessary to examine social, cultural and linguistic themes.

I have chosen to use grounded theory to examine the data obtained in Chapter 4 which indicated a socio-cultural framework that incorporates social interaction and multicultural diversity to explore the effects of a natural approach to learning Communication Skills. This looks at the oral work of ECP Engineering students as well as their development as members of industry and society. Although written work was not the focus, I was interested in investigating all other possible effects of the intervention.

In order to review what the theorists have posited regarding literature surrounding my research question, it was necessary to examine the following issues in Chapter 2:

- socio-culturalism and its key elements: action and social change, dialogue, humanisation, reflective practice and transformational learning;
- the natural approach to language teaching, including themes that emerged from the research;
- value-added education; and
- the discussions of South African theorists regarding the language struggle of students at South African universities.

In the following sections I will use grounded theory to examine the key elements of action and social change, dialogue, humanisation, reflective practice and transformational learning to show how they form part of socio-culturalism which led to my choice of using Krashen and Terrell's Natural Approach to language to teach English.

2.2   SOCIO-CULTURALISM

Frameworks provide an orientation for the study, helping researchers to explain how their theories are connected to research already done and the position that a researcher may hold (Henning, 2007:25). I have used the work of Freire (1970) to frame my views of socio-culturalism as the influence of how the ideas and opinions expressed by others from different cultures with whom one socializes can affect the ideas one accepts as one's own, leading to transformational learning. Shor and Freire (1987:99) explain transformational learning as the development of personal empowerment when learners reflect critically about their everyday problems and are able to change their own lives.

The socio-cultural theories of Freire (1970:47) are the key underpinnings of my theoretical framework for this study. Freire (1970) posits that participants taking part in discussion can compare their lives to those of others and learn from these experiences. In this manner reflection can lead to transformation. There are strong parallels with the socio-cultural theories of Vygotsky (1934). According to Vygotsky, the development of children depends on interaction with people and other cultures that help people to form their own view of the world. The use of socio-cultural theories means that it is necessary to understand the way in which learners' lives develop by means of the influences of their social worlds, for example, it would be necessary to examine how the people that learners encounter, and events that happen in their lives, affect the development of the person. Shor (1992) also explains how, by measuring daily problems against their experiences, learners are able to redefine their own lives.

In order to explain socio-culturalism, in the following sections I will now examine the key elements of socio-cultural theories which are action and social change, dialogue,

humanization and reflective practice.

2.2.1 Action and social change

Freire (1970:64) foregrounds the notion of interactive discussions in which groups of participants critically examine social issues that are part of their own lives as an important pedagogical process. Their solutions should then lead to action and social change.

> **In problem-posing education, people develop their power to perceive**
> **critically the way they exist in the world with which, and in which, they**
> **find themselves; they come to see the world not as a static reality, but as**
> **a reality in process, in transformation (Freire, 1970:64).**

Earlier, Piaget (1936) had posited a socio-cultural theory of learning characterized by a group of learners actively interacting with one another to create their own meaningful situations by discussing issues relevant to them and making these decisions part of their own lives and environments. Thanasoulas (2006) supports the definition that the learners who partake in their circumstances, help to construct their own ideas and answers to problems, creating their own independence. This means that when a group of learners gather with the idea of solving their problems using peer collaboration, they will be building new understandings of their own situations that will lead them to self-determination. These ideas underpin the concept of socio-culturalism.

An instructor could also nurture students by giving them assistance and examples of how to solve problems on their own, leading to less frustration. This is called scaffolding (Verenikina, 2008:163). These insights should lead to transformational learning in which learners apply the knowledge they have already acquired to the challenges they face.

Argyris and Schön (1978:2-3) maintain that essential to action and social change, is the notion of reflective learning to re-look and re-think our actions and to act on them to create a better society. In this intervention both the facilitator and the students are required to examine their past actions and compare them with those of their peers to meliorate conditions in which we live. Argyris and Schön (1978:2-3) describe this

practice as reflective learning which is single-loop learning when the process by which an error is picked up and then corrected enables an organization to continue on its path. Double-loop learning goes a step further: an error is found, but the correction involves changing norms and principles. This reflection is an integral part of socio-culturalism as learners consider and compare their knowledge with the people with whom they come into contact.

Moreover, Schön (1983:2) contended that reflective practice consisted either of reflection-in-action, such as the ability to think on one's feet or reflection-on-action, which is the ability to think after the encounter. Reflection-in-action involves examining our experiences, our emotions, and our theories while in use. Reflection-in-action should help us to develop a new understanding of our actions at that moment. However, Rodgers (2006:8) criticized Schön's reflective practice as she felt that the concept had not been clearly defined, which made it difficult to research teaching and the professional development of teachers as well as how much learners had learnt. Rodgers (2006:49) also believed that the teacher could be pressurised by a lack of time to absorb too many issues, such as learners' needs and their interaction, during the short space of a lesson. Lyons (2010:33) elaborates on the issue of time by warning teachers to be careful of just using their own narrow interpretation of emotions and events. They should perhaps compare them with the reflections of others.

Reflection-on-action, however, would give us more time afterwards to consider our actions, discuss them with somebody or write about them. This could lead to new questions developing about what we had done. This reflection-on-action should encourage people to deal with statements made within the situation and then to reflect on them afterwards.

The social stages of interacting with other people, with different ideas and of cultures, and then reflecting on these encounters, acted as a precursor to creating the conditions required for further development of the whole person. In addition, this improved the language and communication skills. This is also supported by the Gestalt therapy of Frederik and Laura Perls, started in 1940 (Nevis, 1997:119). Brownell (2005:269)

explained that he used Gestalt therapy to treat patients in three steps: a) to track the patients' experience through phenomenological methods, b) to engage with the patients by talking to them, and c) then moving from talking and knowing to actual experience where the patients can determine how to change themselves and accept and value themselves. Therefore, Gestalt therapy uses dialogue to allow people to make contact and discuss what they are experiencing in relation to other humans, or peers in the case of the students. Gestalt therapy focuses more on process (what is happening) than content (what is being discussed). The emphasis is on what is being done, thought and felt at the moment, rather than on what was, might be, could be, or should be. It is critical that any contact is open, honest, warm, accepting and genuine.

Yontef (2002:18) maintains that Gestalt therapy, like socio-culturalism, promotes respect and an appreciation of differences. People change all the time. Problems are always arising. This means that if one becomes 'aware', one is able to deal with these problems meaningfully. Participants in a discussion, while endorsing this respect and appreciation of differences would therefore be able to watch others and measure the differences against their own criterion.

This discourse lays the groundwork for transformational learning, which incorporates Freire's (1970) ideas of socio-culturalism which states that participants taking part in discussions can compare their lives to those of others and learn from these experiences. In this manner, reflection and interpersonal relationships can lead to transformation.

2.2.2 Interpersonal relationships

Freire's (1970:69) ideas of socio-culturalism reflected the interpersonal relationship of two parties who were both on a joint search taking place on the same level ('horizontally') and based on empathy. This means that in this relationship, where two parties search for deeper understanding, both teachers and learners would have to admit to the same status in the world of learning and recognize that each could learn from one another when they collaborate. The teacher, as the facilitator, could create the conditions needed for the dialogue to take place, but could benefit by sharing in the resources and experiences that the learner brings to true education. Freire (1970:118) maintained that 'dialogue, as the encounter among men to "name the world" is a

fundamental precondition for their true humanization'. The fact that all learners could engage with others was also very important as they could easily deceive themselves if their own ideas were not challenged. Brockbank and McGill, (2007:5) state that 'meaning is created in relation to others'. For this to happen, all the parties concerned have to respect one another as people who have life experiences to share. This respect is fundamental to open and honest discussion taking place without fear of attack by other parties. Plato and Socrates (in Brockbank & McGill, 2007:17) both recognized the importance of dialogue and questioning, which they felt led to critical thinking and the development of learning that helped learners to deal with the real world.

Freire (1970:68-71) felt very strongly that dialogue did not consist of one person forcing their ideas onto another. He also felt that if the goal of the two parties was not the same, it would be very difficult for dialogue to take place. Dialogue needed to take place in an atmosphere of love with both parties understanding that there would be differences, but learning how to deal with them. If love, respect and humility underpinned the discussion, people would be able to meet any challenges. This dialogue should also allow for acts of freedom to follow. However, Freire (1970:70) emphasized that to be able to talk one needed love – of the world, life and of people. If a teacher could inspire these emotions, it would be possible for dialogue to take place and solutions to be found.

Pettigrew and Tropp (2006:754) supported Freire's (1970) socio-cultural ideas of discussion in an atmosphere of love when they defined their intergroup contact theory as 'actual face-to-face interaction between members of clearly designated groups'. Nagda's (2006:553) analysis of communication processes within an intergroup encounter showed four factors: appreciating difference; engaging self; critical self-reflection; and alliance building. Pettigrew (1998:67) felt that the friendship potential was a fifth condition for optimal contact.

Meta-analytic results of tests done by Pettigrew and Tropp (2008:766) show that social relationships formed during intergroup contact can meaningfully reduce racial prejudice; within not only the group but, that this emotion could also extend to people outside the

group. They believe that if students are prepared to commit themselves to appreciating that people are different and have different ideas and are serious enough to reflect on their own ideas and attitudes, the potential for building partnerships and making friends, is apparent. Narsee (2001:3) claims that South African students understand that they will make contact with many different cultures in industry in the future and that they will be expected to work harmoniously with all these cultures.

93% of the sample of Pettigrew and Tropp's (2008:922) studies also showed an inverse relationship between contact and prejudice, meaning that more contact results in less prejudice. This is supported by the results of a test for racial contact as well as gay and homosexual contact (Hodson, Choma, & Costello, 2009:974-978). Hodson et al believed that intergroup contact will lead to reduced intergroup prejudice if the following four conditions are present:

- equal status between the groups in the situation;
- common goals;
- no competition; and
- authority sanction.

In intergroup contact, these conditions are necessary before any group starts to allow a place of safety for all learners to participate freely without fear of criticism. Positive affirmation from the facilitator is important, as learners need to recognise the value of their own contributions to a group. Learners are treated absolutely equally and their common goals discussed transparently. There can be no failure, which takes away the fear of doing anything. It is, however, necessary to ensure that there is a common goal between the groups to avoid problems. Pettigrew (1998:69) felt that a racial group could not solve all its racial problems alone. It needed another racial group with which to discuss issues. Weber (2007:15) maintains that learners have to find satisfaction in learning, based on the understanding that the goals are useful to them or, less commonly, based on the pure enjoyment of exploring new things. All goals of both learners and facilitator have to be discussed transparently within the group.

A culture of silence results from non-mother-tongue learners losing confidence (Ashworth & Prinsloo, 1994:125). This confidence could now be used to find their own voice. This was their chance to be praised for having the courage to make mistakes. Learners, aware of the changes within themselves, are able to evaluate these qualities by means of reflective practice (Brockbank & McGill, 2007:87).

Ebata (2008:1) agrees that motivation produces effective second-language communicators by sowing in them the seeds of self-confidence. Motivation in language learning plays a vital role. It can also successfully create learners who continuously engage themselves in learning, by means of reflection-on-action (Brockbank & McGill, 2007:87) after they have completed a targeted goal.

The dawning of respect and tolerance for other ideas and cultures is reflected in Pettigrew and Tropp's tests (2008:924). With this new openness, learners could make new friends with which they could share their worlds. These learners claimed to find security and comfort in the dialogue with these new friends, knowing that minds are open to sharing, not criticising.

In the case of the majority of students in tertiary institutions, this social interaction and individual development is critical as they study, as success in the professional and industrial world is often determined, not only by technical skills, but also by the ability to understand and communicate with a room full of people. Nicolaides and Liotas (2006:19) believe that in marketing oneself or one's company, one of the best critical skills that employers require today, is empathy. The understanding and respect that underpin empathy establishes the basis for a worthwhile business ethic and a humane reputation.

2.2.3 Humanisation and soft skills

Freire (1970:26) states humanisation and soft skills play an important role in socioculturalism. Freire shows his support for this understanding and respect, by his attempts to empower any person who was disadvantaged by a political system, for

example, under the apartheid system in South Africa. He calls this process of restoring the dignity and rights of people 'humanisation' as opposed to 'dehumanisation', which takes away the power, freedom and justice for the oppressed. In his case, he used facilitators to 'conscientise' the peasants to help them to comprehend their situations by discussion, reflection and then action. These discussions were required so that all the involved parties should be familiar with the situations involved, the meanings should be able to be understood by everyone and this should lead to multiple themes. Burstow (1991:196-207) included some questions that Freirian facilitators traditionally have found helpful:

- what is happening here?
- does anything bother you about this picture?
- what are the contradictions?
- who has the power?
- who wins? Who loses?
- who is hurting?
- who is helping?
- in whose interest is it that this is happening?
- are there people with still more power who are not shown?
- how do they fit in?
- with whom do you identify?
- how did you see the situation when you were with this particular person?
- how do you see it now?
- can we change the situation?

Burstow (1991:196-207) felt that these questions would allow all parties to draw on their own personal experiences, their cultures and societies. Again, the contributions from both parties, based on empathy as recommended by Freire (1970), are regarded as equally important and will aid the process of humanisation.

Freire (1970) was criticized by Ohliger (1995:11) who queried the risk of manipulation that education runs, as educators could misuse their own views while they have ethical

responsibilities to their learners. Freire (1970:72) acknowledged these comments and urged teachers to concentrate on building a relationship of mutual respect with their learners that will enable teachers to show their learners other options. Raja (2005:1-6) warns that educators should also beware of regarding Freire as a Marxist and an atheist. By studying his books, he argues it is clear that Freire's faith lay in being free and freeing others, which reflected true humanity.

Born of these interactive conversations are the chances for learners to develop soft skills, often called people skills. They include strengths such as language strengths, problem-solving, decision-making, leadership, listening, conflict negotiation and mediation and differ from person to person. Chenicheri, Patil and Mertova (2009:134) claimed that as graduates are now increasingly required to work in multicultural and multinational work places, it is necessary to incorporate these global competencies with the hard and soft competencies in engineering programmes. Monash University lists the following required graduate attributes, which they used in a graduate employer survey (Chenicheri et al, 2009:134):

- oral communication skills;
- written communication skills;
- numeracy;
- effective use of information and communication technologies;
- capacity to learn new skills;
- capacity for enquiry and research;
- capacity to analyse and solve problems;
- ability to apply knowledge in the workplace;
- work skills specific to the functional area;
- broad background general knowledge;
- general business knowledge;
- capacity to understand different view points;
- ability to develop new or innovative ideas, directions, opportunities or improvements;

- ability to operate in an international and multicultural context;

- understanding of fundamentals of business performance;

- ability to develop professional knowledge and practice;

- leadership/managerial skills;

- capacity to work autonomously;

- understanding of professional ethics;

- capacity for co-operation and teamwork;

- interpersonal skills with colleagues and clients;

- time management skills; and

- ability to cope with work pressure and stress.

Soft skills help engineers to convey their thoughts about their work when they interact with people. Engineers are not regarded as the most communicative of people because their interest lies generally in technology rather than human beings, although they are seen as more conscientious and goal-driven (van der Molen, Schmidt & Kruisman, 2007:495). While engineers are willing, they need to receive training in a variety of communication skills such as presentational speaking, listening, persuasive speaking, group problem-solving, leadership and technical report writing (Abersek & Abersek, 2010:99). Because of the recession, it is also clear that the technological employees themselves now do much of the writing and speaking. This means that they must have a knowledge of cross-disciplinary skills to contribute to the jobs they are doing.

Abersek and Abersek (2010:106) maintain that today's graduates should be able to cope with more than the problem solving skills they acquired in class, but most importantly, they need the vision and flexibility to deal with the future. They argue that lecturers should now be teaching students to solve problems, but also to identify problems and shape a vision for the future. Students should be aware of the professional forms for technical reports but they should also understand the social and political forces at play within the communication, for example, how prose can manipulate people in the business world. This encourages teachers to use courses that foster creativity and critical thinking, more than courses based on correct answers.

The knowledge of how to communicate with people and form strong relationships is an integral soft skill for engineers. Korte (2008:42) answers a statement made by an engineer that he wished that someone at school had taught him how to play the political game, as he claims that newly-hired engineers should learn the social norms of an organization when they start working for an organization. Korte posits that relationships are of paramount importance in the socialization process and that the most important relationships are formed within the work group – not the organization. Most workers learn what they need to know by forming strong relationships with co-workers.

Christie (2006:302) asserts that in South Africa a new education system will have to prepare people to take part in a productive economy. Morrow and King (1998:234) claim that it would be easier to foster an education system that will equip people to deal with relationships within industry. Further, engineers should use their personal knowledge and experience. Success in professional lives and the business world now depends on the ability to communicate in other languages and merge easily into different workplaces.

After seven years of learning English as an additional language at school, many South African second language speakers are still unable to use the language (Keeton, 2010:4). These students are aware of their struggle with English and this causes a loss of confidence. Many first-time employees also need to cope with the social problems that come with adapting to being away from the protection and security of home and finding their way in industry. This implies that they need to start developing soft skills to look at who they are as people, while learning to become engineers and making 'meaning construction' (Freire, 1970:64). This growth represents a higher order of quality thinking skills where Wegerif (2002:143) felt that valued outcomes could be obtained. Learners need to know exactly what thinking skills are and how to apply them in different situations.

The examination of all theories and ideas, which one encounters socially, as part of the process to make learning transformational for each learner, goes hand-in-hand with

reflective practice, which encourages learners to make their own decisions regarding their lives and futures. In response to his critics such as Ohliger (1995:11) regarding the risk of teachers misusing their powers, Freire (1970:105) advocated that teachers should keep re-examining their practices by using reflective practice.

2.2.4 Reflective Practice

Ashcroft and Foreman-Peck (1994:3) argue that learning from experience and from evidence, instead of trying to use set plans for action, is critical. This type of learning should take into account one's own needs and the context within which one works. It should also examine education and the social, moral and political context for one's own practice.

When teachers explore their teaching experiences and practices to work out what has been successful or not, they are reflecting (Qing, 2009:35). In the same way, students can cross-examine their experiences. For teachers, as facilitators of learning, the aim of this reflective practice is to analyse the content and methods they used to facilitate learning (Brockbank & McGill, 2007:5). These reflective teachers are trying to improve their professional skills by analysing their previous experiences and finding solutions for problem areas in the transformation of knowledge. This reflective practice is contrary to the methodology employed in the 'banking concept.' It means that they are continuously evaluating what they are doing and basing their decisions on how they understand learners to be and what their needs are. Then, they try to make their learners familiar with the reflective process. Freire (1970:106) refers to the struggle of finding out how to balance the theories one develops when in contact with other people, the thought that goes into these theories, and the actions one takes to transform the world, as 'praxis' which is always ongoing.

Reflective practice was built into each session of the intervention so that students could evaluate the discussion that had taken place and assess if their emotions had changed at all.

Freire (1970:42) felt that it is necessary for those who genuinely care about the education of the people to consider their thoughts and beliefs constantly. An example of this is the encouragement of self-examination of oneself against one's own background and the sharing of these emotions with one's peers in, for example, the 'new' South Africa since 1994. This new society represents a form of reconciliation with the past hurts and racism. The pedagogy of reflective practice was also evident in the NCS curriculum re-conceptualisation process in South Africa. Both teachers and students could contribute to individual and social growth by examining their understanding of their experiences when they reflect on these occurrences.

The focus of education should be reciprocal, shifting from teacher-of-the-students and students-of-the-teacher to teacher-student and student-teacher, where learning moves both ways (Freire, 1970:62). This will allow students' contributions to be meaningful and for conscientisation to take place, an attempt to use education as a means of consciously shaping the person to create a better society. An in-depth understanding of the world will be created in which students examine the problems of the world and draw their own conclusions (Brockbank & McGill, 2007:5). This could include starting to take action against the elements in one's life that one has discovered have a negative influence.

As seen below, Kolb's (1984) model of learning offers

> **a four-stage learning cycle in which "immediate or concrete experiences" provide a basis for "observations and reflections". These "observations and reflections" are assimilated and distilled into "abstract concepts", producing new implications for actions which could be "actively tested", in turn creating new experiences' (Nilson, 2010:230).**
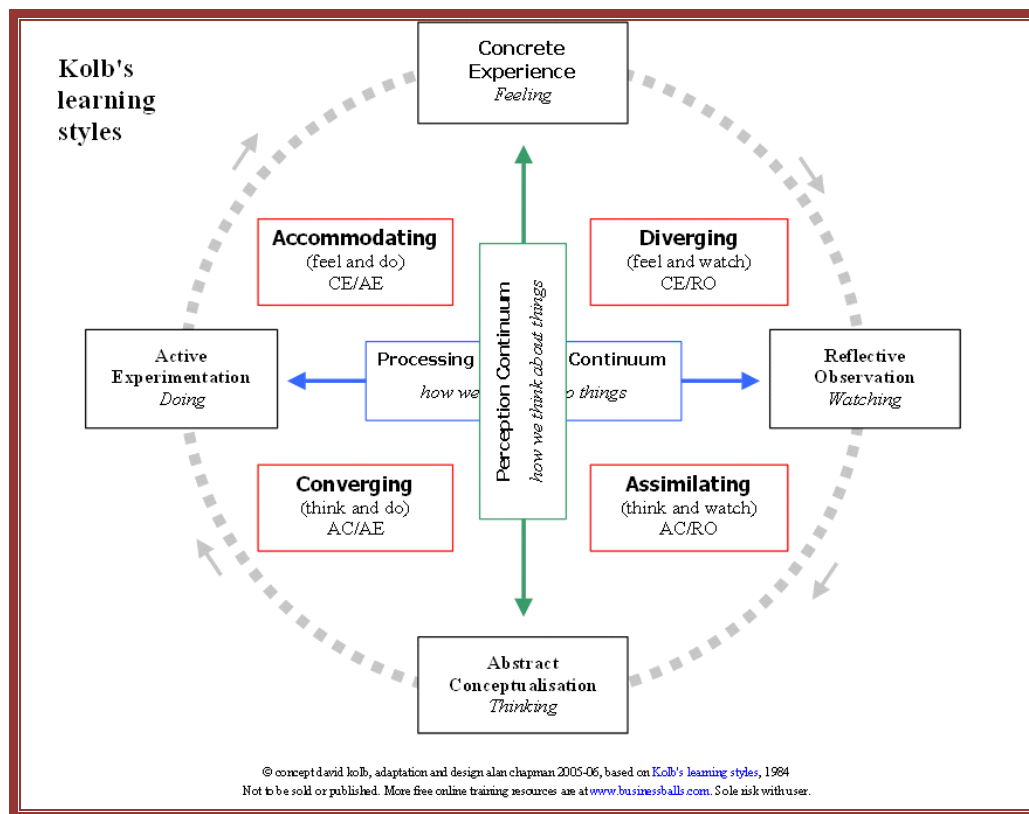
(Kolb, 1984)

Figure 2.1 Kolb's model of learning styles

As witnessed in this model, Kolb (1984) and Freire (1970) concur with regard to learning styles. All learners, not only teachers, but also students, need to use the practice of self-examination to understand their own experiences and growth. Nilson (2010:230) classifies Kolb's work as doing or having an experience as the first stage, the concrete experience. This may include all one's life, work and social experiences. The second stage, reflective observation, is when one analyses, judges and discusses the learning experiences. Like Freire, Kolb (1984) argues that these processes will not be meaningful unless one acts upon them. Freire (1970:48) describes this as 'praxis', meaning informed action that encourages dialogue that could help to build communities and make a difference in the world. He expects both parties to trust each other so that positive learning can take place and for progress to be made.

Abstract conceptualization represents the third stage, in which one learns from the experience, either by reading or attending development programmes, to reach conclusions about these actions.

The fourth and final stage of Kolb's learning model is active experimentation in which one plans changes and implements them. Freire (1970:106) believes that reflection without action or vice versa, cannot be separated if the transformation of the world is to take place. To him 'praxis' meant that humans can understand the world and can work on improving our society. This then restarts the cycle of concrete experiences again. In this way, one never stops the reflection process (Chapman, 2005). Learners are made aware of the stages taking place, so that they are open to their own pattern of reflective practice. This also lays the groundwork for transformational learning.

2.2.5 Transformational learning

Brockbank and McGill (2007:5) agree that 'learning as a social process is crucial' as transformational learning requires conditions that enable learners to contemplate what they have learnt individually and together. Mezirow (1997:5) posits that human beings have to understand the meaning of their existence. They should not just accept what they are told by authority figures but should be critical about it, reflect on it and make their own interpretations. Mezirow (1997:5) claims that this is the main goal of adult education. Transformational learning should develop the ability to think for oneself. For learners to examine their meaning schemes (specific beliefs, attitudes, and emotional reactions), they must analyse these experiences. Freire (1970:53) concurs with this when he rejects 'banking education' as an all-powerful lecturer depositing his/her knowledge into learners who should just absorb and reflect what the lecturer has just told them.

Teachers should also attempt to create a safe environment, which would encourage learners to present their opinions. Learners know that the challenges arise and should be free to posit their ideas. People need to be able to express themselves and as such, will meet with questions or confrontations. This has led to beliefs and traditions being questioned and learners have to consider other opinions. Learners now have to look at their own and other perspectives against their own frame of references. Mezirow (1997:6) believed that learners' life experiences were the starting point for transformational learning, while the questions, which arose during critical reflection, established one's view of the world. According to Mezirow (1997:6), intellectual discussion then led to people exploring these 'views of the world' to find their raison

d'être.

The atmosphere of respect and trust in which learners share their emotions and fears with their peers could be sensitive. For it to be constructive, Taylor (2006:92) believes, as did Freire (1970:70), that it is the responsibility of the teacher to act as a facilitator and a role model for learners, which will require work, skill and courage from both parties. Learners should also contribute towards these conditions. It also recognizes that reflective practice is an important part of this process and needs time. To be able to do this, both teachers and learners should accept that learning is reciprocal and that they are simultaneously teachers and learners (Freire, 1970:53).

Krashen and Terrell (1983:100) assert that a natural approach to learning a language is a means of simultaneously acquiring language while activities engage learners' emotions, ideas and experiences. This method therefore leads to the inclusion of soft skills, such as respect, tolerance, confidence, listening skills and problem-solving, as they complement this approach to the acquisition of a language. Already in 1818, Cobbett's *A Grammar of the English language* that worked from real life examples, challenged those who taught grammar as if learners were 'defective' (Glau, 1993:423).

I will now discuss the natural approach recommended by Krashen and Terrell (1983:38) to acquiring a language and how the emphasis on dialogue is appropriate for this method. I will also consider the traditional approach to learning a language.

2.3   APPROACHES TO LANGUAGE LEARNING

An important difference moving from traditional language learning using grammar to the Natural Approach is compared by Pavlenko and Lantolf (Pavlenko & Lantolf, 2000:155) as moving from an investigation of language structure to language use in context which includes issues of affiliation and belonging. Pavlenko and Lantolf (2000:155) compare the language structure approach as something of permanence and knowledge with 'discrete stages' and a 'well-defined endpoint as opposed to the second approach of language use to 'doing', 'knowing' and 'becoming part of the greater whole'. While the traditional approach sees the learning of language as acquiring a new set of grammar

rules, the language use approach is the participation of social beings within a bigger world.

In deciding how to assist the students with their English, I decided to try a new method and not use grammar rules. Knowing grammar rules to pass their Grade 12 examination had not given them sufficient confidence to use the language and I wished to investigate other methods to find a solution.

I will refer to the language use approach as the natural approach to learning when learners listen to a foreign language, then read and afterwards try to use what they have acquired in a meaningful way. By talking about their own issues to other learners in a classroom, they start to communicate. Grammar, drills, and corrections of errors are not part of this process (Krashen & Terrell, 1983:18).

Similar to socio-culturalism, the Natural Approach stresses participation in the discussion with peers who are on the same level while a teacher attempts to make learning attractive to learners and to encourage self-motivation to learn. Taylor (2006:7) claims that teachers should reflect on all the best ways to reach their learners. It is critical that teachers suit the methods of presenting information to the needs of the audience. This raises the question: would the traditional teaching of language rules be better for remedial purposes or the Natural Approach, in which learners acquire the language by listening and using it? Woolever (1997:1) maintains that the most important questions to ask before we make a choice, are: Who are we teaching? What are they being prepared to do? Do current traditional grammar programmes fulfil the need to assist students who struggle with using a language? Tschudi and Tschudi (1991:164) maintain that:

> **Over the years, *grammar* has probably generated more discussion, debate, acrimony, and maybe even fistfights than any other component of the English/language arts curriculum**

The following sections sum up arguments both in favour and against the Traditional

language approach.

2.3.1 Traditional language teaching

An example of a traditional approach to teaching is described by Farrell and Lim (2005:5) after two lessons which they observed. It was mainly teacher-centred, with the respective teachers both providing explanations and instructions, and asking questions and eliciting responses from the learners on their knowledge of grammar items. The teachers they observed, stated that they believed in six of the eight questions that were asked about grammar teaching: that grammar was important and had to be taught, as learners should know all the grammar rules to be able to apply them in their writing. The teachers used drilling as a tool for grammar teaching which involved using the correct tenses. One of the teachers believed that there was no place for incidental teaching in language instruction.

McKenna (2004:82) believes that many lecturers see a lack of grammar as a problem. Their comments called for more language input:

> **They need to go back to basics – you should teach basic sentence structure and grammar.' This is an example of a very prevalent discourse that calls for the remedying of grammatical problems as if a conscious knowledge of the surface rules of language is what students were lacking and that if these rules were made available to students their problems would disappear.**

Peet (2009:1) summarized the many advantages to teaching grammar, for example:

- one cannot use a language creatively without grammar;
- a language is fine-tuned by grammar;
- a learner is prepared to acquire language patterns;
- a syllabus requires grammar;
- if a learner has no natural talent for language she has a reference point;
- a structured system can be taught, learned and tested, and finally
- learners expect grammar.

Glau, (1993:430) in tracing history, added that two centuries ago, Harvard University felt that grammar was so important that the university called for a separate examination in 'grammatical and mechanical correctness' for admission to the institution.

> **The message of these pro-grammar publications is well summarized by Richard Hudson (2001), whose appraisal of the critical issues in the grammar and writing debate concluded that "the idea that grammar teaching improves writing skills is much better supported by available research than is commonly supposed".**
>
> (Hadley, 2007:5).

2.3.2 Natural Approach – acquisition by practical use

Although there are other styles of teaching languages, Krashen and Terrell (1983:8) believe that, we have a long tradition of learning naturally without grammar rules by speaking to other people every day. He also maintains that this method started in 1901 when a teacher talked and pupils listened and asked questions. Acting and repetition helped the student to become familiar with a language. Understanding the rules only followed much later. I have chosen Krashen as a theorist as he played a major role in re-introducing the Natural Approach to acquiring a language. Their claim (Krashen & Terrell, 1983:18) that adults can also acquire new languages was relevant to my university students.

Peet (2009:3) debates this argument with the following contentions:

- as lexis (vocabulary, words) is the most important basis of learning a language, this is where the focus should be;
- language is learned by experimenting with communicating and the classroom situation is good for this;
- learners can react in real situations;
- students do not always understand grammar; and
- the emphasis is on correctness, not communicating which is what learners actually want.

According to Glau (1993:418) the teaching of grammar also implies that mechanical correctness is all-important and the teacher's view is that the student is deficient and is unable to work with a language unless she learns its rules first. In tracing the history of pro- or anti-grammar sentiment, Glau notes that it was in 1979 that it was felt that 'instruction in grammar may have a harmful effect because it tends to alienate students.' The Hillocks (Hillocks, 1986:248) report condemned grammar teaching with Hillocks stating that:

> **The study of traditional school grammar (namely, the definition of parts of speech, the parsing of sentences, etc.) has no effect on raising the quality of student writing. Taught in certain ways, grammar and mechanics instruction has a deleterious effect on student writing. School boards, administrators, and teachers who impose the systematic study of traditional school grammar on their students over lengthy periods of time in the name of teaching writing do them a gross disservice, which should not be tolerated by anyone concerned with the effective teaching of good writing.**

<div align="right">(Hillocks 1986:248)</div>

2.3.3 Krashen's Natural Approach

Krashen and Terrell (1983:55) recommend the Natural Approach in which 'Language is best taught when it is being used to transmit messages, not when it is explicitly taught for conscious learning.' They state that we have a long tradition of learning naturally without grammar rules by speaking to other people every day. They also maintain this method started in 1901 when a teacher talked and pupils listened and asked questions. Acting and repetition helped the student to become familiar with a language. Understanding the rules only followed much later.

In order to explain their methods, Krashen and Terrell (1983:26-37) developed a model for their Natural Approach for acquiring a language consisting of five principles which are listed and then explained in Table 2.1.

Table 2.1 Krashen's Model of Natural Learning

	Name	Explanation
1.	Acquisition-Learning Hypothesis	A learner's activities centre on developing language by using in natural, communicative situations
2.	Natural Order Hypothesis	Production will emerge in stages, starting with non-verbal communication, followed by 1 word answers, then combinations of words, leading to sentences. Grammatical accuracy increases with communicative Interaction.
3.	Monitor Hypothesis	Fluency comes from what a speaker has acquired. The Monitor system where rules have been learnt, checks output of an acquired system.
4.	Input Hypothesis	Students should acquire language by proceeding to the next stage of learning only a little beyond their current level of competence. This is called input i + 1 where i is the acquirer's level of competence and 1 is the stage immediately following.
5.	Affective Filter Hypothesis	The anxiety level of the student should be as low as possible and there should be a good relationship with other students and the facilitator. They should receive minimum pressure to speak until they are ready.

(Krashen, 1984:26-39)

Krashen and Terrell (1983:58-59) explained the primary goal of the five hypotheses of the Natural Approach as communication skills. They claim that the more students are able to communicate with native speakers, the more their grammar will improve with time. In the Acquisition-Learning Hypothesis, time in the classroom should focus on fostering acquisition. Learning exercises will play a more peripheral role. In the Natural Order hypothesis, emphasis should not be placed on error correction. Input should start with simple comprehensible words and phrases. The more students understand, the more speech and written exercises they will be able to produce. In the Monitor Hypothesis students consciously learn grammar rules. Krashen and Terrell (1983:29-39) find that in the Natural Approach, students need time to edit the correctness of their communication and checking the rules may interfere with communication. In the Input hypothesis learners should acquire a language by understanding input a little beyond their current level. This is called i + 1 where i is the acquirer's level of competence and + 1 is the stage immediately following that level in the natural order. The Affective Filter Hypothesis specifies that people who are motivated and have a positive image are encouraged to find more input. When there are lower anxiety levels in learning, people are more motivated to acquire a language.

These hypotheses were very controversial. Larsen-Freeman and Long (1991) believe that the Acquisition-Learning Hypothesis implies that adults do not lose the ability to acquire languages the way that children do. They also assert that Krashen assumes that learning does not turn into acquisition, which they maintain is possible. McLaughlin (1987:21) argues that Krashen does not explain exactly what he means by the use of the words 'conscious' and 'sub-conscious' leaving many questions regarding the concepts and the acquisition process. Both Gregg (1984:82) and McLaughlin (1987:24) reject Krashen's view that learning and as a result, Monitor, is used only in production and not in comprehension. McLaughlin (1987:28) also believes that everyone uses rules because 'speech is a rule-governed process'. Monitor users could use the language rules they have learnt to supplement their acquired competence. Gitsaki (1998) and Wilson (2000) observe that the Natural Order of learning a language could be upset by forcing another sequence into the teaching process. White (1987:102) questions the i + 1 Input theory as he believes that if one talks to language learners only in simple sentences, they will not get the input which is vital to them. He argues that

even babies are not deprived of this input. According to McLaughlin (1987:52-53) most of his critics agree with the Affective Filter Hypothesis but question the necessity of this hypothesis.

During the intervention, the traditional study of correct verbs, tenses and grammar, which had failed the students after so many years at school, grammar rules became secondary to the confidence to speak. It was necessary to examine what happened if the instruction of language rules was omitted from the intervention. It was important for students to believe that they were able to get a message across, actually use the language and then cope with any communication mistakes that they had made. The rules covering the design of this specific intervention followed all of Krashen's hypotheses:

Ground rules:

RESPECT – nobody may speak to hurt anyone else. **(Affective filter)**

TRANSPARENT GOALS. - Facilitator and students discuss goals at the beginning of the intervention. Students will be learning from the facilitator as well as one another. (**Input**)

NO HOMEWORK - students are already overloaded with assignments and homework should not be a deterrent.

NO PUNCTUALITY LIST - Students must attend for a meaningful time.

EVERYBODY TALKS - Students are all encouraged to contribute to a discussion, even if it is initially only one word and then building on this. (**Acquisition-Learning and Natural Order)**

NO NEGATIVE FEEDBACK -. **(Affective filter)**

STUDENTS CAN CORRECT THEMSELVES by listening to other students or the facilitator or applying rules they had learnt at school. The choice of being corrected is optional. **(Acquisiton-Learning, Input and Monitor)**

STUDENTS MUST SPEAK OPENLY to develop the confidence that their opinions are valid. **(Acquisition-Learning)**

TOPICS ORIGINATE FROM STUDENTS - Students must find that these topics are meaningful to their interests and are not only the facilitator's choice. **(Affective filter)**

ENJOYMENT AND APPRECIATION are critical. **(Affective filter)**

Students must leave the class having experienced a sense of enjoyment and achievement**. (Affective filter)**

Generative themes (Freire, 1970:78) for discussion, which originated from the students themselves and were meaningful to them, would allow them to be comfortable and make their mistakes. Weaver, McNally and Moerman (2001:31) also suggest that language expertise exercises do not necessarily motivate students to love language and argue that we learn grammar naturally when acquiring a language. Weaver et al (2001) agree with Freire's socio-cultural theory that learners make their own meaning when they examine their background knowledge, experiences and purposes. However, although Weaver et al (2001:32) argue that most students do not transfer 'skill and drill' into imaginative writing, they do consider that a little grammar could be taught in context when students engage in writing, allowing a mixture of a natural approach plus grammar teaching in context.

Krashen and Terrell (1983:26) reinforce the belief that students need to get their message across naturally. They present their model in which they argue that acquisition of a language by unconscious means such as using language meaningfully is better

than monitoring, whereby an adult learner would consciously learn the rules of a language and try to apply them. Krashen and Terrell (1983) met with fierce opposition from people like Gregg (1984:121) who felt that not enough research had been done to support this claim. Romeo (2000:1) felt that there were contradictions for planning curriculum. For example, after just having criticized the learning of grammar, Krashen suddenly states that 'second language learners should follow the "natural" order of acquisition for grammatical morphemes' (Romeo, 2000:4). The teacher is first instructed to create a natural environment for the learner but then, in trying to create a curriculum, they are instructed to base it on grammar. As described below in an analysis of the actual classroom methods presented in the Natural Approach, attempting to put these conflicting theories into practice is very problematic. Gregg (1984:121) claims that Krashen's methods implied that one did not have to be a very good teacher.

Krashen's (1984:37) affective filter hypothesis also states that the learner's emotional state can act as a filter that impedes or blocks input necessary to the acquisition of a second language. For this reason, praise for trying was more important than telling students they were wrong. Brockbank and McGill (2007:53-55) agree that learning had valued experience certainly, but added that the key to learning was the role of emotion. One's will was driven by self-image and emotions about oneself and it was important to consider these factors in learning. Becoming accustomed to sharing one's feelings with members of the group was also critical to being accepted by one's peers.

When choosing the nature of their style of teaching, Clarke (1995:3) believes that teachers should begin teaching with what will ignite learning and engagement in their students and brainstorm content and method from there, which will make the content very dynamic. He adds that it is necessary for teachers to determine the quality of education, as schooling at its roots, is a matter of human relationships. Jeffrey (2008:255) agrees that teachers must be attuned culturally to their learners and that creative acts in teaching must change the learners, teachers and situations. For him, both teaching and learning share the characteristics of relevance, control, ownership and innovation.

Jeffrey (2008:255) understands 'relevance' as learning that is meaningful to the immediate needs and interests of the learner while ownership implies that creative learning helps pupils to learn for themselves. Control of the learning process means that the learner is self-motivated and innovation entails the understanding and creation of new and meaningful knowledge (Jeffrey, 2006:401). This would indicate a change in the person and not just another replication of the teacher, but someone who enjoys learning.

Shor (1992:25) believed that Freire's view was that education should create joy and happiness. This did not mean that students should only be playing or that an entire class should be devoted to play. It stresses the enjoyment as opposed to the denial of positive emotions where students learn to put up with 'boring traditional' methods that will not stimulate or motivate a student. Shor (1992:27) asserts that it is important to place oneself in the student's shoes. He stresses that student participation in decisions is critical regarding positive feeling to learning.

In his Banking Model of Education, Freire (1970:53) rejects the view of students as buckets to be filled with knowledge or as objects for teachers to discipline. This view ignores the fact that students themselves, as intelligent beings, have prior knowledge and can contribute to the education of the teacher as well as their own education. Freire claims this is as if teachers regard the students as ignorant and they place themselves in a position of power where they have to ensure that the students, as the empty buckets, receive knowledge from them. In doing so, teachers lose the opportunities to experience the wealth of information students can contribute by their creativity and knowledge (Freire, 1970:54).

Jeffrey (2006:402) describes innovation in the classroom, taking control of material and the relevance of the material to learners as creative teaching. Creative teaching is not without its risks. Hargreaves (2008:228) accepts that 'creativity' has more than one meaning. This can be defined as 'involving the use of the imagination or original ideas in order to create something' but it can also signify deceit, as in "creative accounting"' (*Concise Oxford Dictionary*, 2006; *The New Penguin English Dictionary*, 2001).

Hargreaves presents the example that less able students or those who do not write well, may understand creativity as the right to present their own ideas without the necessary rules and regulations. They would have been more successful by just following the traditional route. Hargreaves (2008:233) argues that one has to ensure that creative teaching is more positive for a student who would not have been able to pass by conventional means.

In addition to these views on language acquisition, studies on engineering students from five universities led Pulko and Parikh (2003:243) from the University of Hull, to believe that soft-skill programmes such as Communications Skills, which placed the emphasis on competence in subjects like presentation skills, effective report writing, teamwork and time/project management found favour with less than 10% of students while 41% of students found them to be of no use. They felt that students wanted to understand the relevance of the subject as well as see how this was important in their careers. The teaching approach had to be interesting and dynamic. This reinforced the belief that any learning should prove palatable to students who should enjoy what they were learning and that the repetition of language exercises would be negative. Garris, Ahlers & Driskell (2002:352) agree that for learners to be motivated, they need to be enjoying what they are doing.

2.4   VALUE-ADDED EDUCATION

As future business leaders, engineering students would stand as role models for those placed below them in industry. Since the engineer belongs to a profession whose objective is to improve the conditions of human life by changing the physical environment and the systems of human life, the engineer has a great responsibility to society. In order to express these responsibilities, soft skills are of critical importance to an engineer. Collier & Esteban (2007:19) reinforce the social responsibility of employees in that the success of businesses depends on their 'willingness to assume responsibility for social and environmental consequences'.

Narsee (2001:3) asserts that communication courses at universities in South Africa do

not pay enough attention to the fact that engineers need to develop more than technical competence. Therefore, it is critical that a communication skills course for technical people should include environmental, cultural, economic, legal, social and ethical impacts on society to allow them to understand the great responsibility they have to communities. Tertiary establishments need to ensure that potential employers are aware that their establishments provide graduates with these critical life skills in addition to their degrees.

Narsee (2001:5) also posits that ethical communication means understanding and developing the values of the community in which we live and work. Since ethical behaviour is not merely a matter of acting correctly and doing good deeds, the role of communication, both outside and inside the organisation, is not the medium for expressing a high moral tone, but the vehicle through which we come to share an understanding about issues which concern us. Ocholla (2009:80) emphasises that rights are determined by the rights that human beings have. The social science and humanities courses will help to develop each student's awareness of communication ethics and provide the student with an effective means of arriving at decisions about what these rights are and which reflect high moral and ethical standards. Class discussions and projects could emphasize ethical practices when making decisions and reporting information.

The discussions would have to set the standard for ethical climates in business. The leaders' own values would play a role in determining a business's policies and strategies (Paine, 2000:321). As such, these values would have implications for the actions of a company. South Africa has signed The Washington Accord that is 'an international accreditation agreement for professional engineering academic degrees'. It acknowledges that part of an engineer's training should include communication, teamwork and ethics. The knowledge base and abilities required of an engineer are reflected in the diagram below:
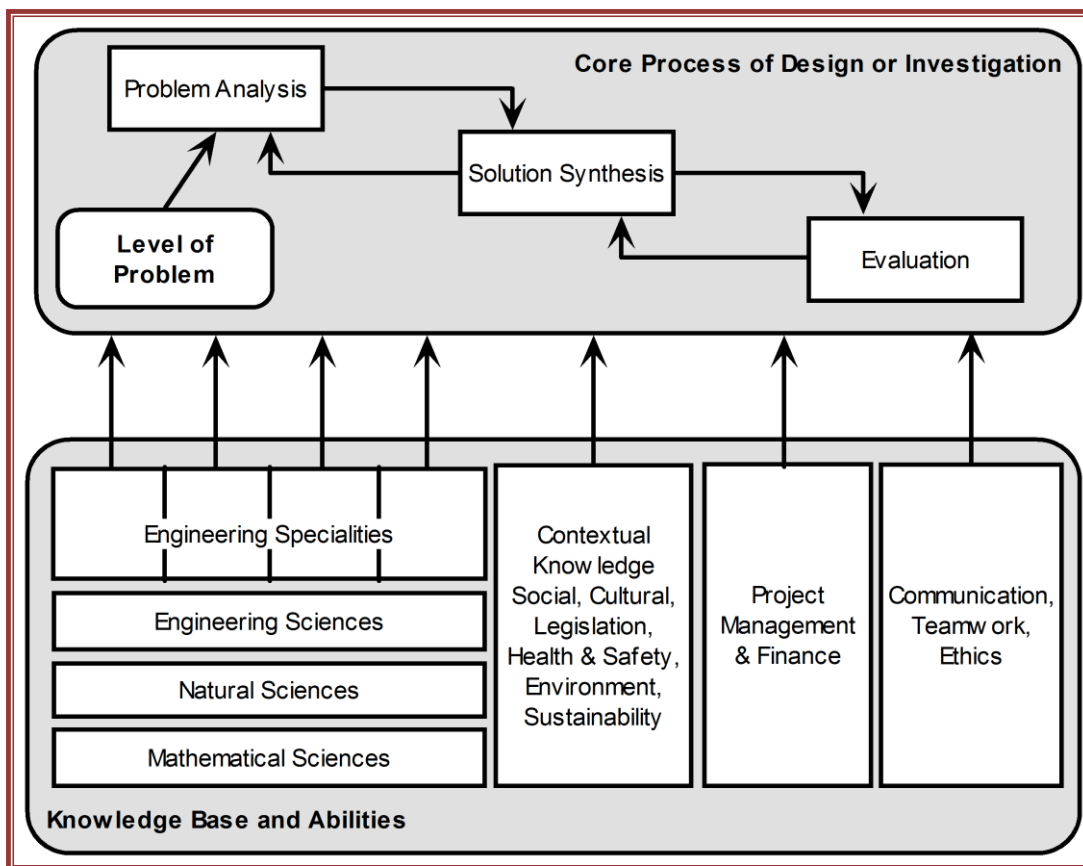
(Hanrahan, n.d.)

Figure 2.2 A conceptual model underlying the graduate attributes

As can be seen in Figure 2.1, Hanrahan (n.d.) states that the education of professional engineers consist of two parts: firstly the academic training in their particular fields according to an accredited engineering programme, and secondly the graduates' abilities

> **to analyse problems, investigate, synthesise and design solutions, evaluate the impacts and outcomes of engineering solutions and take responsibility for decisions' are dependent on their management and communication skills. They should be able to deal with 'ethical, social, economic, environmental and sustainability considerations'.**

Communication, teamwork and ethics as shown in Figure 2.2, are therefore recognised by the Washington Accord as being integral to an engineering qualification. In addition to the improvement of their spoken and written skills, students need to develop many life skills that will form a platform for the development of values, thinking skills and behaviour.

According to Sanyal (2004:2) now, more than ever, because of globalization, material progress and biotechnology, the human race faces a need for an ethical culture of tolerance and peace. The United Nations established three pillars for our society in their Charter in 1945: peace, justice and freedom. The specialised agency for Science, Education and Culture, UNESCO, wished to 'promote collaboration among the nations through education, science and culture, in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world' (UNESCO,1945). Sanyal also quotes the 'Integrated Framework of Action' of the Ministers of Education at their International Conference on Education in 1995 stating that:

> **Education, it is emphasized, must develop the ability to value freedom and the skills to meet its challenges; it must develop the ability to recognise and develop the ability to communicate, share and co-operate with others; it must develop the ability of non-violent conflict resolution and promote the development of inner peace in the minds of students so that they can establish firmly the qualities of tolerance, compassion, sharing and caring.**
>
> (UNESCO, 1995)

In recognition of the wishes of UNESCO, Harris, Pritchard and Rabins (2000) outline goals of the Online Ethics Centre of the National Academy of Engineering:

- encourage students to identify their own values and to appreciate a range of values;
- sensitize them to identifying, moral problems and dilemmas;
- help them to identify and understand problem facts;
- challenge to consider alternative actions;
- envision consequences;
- map out a 'moral road map'; and
- choose an action that best promotes the moral community, and prompt them to reflect upon and reconsider their decisions.

This list of soft skills supports the idea of the need to add value to the technical studies

of engineers.

Two of the goals of the 2004 Joint Interim report of the Council and the Commission on the progress of the Education and Training 2010 work programme are, 'to identify and define the key competencies necessary for personal fulfilment, social cohesion and employability in a knowledge society. Secondly, to support member states' work on ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life, and that adults are able to develop and update them throughout their lives (Commission of the European Communities, 2004:5)'. This will be based on the values of tolerance and mutual respect, irrespective of ethnic, cultural, and religious or language background. Today's students will create tomorrow's society. This type of environment will be created by the imagination of the teacher.

2.5   LANGUAGE PROBLEMS OF SOUTH AFRICAN STUDENTS

South African universities share many language problem similarities with overseas universities and theorists believe that this can be translated into problems with academic literacy. Van Dyk, Zybrands, Cillie and Coetzee (2009:155–156) offer the following reasons for first year students' struggle. Firstly, that university students (particularly first-year students), for example, struggle to stay on track during lectures where sometimes, they have to listen more extensively and at other times more intensively. Secondly, problems arise when they have to reason, argue and debate orally; thirdly, when reading and understanding task assignments, test questions and academic texts with a reasonably sophisticated argument and abstract vocabulary in a strategic manner; and fourthly, to meet the basic academic requirements of writing academic assignments.

According to Van Dyk et al (2009:155-156) data collected during studies at the University of Stellenbosch indicate that all first-year students need a form of academic literacy intervention to help them adjust to the requirements of academia. Although

many disadvantaged Engineering students at CPUT may have high academic potential, they are still struggling with English at the primary discourse level as they have had very little practice in the use of English. There is a gap, which requires teaching to give them the necessary confidence to engage with academic literacy.

This lack of academic success among South African graduates with high academic potential, has been attributed to low levels of academic literacy (the ability to successfully engage in the academic discourse, whether it is through reading, writing, listening or speaking) in the language of teaching and learning which at CPUT is English. In an attempt to address this problem and help first-year students, Stellenbosch University introduced the gradual implementation of compulsory academic literacy courses as part of the first-year curriculum in 2005. This trend is observed not only in South Africa, but also internationally. Integrated academic literacy programmes support content-based instruction in collaboration with departments as this assists with time constraints on language instruction and promotes the development of the higher order thinking skills.

McKenna (2004:74) believes that that there has been a change from remedial programmes to academic literacy interventions which are integrated with the specific subject. This is supported by Jacobs (2010:237) who encourages the collaboration of disciplinary specialists in the integration of Communication skills with the specific subjects. She suggests that this will allow each specialist to bring their 'tacit knowledge of the rules underpinning the literacy practices of their disciplines' and together this will be able to help students by giving them access to the discourses of the discipline. McKenna (2004:74) describes discourse as how knowledge and social practices are constructed by patterns of communication. Kress (1989:7) describes discourse as organizing and giving structure to the manner in which a topic, object or process is to be talked about.

In the following diagram McKenna (2004:74) illustrates how South African universities have attempted to solve the students' academic literacy problems with English FAL:

ESL
English
Second
Language
1991 - 1998

English Second Language
•Only for students identified as 'weak'
•Focus on grammar and language use
•Generic material (with some subject specific)
• 'Received tradition' (Christie 1993) – Belief that students lack an overt understanding of grammar rules, which would improve their academic reading and writing.
•No transfer to mainstream, no application of acquired language proficiency in context reduced, cognitively demanding situations

EAP
English for
Academic
Purposes
1997 - 1999

English for Academic Purposes
• For students identified as weak
• Skills based – usually 'generic' skills such as note-taking, writing a conclusion, reading strategies.
• Some subject specific materials
• Often skills taught were not relevant to the discipline
• Little transfer – 'A problem with the concept of generic skills is that it is based on the myth of transferability...Research on learning and cognitive development suggests that the development and practice of skills is 'domain dependent' i.e. inseparable from the context in which they are learnt...' (NAP 108)

AL -
Academic
Literacy
1999 and
beyond

Academic Literacy
• Integrated into mainstream
• Overt instruction (through mainstream texts, mainstream lectures, mainstream assignments) in the norms and expectations of the discipline
• Focus on Foundation but not solely at this level – literacy 'by degrees' eg: writing intensive courses, writer-respondent projects, development of explicit assessment criteria rubrics

Figure 2.3: Stages illustrating South African universities attempts to find a solution to the language problems of first-year students

McKenna (2004:75) explains the three different stages that occurred at the Durban Institute of Technology in the following way:

Between 1991 and 1998 language assistance took the form of identifying weak students and focusing them on learning English by means of learning grammar rules. In the second phase, language assistance for students became more generic with a bit of subject specific material. The third stage from 1999 is represented by an integration into mainstream through mainstream texts, mainstream lectures, in the manner expected by

the discipline.

For example, according to Van Dyk et al, (2009:155-156) Stellenbosch University's Language Policy and Plan are the broad context within which provision is made for the accommodation of students' various language levels and needs. The policy and plan also require faculties to implement language support courses, which consequently makes collaboration between the Language Centre and different faculties possible.

According to Chur-Hansen and Vernon-Roberts (1998:642-647) in Australia, not many undergraduate students in Australia are screened for their ability to use English before they are admitted to university. In South Africa, universities are looking at language ability in the National Benchmark tests. There are also many proficiencies in English, within which the disadvantaged South African students, like the Australian students, particularly struggle. Chur-Hansen and Vernon-Roberts (1998:642-647) identified five different problem areas. It is precisely these five areas that my intervention has tried to address:

1   reticence and lack of assertiveness in answering questions;
2   an insufficient command of informal, idiomatic English;
3   lack of experience with small group, interactive teaching and learning;
4   a reliance on rote learning; and
5   an inability to comprehend why a high-level of English is necessary for study and practising medicine at university.

The type of comments made by lecturers about student language abilities ranged from:

- a lack of familiarity with colloquial English;
- personality factors such as shyness;
- the fast rate of the spoken language, especially under pressure;
- relaying of language – conversational English was a problem;
- specific language problems; and
- cultural difficulties.

2.6   SUMMARY

In this chapter a range of theories on learning and development were explored and discussed. I have used Freire's socio-cultural theories (1970) with the key elements of action and social change, dialogue, humanisation, reflective practice and transformational learning, to discuss the impact of an intervention on the development of the ECP Engineering students at CPUT. The chief theorists that I discussed in relation to this process were Vygotsky (1978), Schön (1983), Shor (1992) Pettigrew (2006), Krashen and Terrell (1983) and Kolb (1984). Theorists such as Gregg (1984) and Romeo (2000) have taken issue with these theories.

In this chapter, my study looked at socio-culturalism promoting the idea of social contact and discussion underpinned by respect and tolerance between different people leading to transformational learning and South Africa's progress regarding language support for university students. This process requires action reflecting a change in the status of the participant who is required to listen to the ideas others express, reflect on them and either reject or accept them.

Chapter 3 will discuss the research design, approach and the implementation of the data collection plan.

CHAPTER 3 - METHODOLOGY AND RESEARCH DESIGN

3.1 INTRODUCTION

Chapter 3 discusses the methodology and research design used in this study. Methodology refers to the major procedures for data collection (Yin, 2009). These procedures must be chosen to allow the best means of capturing data according to the research question (Henning, 2007:33). The design of a study is often described as the product of the planning of these research procedures (Bogdan & Biglan, 2007:55).

This study consists of mixed methods design research and grounded theory. This means that my focus was on collecting, analyzing and mixing both quantitative and open-ended qualitative data in a single study to provide a comprehensive analysis of the research problem (Cresswell, 2009:14). This would advance knowledge about the characteristics of my intervention. I believe that using both quantitative and qualitative approaches provided a better understanding of the research problems.

Within this mixed-methods approach I firstly did pre-tests, then an intervention and post-tests. The data generated here allowed me to analyse both the numerical results of the pre-tests (oral and written) in a quantitative manner so that I could identify the linguistic needs of my students to improve their communication skills. From the interviews as well as the written and oral tests, I then used grounded theory to describe and interpret the emerging themes from the insights of the students. Together, these results allowed me to design an intervention based on a natural approach as described in the literature review, to promote a means by which the CPUT ECP Engineering students could construct their own understanding of the world in which they live and work (Cresswell, 2009:8) and to improve their

communication skills. I was particularly interested to see what was the effect of trying a method other than the traditional grammar method at this stage of the students' learning. Most students had already learnt many of the grammar rules at school and could naturally use them to monitor their speech.

Triangulation was achieved in this mixed methods study by using three means of data collection such as written work, oral presentations and interviews, which examined the data from more than one perspective. This allowed a more detailed and powerful interpretation of the data (Cohen, Manion & Morrison, 2008:141). This study used design-based research as the major approach.

3.2   THE RESEARCH QUESTION

The key focus question over-arching the current research investigation is as follows:

> **What impact did a communications intervention have on the Engineering students (Extended Curriculum Programme) of the Cape Peninsula University of Technology?**

3.2.1 Sub-questions

Each of the ensuing sub-questions formed a major category of the findings and they were addressed by the progressive presentation of the stages of the intervention.

3.2.1.1   What impact did the intervention have on the written work of the students?

3.2.1.2   What impact did the intervention have on the oral presentations of the students?

3.2.1.3   What did the interviews reveal about the students?

3.3 THE COMMUNICATIONS INTERVENTION

The intervention itself is outlined below:

3.3.1 Communication problems to be addressed

Many students especially from rural areas and foreign countries have not had an opportunity to speak or hear much English.

- At school some students did no presentations as teachers were overwhelmed by class sizes, generally did not know how to teach presentation skills or taught English while using another language.

- At the end of a year, the Engineering students would have to introduce themselves to Departmental heads of Engineering by means of a presentation.

- They were completely lacking in confidence.

- They were studying Engineering. Their timetables were completely full. One traditional language lesson per week would not solve any problems.

- Students were all at varying stages of language development, which would mean a very differentiated class. Students needed to be stimulated into identifying and improving their own language problems.

- Students would need to understand that they have a lack regarding the language, but they are not lacking as people **–** they have a right to be heard.

3.3.2 The intervention programme

3.3.2.1 Aim:

To give students practice in talking/speaking/reading English and then building their confidence - both short and long term – to produce **well-rounded** engineers who are capable of more than technical skills and can hold their own in comparison to any other engineers

3.3.2.2 Ground rules:

RESPECT - Nobody may speak to hurt anyone else.

TRANSPARENT GOALS - Facilitator and students discuss goals at the beginning of the intervention. Students will be learning from the facilitator as well as one another.

NO HOMEWORK - students are already overloaded with assignments and homework should not be a deterrent.

NO PUNCTUALITY LIST - Students must attend for a meaningful time.

EVERYBODY TALKS - Students are all encouraged to contribute to a discussion, even if humbly at start.

NO NEGATIVE FEEDBACK - Students must speak openly to develop the confidence that their opinions are valid.

TOPICS ORIGINATE FROM STUDENTS - Students must judge that these topics are meaningful to their interests and are not only the facilitator's choice.

ENJOYMENT AND APPRECIATION are critical. Students must leave the class having experienced a sense of enjoyment and achievement.

3.3.3 Method

3.3.3.1   STAGES OF DEVELOPMENT

3.3.3.2   READING PROGRAMME

3.3.3.1 Stages of development

Each 'stage' of development will continue for as long as is necessary. The facilitator will gauge when to start the next stage bearing the overall period of seven months in mind. This must then be discussed with the students.

Table 3.1   The Stages of the Intervention

The stages of the intervention (30 weeks)		
Progression	**Dates**	**Aim**
Stage One	4 sessions	Breaking the ice – an introductory session
Stage Two	3 sessions	Answer the question – listening skills – and dealing with errors
Stage Three	8 sessions	Introduction of life skills and models for each skill
Stage Four	To the end - 14 sessions running alongside Stage Five	Introduction of foreign guests
Stage Five	To the end - 10 sessions	The take-over bid – the roles change
Stage Six	1 session	The gala evening

Stage 1 - Relax everybody.

Explain the aims and goals and method.

Students and facilitator introduce themselves.

General conversation.

First subject chosen by facilitator: generally different cultures, the

importance of understanding one another – relate to industry, meetings.

Everybody generates relevant topics they would like to discuss.

Everybody has to say something, however small.

Everybody has to stand up when they speak.

Important – listening skills and focusing on answer.

Start mentioning reflective process – What have I learnt? How do I feel?

Stage 2 - Everybody talks, however long it takes to build confidence.

Facilitator very much there to support discussion.

Focus on enjoyment.

Stronger students also hold argument together, get them to include quieter students – do this transparently.

Help all students to understand it is acceptable to make mistakes – show how to cover the mistakes.

More emphasis on reflective process.

Stage 3 – Facilitator asks who would like language to be corrected (optional - discuss)

Facilitator explains importance of life skills such as

Decision-making, problem-solving, leadership skills, transculturalism, rhetoric, language of persuasion,

Listening skills and answering.

Facilitator must be open-minded to allow all topics chosen if genuinely chosen.

Start handing over reins.

Stage 4 - Students stand in front of group and do impromptu speaking.

(Aim – to answer questions at November presentations/gala evening) Facilitator or students start inviting foreign guests to experience eyes upon them – focus on being natural.

Stage 5 –Students facilitate the class in the same way

Facilitator is there as support to assist them removing pressure if necessary

Students with most confidence first,

Optional but encouraged.

Stage 6 – Facilitator starts inviting 'foreign' guests

Enable students to get used to different people as part of audience

Heads of Departments, Foundation director and lecturers.

Stage 7 - Start rehearsing for the project.

Examples Of Topics Students Requested:

- A special date – my preferences
- Attitudes towards teenage pregnancy
- I did drugs
- In defence of homosexuality
- Different religions
- Women in engineering
- Can intercultural relationships work?
- What does an average person need in life to be fulfilled?
- Can petty crime be justified by the perpetrator's situation?
- Should English be used as an international language?
- Commitment
- In defence of vegetarianism
- Are government grants for people with Aids justified?
- A woman for president in South Africa

3.4   SAMPLING PROCEDURES

As I taught Communication Skills to all the seventy-eight ECP students across the disciplines of Electrical, Civil and Mechanical Engineering, I was able to use the students from the Cape Town campus of CPUT as respondents in my research.

Only fifteen students for my intervention were purposively selected from these three classes. The following two criteria were used to select the students: They had to be first, second or third language speakers who had passed Grade 12 or the equivalent and those who would benefit from a communications intervention. (Cohen, Manion & Morrison, 2008:111).

In January 2007 the oral, written and interview pre-tests were conducted and from this I purposively selected my sample. After I had analysed the results, the large group of students naturally presented in three groups: 1) South African students who had studied at ex-Model C schools, 2) foreign students from Africa and China, and 3) South African students who had attended previously-disadvantaged schools in South Africa. I selected five students to be in each of the three categories. When these fifteen students were asked to participate in this research, they were exceptionally enthusiastic, as they believed any exposure to extra language help would improve their English. Although Borg and Gall (1979:194-5) state that thirty students is the ideal, they agree that a sample size should be no fewer than fifteen students. I felt that fifteen respondents (five per category) allowed me to collect sufficient data to interpret data with enough depth.

3.5   RESEARCH PARADIGM

A paradigm is a particular stance or standpoint which governs the way an individual views a phenomenon and guides their approach to research (Henning, 2004). In broad terms, the main research paradigms are positivism, critical and interpretivism. This research has been located within the interpretivist paradigm, as the researcher is trying to understand what students are learning from a communications development intervention. Research within this paradigm revolves around people's opinions and beliefs (Cohen, Manion & Morrison, 2008). Interpretivism is the view that cultures can be understood by studying what people think about, their ideas, and the meanings that are important to them (Henning, 2004). The interpretive researcher begins the research with individuals and sets out to understand their interpretations of the world around them (Cohen et al, 2008).

3.6   DATA ANALYSIS

I have chosen to use rubrics as scoring tools in both the pre- and post-testing of the written work and oral presentations as they allowed me to choose specific criteria I wished to examine in the students' written work and oral presentations. The rubrics can be seen in Appendices 3 and 4 on pages 179 and 181. Rubrics, using different levels of the cognitive domain are suggested as an effective assessment strategy by Maree and Fraser (2004) and Moskal (2001) who consider criterion-based referencing assessment to be where the learner is being assessed against identified standards of achievement. Kruger (2007:15) is of the opinion that the use of the same rubrics ensures consistency without repetition of the same standards. She is supported by Golson and Gerretson (2005) who maintain that there are two benefits of such a learning area embedded assessment, namely the

- 'resultant improvement in teaching and learning; and
- data gathering and interpretation of the learner's competencies are sufficiently flexible to cater for the diversity of learning areas.'

Among the reasons, the authors Andrade (2000), Moskal (2003) and Herman, Aschbacher & Winters (1992) give in support of the use of rubrics, are that they:

- are easy to use and explain;
- are helpful in different modes of assessment such as formative-,self-, peer- or group assessment;
- help educators to define excellence and can plan how learners can achieve this; and
- become a tool to communicate expectations to the parents in a user-friendly manner.

The responses to the open-ended questions were categorised and interpreted according to the themes that emerged which were then linked to the theoretical framework presented in the literature review. By means of grounded theory, I was then able to explore the social processes that present within human interactions and

are grounded in empirical theory (Chetty, 2007:11). Baker, Wuest & Stern (1992) explains that grounded theory is different from other qualitative methodologies in that

- the conceptual framework is generated from the data rather than from previous studies;
- the researcher attempts to discover dominant processes in the social scene rather than describe the unit under investigation;
- the researcher compares all data with all other data;
- the researcher may modify data collection according to the advancing theory, drop false leads or ask more questions; and
- the researcher examines data as they arrive, and begins to code, categorise, conceptualise, and write the first few thoughts concerning the research report almost from the beginning of the study.

'A grounded theory is inductively derived from the study of the phenomenon it represents. Data collection, analysis and theory stand in shared relationship with one another. One begins with an area of study and what is relevant to that area is allowed to emerge' (Chetty,2007:11). The diagram on the following page illustrates the above procedure.
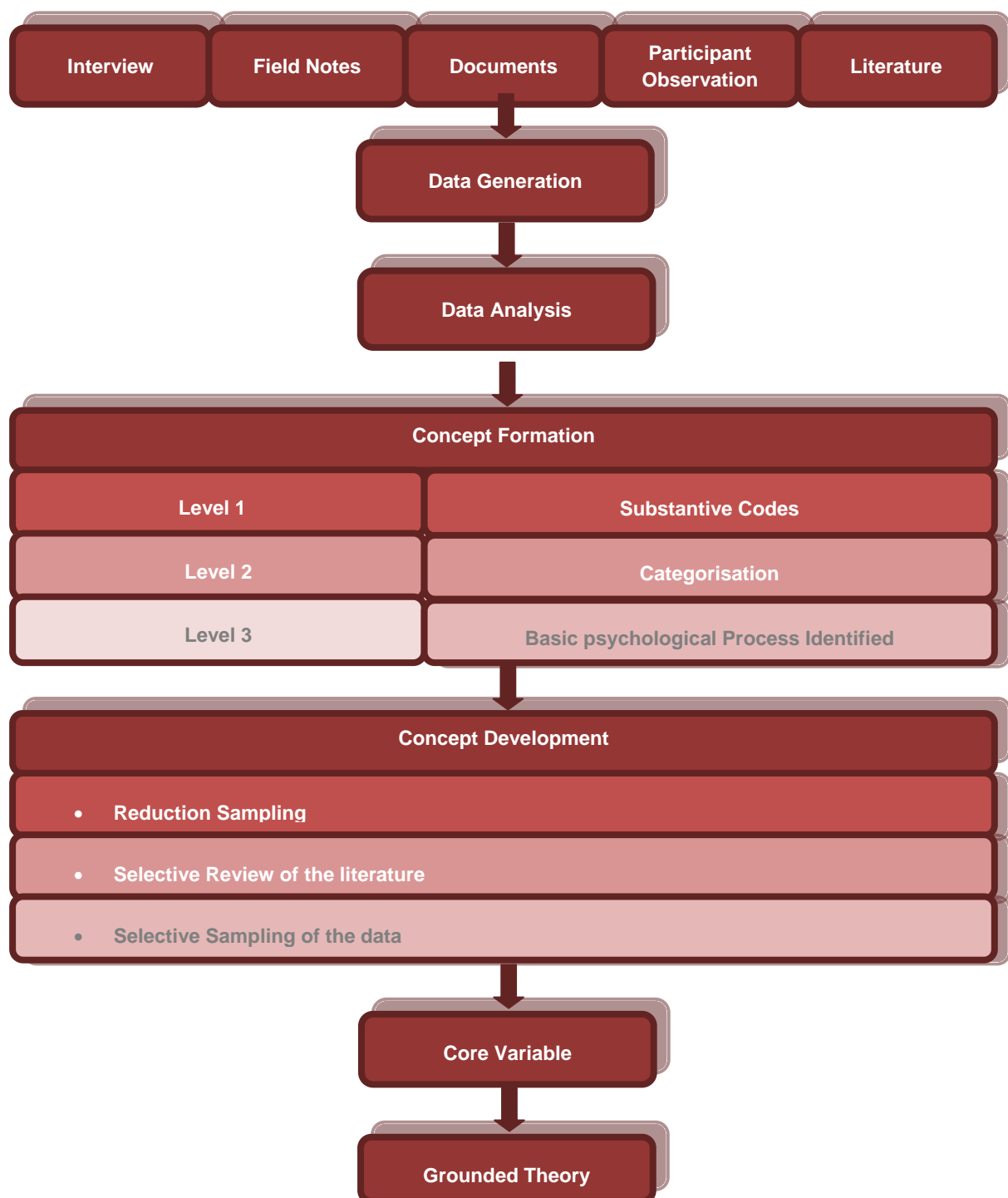
Figure 3.1: Development of grounded theory

3.7 RESEARCH APPROACH

This section introduces and then discusses the educational design research approach used in this study. Plomp's (2009:13) definition of design research is the

systematic study of designing, developing and evaluating educational interventions. This means that the design processes are cyclical in nature and the analysis, design, evaluation and revision activities are iterated until a satisfying balance between ideals and realization has been achieved.

Plomp (2009:15) describes 'iterative cycles' as repetitive cycles that are used to refine the process of developing a design. When combined with reflective practice, as explained in Chapter 2, the examination of experiences by teachers and students can lead to meaningful education. The analysis, design, evaluation and revision activities rely heavily on the iterative cycles and reflective practice. An example of iterative cycles will be expanded on in the third stage of Plomp's model on page 70.

Plomp (2009:15) in Figure 3.2 posits that design research follows the same pattern:

- **Preliminary research: Needs and content analysis, review of literature, development of a conceptual or theoretical framework for the study;**

- **Prototyping phase: Iterative design phase consisting of iterations, each being a micro-cycle of research with formative evaluation as the most important research activity aimed at improving and refining the intervention; and**

- **Assessment phase: (Semi-) summative evaluation to conclude whether the solution or intervention meets the pre-determined specifications. As this phase often results in recommendations for improvement of the intervention, we call this phase semi-summative.**

Plomp's model of this process has divided these three phases above into four basic stages of design research as in Figure 3.1.
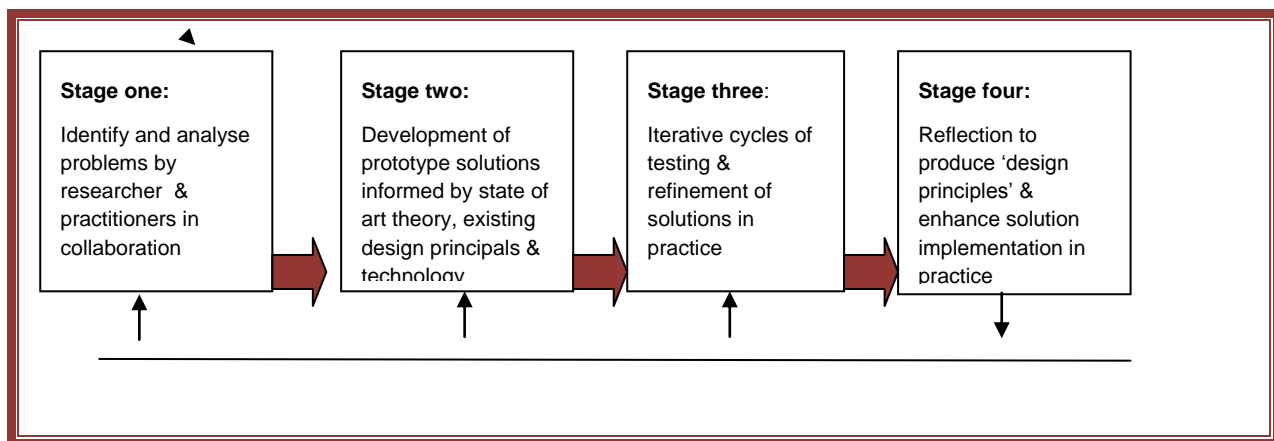
Figure 3.2 Refinement of problems, solutions, methods, and design principles

The needs analysis (Stage 1) would identify the challenges both students and lecturers have and place these problems in context before the second stage of developing the intervention (Stage 2) and looking at similar studies. The next stage (Stage 3) would look at the test impact while the final stage (Stage 4) would consist of reflective practice regarding what had emerged and how to progress further. I have used this model to explain the four stages of the approach that I used for this research.

3.7.1 Stage 1: Identify and analyze problems by researchers and practitioners in collaboration

Before starting to create my intervention, it was necessary to recognize the problems being dealt with and place them in context. This consisted of reading what had been said about the linguistic problems of students in South Africa and students internationally.

Chapter 1 places the problems facing the students in context but here I will develop that discussion to expand further on four issues. Firstly, the engineering students at CPUT are taught in English, as this is the technical language on which engineering is based (Hill & van Zyl, 2002:22-35). From my own three years of experience with these students I found that they were linguistically unprepared for their academic careers. Secondly, Gordon and Wang (2000:41) argue that poverty and a poor standard of education have impacted heavily on the people of South Africa,

especially in the rural areas. Hill and van Zyl (2002:26) agree that this puts them at a great disadvantage especially with technical terms in English. Thirdly, after the bench mark testing of more than 13,000 South African students across faculties and universities, a draft report recommended that student performance strongly suggests that universities need to provide 'extensive support in language development - not only for a small minority of registered students, but for almost half of them' (MacGregor, 2009). Finally, oral presentations are the most feared part of many professionals' lives (Hancock, Stone, Brundage & Zeigler, 2010:302).

3.7.2 Stage 2: Development of prototype solutions informed by state of art theory, existing design principles and technology

The development of the intervention was initially based on a need to develop oral skills and improve the students' confidence to communicate effectively in front of an audience.

After reading the current international literature on communication skills programmes, I decided to include the following principles into my initial prototype:

- Natural Approach (no traditional grammar exercises);
- open discussion based on respect and tolerance;
- transparent goals;
- no homework;
- no punctuality list; students must attend for a meaningful time;
- participation of everyone. Students are all encouraged to contribute to a discussion, starting with one word answers if necessary;
- no negative feedback;
- generation of topics by students and meaningful to them;
- life skills: decision-making, problem-solving, leadership skills, transculturalism, rhetoric, language of persuasion, listening skills and answering; and
- reflective practice.

San Miguel and Rogan (2009:181) developed a similar programme at the University of Technology in Sydney in 2004. Nursing students needed to prepare themselves for the work situation by knowing how to introduce themselves to patients, talk informally to them and explain healthcare procedures to patients. The programme, called 'Clinically Speaking', helped to develop their spoken communication skills so that they were confident when dealing with staff and patients. There were also opportunities to reflect on cultural differences during their communication programme. Students felt that they became more confident because they knew what was expected of them. They were also able to engage in learning opportunities. The creators felt that this programme had been successful in the short term but had to wait to observe long-term effects.

Dlaska (2003:104) posits that teachers of language should also use the 'cultural and disciplinary diversity of its students to create meaningful topics of cross-disciplinary communication'. Making learners' cultural and academic experiences the subject of analysis, aids the development of a group identity among non-specialist learners and thus, the formation of authentic discourse communities before contact with target language communities is established. The learners experience bonding when they bring their own problems to share with their peers. The challenge of establishing their own group and language learner-identity goes further than the acquisition of academic literacy. I agree with Dlaska that the chances for the students to examine their identities and those of their peers are very important in a subject like Communication Skills.

As other needs of the CPUT students emerged during the intervention, it was necessary to reflect on what was happening and adjust the intervention to suit the needs of the students. Students were generating their own topics to meet their social, cultural, relationship, work and academic needs. The issue of cultural diversity in the South African context needed to be addressed.

Freire's (1970) theories on social constructivism would concur with Dlaska, in that, Freire encouraged facilitators to use the material or problems generated by students

to create transformational learning.

3.7.3 Stage three: Iterative cycles of testing and refinement of solutions in practice

Plomp (2009:17) asserts that 'iterative cycles' means a number of repeated cycles of an intervention in an attempt to refine the intervention. He claims that a satisfying solution to a problem can be found, after a number of cycles have been repeated. These cycles must include systematic reflection on the theory and design principles involved in each stage. This may comprise creating conditions for learning that are not usually used to produce knowledge. In this case the completely open discussion based only on respect, was created to form a safe environment for students to speak frankly.

The following diagram depicts the pattern of iterative cycles used in this study:
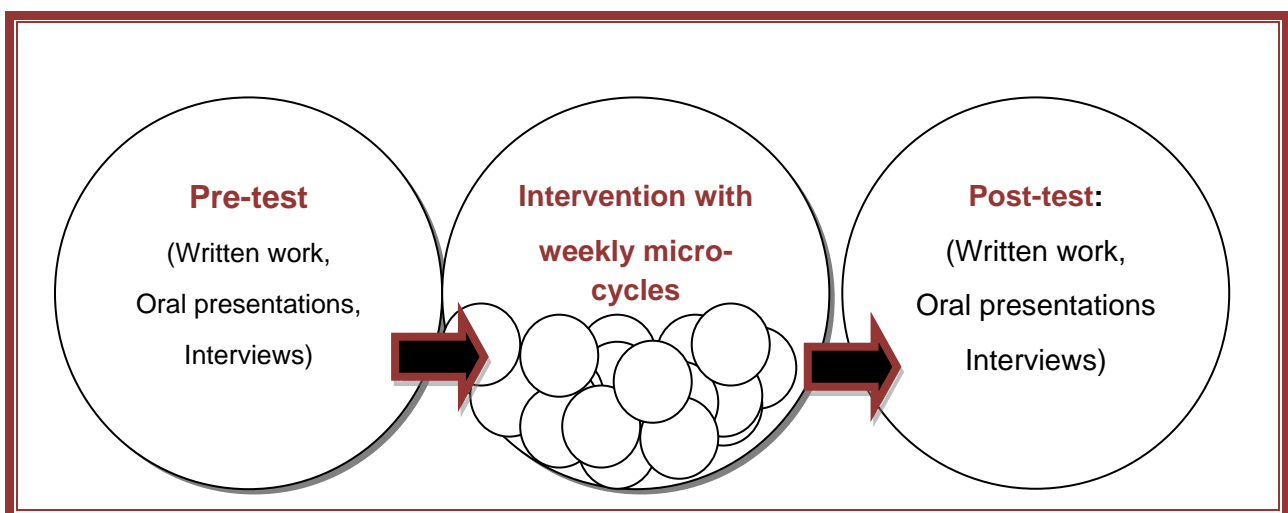
Figure 3.3 An overall cycle of the process containing weekly iterative micro-cycles within the intervention

Although this study reflects only one overall cycle of a communication intervention (pre-tests, intervention and post-tests) during the course of a year, each week of the intervention itself, consisted of smaller iterative micro-cycles, which reflected the process of discussion and then reflective practice. These micro-cycles formed the pattern of the intervention. The lessons consisted of 90 minutes each, at a set time once a week. Time for reflective practice was built into the end of each discussion.

At the beginning of the first overall iterative cycle, pre-tests (oral and written) as well as interviews were conducted with all the ECP students of the Mechanical, Civil and Electrical Engineering departments. However, only fifteen students' pre-tests were purposively selected for this study. From these pre-tests the intervention was designed and conducted over a period of seven months. Each iterative micro-cycle formed a formative test for each respondent when they were required to speak and then reflect on what they had experienced during that particular cycle. The overall cycle was concluded with post-tests (oral and written) as well as interviews at the end of the academic year.

3.7.4 Stage 4: Reflection to produce 'design principles' and enhance solution implementation in practice

Reflective practice means that researchers question and challenge values. It requires 'critical and self-critical inquiry by practitioners' regarding 'a major problem, issue, or concern in their own practice' (Zuber-Skerrit, 1996:3).

Needs of the students, other than linguistic needs, emerged during each iterative cycle of the sessions, that made it necessary to reflect on the process. The time allowed for reflection was handled in different ways by the facilitator. Questions were set to guide the students as to what to consider. They were given quiet time to contemplate or they could discuss any change they felt had occurred within themselves.

During the year, the students were also encouraged to reflect on the content and process of the intervention with me in a collaborative manner. Even sensitive matters could be dealt with as the group had empathy for their peers. This enabled me to adjust the programme to further meet their communication needs.

3.8 FORMULATION OF DESIGN INSTRUMENTS

In order to find the instruments best suited to this research, it was necessary to look at the primary purpose of the study – to assess the impact of the intervention on the

students' communication skills. The data collection took place both quantitatively and qualitatively. Firstly, I decided that pre- and posting testing of both oral and written work as this would allow me to measure the differences both quantitatively and qualitatively after the input and process of the intervention. Relevant data emerging from both the presentations and written work were also analysed qualitatively. Secondly, I used pre- and post-interviews to measure attitudinal changes that they believed had taken place. I felt that the fitness of purpose for all the tests was appropriate.

As can be seen, the data collection for the needs analysis consisted of three phases, and will now be discussed in more detail:

Phase 1 - Pre-intervention: The evaluation of students' knowledge and capabilities to assess the situation before the intervention:

- written linguistic test
- oral presentation
- interview

Phase 2 - Intervention: Input and process of a programme based on a natural approach and ongoing reflection by students and myself; and

Phase 3 - Post-intervention: The evaluation of any change to the students' communication skills after the intervention:

- written linguistic test
- oral presentation
- interview.

My schedule was planned according to the following timetable:

Table 3.2 Planning schedule of data collection

Collection of Data	Purpose of Testing	Preparation	Equipment
1. Pre- test: Diagnostic written letter (Part of Extended Curriculum programme)	• Written Skills	• Brief for letter • Marking Rubric	• Brief • A4 paper
2. Pre-test: Interviews	• Background information • Communication problems	• Interview schedule • Info sheet for students	• Schedule • Tape Recorder • Tapes
3. Pre-test: Oral – Presentation (Part of Extended Curriculum Programme)	• Oral skills • Confidence	• Brief for orals • Rubric for orals	• Video camera • OH projector • Marksheets
4. Intervention – throughout the year	• Communications intervention • Improve oral communication skills and confidence	• Lesson plan for 7 months Individual progress sheet • Ongoing reflection by students and myself	
5. Reading List – throughout the year	• Level of reading • Amount of reading	• Reading List • Means of measurement	
6. Post-test: written letter	• Identify improvements in written letters	• Same instructions • Marking rubric	• A4 Paper

In the following paragraph, I discuss in detail, the reasons why I chose three instruments (diagnostic written work, oral presentations and interviews) to collect my data and their purposes and where I found these instruments:

3.8.1 Diagnostic written work test

According to Cohen et al (2008:418) it is necessary to consider the following before constructing diagnostic tests: purpose of the test, test specifications, contents of the test, form of the test, test item, layout of the test, timing, and scoring.

I used these criteria in the following way. My first instrument of testing was a diagnostic written test in the form of a letter to the lecturer, regarding the student's feelings about Communication Skills (Appendix 2 page 176) The purpose of the test was to measure the students' ability to use English in both spoken and written situations, challenges and difficulties of a group of students before and after the intervention to measure any changes. I designed this letter and used clipart as I wanted to establish an informal, friendly atmosphere in which they could write freely. I felt that a letter would allow me to evaluate their ability to write English. The content of the letter would also permit me to look for communication themes that might arise. Students were also familiar with the form of a letter, as it had been in the school syllabus since primary school. The pre-test would serve to place the students in terms of their starting points before the intervention (Cohen et al, 2008:418). A summative post-test would enable me to check for any progress after the intervention.

Despite using the Natural Approach as the theoretical framework for my study, I have chosen to make use of a rubric to measure traditional language skills and abilities before and after the intervention. This kind of detail is essential if one is trying to measure the value added by an intervention when developing language skills (Cohen et al, 2008:418). The weightings of the items on my rubric were set according to the rubric used by Jacobs, Zinkgraf, Wormuth, Hartfiel and Hughey (1981:30) to mark second language under normal class circumstances (see Appendix 3, page 179). I had used the rubric to test students in 2006 and had found the following categories to be a fair form of assessment: content (20 marks), organization (20 marks), vocabulary (10 marks), language use (40 marks) and mechanics such as punctuation, paragraphing and spelling (10 marks). This allowed me to mark out of

100, which was easier as this was the mark normally used in class and I was familiar with it.

At the beginning of February 2007, during their orientation period, before formal classes had started, all of the 90 students wrote in a lecture theatre under my supervision. The topic was unseen. They needed to complete an A4 page in length, stating their feelings on all three or one of the following topics: The importance of language skills for an engineer, learning languages at school, or their own communication problems. They were given 90 minutes to do so. I felt this was sufficient time for them to plan and execute their letters and not pressurize them. Students could leave earlier if they were satisfied with what they had done. All students completed the test, although the length of the letters varied. This test fulfilled all the requirements of a diagnostic test. I marked all the tests myself in order to maintain a standard. They were then moderated by another Communications Skills lecturer to maintain a certain standard and to ensure all tests were fairly and consistently marked. The communications lecturer was a colleague with over 25 years' experience of teaching both English and Communication skills. I provided the same rubrics as I had used.

Seven months later in October 2007, only the fifteen respondents in the study wrote the written post-test under the same conditions. This time the venue was a classroom as there were fewer students as, only the respondents and not the whole class needed to write. Students were again asked to write a letter but the subject was changed to: describe and evaluate your first year as an engineering student as well as the intervention you experienced. Care was taken in the construction of the test to ensure that the standard of difficulty was the same as the pre-test so that the results would be valid. The only difference lay in the subject of the letter, which I again set to ensure that all students would have something to say. The same rubric, with the same content and weighting, was used to mark the tests.

3.8.1.1   Advantages of using written tests

Creswell (2009:180) claims that when researchers use documents such as a letter, it

- enables them to obtain the language or words of a participant;

- can be examined when convenient for a researcher;

- represents data that the participant will have thought about; and

- saves time and money as it does not have to be transcribed.

3.8.1.2   Disadvantages of using written tests

Creswell (2009:180) continues that the problems associated with using written tests are that:

- not everybody is equally articulate; and

- information may be hard to find in the document.

3.8.2 Oral presentations

My second instrument of testing took the form of prepared oral presentations. This represented the discussion of the thoughts and actions that were communicated through speech and were presented as a planned talk (Cohen et al, 2008: 389). When people talk, their utterances are usually part of a context, which has two perspectives: that of the words being used and the actions being done.

These presentations were used to collect data. The presentations were transcribed and analysed. The data, which was collected, helped to construct meaning after a careful reading and interpretation of the text and actions to determine the dominating influences.

The rubric I used to determine the ability of the candidate can be found in Appendix 4, page 181. It reflected both the content as well as the delivery of the topic. I had used this rubric for a period of fifteen years of teaching oral presentations and had found it to be very reliable.

I used these criteria in the rubric in the following way: In the pre-test oral presentation during their orientation at the beginning of the year, students were asked to speak about what they felt their strengths and challenges were as people, why they had

chosen engineering and their feelings about communication. (See Appendix 5, page 183). The post-test required them to speak about their experiences during the year and the effects of the intervention. Both oral presentations were filmed, marked and measured in the same way to assess content and delivery. South African students were conversant with oral presentations although many of the foreign students had not done formal presentations at school. As with the written test, the oral pre-test would serve to position the students in terms of their starting points prior to the intervention (Cohen et al, 2008:418). The summative post-test would indicate any progress after the intervention.

The weightings of the items on this test were adapted from the rubric used by the Professional Communication Unit of the University of Cape Town (see Appendix 4, page 181). The first section dealt with content and consisted of an introduction (10 marks), body of presentation (10 marks) and conclusion (10 marks). The second section consisted of delivery (40 marks) and included criteria like eye contact, enthusiasm, appropriate style/manner for context and content, pace of delivery and timing, posture, confidence, poise, gestures, liveliness, involvement, facial expression/animation and vocal clarity/fluency/variety. The last section included a language category (30 marks) for their spoken usage of English.

These presentations took place at the same time as the written tests at the beginning of February during their orientation period before formal classes had started. Again, the ninety students were given the same topic as in the written work and asked to speak for three minutes. I again marked all the tests myself in order to maintain a standard. My marks were moderated by another Communications Skills lecturer who marked with me to maintain a consistent standard.

The fifteen respondents in the study presented again seven months later in October 2007 under the same conditions. These fifteen students were required to present because the pre-test also served to choose the respondents. The same rubric was used for the post-test to ensure that the same standard was maintained.

3.8.2.1   Advantages of using oral presentation

Habermas (1970:368) states that speech:

- can be empowering in that it enables mutual understanding between participants;
- allows participants the freedom to enter a discourse; and
- can be empowering in moving towards consensus as a result of discussion and argument.

3.8.2.2   Disadvantages of oral presentation

There are also disadvantages to oral presentation:

- a reader must be very sensitive to the nuances of language (Coyle, 1995:247); and
- teachers can control relationships in the classroom by telling students when to talk, what to talk about and how good they are (Edwards, 1980:237).

3.8.3   Interviews

Finally, I used an interview schedule to identify how and when the students acquired English, their attitudes towards English and what opportunities they had, to use English as a spoken language.

At the end of 2006, I piloted the interview schedule with five students. After analysing the responses, I was able to adjust the questions in the following two ways:

- the questions were repetitive; and
- in some instances, I simplified the vocabulary so that the respondents could give explicit answers.

I chose to use an interview schedule as it provided an opportunity for the interviewee

to discuss their interpretations of issues from their own point of view. As the interviewer has a specific purpose, he/she may control the interview by asking planned questions to obtain answers needed for interpretation. The data collected enabled the interviewer to interpret responses which are verbal, non-verbal, spoken and heard (Cohen et al, 2008:349). Meaning often comes from interpreting the way we speak in addition to the actual words used (Henning, 2007:62).

The pre-test interview schedule I used consisted of a set of 23 open-ended questions. All the questions were prepared before the interviews and were tape recorded and transcribed. These can be seen in Appendix 6, page 185.

Kvale (1996:30) recommends using the open-ended interview if one wishes to

- engage, understand and interpret the key feature of the life worlds of the participants;
- use natural language to gather and understand qualitative knowledge;
- be able to reveal and explore the nuanced descriptions of the life worlds of the participants;
- elicit descriptions of specific situations and actions, rather than generalities;
- adopt a deliberate openness to new data and phenomena, rather than being too structured;
- focus on specific ideas and themes, but avoid being too tightly structured;
- accept that the interview may provoke new insights and changes in the participants themselves;
- regard interviews as an interpersonal encounter, with all that this entails; and
- ensure that the experience is positive and enriching for all participants.

I conducted, audiotaped and transcribed both pre- and post- interviews with each of my fifteen respondents in a private room. I used the open-ended questions to explore not only the actions of my students, but also their feelings and thoughts regarding their communication prowess. Here I read each transcribed interview and listed the themes that emerged. I coded any similar answers to particular questions and was

able to count them afterwards.

The students were organized into three groups (English First language, foreign students and previously-disadvantaged South African students) after the oral and written tests. The data collected in these groups could be compared as well as the data collected from individual group members. The research question was also considered. (Cohen et al, 2008:467-468).

3.8.3.1   Advantages of using interviews:

Cohen et al (2008:362) suggest that the following advantages are gained from the interviews:

- a relationship was established with each respondent that led to my instituting a policy of interviewing each student in the Communication Skills class;

- I was able to observe their body language as well as to listen to the content of their responses;

- an environment of trust was established which enabled me to ask more complex questions;

- students made me aware of other problems that I had not realized were affecting them; and

- this approach allowed free responses and different opinions from respondents.

3.8.3.2   Disadvantages of using interviews:

Cohen et al (2008) argue that the following disadvantages may occur during interviews and must be taken into account:

- external distractions (for example, telephone calls, or people knocking on the door);

- embarrassing or awkward questions;

- jumping from one topic to the another;

- giving advice and opinions rather than listening; summarizing too easily or

closing off an interview too soon;

- being too superficial; and

- handling of too sensitive or personal matters.

3.9   VALIDITY

According to Golafshani (2003:598) 'validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are'. Salkind (2006:106) expands on this statement regarding validity, by asserting that it is essential that researchers check three issues: 1) the results of their tests, 2) the degree of validity of these tests and 3) the context in which the test occurs. However, Le Grange and Beets (2005:115) argue that one must be careful of placing the emphasis on the test, but rather concentrate on the interpretation of the data. In order to do this, it is necessary for researchers to choose their instruments of testing with great care to ensure that reliability does not skew the interpretation of the data. Henning (2007:146-148) claims that one validates the interpretation of data in a study by checking for bias, neglect, lack of precision, and questioning all procedures and decisions critically before asking peers and other researchers to criticize one's theories. She stresses that precision throughout the whole research process is of the utmost importance.

Nieveen (2009:89) defines educational design research as

> **the systematic study of analyzing, designing and evaluating educational interventions in order to solve complex educational problems for which no ready-made solutions are available and to gain insight in key design principles.**

If the principles of design research are to lead us to design similar interventions for similar settings, precision and accuracy of validity are crucial in all cases.

In this particular study it became clear that four types of validity, as discussed in Cohen et al (2008:133–139), were evident:

- internal validity that shows how well the interpretation of data is corroborated by the source which is used to support it;

- external validity which refers to the degree with which results can be generalised to other cases, people or situations;

- content validity which refers to the depth of all the areas measured (Creswell, 2009:137); and

- catalytic validity which helps participants to understand their world in order to transform them and to empower the people.

To test whether the researcher was accurately examining the impact of the Natural Approach intervention on their communication skills it was necessary to answer certain questions, which tested the truthfulness of the results and the accuracy of the instruments. The tests were set according to standards used in Communications Skills classes and they were discussed with another Communication Skills lecturer. They were then marked according to the same rubric and moderated. Catalytic validity was tested by the students' own comments. Therefore, all possible care was given to the designing of the written test, the oral presentation and interview to ensure that pertinent, accurate and relevant data would be obtained to contest or support the arguments set out in the literature review.

In the following section, I will discuss how internal, external, content and catalytic validity influenced my study. To conclude each section, I have mentioned one possible threat to validity. However, the final paragraph mentions two further threats to the validity of my research.

3.9.1 Internal validity

Internal validity seeks to establish whether the interpretation of research data can be corroborated by the data obtained. 'Empirical data helps researchers to gain insight into the quality of the tentative intervention principles' (Nieveen, 2009:91).The findings should show precisely what sources were used to assess the phenomena being researched accurately. Henning (2007:146) agrees that the investigation must be done in a way that will reflect the truthfulness of the subject and enough time must be spent on the research to establish the relevance of the focus.

Problems arising here could be from a lack of time to delve deeply and that participants may not want to answer too many questions in a questionnaire (Cohen et al, 2008:137). The accuracy sought can, however, also be threatened if the researcher does not check that the participants' experiences within the testing do not affect the researcher's ability to explain his/her findings The nature of researchers is to be biased when they investigate the world, because they are human and part of the world. Therefore, it is very important to check if other researchers may have different perspectives of the same subject and these points of view (Marshall & Rossman, 1995:143-145).

In this study, the internal validity of the written test and the oral presentation was checked by using the criteria from a syllabus created by the Western Cape Education Department to establish the standard the students were required to have when entering the university and before the intervention took place. In an attempt to prevent bias a Communication Skills lecturer was also asked to use the same rubrics as can be seen in Appendices 3 and 4 on pages 179 and 181 to moderate the tests. I had used these rubrics for the written tests and the oral presentations. These rubrics for marking and moderating written tests (Jacobs et al, 1981) and the oral presentations (University of Cape Town, 1980) are established criteria and were obtained from a neighbouring university.

3.9.2 External validity

External validity means the degree to which results can be generalized to other cases (Creswell, 2009:165). It seeks to establish whether we can transfer these findings to another set of people or circumstances (Marshall & Rossman, 1995:143-145). In design research in particular, accurate information could lead to educational designers being able to design similar interventions for similar settings (Nieveen, 2009:91).

The comments made by respondents and critics during the interviews could provide improvements with the aim of making an intervention generally usable in a similar setting. Nieveen (2009:98) also recommends that the design researcher herself does

formative evaluations of the prototype. As I had only done one cycle, I used my learning experiences, in addition to the comments of a colleague teaching Communication skills, to consider transferability and comparability (Cohen et al, 2008:137). This would allow me to look at studying the typical situations for similar circumstances. In the post-interview, observations made by respondents, which was based on their reflections, also played an important role in shaping the intervention so that it could used by in similar situations.

A possible threat to external validity may be the knowledge and attitude of the facilitator who wanted the intervention to be a success and had to guard against this.

3.9.3 Content validity

Ensuring content validity in a study means that the instruments used should show that they thoroughly cover the items being researched in enough depth. The weightings of all the elements of the main issue discussed must also represent the wider subject fairly. Researchers should ensure accuracy of data when they look at the depth of a situation, as there may be many representations of a situation (Cohen et al, 2008:136-137).

To ensure content validity in this study it was necessary to ascertain whether the testing covered a fair representation of what the results should represent (Cohen et al, 2008:147). The content of the intervention programme discussed in chapter 3 is clearly reflected in the content of the rubrics of all three instruments used (written work, oral presentation, and interviews). The criteria of the rubrics added content depth and validity to my study. The content of the intervention is fully supported by the NCS of the Western Cape Education Department (WCED) as can be seen in Chapter 1 on page 15 in its aims to create lifelong learners who are confident, independent, literate and numerate as well as compassionate and able to participate in society as critical and active citizens. It also fulfils the requirements of the Washington Accord (see Chapter 2 page 51) which requires a module within the engineering degree dealing with communication, team work and ethics as opposed to the technical training of engineers.

A possible threat may be personal bias in the interpretation of marking the pre- and post-tests. Lincoln and Guba (1986:76) claim that the researcher should bear fairness in mind here at all times.

3.9.4 Catalytic validity

According to Cohen et al (2008:139) catalytic validity embraces the paradigm of critical theory. The agenda for catalytic validity is to help participants to understand their worlds in order to transform them. It is not only about improving the participants' experiences of the world but also improving the empowerment of the participants.

In this study, participants were from a multicultural diverse background. One of aims of the intervention programme was for students to define themselves and what they stood for. At the beginning of the year, ground rules were formulated. Respect for others and fairness was paramount. During the classes, they were given the opportunity to discuss the problems of their worlds and how they were affected by the views of their peers. In this manner, they were exposed to the different South African cultures as well those of the rest of the world.

This reflective practice sought to empower them to make their own decisions based on what they believed to be right and the results can be seen in Chapter 4. This empowerment relates to Freire's policy of conscientization (1970) which allows participants to understand their situation and make their own decisions.

A possible threat to catalytic validity may be that the students' reflections were superficial and lacked depth.

3.9.5 Threats to validity

In this study, three other threats became evident: Other external influences such as

the growth of the students as people, the size of the intervention class and the enjoyment of the intervention could have made the students less critical than they should have been.

In addition to Communication Skills, other subjects, lecturers and university experiences could have played a role in the students' growth and development. These external influences were not taken into account and instead the intervention relied on the students' emotions. As the students were responding directly to the facilitator's questions, they could have wished to please the facilitator.

For this study, a sample of fifteen students was selected from the class of 90 ECP Engineering students. All other students who wished to be part of the intervention could not be refused as I felt ethically obliged to help everyone who requested assistance. If I had been able to work with only these fifteen students, I may have achieved more depth in the study.

Students appeared to have enjoyed the experience of the intervention, which could and did become very emotional at times. The remembered involvement during the sessions could have made them concentrate on these emotions, instead of looking at the programme critically.

3.10   RELIABILITY

While validity measures whether an instrument does what it should, reliability checks the consistency and accuracy of these measures. While validity may not be necessary for reliability, reliability is an integral part of validity. This means that a test can be reliable but not valid, but a test cannot be valid without first being reliable. When a test is measured more than once and the outcomes are the same, reliability is high (Salkind, 2006:105-118). Salkind also explains that

> **what researchers know about human behaviour, ultimately depends on how they measure what they are interested in studying. In other words, the measurement technique used and the questions asked, go hand in hand and are very closely related, both in substance and method.**

The meaning may change in quantitative and qualitative research. In quantitative research, measurement is about numbers and objective hard data (Golafshani, 2003:597). The result of a test should be repeatable. In qualitative research, the emphasis is on the researcher who seeks trustworthiness, understanding and extrapolation. When using both quantitative and qualitative methods in a mixed-methods study, Patton (2002:247) asserts that triangulation can strengthen a study by combining methods. However, Barbour (1999:39-43) believes mixing methods within a qualitative or quantitative paradigm can be problematic because each paradigm has its own assumption according to its theoretical framework. This made it necessary, in the present study, to guard against interpretations that could be understood from different perspectives.

In my research, I used parallel forms as a measure of equivalence by administering two different forms of the same test to the same group of participants (Salkind, 2006:110-112). This means that the pre- and post-test for the written work, oral presentations and the interviews used the same format while the questions were different, yet of the same standard. A colleague in the communications field was asked to compare the standard of each test. She found both tests to be of the same standard.

3.11   ETHICAL ISSUES

In order to conduct my studies, I was obliged and ethically bound to obtain permission from the students involved and the Head of Engineering (ECP). A copy of this letter from the Head of ECP (Cape Town campus) is in Appendix 8 on page 190. I asked students for their informed consent from all parties concerned to conduct pre- and post-tests of written work, oral presentations and interviews, as well as to film the presentations and record the interviews. Only students that agreed to this procedure could be allowed to take part in the study. The access to my students formed part of my daily work, apart from the interviews, which I conducted privately in the Communications centre. Full confidentiality and anonymity was guaranteed to each participant. I used numbers to represent each student so that no-one would recognize them as people. Students were also guaranteed the right to withdraw from

the project. Having more students than I needed, I had allowed for an attrition rate.

All participants were unconcerned by anonymity and preferred to concentrate on improving their results.

3.12   SUMMARY

In this chapter I stated the research question, outlined the processes of sampling and the research approach. I also identified the instruments I used and explained how the data was analysed in terms of theories and beliefs. I have discussed the validity, reliability and ethics of the process. Although the allocation of marks in oral presentations and written work is always difficult in terms of subjectivity and bias, I attempted to prevent any skewing of data by moderation from a Communications Skills expert.

The data interpretation is examined in Chapter 4.

CHAPTER 4 - FINDINGS

4.1   INTRODUCTION

I shall present the results of this research project in this chapter and examine the benefits of the intervention on the written work tests, the oral presentations and the interviews. Each section will start with a quantitative discussion of the results of the written work tests and oral presentations according to pre- and post-tests. This will be followed by a qualitative discussion around the emerging benefits of the intervention. The students' comments regarding the intervention in the post-testing will be regarded as the benefits or limitations of the intervention. Their insights will be tabulated and revealed through the comments taken from their written work, oral presentations and the interviews.

4.2   BACKGROUND TO THE ANALYSIS OF THE RESULTS

My intention during the initial sampling process was to select three groups representing engineering students who were linguistically strong and coping with English at university level (a), average (b), and weak and struggling to understand English (c). However, once the data had been collected these groupings changed to represent the English First and Second language of five previously-advantaged students (A), five foreign students (B) and five previously-disadvantaged students (C). The *previously-advantaged* students attended Model C schools and schools that were well funded by the South African government. The *previously-disadvantaged* students were at schools that were not as well funded by the South African government as the Model C schools. Four *foreign* students were from countries in Africa and one *foreign* student was from China.

These groups presented themselves in the intervention programme and thus it followed that this was a better categorization. Therefore, the results will be discussed according to the latter three groups as shown in the Table 4.1 below.

Table 4.1 Description of sample groups selected for the study

GROUPS	NUMBER OF STUDENTS IN EACH GROUP	DESCRIPTION OF GROUPS
Group A	5	English First and Second language previously-advantaged students (South African)
Group B	5	Foreign students from the rest of Africa and one Chinese student
Group C	5	Previously-disadvantaged students (South African)

4.3   FINDINGS: ANSWERS TO THE RESEARCH QUESTIONS

The key focus question over-arching the current research investigation is as follows:

What impact did a communications intervention have on the Engineering students (Extended Curriculum Programme) of the Cape Peninsula University of Technology?

4.3.1 Sub-questions

Each of the ensuing sub-questions formed a major category of the findings and they were addressed by the progressive presentation of the stages of the intervention.

4.3.1.1   **What impact did the intervention have on the written work of the students?**

4.3.1.2   **What impact did the intervention have on the oral presentations of the students?**

4.3.1.3   **What did the interviews reveal about the students?**

The results of Groups A, B and C will be presented and discussed quantitatively before discussing the students' comments qualitatively. Photocopied examples of a marked

pre- and post-written test, a marked rubric for the pre- and post-oral presentation as well as a transcription of a pre- and post-interview will be included with the rubric and can be seen in Appendix 17 on pages 217 to 223.

The first day the students arrived at the university, I gave all 90 students an assignment in which they had to introduce themselves firstly in a written letter, explaining why they had chosen to study engineering and discussing how they felt about their own communication skills. After this, all the students were asked to do a three-minute presentation using the same content matter. These oral presentations were videoed and both written and oral tests were marked according to set rubrics used by Communication Skills lecturers at the University of Cape Town. The rubrics can be found in Appendices 3 and 4 on pages 179 and 181. Oral interviews were then conducted with the selected sample fifteen respondents. All pre-tests were completed by March of 2007. The post-tests were conducted with the same of sample of fifteen students in October of 2007. The format of the post-tests for both oral and written work was similar to the relevant pre-tests but the content was now pertinent to the situation after the intervention.

Chapter 4 presents firstly the results of the intervention on the written work, oral presentations and interviews quantitatively. It will then look at the students' awareness of the benefits qualitatively. The names of the respondents are represented by the Arabic numerals 1 – 15 for the sake of confidentiality.

4.3.1.1   What impact did the intervention have on the written work of the students?

In the discussion that follows, although the rubric for the written work included five separate concepts such as Content, Organisation, Vocabulary, Language use and Mechanics, I have chosen to comment only on the total scores. Each graph representing the total mark will be followed by a discussion.

However, the omitted graphs showing the results for the separate concepts can be

seen in Appendices 9 to16, pages 191 - 213.

Since written work was not the focus of the intervention, I was interested to see if and how the intervention had impacted on their written work. Since oral language and written skills are integrally connected, I thought it was logical to investigate whether there may be some improvements in the written work.

Group A

See Appendix 9 on page191 for the results of the separate concepts of the rubric on which students were assessed. In this section, Figure 4.1 below illustrates the overall results of the pre- and post-written tests for each of the five ex-model C students respectively.
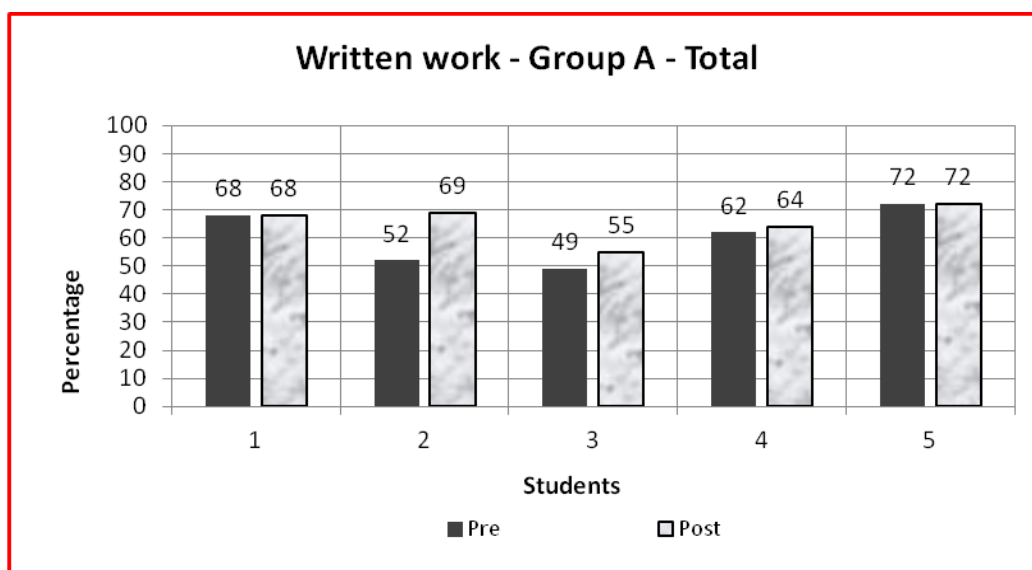
Figure 4.1 Comparison of total marks between pre- and post-written tests of Group A

Discussion

The most significant overall improvement was an Afrikaans-speaking student 2 who improved by 17%. There was an increase of 40% in his Mechanics, as there was a significant improvement in his use of spelling and punctuation. His use of idiomatic expressions indicated a broader choice of words in the post-tests.

At the end of the year, both students 2 and 3, as mother-tongue Afrikaans-speaking students, expanded on the topic of the letter and their language usage, particularly their sentence construction and showed the most improvement. Both students had been selected on account of their extreme shyness and reluctance to speak English. Their written work was initially weak when compared with the other three English mother-tongue students. As written work was not the focus of the intervention, this progress was pleasing to note.

Students 1, 4 and 5 were all above 60% in their pre-tests and their marks remained constant in the post-test. While students 4 and 5 had joined particularly to improve their confidence when speaking in front of an audience, student 1 joined because she enjoyed participating in the debates.

Group B

The results of the separate concepts used to assess all five students can be found in Appendix 10 page 194. In this section, Figure 4.2 below illustrates the overall results in the pre- and post-written tests of the five foreign students in Group B.
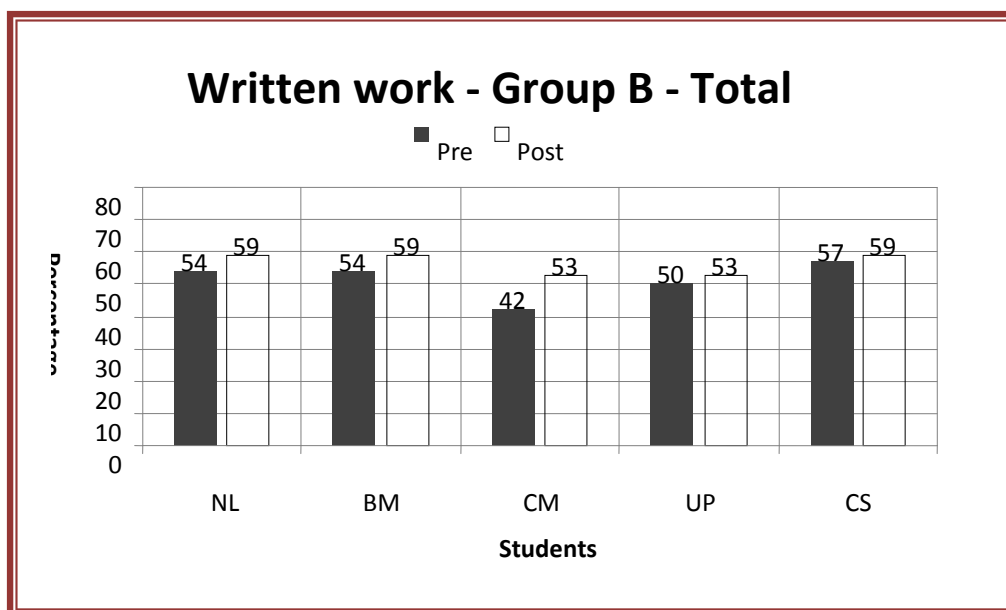
Figure 4.2 Comparison of total marks between pre- and post-written tests of Group B

Discussion

The post-tests indicate an improvement in all five foreign students' written scores. The total marks of each member of the group of foreign students increased by a range of 2% to 5%, with the exception of the French-speaking student from the DRC, student 8, who had the lowest mark in the pre-test. He increased his total mark by 11%. There was a noticeable improvement of 15% in the way he developed the theme and the way he supported his ideas. Although his Vocabulary mark stayed the same, his Language usage mark rose by 7% as there were fewer grammatical errors.

Student 6 from Angola, who is Portuguese speaking, improved at expressing his feelings more fluently and his Content mark rose by 20%.

All the students in Group B improved particularly in the Language usage category, where they moved from having frequent errors to effective, although simple construction of sentences. The overall marks showed evidence of more planning and structure in all their writing.

Group C

The results of the separate concepts can be found in Appendix 11 on page 197. Figure 4.3 below illustrates the overall results in the pre- and post-written tests of the five South African students from disadvantaged schools in Group C.

Figure 4.3 Comparison of total marks between pre- and post-written tests of Group C

Discussion

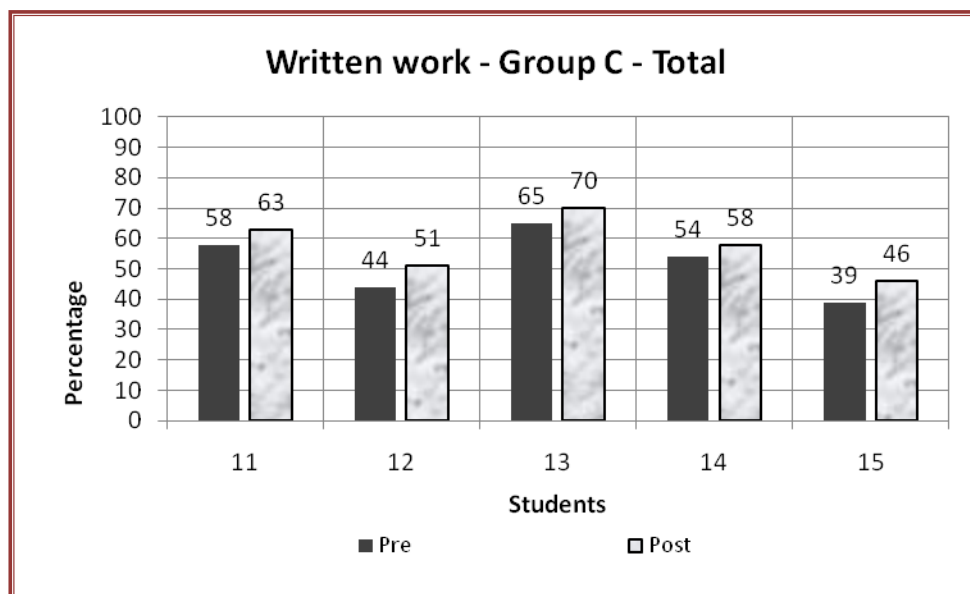All the students in Group C were isiXhosa-speaking. It was pleasing to note that the two weaker students' marks showed the most progress from pre- to post-test. Both students 12 and 15 developed the theme more in their written work and there was more evidence in supporting the main ideas. In particular, student 12's work showed a logical development in his ideation and his use of vocabulary. Although there were still errors in his language usage, student 15 used simple but effective grammatical structures with fewer punctuation and spelling mistakes.

Each of the other respondents displayed a slight improvement of 5%. In this group, there was a general improvement of Language usage.

The three most significant benefits in the written work post-testing consisted of confidence, an awareness of English in the business world and personal qualities which students felt that they had gained from the intervention. They are shown in the following table.

Table 4.2 Student comments on the themes, which emerged from the written work

<table>
<tr><td align="center">POST-TEST (WRITTEN WORK)</td></tr>
<tr><td>

Theme 1. Awareness of confidence levels

Theme 2. Awareness of English in the business world

Theme 3: Personal qualities gained (social skills, personal growth, motivation, comfort and sharing, respect for other ideas and cultures)

</td></tr>
</table>

Discussion

Each theme will be discussed separately. The students' awareness of their confidence levels was significant in the post-tests.

When looking at the improvements and benefits, all three groups referred to experiencing a lack of confidence in their presentation abilities when faced with an audience. They were also very aware of the implications of English as an international business language, and the personal life skills that they had gained during the intervention. Table 4.3 will list comments of students from both pre- and post-written tests concerning these three benefits. When compared to the pre-test, the post-test will show how the insights of students differed. A discussion will follow Table 4.3.

Table 4.3 Awareness of confidence levels

Pre-Test	Post-Test
Theme 1: Awareness of confidence levels	
Group A	
'…but when it comes to speaking in front of an audience, I become extremely nervous…' (Student 4)	'…conversation class which cracked my shell right open.' (Student 4)
'Communicating was never a problem for me as I was raised in an environment where talking to people was vital to relay your thoughts and ideas.' (Student 1)	'… improved my public speaking…' (1) 'I would recommend that all future foundation and mainstream students attend conversation class...' (Student 1)
'I feel I am holding back on my true potential and my true self.' (Student 5)	'Highlights for me….most certainly brushing up my presenting/public speaking skills which I feel are a necessity...' (Student 5)
Group B	
'My own communication problem is to give message to somebody properly…I'm not rich in vocabulary.' (Student 8)	'Before I could not speak or write properly…it really helped me.' '...helped me to speak in front of people…' (Student 8)
'...but I feel nervous when I talk with an English-speaking person.' (Student 10)	'Really, I learnt lots of things from Conversation class.' (Student 10)
'I have done English but it was only in six months, so it's too little to learn well the language. To tell you the truth I have problems with all reading, listening, writing and speaking.' (Student 6)	'...improving my communications, my English, my way of thinking and so on…' 'Conversation class was one of the best programmes which helped me a lot in my life.' (Student 6)
'I'm trying to be more confident so I can speak but I'm afraid this will never go.' (Student 9)	'...helped me so much with the conversation classes.' (Student 9)

Group C	
'Language skills are important.' (Student 15)	'Talking about the conversation class, it absolutely achieved.' (Student 15)
'Thus I end up with a shaky voice that is without clarity.' (Student 13)	'Growth not only physically but mentally too.' (Student 13)

Discussion

According to the results, all three groups involved in the testing perceived confidence to be one of the main benefits of the programme. Students were given the opportunity to consider their reactions in front of an audience during the pre-test. The intervention was created to help students who suffered from a lack of confidence to speak English. Nine students (Group A – 3, Group B - 4, Group C -2) initially felt insecure and lacking in confidence in front of an audience. By the end of the intervention, these nine students again mentioned that they perceived their confidence to have improved during the intervention. These students all stated that the intervention had helped them. As confidence was the focus of the intervention within the Natural Approach, this suggested significant progress had been made by these students. Students now felt ready to lead the class in discussions.

The foreign students (Group B) were able to articulate their lack of confidence at the start of the programme in terms of insufficient vocabulary (4 students) and a lack of opportunity (3 students) to speak English. This inhibited their communication with their South African peers and meant they tended to remain in cliques from their home countries. Lacking vocabulary was also an obstacle to their studies as well as their social lives as they needed a longer time to study because they were unfamiliar with many English words.

The second benefit that emerged in the written work section was an awareness of English as the business language internationally. Table 4.4 will list the pre- and post-test comments made in the written work, which will be followed by a discussion.

Table 4.4 Comments made in the written work regarding awareness of English the business world (pre- and post-test) by Groups A, B, and C

PRE-TEST	POST-TEST
Theme 2. Awareness of the impact of English in the business world	
Group A	
'You will also be working with a lot of workers and need to communicate with them to make the job done.' 'When going in the business world today there are a lot of people in the engineering field and getting work is very tough, so going for the interview people are going to take the one with best language skills and who talks good.' (Student 3)	'…we chat about all the different types of things like BEE…' (Student 3)
'…I feel that I have a problem expressing myself and communicating thing efficiently to people, especially strangers and during interviews or presentations.' (Student 5)	'Highlights for me were as follows: most certainly brushing up on my presenting/public-speaking skills which I feel is a necessity in the business world.' (5) 'Foundation helped me to speak in front of people, to stand alone, to behave like an engineer...' (Student 5)
Group B	
'I rather think that language is of the utmost importance for an engineer because an engineer mostly communicates with all individuals in a firm or company…There will be signing of contracts…' (Student 7)	'…as time goes by, I was improving my knowledge in reading, talking, thinking, speaking.' (Student 7)
Group C	
'An engineer is a highly professional course, it is important for them to have language skills.' (Student 14)	'...helped me in report writing, summary writing…' (Student 14)

Discussion

At the beginning of the year the post-tests showed that twelve students (Groups A - 3 students, B - 4 students and C - 5 students) were keenly aware of the specific needs for English to communicate with workers, be interviewed and speak confidently in front of people. They felt nervous regarding their own ability to speak English and that this would handicap their opportunities in industry if they could not communicate in an appropriate manner. They were aware of the different roles of an engineer, such as giving instructions, speaking at meetings in front of an audience, and negotiating or reading contracts. Many of the students had arrived with these views. This added to their awareness of what was required of them and their apprehension as to whether they would be able to cope with the job requirements, such as report writing and summaries. Group B (2 students) felt that a lack of confidence negatively affected the business world's perception of the speaker. A lack of confidence in English also hampered them when they studied in preparation for the business world (Group B - 2 students).

I will now discuss the personal qualities or life skills (post-test only) that emerged from the students' comments as to their awareness of the benefits of the intervention.

I have understood personal qualities to be the attributes or skills in life that uplift the human being, such as spirituality, self identification, justice, values, virtues, duties, equality, freedom, moral responsibility and consent. The qualities which students felt they gained during the course of this programme, included: motivation, respect and tolerance for different cultures, personal growth, enjoyment and improvement in language skills.

Students' comments in the post-test differed from the fears they had expressed before the intervention. By the end of the academic year, they focussed on the personal qualities that they had gained during the intervention as benefits that enabled them to gain the confidence they needed.

The following comments by all three groups are about the benefits they perceived that they had gained and this became apparent in the post-test.

Table 4.5 Comments made in written work regarding personal qualities (post-test) by Groups A, B and C

POST-TEST	
Theme 3: Personal Qualities	
Motivation	
Group A	'The environment which was a warm welcoming one and everyone was basically on the same level.' (Student 4) 'One of my highlights was the conversation (class).' (3)**'**
Group B	'…some times you were in a bad mood and you didn't feel like talking, but we learnt how to behave…' (Student 8**)**
Group C	'Everyday we face life, each day has its problems, but conversation class comforts me in different ways…' (Student 14)
Respect and tolerance for different cultures	
Group A	'I learned to listen to others' arguments, not only to react but to think about it logically.' (Student 1) 'The conversation class broke through all sensitive matters created an environment where it's okay to discuss these explosive topics but with respect.' (Student 1)
Group B	'I love conversation class. It's another chance to study South African culture…' (Student 10)
Group C	'…listening to other students' ideas was good.' (Student 14)
Personal Growth	
Group A	'I started reading more political articles and books to prepare future arguments.' (Student 1)
Group B	'It was one of the best programmes that helped me a lot in my life.' (Student 6)

	'The class taught me to respect others, we learn how to behave, we learn some manners.' (Student 8)
Group C	'Programmes like conversation class teaches you how to work with people and work as a team.' (Student 14)
Enjoyment	
Group A	'One of my highlights are the conversation (class).' (Student 3)
Group B	'Every single Friday of conversation class I would not want to miss that time…' (Student 7)
Group C	'Talking about conversation class, it absolutely achieved.' (Student 14)

Discussion

The main personal issues that arose from the intervention were that students felt that they had changed as people. Each group felt that they had become more confident, with a student in Group A commenting on her personal growth, three of the foreign students in Group B felt they had developed as people, and two students in Group C stressed this as well. One student in each group felt that they had benefited as people in respect and tolerance of one another's differing viewpoints and cultures.

Students felt that they had learnt important life skills in a fun atmosphere. They had enjoyed the intervention. At least one student in each group emphasized the fun they had had while learning. One student in Group A felt the atmosphere had been warm and welcoming. Two students in Group A agreed that it had been a highlight of their week. None of the students in any of the three groups had a single negative comment to make about the intervention.

4.3.1.2 What impact did the intervention have on the oral presentations of the students?

The second part of the testing consisted of pre- and post-tests of the oral presentations of the same three groups of selected students. The pre-test results reflected why the newly arrived groups of students had chosen engineering as a career. The post-test, after seven months of intervention, reflected the students' opinions of the Conversation Class and the Engineering course in general. Both the pre- and post-test sessions were videotaped and analysed. The results of the different criteria used to assess the five students from each group can be found in Appendix 12 on page 200. The results of Groups A, B and C will be presented both quantitatively and qualitatively.

Group A

Group A's marks are reflected in Figure 4.4 below. These students had attended ex-model C schools.
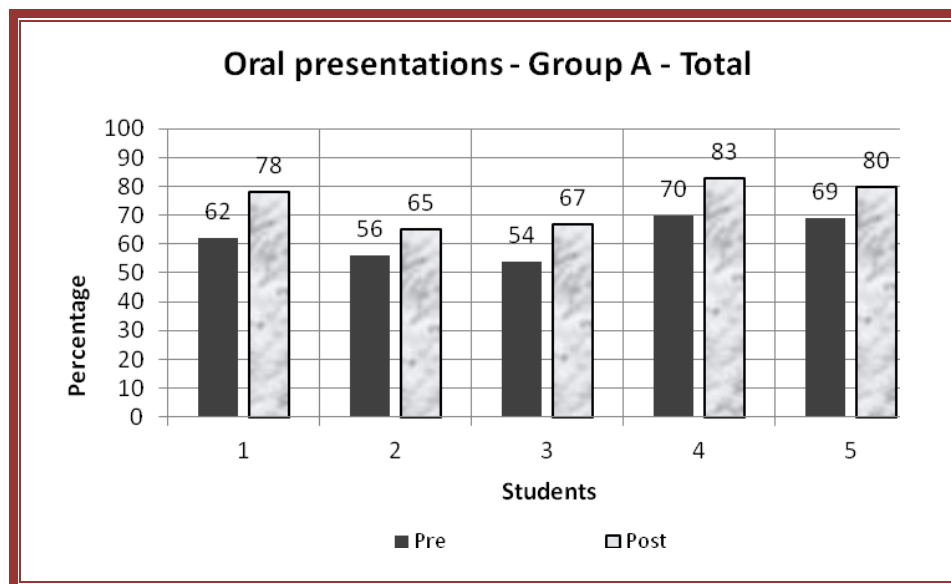
Figure 4.4 Comparison of total marks between pre- and post-oral presentation tests of Group A

Discussion

The focus of the oral intervention was to improve the students' confidence in speaking. This group's marks generally showed an improvement of between 9% and 16% from the

pre-test to the post-test. The rubric of the Professional Communication Unit of the University of Cape Town (UCT) in Appendix 4 on page 181 was used to assess the students' presentations. The assessment of each student can be found in Appendix 9 on page.191.

There was a marked difference in the way the students in Group A opened their post-test presentations. In the delivery section they showed far more confidence and took command of their audience right from the beginning. Student 1 who had attempted to open with a gimmick in the pre-test was now able to engage with her audience in a natural manner. Student 2 was still nervous but managed to assert himself in the post-test. In the post-test, students 3, 4 and 5 engaged with the audience from the beginning.

All five students showed more planning and structure in the preparation for their post-test presentations. They understood what was expected and had prepared accordingly. Only student 1, who had received a good mark in the pre-test, remained the same, as this had been her strength from the start. All five showed that they understood that Conclusions had to be well rounded.

In the Delivery section, all marks increased significantly from between 5% and 26%. This is the section of the rubric that observes the confidence level of students, using criteria such as self-assurance, eye contact, poise, enthusiasm, appropriate manner, pace of delivery and timing, posture, liveliness/involvement, facial expression/animation. During the intervention, students were made aware of these criteria and any evidence of these characteristics was praised, for example, eye contact with the whole audience.

In addition to this, students engaged in exercises based on listening skills and appropriate register that also led to an awareness of the correct conduct when presenting. Students congratulated their peers when they noticed these criteria and this created an ethos of encouragement in the classroom. In the post-tests, all five students showed progress in this category. Student 1 was more controlled and composed as her presentation had been overly dramatic in the pre-test. Students 5 and 3 were quietly confident. Student 4 was

most engaging in the post-test, making significant contact with his audience. Student 2 remained nervous, stuttering slightly, but was able to cope with an audience.

Group B

Group B consisted of foreign students. Their marks are reflected in Figure 4.5 below. The results of the different criteria used to assess all five students can be found in Appendix 10 page.194.

At the beginning of the academic year all five students insisted on attending the course and their commitment was evident by their enthusiastic participation throughout the year.
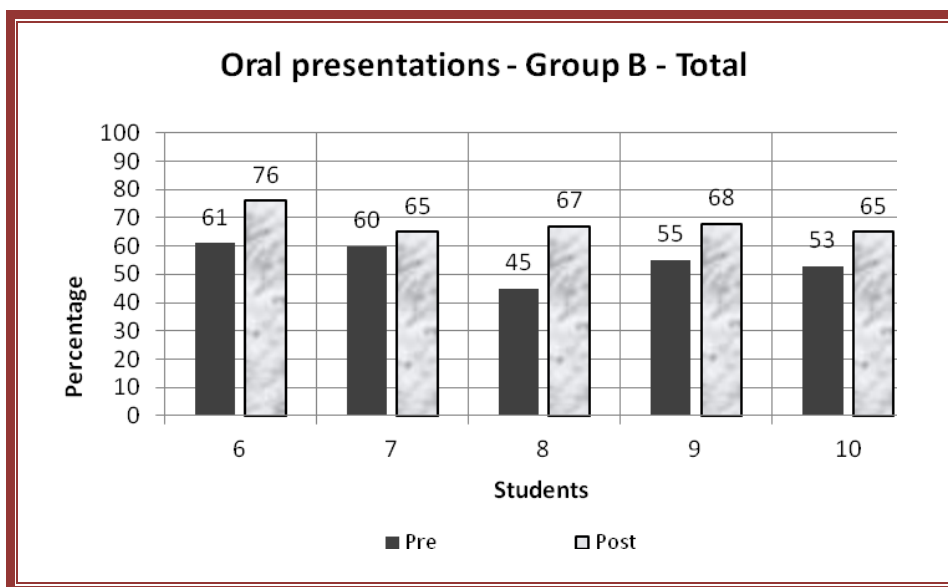
Figure 4.5 Comparison of total marks between pre- and post-oral presentation tests of Group B

Discussion

Students in this group were particularly conscious of a need to do well as the ability to understand and speak English was critical to their studies. Students 6 and 9 from Angola had completed a year of English at school as well as a two to three-month English language course in a private institution in South Africa before commencing Engineering at CPUT. These Angolan students had bursaries from industry that expected them to obtain 75% for all their subjects. Therefore, they were aware that they had to achieve high standards throughout the year in Communication class. As the other three students from

the Democratic Republic of Congo (student 8), Zimbabwe (student 7) and China (student 10) were paying for themselves they were also aware that they had to pass.

The progress of the students in this group was revealed by the increase of their total marks. The students improved in the following manner: student 6 by 15%, 7 by 5%, 8 by 22%, 9 by 13%,10 by 12%.

All the students showed a significant increase in the Introduction of their post-test presentations. This indicates that they were able to begin more confidently than in their pre-test. There was evidence of improvement in the structure of their planning of the Content and the Conclusion. At the beginning of the year, during the pre-test, these students showed very little or no training on how to structure their oral presentations. The foreign students had concentrated on acquiring enough English to make themselves understood and to be able to study. Although they had done presentations in their home countries, they had not been taught the guidelines for preparation and delivery of presentations. However, in this intervention, they were given a chance to practise the use of the English language as well as what they had learnt about speaking during Communications Class.

Two significant characteristics became evident in the post-test for these students. Firstly, the students still experienced difficulties with choosing appropriate vocabulary. Secondly, a lack of confidence had initially led them to mumble indistinctly in the pre-test. I will describe each situation separately. By the post-test they spoke clearly and did not mumble.

As rote presentations were not encouraged, students had to structure what they wanted to say and speak informally so that they could deal with any spoken situation socially or in industry. This situation implied that they would not have all the necessary vocabulary at hand when speaking spontaneously.

When students experienced problems with finding the correct terminology during their

presentations, they had learnt to interact with the audience in a natural manner to obtain the word they were looking for. They were confident enough to seize this opportunity to interact with the audience. This increased confidence showed in their marks for Delivery. In this category, student 8's marks improved by 20% and student 9's marks by 18%.

Secondly, in Grammatical Usage and Word Choice, students who were presenting, had learnt to interact with the audience and felt that they had gained sufficient confidence to speak, concentrating on getting their message across. Their Delivery marks improved simultaneously as they gained confidence.

Group C

Group C's marks are reflected in Figure 4.6 below. These were the previously-disadvantaged South African students. The results of the different criteria used to assess all five students can be found in Appendix 11 page 197.

All five students were concerned about their lack of confidence and grammatical skills at the beginning of the year.
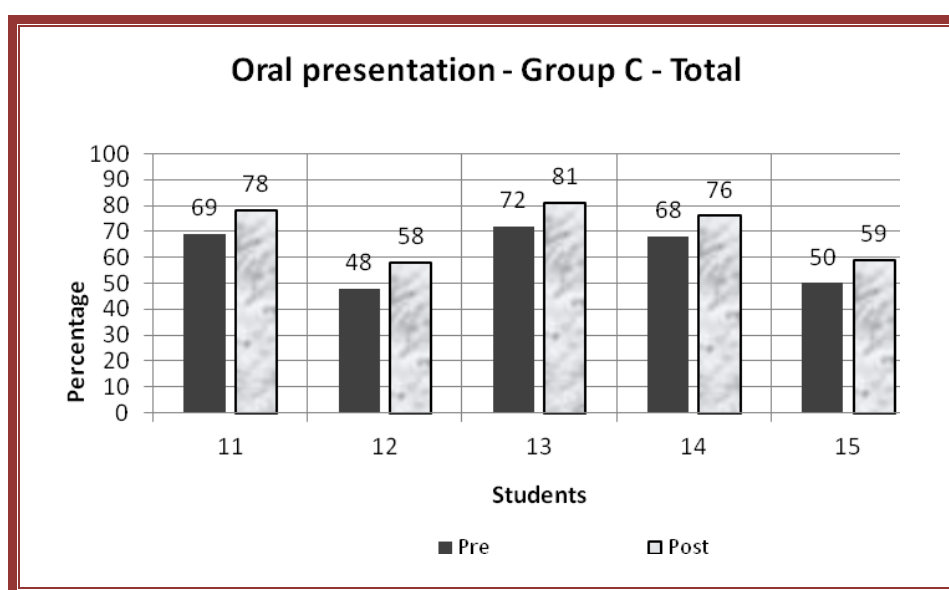
Figure 4.6 Comparison of total marks between pre- and post-oral presentation tests of Group C

Discussion

It was gratifying to see that all students in this group also increased their marks by between 9% and 12%, The students' marks improved in the following manner: student 11 by 9%, 12 by 10%, 13 by 9%, 14 by 8% and 15 by 9%.

As in Group B, students in this group also revealed in their interviews that they had not been trained in giving presentations at school. Three out of five students alleged that teachers had simply given them a topic and told them to research or create the content, whilst ignoring the planning and delivery sections. Confidence was never discussed. As self-esteem and confidence are critical in presenting skills, students were thus totally unprepared for what lay ahead at university and in industry.

By the end of the intervention, these students were able to compete with students who had attended Model C schools. They challenged other speakers, shared their ideas and students 11, 13 and 14 took over the leadership of the sessions of the intervention. Even the two students, who had initially been weaker, were given the opportunity to lead a discussion. They performed effectively and efficiently.

Students 11, 13 and 14 all made good progress during the Introduction, Body and Content of the post-test presentation. They faced the audience far more confidently. While the two remaining students in this group, students 12 and 15 were slightly nervous at the start of the presentation, they were also able to improve on the planning and conclusion of the presentation. They both improved by 13% in the Delivery section of the post-test revealing development in their confidence. The overall marks of both students 12 and 15 improved so that they were no longer in danger of failing.

The marks of Groups A, B and C improved substantially in each case, allowing all students to speak their views with confidence and to volunteer to lead sessions.

Themes perceived to have emerged from the oral presentations

While both the pre- and post-tests of oral presentations revealed quantitative results, I was also able to measure qualitative issues in the Delivery section using the oral rubric as can be seen in Appendix 4 on page 181. The themes expressed remained in the same categories as the written testing.

Table 4.6 lists the themes that emerged from the oral presentations. This will be followed by a discussion concerning these themes and a list of comments, which support these themes.

Table 4.6   Themes, which emerged from the pre- and post-tests of oral presentations

	Confidence	Introduction to new cultures	Trust, security Freedom of speech	Tolerance and respect	Coping with the business world	Improving Language skills / Learning to argue	Learnt to work with people. Life experience	Life skills including Problem-solving, independence
Group A								
1	X		x		x	X	x	x
2					x		x	
3	X	x				X	x	
4	X		x		x	X	x	
5	X							
TOTAL FOR GROUP A	4	1	2	0	3	3	4	1
Group B								
6					x	X		x
7		x		x	x	X	x	x

	Confidence	Introduction to new cultures	Trust, security Freedom of speech	Tolerance and respect	Coping with the business world	Improving Language skills / Learning to argue	Learnt to work with people. Life experience	Life skills including Problem-solving, independence
8	X				x	X	x	
9	X	x	x			X	x	
10	X	x				X	x	
TOTAL FOR GROUP B	**3**	**3**	**1**	**1**	**3**	**5**	**4**	**2**
Group C								
11	X	x		x	x	X	x	x
12	X	x				X		
13	X	x	x	x	x	X	x	x
14	X	x	x	x		X	x	x
15	X		x			X	x	x
TOTAL FOR GROUP C	**5**	**4**	**3**	**3**	**2**	**5**	**4**	**4**
OVERALL Totals 15	**12**	**8**	**6**	**4**	**8**	**13**	**12**	**7**

Discussion

For the purpose of the discussion, I have grouped the themes into three sets according to the number of students that mentioned them, from the most responses to the least responses as can be seen in Table 4.6 above. In the first set of themes mentioned, the three strongest to emerge from the pre- and post-oral presentations were improvement of language, confidence and learning to work with people while gaining life experience.

As the benefits of confidence, the improvement of language skills and coping with the business world have already been mentioned in the perceived benefits of written work, I shall not discuss them again. I shall, however, leave them in the table to reinforce the students' opinions. The third set consisted of tolerance and respect as well as trust, security and freedom of speech.

Students felt that as a result of their new confidence, they had learnt to work with other people, gaining experience of life. During the intervention, all students had been allowed to express their opinions freely and this had exposed them to the thoughts of other students. They were then able to compare their ideas with those of others, while bearing in mind that that all students' opinions were to be respected. These skills are essential for engineering students who will be working in teams in industry.

According to the scores, the themes in the second set were also recognised although not as strongly as the first group. They were the introduction to new cultures, coping with the business world and the acquisition of life skills such as problem-solving and independence. Of the fifteen students, all three of these themes received an average of seven or eight, which signified an average reaction.

Students initially introduced their cultures. They were expected to speak on how they would react to certain situations. All students, however, also had to learn that because one belonged to a certain culture, one did not necessarily represent the traditions expected of that culture. Students were very interested to hear of dogs being on the menu in China, although student 10 kept pets and had never eaten dog himself.

As students gained confidence, they were also looking at aspects of industry and testing themselves to see how they would react to certain situations. They tested their own independence by solving problems by themselves and seeing, firstly, that their solutions were often similar to those of others. Secondly, if their answers were different, they could still be accepted. This contributed to the building of confidence.

The remaining themes of tolerance and respect, freedom of speech and security were

the themes with the lowest scores. They scored four and six respectively out of the fifteen possible scores. Tolerance and respect had governed all the proceedings in the intervention, and they had been promised trust and security for freedom of speech. It is possible, as these themes had been promised at the beginning of the year, students just accepted their presence.

Table 4.7 illustrates some of the comments of the students in support of these themes in order of the sequence in Table 4.6:

Table 4.7 Comments made by the students in the oral presentations (post-test) regarding the emerging benefits which have not been mentioned in the written work

Introduction to new cultures	
Group A	'One of my best things that happened was the conversation class with various cultures and students coming together…' (Student 3)
Group B	'…as a foreigner it's a chance for learn about South Africa and to know their cultures.' (Student 10) '…you could see other people's cultures, what they believe in, what they are doing…' (Student 8)
Group C	'…you came from home having different problems…' (Student 14)
Trust, security, freedom of speech	
Group A	'I started letting myself out of my shell and I just started speaking…the difference was that the class was so open with one another that no-one felt offended…everyone was just open and spoke freely.' (Student 4)
Group B	'Then I got into conversation class and it helped me a lot because now I can talk with people.' (Student 9)
Group C	'I've gained a lot from communication…motivation for other students.' (Student 14)
Tolerance and respect	

Group A	'..the class was so open with each other that no-one felt offended…' (Student 4)
Group B	'…made my way of thinking much broader cause you could see the other people's points of view…' (Student 7)
Group C	'…we've been discussing different topics whereby we gained a lot of experience…' (Student 14)
Learnt to work with people. Life experience	
Group A	'…we became friends because of that class…' (Student 1)
Group C	'…because when you work in groups yet get different people from different backgrounds and how to overcome the stage of fighting and meeting an understanding.' (Student 13)
Life skills, including problem-solving, independence, leadership	
Group A	'…we discuss politics and we discuss life everything that makes us different…' (Student 1)
Group C	'…has given me a chance to explore my group working ethics and my problem-solving skills.' (Student 13)
	'…now I can see that it developed me as a person because I thought engineering is all about technical and winning some things out there in life…' (Student 15)

4.3.1.3 What did the interviews reveal about the students?

In October 2007, when the fifteen students did the pre- and post-interviews, they were analysed both quantitatively as well as qualitatively for themes that emerged from the content. Although all respondents provided comments regarding the themes they felt emerged from each section, not all the comments could be used as they were either too brief to be informative or too non-committal. Therefore, only the meaningful answers have been used, whether positive or negative.

Themes perceived to have emerged from the interviews

The third part of the testing consisted of pre- and post-tests done by means of interviews.

The pre-test questions reflected the comments of the newly arrived groups of students regarding influences on them when they acquired English. The post-tests reflected the students' opinions of the effects of Conversation Class on their acquisition of English. Both the pre- and post-test sessions were tape-recorded. The results of Groups A, B and C will again be presented both quantitatively and qualitatively.

Pre-test (interviews)

Only the questions, which have produced significant results in this study, will be dealt with in the following sections. The pre- and post-test interviews have been included in Appendices 6 and 7 pages 185 and 188. I grouped the questions where I felt the questions were similar or they elicited a similar response.

> ### Questions 1 & 2
>
> *When did you learn to speak English?*
>
> *Who was the main influence on your acquisition of English?*

Only three of the fifteen students were mother-tongue English speakers. The other twelve students had learnt English at school. In Group A, three out of the five students were mother-tongue English speakers. Two acquired their English at school.

All the foreign students in Group B, as well as, all the students in Group C had acquired their English at school. This meant that school, teachers and school friends played an important role in the acquisition of English for most of these students. The quality of English spoken and the ability of the teacher to get the message across, as well as, the standard of peers are critical in the process of learning English.

> ### Questions 7, 16 & 17
>
> *Were you ever called upon to speak in front of the class at school?*

> *Did your teacher teach you how to do a presentation?*
>
> *How did you feel about doing your presentation at CPUT?*

Four out of five students in Group A were required to do presentations at school while one was not. Of these four students, only one received training in preparations and delivery of presentations from the teacher while the other three received little or no training, except for being given topics. All five students were terrified of doing presentations at CPUT. Of the five foreign students in Group B, three were required to do presentations. Two of these students received training with the preparation and delivery. Three received no help in preparing for their topics. Four students in this group were terrified with one student feeling confident. In Group C, three students were asked to present at school and two were not. Of these three students, only two received help in preparing and delivering their topics while one received only the topics and little or no help at all. Four students in this group were terrified to present while the remaining student was nervous, but not terrified.

Post-test (interviews)

In this section, students were interviewed again after the intervention programme. Only the questions showing significant results will be considered now.

> **Questions 3 & 4**
>
> *How did you feel about Conversation Class (CC) at the beginning of the year in comparison to how you felt afterwards?*

In Group A, two students started the Conversation Class nervously while the other three were terrified. By the end of the intervention, two claimed to have loved it while three said they had really enjoyed it. The pattern was the same in Group B. Whereas all the students had been nervous or terrified at the start, two had loved the intervention while three had really enjoyed it. Four students in Group C had been terrified at the beginning of the year while one was merely nervous, but they had all loved and enjoyed it at the end.

Although the students in all three groups had been terrified initially, all of them loved or really enjoyed the class. There was not one negative feeling about the class. Students knew that they had a 'safe environment' in which to speak and they were expected to tell the truth and there was an overwhelmingly positive response. All the students felt that they had benefitted from having attended the programme.

Question 12

Do you still feel that language and vocabulary played a crucial role in speaking in front of an audience?

There was a mixed reaction from students to this question. In Group A only one student felt that language and vocabulary still played an important role when speaking, two thought it was of average importance while the other two felt they were able to use the audience to interact and find a word. Of the foreign students in Group B, two still felt the need for stronger language and vocabulary support while one now found it of average importance. Two felt they were able to speak according to their language and vocabulary ability at that moment. One student in Group C felt that the lack of language and vocabulary still hampered him, while two felt it played an average role and two were prepared to speak with the language skills they had at the time.

Question 17

Do you feel that your writing improved during the intervention?

One student in Group A felt there had been a positive change, while one student felt there had been a slight change, but three remained uncertain. In Group B, two students felt that there had been an improvement while one thought that there had been a little change. The others were uncertain. Three students in Group C said that their writing had improved while one felt that there had been some improvement.

<hr>

Question 7

(This question reflected the personal qualities students felt they had gained from the programme when interviewed after the intervention.)

How do you feel you benefitted from the Conversation Class?

<hr>

In answer to Question 7, students from all three groups listed as benefits of the intervention:

- confidence;
- introduction to new cultures;
- trust, security and freedom of speech;
- tolerance and respect;
- improvement of language skills;
- learning to argue;
- learning to work with people; and
- life experience and life skills, including problem-solving, independence, leadership.

These benefits were confirmed by student comments in Table 4.8.

Table 4.8: Comments made by students during interviews confirming comments made in written work and oral presentations.

Confidence	
Group A	'…built confidence for public speaking.' (SR) '…could see confidence growing in other people.' (SR) '…to gain self-confidence, to speak in front of an audience.' (DC) '…changed from a quiet person to a person who can speak… can't wait for my next video camera…' (SF) '…but I think it's (confidence) improved quite a bit.' (NM)
Group B	'…give us a chance to improve language to talk in front of people.' (CM) '..improved my English and my confidence by 90%.' (NL) 'My confidence is now part of me.' (BM) 'loosened up in front of an unfamiliar audience' (UP) 'took away the shyness' (UP)
Group C	'…to boost our confidence.' (LM) 'I am more confident Miss…I'm getting better and I can talk.' (NL) 'I can now also stand up for myself without fear.' (NL) ''not afraid to talk in front of people, or face an audience' (TM) 'learnt confidence to talk' (MT) '…although still nervous to talk in front of people there's something I gained. It's better' (MT) '…huge improvement in confidence – I have now tested myself in front of audience.' (HN)

Introduction to new cultures	
Group A	**:**'…traded ideas with people of different cultures.' (SR) '…learnt about different points of view, different cultures…' (DC) '…we learn a lot about other people …discussed cultures, different backgrounds…' (GJ) '…discussed religion, cultures…I got to learn about the Xhosa culture… about all the different Christian culture…' (SF)
Group B	'… did teach me a lot of this about South Africans and like Zulu culture and the Xhosa culture,,, and I also tell them something about Chinese cultures.' (CS)
Group C	'…they think differently in different situations, and the way we interacted because of different cultures…' (LM)
Trust, Security, Freedom of speech	
Group A	'…safe environment to discuss every subject.' (SR) 'discussed sex' (GJ)
Group B	'…could speak freely and say your ideas…' (NL)
Group C	'to stand up and say what you believe in' (NL)
Tolerance and respect	
Group A	' …I got to learn how to respect one another in class.' (SF)
Group B	'I think much more of other people and how they see things.' (BM) '…I would go home and ask my mother how she felt about something…' (BM)

Group C	'to respect different views and how to deal with them' (LM)
	'…beginning to respect other people's views and accept them…' (LM)
	'…practised respect for different opinions.' (HN)
	'…all topics could be discussed with respect.' (HN)

Improving language skills, learning to argue	
Group A	'…discussed topics…that would interest most people.' (NM)
	I improve ja…' (GJ)
Group B	'am able to ask questions' (BM)
	'learnt to share my views' (UP)
	'Talking in front of the class is now a piece of cake for me.' (CS)
Group C	'…we learnt our to better our English…' (HN)
	'my spoken English has improved' (NL)

Learnt to work with people. Life experience	
Group A	'…built relationships…' (SR)
Group B	'I would make a lot of friends in the conversation class.' (CS)
	'learnt to communicate with different people' (UP)
Group C	'learnt to interact' (LM)
	'…made different friends from different classes and then we are so open to each other.' (™)

Life skills, including problem-solving, independence, leadership	
Group A	'…learnt to temper my confidence with listening skills and control…' (SR)

Group B	'solved problems by putting our heads together' (BM) '…learnt lots of things I can't learn from books…' (CS)
Group C	how people thought differently.' (LM) '…some of the issues which you can't really discus outside, we could together discuss them, without anybody getting hurt.' (HN) '…we get motivation, encouragement and ways to like life skills.'(TM)

Discussion

The issues arising from the interviews that students perceived as being beneficial were consistent and similar to those which arose from the written work and oral presentations.

In the post-interviews students mentioned confidence, introduction to new cultures, trust, security and freedom of speech, tolerance and respect, improvement of language skills, learning to argue, learning to work with people, gaining life experience and life skills, including problem-solving, independence and leadership skills.

The list of personal qualities depended on what could be achieved when the need arose during the intervention.

4.4   SUMMARY

This chapter has presented and analysed the data and emerging themes arising from the pre- and post-tests of written work, oral presentations and interviews. Engineering students of the ECP course at CPUT indicated their opinions of the intervention which was used to improve their confidence, so that they could accept the challenges presented by the use of English in life as well as in industry.

The chapter examined the change of marks reflected by the pre- and post-tests of the written work and the oral presentations. It was encouraging to note that the respondents

all improved their written work as well as oral presentation marks during the course of the year, except for respondents 1 and 5 in Group A whose written work marks remained the same. The difference in marks may have been smaller as these students were already satisfied with their marks and had joined to improve their confidence and for the love of a good discussion.

The themes that emerged from the pre- and post-tests of the written work, oral presentations and interviews were then presented. These themes were based on the comments of the students about how they felt the intervention had improved their marks and changed them as people. The themes that emerged consisted of the comments of the confidence levels of students, an awareness of the role of English in the business world, the impact of reading English books, reflections of school experiences and then the personal qualities students felt they had gained, such as social skills, personal growth, motivation, comfort and sharing, respect for other ideas and cultures and improvement of language.

Chapter 5 will offer a discussion of insights that had become relevant to the study, conclusions, recommendations and suggestions for further study. The insights deal with the building of confidence from an early age, giving voice to people, humanisation, the choice of the correct facilitator, working with other people and how a natural approach to acquiring a language allowed growth in the intervention.

CHAPTER 5 - DISCUSSIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1   INTRODUCTION

In Chapter 4, the significant findings and results of this research were introduced, presented and discussed in detail. Subsequent insights that have not been presented in Chapter 4, but are pertinent to and extend the depth of this study, will now be discussed.

In the present research I had one research question:

> **What impact did a communications intervention have on the Engineering students (Extended Curriculum Programme) of the Cape Peninsula University of Technology?**

This would affirm and guide me regarding changes to the design of my intervention prototype. The objectives of my three sub-questions were to examine whether the intervention had improved the written work and the oral presentation marks and what themes had emerged from the written work, oral presentations and interviews. In light of the presented evidence, Chapter 5 now attempts to discuss the insights that have emerged from the study and which guided the improvements made to the intervention. Finally, I offer recommendations for future research in this field.

5.2   DISCUSSION

There are five insights to examine in Chapter 5: the impact of the intervention according to the students; the early inclusion of confidence building for learners in schools; the importance of giving voice to people; how the natural approach to language learning lent itself to giving voice; and how reflective practice empowered me as an educator.

Each insight is further discussed in relation to the theoretical framework and relevant literature presented in Chapter 2.

The intervention was grounded in a socio-cultural framework of which the key elements are action and social change, interpersonal relationships, humanisation and soft skills, and reflective practice leading to transformational learning. In the socio-cultural classroom, learners from various different backgrounds were encouraged to interact with learners from other cultures who might think differently to how they themselves thought. Guided by respect and tolerance, students were encouraged to discuss their own problems in a safe environment where no-one was humiliated. They were then given a chance to compare their different views by reflecting on them. Students agreed to 'disagree with love'.

As a Communication Skills teacher, it had become increasingly clear to me that many of my Engineering students who did not speak English as a first language, had arrived at CPUT with a Grade 12 certificate but, were then handicapped by the inability to actually use the English language. This was confirmed by a report on the Grade 12 results of learners doing English First Additional Language by Keeton (2010:4). There were also English First Language speakers who lacked the confidence to speak in front of people. This inability to speak or write English left many students without a voice. Whether at university, in industry or socially, the ability to speak out gives one the ability to make decisions regarding one's own future (Freire, 1970:69). Shor (1992:1) elaborates on Freire's views by positing, 'We are what we say and do. The way we speak and are spoken to, helps shape us into the people we become. Through words and other actions, we build ourselves in a world that is building us'. I therefore found it critical to find a means of teaching my students how to develop the confidence and other qualities required to speak out and claim their place in the world.

This attempt to help the students took the form of a communications intervention that followed the four stages of design research as described by Plomp (2009, 13-14). After identifying and analysing problems by researchers and practitioners, I was able to use their theories to design a prototype for my intervention based on socio-cultural

elements. I was then able to test this prototype by iterative cycles within the sessions of the intervention until I found a programme which I felt was successful for the purposes of my students. Reflections of the results and comments made by the students in post-testing were integral to judging the effectiveness of the intervention.

The following section will now discuss the major issues, which arose from the intervention:

- the impact of the intervention according to the students;
- early inclusion of building confidence for learners in schools;
- the importance of giving voice to people;
- how a natural approach to language teaching lends itself to giving voice; and
- how reflective practice empowered me as an educator.

5.2.1 The impact of the intervention according to the students

According to the improvement of both the oral and the written work marks shown in Chapter 4, students had definitely benefitted by the intervention. While the focus had been on the challenge for students to do oral presentations without fear, the development of the written work was an advantage, which affirmed my belief in the success of the intervention. Many students, who had not read before, were now borrowing magazines and books from the library. Instead of being a remedial programme with a stigma attached to needing help, the intervention had helped students to bond as suggested by Nagda (2006) in Chapter 2.

In addition to the improvement in marks, at the end of the year students were also vociferous in their praise of personal growth that the intervention had engendered as can be seen in Chapter 4:

- 'solved problems by putting our heads together' (Group B - Student 7)
- '…learnt lots of things I can't learn from books…' (Group B – Student 10)
- '…made different friends from different classes and then we are so open to each other.' (Group C – Student 14)

While I have assessed the success according to the students' improvement in marks and their comments regarding the intervention, I would like to acknowledge I did not investigate other factors such as growth within other subjects, the influence of other lecturers and social life, amongst others. I have adhered strictly to the student marks according to the rubric and their comments. These other factors, such as the influence of other classes, could be important for further study.

5.2.2 Early inclusion of building confidence for learners in schools

Although this intervention took place with students at a tertiary level, I believe that it would be possible to use the same teaching principles for learners in a school curriculum as well, as the building of confidence is a slow process, which should be encouraged to grow from an early age. In keeping with the results of Chapter 4, I found four issues that support the idea of the early inclusion of a building confidence module for learners at school. Firstly, research was done into the ideas of Freire (1970), Shor (1992) and Narsee (2001) in Chapter 2 in conjunction with reflection on what I, as an educator, wish to achieve for my students in relation to these ideas. Secondly, the comments made by students and the improvement in their marks encourage the inclusion of interactive conversations in the class, allowing learners to practise communicating and to learn from their peers. Thirdly, I, as the educator, in a reciprocal manner, could learn from what students were revealing about themselves and their individual needs during their conversations and make use of this information to make the design of my intervention dynamic. Finally, assistance with the preparation of content and delivery for oral presentations is critical.

The National Curriculum Statement Grades R – 9 (DoE, 2003:8) describes the envisaged learner of a democratic South Africa as a 'lifelong learner who is confident and independent, literate, numerate and multi-skilled, compassionate, with a respect for the environment and the ability to participate in society as a critical and active citizen'. This is meant to serve as the starting goal of education for South African educators.

These beliefs are underpinned by the work of Freire (1970) and Shor (1992) in Chapter 2. Students indicated during the pre-testing that teachers had not always seen the

acquisition of confidence as a priority. According to the interviews, the respondents were simply given oral presentation topics and the date of the presentation by teachers at school who offered no support or assistance, as can be seen by responses to the following question.

Were you taught how to prepare for an oral presentation?

'Not really. Just gave topics.' (Group A – Student 1)

'No, only learnt here in South Africa.' (Group A – Student 5)

'Not the actual presentation skills, only how to use PowerPoint.' (Group B – Student 6)

I believe that the building of confidence and self-esteem in a learner in conjunction with teaching them the correct way of presenting from an early stage will allow them to cope with the demands of speaking in front of an audience. Paying attention to any learners' confidence, or lack thereof, is crucial at an early age when they are learning to express themselves in English. Many learners who are not English mother-tongue speakers, have real complaints with regard to speaking English of which educators at all levels should be aware. Students' comments indicate that either through work pressure, lack of time or the correct training, educators are not preparing learners at school to speak with confidence. In their pre-testing interviews students confirmed that it did not prepare them on a long-term basis to cope with actually expressing themselves in English once they leave school.

In some cases the ECP students said that English was being taught at school level by teachers who were not confident themselves when speaking. English was then taught by teachers actually using another language. This gave the learners at school even less chance to practise English in practical situations. The NCS states that helping learners become 'confident to participate in society as a critical and active citizen' (DoE, 2003:8) is one of the key goals of South African education. Data from Chapter 4 shows that this could be partially achieved by starting to teach learners at school how to prepare the content of a speech, as well as giving them training in how to deliver what they are saying. This needs to be followed by as much interactive practice in speaking English as possible.

In Chapter 4, it is significant to note that all fifteen of the students in the sample felt that their confidence had been boosted by the communications intervention concerning problems relevant to them during the seven months in which they had participated in discussions. It is also noteworthy that none of the students made any negative comments about their confidence not having improved. Chapter 4 also shows that all the written work and oral presentation marks showed a significant improvement in the post-testing. The following quotes regarding their confidence from the post-interviews reveal the students' feelings about doing oral presentations at the end of the intervention.

How do you feel about doing a presentation in front of the camera/the class now?

'I can't wait to do that now…that's the truth.' (Group A – Student4)

'Truly now it's becoming normal, I feel like it's now part of me.' (Group B – Student 7)

'Quite free, relaxed and try to be natural. To be what I am.' (Group C – Student 14)

The improvement shown in the post-testing of written work and oral presentation marks as well as students' comments regarding their newfound confidence which they felt had arisen from the intervention, gave rise to my suggestion that an interactive communications module should be included in the school curriculum from an early age, especially if we bear the idea of the 'envisaged learner' in the NCS in mind. The building of self-esteem and confidence is an integral part of the development of a learner. This can be improved by the promotion of a culture that can speak out and actively participate in society.

Many South African learners have been hampered in this respect by the old traditional adage that children should be seen and not heard. Based on the students' acknowledgement of confidence built during the intervention, I now believe that the earlier learners are assisted to interact communicatively with their peers in a meaningful

way, the more they will benefit in terms of the cultivation of self-regard and other values that will teach them to think critically.

Although I had done the intervention with students at tertiary level, it became evident that introducing time for free interactive talk in the school classroom from an early age would be beneficial. Training on how to prepare for oral presentations could encourage the building of confidence for each individual learner. This preparation is critical to dealing with nerves and a lack of confidence. This would also benefit educators in a reciprocal way as they would discover what learners really understand about themselves and what they are learning, instead of what we, as educators, expect them to feel or experience. During free discussion, educators could also detect the fears of individuals regarding expressing themselves and help learners to cope with them. Learners also need to understand that their peers are human and that many people experience the same fears. This is possible when the class 'talks'. The more learners at school are allowed to participate, engage and express themselves in informal situations where they are interacting with their peers, the easier it is for them to realise that many other people share their fears and lack confidence. (Cambourne, 1988:60).

The building of confidence by losing the fear of speaking and interacting with peers introduces the idea of giving voice to the people.

5.2.3 The importance of giving voice to the learners

In teaching all learners to express their feelings and thoughts, they are given voice to participate in society as active and critical citizens. Freire (1970:69) believes that it is only with true words that people can change the world into a better place. Shor (1992:1) describes this as 'words rethinking worlds'.

In order to give voice to my students, it became clear that the correct choice of a facilitator plays a singularly important role in the development of students. Thus educators would have to understand and subscribe to Freire's concept of education, which does not only mean information being fed to learners by an authority figure. Freire rejects the idea of feeding learners with information as 'banking education' into

which deposits are made by an all-powerful figure (Freire, 1970).

Freire maintains that a teacher can never think for her learners, nor should she ever impose her views on them. If education begins with the student-teacher relationship in which both realise that they can learn from each other, learners in both cases will accept that both roles are important. Through dialogue, this role can be changed to people teaching each other. Evidence taken from the student comments showed that students' experience of this relationship which allowed them to have a voice and a safe atmosphere in the classroom where no one is ever humiliated, is fundamental:

- '…safe environment to discuss every subject.' (Group A – Student 1)
- '…could speak freely and say your ideas…' (Group B - Student 6)
- '...to stand up and say what you believe in...' (Group C – Student 12)

The teacher is responsible for creating this atmosphere, in which learners will feel safe to experiment and try to express themselves. Shor (1992) agrees with Freire that as a member of that community, a teacher serves as a role model when she shows a willingness to learn and change by expanding and deepening understanding simultaneously with the learners. The study also perceives that openness and transparency are necessary here, from the teacher's side, if learners are to understand learning as a two-way process by way of the teacher's desire to learn from them as well. This will make the teacher a learner as well and allow a new relationship with her class. This encounter should also be based on tolerance and respect which was one of the themes that emerged from the results of the post-tests of oral, written and interviews in Chapter 4.

In keeping with the claims of Hodson et al (2009:974-978) in Chapter 2 about the importance of positive affirmation, the students need to recognise the value of their contributions to a group. Here, as the facilitator of the intervention, I had to do much reflection in order to realise that in building confidence, educators need to display confidence in the abilities of each learner to make them be proud of themselves. Evident here is that praise for participating, in spite of language mistakes, will contribute

to a successful and positive atmosphere in the classroom.

What emerged from student comments showed that strict guidelines in terms of tolerance and respect are necessary. However, these two qualities guided the behaviour of the respondents in the intervention, so that the only indication of authority ever necessary was in relation to noise as a result of enthusiasm:

- ' …I got to learn how to respect one another in class.' (Group A – Student 4)
- 'I think much more of other people and how they see things.' (Group B – Student 7)
- '…all topics could be discussed with respect.' (Group C – Student 13)

Freire (1970:61) affirms that in some cases, a lack of authority may interfere with a teacher's ability to achieve a power-sharing process, leading to a breakdown of the objectives of the exercise. My students adhered to these guidelines, as they understood that it also meant that they were protected from comments made by others. The study observed that the act of placing themselves in the shoes of other respondents served as the introduction of empathy in the intervention. When my students began to assert themselves with confidence, they soon began to apply these rules themselves, rebuking other students who did not treat their peers with the necessary respect. The words 'tolerance' and 'respect' were words that guided the intervention until students had made them part of their lives which they acknowledged in their comments in the pre- and post-tests.

The South African Bill of Rights (1996:1) indicates that having a voice allows involvement in a democratic South Africa where each person has the right to equality, human dignity, life and freedom and security as well as religion and belief, expression and association. This gives people the freedom to express their views. However, this study claims that if people do not know how to voice their opinions, this freedom is meaningless to them. I believed that if school education had not helped students to breach the barrier of silence as it should have, this intervention would allow a second chance. Comments made by my ECP students concerning finding their 'voice' after the intervention confirmed this belief:

- '…give us a chance to improve language to talk in front of people.' (Student 8)
- 'I can now also stand up for myself without fear.' (Student 12)
- '…changed from a quiet person to a person who can speak… can't wait for the next video camera…' (Student 4)

Theorists like Freire (1970) and Mezirow (1997:5) suggest that in order to help students or learners find their voice if they have not done so, a facilitator should also strive to create an atmosphere of openness and trust where praise for participating encourages learners or students to share their feelings and respect those of others by being prepared to share any topic chosen. The facilitator should guide these students in a meaningful way. At the same time, it is important for educators to 'be educated' on how to include already confident students as well as those still developing confidence, learning from them reciprocally by listening to them using their voices. This will enable the educators to focus positively on building confidence, and providing social and educational support so that they can participate in the evolving process of self-development and are not threatened by it.

A natural approach to learning a language encourages talking and participating in discussions which promotes transformational learning.

5.2.4 The natural approach to language learning lends itself to giving 'voice'

Data showing a report on the 2009 school results indicate special attention should be paid to the teaching of English First Additional Language. In the Natural Approach to the acquisition of a language, Krashen and Terrell's (1983:20) theories also supported the importance of 'developing ability in a language by using it in natural, communicative situations'. I felt challenged by a student who sat in my class for six months without saying a word, disabled by the fear of being ridiculed for making grammar errors. My choice then lay between language teaching to eliminate these errors, or usage of the language in a natural manner based on Krashen and Terrell's (1983:20) theories that mistakes played a lesser role, and the errors which do not interfere with communication should not be corrected. Factors that influenced me, were that stopping to correct errors while students were talking interrupted the flow of the conversation and caused discomfort for the speaker.

At the end of the year, students confirmed their beliefs that their language skills had improved in the post-testing of the interviews. The improvement in both oral and written marks during the post-testing of all three groups can also be seen in Chapter 4. The following three comments express students' feelings regarding their language improvement:

- '…we learnt how to better our English…' (Group C – Student 13)
- 'my spoken English has improved' (Group C – Student 12)
- '..improved my English and my confidence by 90%.' (Group B - Student 6)

The views expressed by the students as well as the improvement in marks, re-affirmed this study's views regarding literacy as a constructive activity when learners can use language to make meaningful connections between their own behaviour and experiences. The prototype intervention had been designed around this theory, allowing students to conquer their fear of mistakes while actually practising to use the language.

Students used English during the intervention to share their lives, cultures, religions and beliefs freely. The only form of correction used was if I repeated a comment using the correct language to elucidate a point for the other students. No reference was made to a mistake but the speaker could hear the correct grammatical form. Data from the interviews in Chapter 4 indicates that if students stumbled, their peers assisted, as they had now become friends. According to Narsee (2001:46), literacy should be regarded as a creative activity where learners can also examine and understand their own experiences while comparing and examining the experiences of others.

Another factor that also emerged is that rote memorising of sentences and words did not occur during the intervention as the discussion was too dynamic and moved too fast to allow this. Students reacted to the exploration of understanding oneself in relation to others which I felt in many cases, had not happened to them before.

Glau (1993:418) posits that educators often view learners as deficient if they do not

know the grammar rules off by heart. He criticises this pedagogy, which is entirely teacher-centred, and what Freire (1970) refers to as 'banking education'. Sanborn (in Glau, 1993:430) felt that the teaching of formal grammar in effect 'disempowered' young people, making them doubt their most human attribute, language. The evidence of this was visible when students were so nervous during the pre-testing that they could not speak for fear of making mistakes.

This does not mean that I regard grammar as completely unacceptable. If students wished to know the reason for a language error during the intervention, they would receive an explanation. If they wished to have language issues explained in a class, I would willingly do so. Format, style and rules still play a role, although the focus is on how these issues relate to the broader picture of use in a culturally diverse society. Narsee (2001:46) also stresses a natural approach to language teaching does not mean that we should ignore grammar competency and intelligibility in writing and speaking. This implies that one should still be able to develop strategies to help students cope with communication in everyday situations. However, she posits that as English is now regarded as an international language, many speakers will be communicating in a second or third language and English first language speakers also need to learn tolerance about how the English language is used. The English First Language speakers who were part of the intervention, were very much part of the development of all the students in the class and were eager to assist their peers.

While students assisted one another in the discussions, and reflected on what had happened in the class, I was able to use the time to analyse what had happened and use significant events to keep designing the intervention so that it kept pace with any needs of the students.

5.2.5 Reflective practice empowered me as an educator

In choosing Krashen and Terrell's (1983) Natural Approach to language teaching by means of acquisition, I was forced to re-examine my idea of the teaching of English I wanted for my students. The first thirteen years of my career, which had started by teaching high school English First Language and First Additional language, had been

guided by the requirements of the Grade 12 final examination paper and the syllabus for the teaching of English from the Department of Education, to enable learners to pass well. During these years, the formal teaching of language had been required.

Although school pupils had done their communicative language exercises in a way I had tried to make meaningful, I was left with a feeling of dissatisfaction regarding the use of these exercises. The challenge had led me to attempt to make the formal oral periods in which scholars had to present a talk, more relevant, or to allow more discussion in the 'prescribed literature periods'.

Now, in order to facilitate transformative learning where a student used language to think, query and accept or reject an idea themselves, as advocated by Freire (1970) and Shor (1992), a new way of teaching had emerged. Through reflection of my best past experiences as an educator, this approach had allowed the dynamic development of the intervention as opportunities arose to deal with what I understood as true communication skills. Dewey (1975:13) maintains that 'only as we interpret school activities with reference to the larger circle of social activities to which they relate do we find any standard for judging their moral significance'. He felt that it was important that learners at school were able to understand how the information that they were learning, related to the bigger picture of human communication.

Data and evidence show that some educators regard students who cannot express themselves, as deficient. On reflection of this past intervention, this study disagrees that the ECP Engineering students doing Communication Skills, were in any way deficient, except for the lack of confidence in speaking English. Many of the students taking part in the intervention were from poverty-stricken areas in South Africa where books were not the norm. Apartheid education created an image of Black students, especially those who could not speak English well, as unequal. However, the data gathered during Chapter 4 showed that in problem-posing education, when English FAL students lost their fear of speaking, they revealed that they also had views based on their cultures and traditions, which could challenge the English first language speakers.

5.3   RECOMMENDATIONS

Having viewed the data that emerged in Chapter 4 in relation to the literature reviewed in Chapter 2, it has become apparent that the inclusion of a module to build learners' confidence and self-esteem as part of the NCS's envisaged learner, can result in a meaningful outcome.

Based on the findings of the study, the following recommendations are proposed:

- A communications module based on interaction in the class as was practised with the ECP students at CPUT, should be introduced in English First and First Additional Language class from an early age at school. Research underpinned by Krashen and Terrell's (1983) Natural Approach to the acquisition of a language, on the improvement of the oral and written marks of students at CPUT as well as their confidence after the intervention done at the university, support this claim.

- Teachers should also be informed about the aims of the intervention and the role of reflective practice within this programme. They should be made aware of the use of reciprocal teaching, the creation of trust and an open interactive atmosphere in the classroom, the role played by learners who are already confident and those building confidence and topics generated by students themselves are critical. Many teachers do not subscribe to Freire's (1970) and Shor's (1992) idea of a horizontal relationship in the classroom where educators and learners learn from each other only because they are not acquainted with it.

- The inclusion of many life skills such as the practising of tolerance, respect, respect for other cultures and ideas, listening, decision-making, problem-solving, leadership and working with people with different ideas and cultures should be built into the programme in a meaningful way. All these skills will be necessary in whichever career a learner or student wishes to follow.

- Educators should be made aware of creating interventions by using the principles of Design Research, which allow the continual development of effective teaching strategies to enable learners to acquire certain learning outcomes. By ongoing discussion and sharing of knowledge with other colleagues, one will also be able to establish best practices for the outcomes one wishes to achieve.

5.4   SUGGESTIONS FOR FUTURE RESEARCH

This intervention was limited to ECP Engineering students on the CPUT Cape Town campus. I argue that this research introduces the possibility of looking at students in need of language assistance in the mainstream of Engineering as well as all other subjects offered by CPUT. I maintain that all students who struggle with language may be helped by this intervention.

I am also interested in the development of a Communication Skills course, which is taught in this interactive manner. This would include the study of the methods used by various lecturers at universities. It would also entail an investigation into horizontal relationships between lecturers and students and how willing lecturers would be to try new methods.

It would be interesting to start a discussion group with Communication skills lecturers and language teachers who find themselves struggling with the language challenges faced by their students. It is my opinion that the sharing of ideas by these educators using the principles of Design Research could lead to improved teaching and learning by the facilitators and students.

5.5   SUMMARY

This study has revealed that comments made by the ECP Engineering students at CPUT regarding the communications intervention were all positive. The improvement in

their oral and written work marks indicate that they benefitted from this programme.

As educators, we have an obligation to find the best means possible to teach our learners. The report on the Grade 12 results for English First Additional Language stresses that extra care must be given to this subject, especially as using English to study will affect all the other subjects in English medium classrooms. When relating the requirements of the NCS Grades R – 9 (DoE, 2003) for the 'envisaged learner' to the outcomes of the intervention, I am satisfied that the intervention achieved the building of confidence, which was my goal.

At the same time I am now of the opinion that the interaction between both teacher and learners or students would also benefit all teachers in learning to know each individual in the class. Teachers will be able to listen to what the learners or students are saying and share ideas with them. Our students need to be given a voice and the interaction of the different cultures based on tolerance and respect could lead to much better relationships in all fields of their lives. I look forward to sharing the intervention with other educators who are interested.

REFERENCES

Abersek, B. & Abersek, M.K. 2010. Development of communication training paradigm for engineers. *Journal of Baltic Science Education, 9(2):99-107.*

Andrade, H.G. 2000 Using rubrics to promote thinking and learning. *Educational Leadership.* 57(5):13-18

Argyris, M. & Schön, D. 1978. *Theory in practice. Increasing professional effectiveness.* San Francisco: Jossey-Bass.

Ashcroft, K. & Foreman-Peck, L. 1994. *Managing teaching and learning in further and higher education.* London: Falmer.

Ashworth, J. & Prinsloo, J. 1994. A draft proposal for a programme to address the challenges for teaching and learning English, both in a changing classroom and a changing country. *Critical Arts,* 81 & 82:125-130.

Baker, C., Wuest, J. and Stern, P. N. 1992. Method slurring: the grounded theory/phenomenology example. *Journal of Advanced Nursing,* 17:1355–1360.

Barbour, R.S. 1999. The case for combining qualitative and quantitative approaches in health services research. *Journal of Health Services Research and Policy*, 4(1):39-43.

Bogdan, R.C. & Biklen, S. K. 2007. *Qualitative research for education: An introduction to theory and methods.* 5th ed. Boston: Allyn and Bacon.

Borg, W.R. & Gall, M.D. 1979. *Educational research: An introduction. 3rd ed.* New York: Longman.

Brockbank, A. & McGill, I. 2007. *Facilitating reflective learning in higher education.* Berkshire: Open University Press.

Brownell, P. 2005. Gestalt therapy in Community Mental Health. In Woldt, A.L. & Toman, S.M. (eds). *Gestalt therapy: history, theory, and practice.* Thousand Oaks, CA: Sage Publications

Burstow, B. 1991. Freirian codifications and social work education. *Journal of Social Work Education,* 27(3):196-207.

Cambourne, B. 1988. *The whole story*. New York: Ashton Scholastic Ltd.

Carignan, N., Pourdavood, R., King, L. & Feza, N. 2005. Social representations of diversity. multi/intercultural education in a South African urban school. *Intercultural Education,* 16(4):381-393.

Chapman, A. *2005. Kolb learning styles*. http://www.businessballs.com/kolblearningstyles.htm. [11 August 2009].

Chenicheri, S.N., Patil, A. & Mertova, P. 2009. Re-engineering graduate skills – a case study. *European Journal of Engineering Education,* 34(2):131-139.

Chetty, R. 2007. A paradigm shift in teacher education: towards appropriate

normative management principles to enhance quality. Unpublished MBA thesis.

University of Cape Town.

Chetty, R. & Mwepu, D. 2008. Language policy and education in South Africa: An alternative view of the position of English and African languages. *Alternation,* 15(2):329-345.

Christie, P. 2006. *The right to learn: The struggle for education in South Africa.* Johannesburg: Pan Macmillan and the Sached Trust.

Chur-Hansen, A. & Vernon-Roberts, J. 1998. Clinical teachers' perceptions of

 medical students' English language proficiency. *Medical Education*, 32(4):351-356.

Clarke, C.M. 1995. *Thoughtful teaching.* Wiltshire: Redwood Books.

Cohen, L., Manion, L. & Morrison, K. 2008. *Research methods in education.* London: Routledge.

Collier, J. & Esteban, R. 2007. Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, 16(1).

Commission of the European Communities. 2004. *Joint progress report of the council and the commission on the implementation of the "education & training 2010" work programme*. http://register.consilium.europa.eu/pdf/en/10/st05/st05394.en10.pdf. [5 August 2010].

Concise Oxford Dictionary. 2006. Oxford: Oxford University Press.

Coyle, A. 1995. Discourse analysis. In Breakwell, G.M., Hammond, S. & Fife-Shaw, C. (eds). *Research Methods in Psychology.* London: Sage.

Creswell, J.W. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, Calif: Sage Publications.

Cross, M. 2004. Institutionalising campus diversity in South African higher education: Review of diversity scholarship and diversity education. *Higher Education*, 47:387-410.

Dewey, J. 1975. *Moral principles in education.* Carbondale, IL: Southern Illinois University Press. (Original work published in 1909.)

Dlaska, A. 2003. Language learning in the university: Creating content and community in non-specialist programmes*. Teaching in Higher Education,* 8(1):104-116. [Abstract in the Ebsco database].

Ebata, M. 2008. Motivation factors in language learning. *The Internet TESL Journal,* XIV:4. http://iteslj.org [28 February 2009].

Edwards, A.D. 1980. Patterns of power and authority in classroom talk. In P Woods (ed) *Teacher strategies: Explorations in the sociology of the school.* London: Croom Helm.

Farrell, T.S.C. & Lim, P.C.P. 2005. Conceptions of grammar teaching: A case study of teachers' beliefs and classroom practices. *TESL EJ,* 9(2).

Freire, P. 1970. *Pedagogy of the oppressed.* London: Penguin.

Garris, R., Ahlers, R. & Driskell, J.E. 2002. Games, motivation, and learning: A research and practice model. *Simulation Gaming*, 33:441.

Gee, J.P. 1989. Literacy, Discourse, and Linguistics: Introduction. *Journal of Education,* 171(1):5-17

Gitsaki, C. 1998. Second language acquisition theories: overview and evaluation. *Journal of Communication and International Studies* 4(2), 89-98.

Glau, G.R. 1993. Mirroring ourselves? The pedagogy of early grammar texts. *Rhetoric Review,* 11:418–35.

Golafshani, N. 2003. Understanding reliability and validity in qualitative research. *The Qualitative Report,* 8:597-607.

Golson, E. & Gerretson, H. 2005. Comprehensive rubrics as measures of mastery. http://www.unco.edu/assessment/newsletter/jan05. [March 2007].

Gordon, A. & Wang, Q. 2000. Education in rural areas of China and South Africa: Comparative perspectives on policy and educational management. Comparative perspectives: education in China & South Africa. UNESCO International Research and Training Centre for Rural Education (INRULED), Nanjing: China.

Grandin, J. M. 1988. Launching a program in international engineering. *Proceedings of the 7th Annual Eastern Michigan University Conference on Language for Business and the Professions.* Michigan.

Gregg, K.W. 1984. Krashen's monitor and occam's razorn. *Applied Linguistics,* 5(2):79-100.

Habermas, J. 1970. *Towards a theory of communicative competence.* London: Routledge.

Hadley, T.D. 2007. The effect of direct, in-class grammar instruction on the quality of student writing. Unpublished PhD thesis, Texas Tech University, Lubbock.

Hancock, A.B., Stone, M.D., Brundage, S.B. & Zeigler, M.T. 2010. Public speaking attitudes: does curriculum make a difference? *Journal of Voice,* 24(3):302-307.

Hanrahan, H. n.d. *The Washington Accord: History, Development, Status and Trajectory.* http://www.asee.org/documents/conferences/international/2008/Hanrahan-Accreditation-Track-WA-Paper.doc [23 September 2009].

Hargreaves, J. 2008. Risk: the ethics of a creative curriculum. *Innovations in Education and Teaching International,* 45(3):227-234.

Harris, C.E., Pritchard, M.S. & Rabins, M.J. 2000. *Engineering ethics: concepts and cases.* 2nd ed. Belmont, CA: Wadsworth Press.

Henning, E. 2007. *Finding your way in qualitative research.* Pretoria: Van Schaik.

Herman, J., Aschbacher, P. & Winters, L. 1992. *A practical guide to alternative assessment.* Alexandria, V.A.: Association for Supervision and Curriculum Development.

Hill, P. & van Zyl, S. 2002. English and multilingualism in the South African engineering workplace. *World Englishes,* 21:23–35.

Hillocks, G., Jr. 1986. *Research on written composition: New directions for teaching.* Urbana, IL: NCTE.

Hodson, G., Choma, B.L. & Costello, K. 2009. Experiencing alien-nation: Effects of a simulation intervention on attitudes toward homosexuals. *Journal of Experimental Social Psychology*, 45(4):974-978.

Howie, S, Venter, E & van Staden, S. 2008. The Effect of Multilingual Policies on Performance and Progression in Reading Literacy in South African Primary Schools. *Educational Research and Evaluation,* 14(6):551-560.

Jacobs, C. 2010. Collaboration as pedagogy: Consequences and implications for partnerships between communication and disciplinary specialists. *Southern African Linguistics and Applied Language Studies*, 28(3): 227–237.

Jacobs, H., Zinkgraf, S., Wormuth, D., Hartfiel, V. & Hughey, J. 1981. *Testing ESL composition: A practical approach.* Rowley, MA: Newbury House.

Jawitz, J. & Case, J. 1998. Exploring the reasons South African students give for studying engineering. *International Journal of Engineering,* 14(4):235-240.

Jeffrey, R.A. 2006. Creative teaching and learning: towards a common discourse and practice*. Cambridge Journal of Education,* 36(3):399-414.

Jeffrey, B. 2008. Creative learning identities. *Education 3-13*, 36(3):253–263.

Keeton, M. 2010. *Annual analysis of matric results.* http://www.tshikululu.org.za/thought-leadership/matric-results-%e2%80%93-not-good-enough-must-do-better [16 September 2010].

Kloot, B., Case, J. & Marshall, D. 2008. A critical review of the educational philosophies underpinning Science and Engineering foundation programmes. *South African Journal of Higher Education, 22*(4):799-816.

Kolb, D. A. 1984. *Experiential learning.* Englewood Cliffs, NJ: Prentice Hall

Korte, R.F. 2008. *A case study of the socialization of newly hired engineers: How new engineers learn the social norms of an organization.* Tyler: University of Texas.

Krashen, S.D. & Terrell, T. 1983. *The Natural Approach: Language acquisition in the classroom.* Hayward, CA: Alemany Press.

Kress, G. 1989. *Linguistic processes in socio-cultural practice.* Oxford: Oxford University Press.

Kruger, S.C. 2007. The use of rubrics in the assessment of social sciences (history) in the GET phase in transformational outcomes-based education. Unpublished thesis from

the Faculty of Education, CPUT.

Kvale, S. 1996. *Interviews.* London: Sage.

Larsen-Freeman, D. & Long, M.H. 1991 *An Introduction to Second Language Acquisition Research.* Harlow:Longman

Le Grange, L. & Beets, P.A.D. 2005. (Re) conceptualizing validity in (outcomes-based) assessment. *South African Journal of Education,* 25(2):115-119.

Leidman, M. & Wiggins, B. 2010. Developing a paradigm for describing diversity and multiculturalism in modern America. *Journal of Social Sciences*, *6*(1):55-59.

Lincoln, Y.S. & Guba, E.G. 1986. But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New Directions for Program Evaluation*, 30:73-84.

Lyons, N. 2010. Reflective inquiry: foundational issues – A deepening of conscious life. In Lyons, N (ed). *Handbook of reflection and reflective inquiry.* New York: Springer science and business media.

MacGregor, K. 2009. *SOUTH AFRICA: Shocking results from university tests*. http://www.universityworldnews.com/article.php?story=20090816082047397 [21 March 2010].

Maree, J.G. & Fraser, W.J. (Eds.). 2004. *Outcomes-based assessment*.

Johannesburg: Heinemann.

Marshall C. & Rossman, G.B. 1995. *Designing Qualitative Research.* London: Sage.

McKenna, S. 2004. A critical investigation into discourses that construct academic literacy at the Durban Institute of Technology. Unpublished PhD thesis. Rhodes University, Grahamstown.

McLaughlin, B. 1987 *Theories of Second-Language Learning* London:Edward Arnold

Mezirow, J. 1997. Transformative learning: Theory to practice. *New Directions for Adult & Continuing Education*, 7(74):5-12.

Morrow, W.E. & King, K. (eds). 1998. *Vision and reality: Changing education and training in South Africa*. Cape Town: Juta and Company Ltd.

Moskal, B.M. 2001. *Scoring rubrics: Part 1: What and when*.

http://www.ericdigests.org/2001-2/scoring.hmtl. [March 2007].

Moskal, B.M. 2003. Recommendations for developing classroom performance assessment and scoring rubrics. *Practical Assessment, Research and Evaluation*, 87(14). http://www.PAREonline.net/getvn.asp?v=8&n=14. [March 2007].

Nagda, B. 2006. Breaking barriers, crossing borders, building bridges: Communication processes in intergroup dialogues. *Journal of Social Issues, 62(3):553-576.*

Narsee, S. 2001. Beyond a shadow of doubt: Making a case for humanities and social sciences in higher education. http://ultibase.rmit.edu.au/Articles/aug01/narsee1.htm [17 August 2009].

National Benchmark Tests. n.d. *How do I prepare*? http://nbtests.co.za/site/faq/view/how-do-i-prepare [16 April 2010].

Nevis, E. (1997). Gestalt therapy and organization development: A historical perspective. *Gestalt Review*, 1(2):110–130.

Nicolaidis, C. & Liotas, N. 2006. A Role for theatre in the education, training and thinking processes of managers*. Industry and Higher Education*, 20(1):19.

Nieveen, N. 2009. In Plomp, T., van den Akker, J., Bannan, B., Kelly, A.E. & Nieveen, N. 2009. *An Introduction to Educational Design Research.* Enschede: Netzodruk: 89-102.

Nilson, L. 2010. *Teaching at its best: A research-based resource for college instructors. 3rd ed.* San Francisco: Jossy-Bass Inc.

Norris, B. 2000. *Managing cultural diversity within higher education: a South African perspective*. http://www.immi.se/intercultural [27 June 2010].

Ocholla, D. 2009. Information ethics education in Africa. Where do we stand? *The International Information & Library Review*, 41:79-88.

Ohliger, J. 1995. Critical views of Paulo Freire's work. Paper presented at the annual conference for the 1995 Iowa Community College summer seminar, Madison, Wisconsin, USA.

Paine, L.S. 2000. Does ethics pay? *Business Ethics Quarterly*, 10(1):319-330.

Patton, M.Q. 2002. *Qualitative evaluation and research methods.* 3rd ed. London: Sage.

Pavlenko, A. & Lantolf, J.P. 2000. Second language learning as participation and (re)construction of selves. In Lantolf, J.P. (ed). *Socio-cultural theory and second language learning.* Oxford: Oxford University Press.

Peet, K. 2009. *To grammar or not to grammar.*
http://www.developingteachers.com/articles_tchtraining/gr1_kendall.htm [23 June 2010].

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49:*65–85.

Pettigrew, T. F. & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90(5):*751-783.

Pettigrew, T. F. & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38:922-934.

Piaget, J. 1936. *The origins of intelligence in children.* New York:W.W. Norton & Company, Inc.

Plomp, T. 2009. Educational design research. In Plomp, T., van den Akker, J., Bannan, B., Kelly, A.E. & Nieveen, N. 2009. *An introduction to educational design research.* Enschede: Netzodruk: 9-36.

Pulko, S.H. & Parikh, S. 2003. Teaching 'soft' skills to engineers. *International Journal of Electrical Engineering Education*, 40(4).

Qing, X.U. 2009. Reflective teaching – an effective path for EFL teacher's professional development. *Canadian Social Science*, 5(2):35-40.

Raja, N. 2005. Humanization of education in Pakistan through Freire's concept of literacy. *Asia Pacific Education Review*, 6(1):1-6.

Rodgers, C. 2006. The role of descriptive inquiry in building presence and civic capacity. In Lyons, N. (ed.). 2010. *Handbook of reflection and reflective inquiry*. New York: Springer science and business media.

Romeo, K. 2000. *Krashen and Terrell's "Natural Approach".*
http://faculty.ucmerced.edu/khakuta/LAU/ICLangLit/NaturalApproach.htm [5 November 2009].

Salkind, N.J. 2006. *Exploring research*. New Jersey: Pearson International.

San Miguel, C. & Rogan, F. 2009. A good beginning: The long-term effects of a clinical

communication programme. *Contemporary Nurse,* 33(2):179–190.

Sanyal, B.C. 2004. *Need for value-based education in the twenty-first century. Education and training for peace.* http://www.here-now4u.de/eng/need_for_the_value-based_educa.htm [14 July 2009].

Schön, D. 1983. *The reflective practitioner. How professionals think in action.* London: Temple Smith.

Shor, I. 1992. *Empowering education. Critical teaching for social change.* University of Chicago Press: Chicago.

Shor, I. & Freire, P. 1987. *A pedagogy for liberation.* Westport, Connecticut: Bergin & Garvey.

South Africa. Department of Education. 2003. *National Curriculum Statement Grades 10-12 languages generic first additional language.* Pretoria: Government Printer.

South Africa. Department of Education. 2009. *Matric Results 2009 and its challenges: briefing by Department of Basic Education and UMALUSI.* Pretoria: Government Printer

Taylor, E.W. 2006. The challenge of teaching for change. In E.W. Taylor (ed). *Teaching for change: Fostering transformative learning in the classroom. New directions in adult and continuing education.* San Francisco: Jossey-Bass: 109*.*

Tchudi, S.N. & Tchudi, S.J. 1991 *The English language arts handbook: Classroom. strategies for teachers.* Portsmouth, NH: Heinemann.

Thanasoulas, D. 2006. *Education: Crisis and criticism.* http://www.developingteachers.com/articles_tchtraining/crisis1_dimitrios.htm [14 July 2009].

The Bill of Rights of the Constitution of the Republic of South African. 1996. *Government Gazette.* (No. 17678).

The New Penguin English Dictionary. 2001. London: Penguin Books.

UMALUSI. 2004*. Summary report on the evaluation of the senior certificate examination*. www.umalusi.org.za/ur/research/SC%20Research%20Summary.pdf *[16 July 2009]*.

UMALUSI*.* 2008 *National senior certificate examination results.* www.ecdoe.gov.za/.../UMALUSI-approves-the-release-of-2008-National-Senior-Certificate-

results [14 July 2009].

UMALUSI. 2010 *National senior certificate examination results*.
www.pmg.org.za/report/20100203-briefing-department-basic-education-matric-results-and-challenges-ass. [21 June 2010].

UNESCO: Constitution of the United Nations Scientific and Cultural Organization, preamble, UNESCO. Paris, November 1945.

UNESCO: Declaration and integrated framework of action of education for peace, human rights and democracy, UNESCO. Paris, 1995.

University of Cape Town. 1980. Oral presentation rubric. Professional Communication Unit.

Van der Molen, H.T., Schmidt, H.G. & Kruisman, G. 2007. Personality characteristics of engineers. *European Journal of Engineering Education,* 32(5):495. http://www.tandf.co.uk/journals [25 November 2009].

Van Dyk, T. Zybrands, H. Cillie, K. & Coetzee, M. 2009. On being reflective practitioners: the evaluation of a writing module for first-year students in the Health Sciences. *Southern African linguistics and applied language studies, 27(3):333-344.*

Verenikina, I. 2008. Scaffolding and learning: Its role in nurturing new learners. In Kell, P., Vialle, W., Konza, D. & Vogl, G. (eds). *Learning and the learner: Exploring learning for new time.* Australia: University of Wollongong: Ch 10.

Vesely, R. 2000. Multilingual Environments for Survival: The impact of English on Xhosa-Speaking students in Cape Town. *PRAESA Occasional Papers, 5.* PRAESA: Cape Town

Vygotsky, L.S. 1978. *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press. (Original work published in 1934).

Weaver, C., McNally, C. & Moerman, S. 2001. To Grammar or not to Grammar: That Is *not* the question! *Voices from the Middle, 8(*3):31.

Weber, M. 2007. Multi-course comparison of traditional versus web-based course delivery systems. *The Journal of Educators Online*, 4(2):15.

Wegerif, R. 2002. *Thinking skills, technology and learning.* http://www.futurelab.org.uk/resources/publications-reports-articles/literature-reviews/ [05 March 2009].

White, L. 1987. Against Comprehensible Input: The Input Hypothesis and the Development of Second-Language Competence. *Applied Linguistics*, 8:95-110.

Wilson, R. 2000. *A summary of Stephen Krashen's "Principles and Practice in Second Language Acquisition".* http://www.languageimpact.com/articles/rw/krashenbk.htm [December 2006]

Winberg, C. 2008. Teaching engineering/engineering teaching: interdisciplinary collaboration and the construction of academic identities. *Teaching in Higher Education,* 13(3):356.

Woolever, K.R.1997. Rethinking technical communication pedagogy: A Poststructuralist view of program and course design. Paper presented at Annual Meeting of the Conference on College Composition and Communication, Phoenix AZ, March 1997.

Yin, R.K. 2009. *Case study research: Design and methods. 4th ed.* Beverly Hills, CA: Sage.

Yontef, G. 2002. The relational attitude in Gestalt therapy theory and practice. *International Gestalt Journal,* 25(1):15-34.

Zuber-Skerrit, O. 1996. Introduction. In Zuber-Skerrit, O. (ed). *New directions in Action Research.* London: Falmer: 3-9.

APPENDIX:1 SYLLABUS

CAPE PENINSULA UNIVERSITY OF TECHNOLOGY

Cape Peninsula
University of Technology

Faculty of Engineering

Subject Guide for Communication Skills:

KOT1A2X, KOT1E2X,   KOT1M2X, KOT1C1X

Our Faculty Vision

"To be a faculty of engineering

excellence responsive to societal needs."

Our Faculty Mission

As per the institution and

To ensure that the students and staff value:

Creativity, intellectual curiosity, innovation, critical

thinking, and knowledge;

The pursuit of high academic and ethical standards;

The diversity of our University community, the people, their points of view and the contribution
they make to the realisation of our mission;

The University as a place of human dignity, fairness,

inspiration and beauty.

Our Faculty Slogan	
The engineering pulse of Africa	

INTRODUCTION

This subject guide has the following sections:

1. Introduction

This section consists of the summary of the content of this guide, as well as an illustration of the guiding coalition of the lecturers, namely the illustrated *performance excellence* model.

2. Official instructional offering

This gives you an overview of the outcomes required, the division of the notional hours for this foundational provision offering, and the lecturers' thoughts on assessment criteria.

3. Official syllabus

All the topics covered on this course are listed here.

4. Course objectives

The intent behind each of the syllabus topics are described here.

5. Learner guide and work schedule

This section expands on the detail of how you will be assessed and the schedule of the work to be completed. Some ground rules for class conduct are also discussed. At the end a time management sheet is added as a tool to use as discussed in the IFYE (Integrated First Year Experience) module.

6. Remedial Intervention programme

Remedial help will be available to all students who require it. The problems that have arisen to date and a support system for these will be examined.
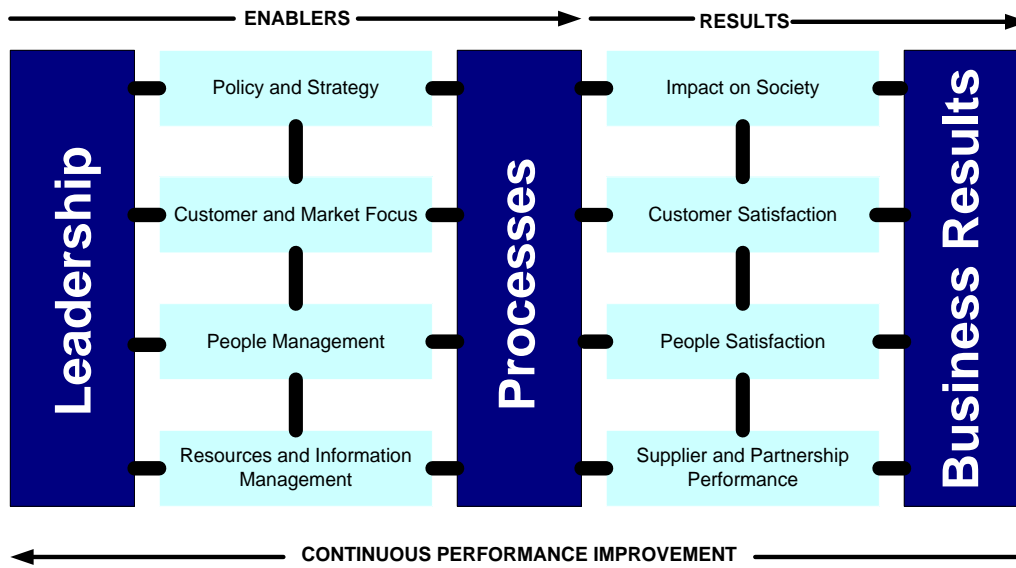
7. Integrated First Year Experience (IFYE)

Certain problems that facilitate the change from school to university are discussed so that each student can determine their relevance.

8. The Class Representative System

A system to assist students with problems has been spelled out so that all students are aware of the correct procedure to follow.

PERFORMANCE   EXCELLENCE   MODEL

ENABLERS → RESULTS →

Leadership	Policy and Strategy	Processes	Impact on Society	Business Results
	Customer and Market Focus		Customer Satisfaction	
	People Management		People Satisfaction	
	Resources and Information Management		Supplier and Partnership Performance	

← CONTINUOUS PERFORMANCE IMPROVEMENT →

OFFICIAL INSTRUCTIONAL OFFERING

Executive summary

This unit is intended to enable the student to develop a good understanding of Communication Skills and their importance in industry and all the technological units studied elsewhere in this programme. It also wishes to integrate these skills with the development of his/her normative skills, vocabulary building and language acquisition in a natural manner to become a well-rounded engineer.

COMMUNICATION SKILLS

N.Q.F. Level:	**Credits:**
Faculty: Engineering	**Department:**
	Engineering
	Extended Course Programme
	Cape Town Campus
Examiners: Marie-Anne Ogle	**Moderator:** Main Stream
Gail Bohle	Communications Skills
Original: 2005	**Revision:** Marie-Anne Ogle
	Gail Bohle

Purpose

This subject is for all students who wish to enter the world of industry and need the spoken and written skills specifically associated with that environment

Learning assumed to be in place

Grade 12 English or equivalent

Recognition of Prior learning (RPL) applies as per institutional policies

Range

The skills to be acquired here are the written and spoken skills necessary in the field of the student's choice. Great emphasis will be placed on confidence and normative issues in addition to written and spoken skills to enable students to perform to the best of his/her ability.

Course Outline

The core elements

- Academic Literacy
- Information Literacy
- Written Communication
- Spoken Communication
- Small group Communication
- Remedial work (where necessary)

Course Objectives

By the end of this course, you should be able to

- Understand the communication process on an interpersonal, group and organisational level

- Gather, analyse and synthesise information

- Present information clearly, correctly and effectively in various modes of written communication

- Express yourself clearly, correctly, confidently and appropriately in oral communication

- Read effectively and purposefully

- Engage in active listening

Critical Cross-field Outcomes

At the end of the course you should be able to

- Organise and manage yourself and tasks responsibly and effectively

- Work effectively in culturally diverse groups

- Use computer technology to conduct research, access course material,

- Think critically

- Identify, analyze, explore existing and potential issues relating to your field of study and the workplace

- Collect, analyse, organise and critically evaluate information

- Communicate effectively in various modes of oral and written communication

Assessment

This is a project-based course – there is no examination. The final mark is calculated as a weighted average of your assignments and tests. To pass the course as a whole you must obtain a minimum final mark of 50%.

Students will be expected to participate in a special gala evening with industry to present these organisational, oral and written skills at the end of the year.

Test and Assignment Dates

These will be communicated to you by the lecturers concerned.

Important issues

You will be penalised for frequent absenteeism by a subtraction of marks.

Absenteeism during a test must be reported and a valid medical certificate produced on the day of return. The oral presentation forms an important part of the total mark and is regarded as a test

Plagiarism is passing off someone else's ideas as your own. Students who plagiarise will be severely penalised. All sources used must be referenced correctly according to the Harvard system. (Where students 'borrow' from each other, both the lender and the borrower will, *at the very least*, receive zero for that assignment.)

Student Support

Remedial help is always available to students.

A special class consisting of assistance with verbal and written skills and dealing with normative issues, will form an integral part of the course. This will be supported and integrated with regular Language Laboratory periods.

OFFICIAL SYLLABUS: Communication Skills

Information Literacy

Specified Outcome

Demonstrate the ability to conduct research and show an understanding of the principles of citation and of plagiarism. Demonstrate an ability to read strategically, using different reading strategies where appropriate. Demonstrate an ability to summarise information effectively.

Assessment criteria

In order to complete this component you will need to:

- Work through the Library intranet training guides on Information Literacy and the Harvard System

- Complete class work reading module and exercises

- Complete class work summary/précis module and exercises

- Engage in active reading

- Conduct research consulting various types of sources

- Demonstrate the ability to analyse information

- Reference (bibliographic and in-text) all sources used correctly using the Harvard system

- Show an understanding of the definition and consequences of plagiarism and how to avoid it

- Participate in a blog by reading and writing

- Participate on Facebook by sharing opinions after a class discussion

- Participate in writing and discussions on Mxit

- Create digital portfolios to be used as part of CV's

Assessment Methods

- Written exercises on research and plagiarism

- Written work (essay and reports) displaying

  - ❖ An ability to locate and use various sources of information

  - ❖ Harvard system of in-text referencing

  - ❖ Harvard system bibliography

Reports

Specified Outcome

Demonstrate the ability to write professional, coherent, logical technical and investigative reports using appropriate style and structure, and appropriate referencing.

Assessment Criteria

In order to complete this assignment you will need to:

- Demonstrate the knowledge of various formats and sections of reports

- Conduct an investigation and do research relevant to the instructions given

- Demonstrate the ability to use a formal, objective style appropriate to technical writing

- Present structured and logical analysis

- Demonstrate knowledge of Harvard system of (in-text and bibliographic) referencing

- Demonstrate the ability to integrate visual and verbal communication
- Understand plagiarism and how to avoid it

Assessment Methods

- Complete exercise on report writing
- Complete exercise on referencing
- Write a short technical report
- Write an investigative/site report

Research Essay

Specified Outcome

Research and present an argument in an objective, logical and coherent manner, portraying good sentence, paragraph and essay structure.

Assessment Criteria

In order to complete this assignment you will need to:

- Demonstrate the ability to write well-structured sentences
- Demonstrate the ability to write well-structure paragraphs
- Demonstrate the knowledge of essay format
- Demonstrate the ability to argue and link paragraphs logically using links and transitions

- Demonstrate the ability to find, identify, evaluate and effectively use research material

- Demonstrate the ability to paraphrase

- Demonstrate the ability to use a formal, objective style appropriate to technical writing

- Present structured and logical analysis, expressing yourself clearly and accurately

- Demonstrate the knowledge of Harvard system of (in-text and bibliographic) referencing

- Use style, tone and register appropriate to context and audience

Assessment Methods

- Complete exercise on sentence structure

- Complete exercise on paragraph structure

- Complete exercise on paraphrasing

- Complete exercise on logical thinking and argumentative strategy

- Write a referenced (in-text and bibliographic) research essay

Application Letter and CV

Specified Outcome

Demonstrate the ability to market yourself to a prospective employer in both an application letter using correct register and format, and presentable, well-structured Curriculum Vitae.

Assessment Criteria

You will need to market yourself to a prospective employer. Apply for an in-service training job within the industry towards which you are training by

- Writing an application letter demonstrating appropriate format, register and content
- Compiling a CV that is presentable, accurate and well-structured

Assessment Methods

Write a realistic application letter and CV

Interview Skills

Specified Outcome

Demonstrate the ability to communicate appropriately and effectively in a job selection interview.

Assessment Criteria

In order to complete this task you will need to:

- Demonstrate knowledge of the structure of a typical interview
- Use appropriate verbal and non-verbal communication
- Ask suitable questions
- Answer questions effectively
- Show that you prepared sufficiently

Assessment methods

- Role play a job interview (interviewers, interviewees, as well as peer evaluators)

- Feedback and discussion will take place after role play

Business proposals and plans

Specified Outcome

Demonstrate the ability to write professional, coherent, logical business proposals and plans, using appropriate planning, style and structure. Correct referencing techniques also need to be present.

Assessment Criteria

In order to complete this assignment you will need to:

- Demonstrate the knowledge of various formats and sections of both business proposals and plans

- Show an understanding of group dynamics and how to work in a team situation

- Conduct an investigation into viable business opportunities and do the relevant research, based on the terms of reference given

- Show the ability to use a formal, objective style appropriate to formal writing

- Present a structured and coherent document

- Demonstrate knowledge of the Harvard system of referencing

- Use visual and verbal communication in an integrated and convincing fashion

- Present the team's Business plan as a group oral presentation

- Understand plagiarism and how to avoid it

Assessment methods

- Complete exercises on business proposals and plans.

- Complete exercise on referencing

- Write a short business proposal

- Write an in-depth business plan

Language Laboratory

Specific Outcome

Demonstrate the ability to engage with Engineering as well as everyday vocabulary, through numerous word activities, games and puzzles. The ability to use Dictionaries and Thesauri effectively, is also a skill, which is developed in these workshops. An atmosphere of competitive play, is purposefully created so that students *wish* to attend these sessions. The written word is explored and experienced here.

Assessment Criteria

In order to succeed in the weekly workshops, students need to:

- Follow instructions correctly.

- Work at their own pace and better their performance, weekly.

- Consult dictionaries and thesauri efficiently.

- Complete worksheets in good time.

- Recognise patterns, word stems and the basics of good grammar. .

- Take up the challenge of cracking the codes involved in the puzzles, games and word-searches.

- Collect and record their own worksheets on a weekly basis. (The lecturer also records all marks.)

- Take ownership of their own language development..

Assessment Methods

- Students choose from a wide choice of numbered worksheets available, each week.

- They complete the chosen exercise in the 45 minute session.

- A second worksheet may be attempted, if the first has been successfully completed.

- Students post the worksheet in the "WAIT' or the "GO" box. Only the "GO" box is marked immediately and the rest is held back until the next session. (No worksheets are allowed to leave the venue.)

- Students collect the marked worksheets at the end of the week and record the marks.

Oral Presentation

Specific Outcome

Each student must express themselves clearly, correctly, confidently and appropriately in both **individual** and **group** presentations

Assessment Criteria

Here you will need to demonstrate an understanding of all the following elements involved when preparing a presentation:

- venue
- purpose
- audience
- style
- projection
- articulation

- body language

- register

- credibility

- timing

- questioning techniques

- effective handling of both transparencies and PowerPoint slides

- research and planning

- group dynamics

- meeting skills

Assessment Methods

The following exercises will be assessed by the lecturers:

Individual oral presentations to an audience

Group research and presentations to an audience

Participation in a group presentation of business plans, to industry (assessed by industry)

Integrated First Year Experience (IFYE)

Specific Outcomes

Each student should be assisted with the gap between school leaving and university. The idea of these sessions are to equip students with lifelong skills which will prepare them for university as well as successful lives and careers.

Assessment Criteria

- Approaches to learning in higher education

- Time management

- Expected work load requirements and

   team work

- Toolkit of study skills

- Note taking

- Problem-solving

- Information literacy

- Academic writing

- The engineering thought process

- Lessons from the Wild

- Body language in the work place

- The art of setting goals

- Academic leadership

- Presenting with confidence

Assessment Methods

Students are guided with discussion sessions in which the pertinent issues are dealt with, complete notes are given and placed on E-learning as well. Students then write a short test on each session.

Take note that everybody starts with the ideal mark - in this case 110%. There is a 5% bonus mark built in for Introduction to Engineering, rewarding those who stuck to their guns in the first term. An extra 5% bonus can be earned by those who perform well enough to go on the agricultural project. Only the top 40 students will be involved with this.

REMEDIAL SUPPORT – INTERVENTION PROGRAMME

Specific Outcome: To give students practice in talking/speaking/reading English and then building their confidence - both short and long term – to produce **well-rounded** engineers who are capable of more than technical skills and can hold their own in comparison to any other engineers. Normative issues such as respect, consideration, discipline will underlie all other outcomes, as well as life skills such as problem-solving, persuasion and decision-making. The intervention programme dovetails directly with the Language Laboratory and Integrated First Year Experience.

Assessment Criteria:

COMMUNICATION PROBLEMS TO BE ADDRESSED

- Many students especially from rural areas and foreign countries have not had an opportunity to speak or hear much English

- At school students did no presentations as teachers were overwhelmed by class sizes, did not know how or were not English-speaking themselves

- At the end of a year on the Foundation Provision students must introduce themselves to Departmental heads of Engineering by means of a presentation

- They are completely lacking in confidence

- They are studying Engineering. Their timetables are completely full. One traditional language lesson per week will not solve any problems.

- Students are all at varying stages of language development which will mean a very differentiated class. Students need to be stimulated into identifying and improving their own language problems

- Students need to understand that they have a lack regarding the language, but they are not lacking as people **–** they have a right to be heard

Ground rules

- Transparent goals
- Voluntary attendance
- No homework
- No punctuality list
- Everybody talks
- No negative feedback
- Topics originate from students

Assessment Methods

- STAGES OF DEVELOPMENT
- READING PROGRAMME

Each 'stage' of development will continue for as long as is necessary. The facilitator will gauge when to start the next stage bearing the overall period of 7 months in mind.

Stage 1 - Relax everybody

Explain the aims and goals and method

Students and facilitator introduce themselves

General conversation

First subject chosen by facilitator: generally different cultures, the

importance of understanding one another – relate to industry,

meetings

Everybody selects topics they would like to discuss

Everybody has to say something, however small

Everybody has to stand up when they speak

Stage 2 - Everybody talks times, however long it takes to build confidence

Facilitator very much there to hold it together, builds in reflective

practice

Focus on enjoyment

Stage 3 – Facilitator asks who would like language to be corrected (optional)

Facilitator explains importance of life skills such as

Decision-making, problem-solving, leadership skills, listening

skills, reflective practice

Facilitator must be open-minded to allow all topics chosen if

genuinely chosen

Stage 4 - Students stand in front of group and do impromptu speaking..

(Aim – to answer questions at November presentations)

Stage 5 –Students facilitate the class in the same way – facilitator

is there as support to assist them removing pressure

if necessary – students with most confidence first,

optional but encouraged

Stage 6 – Facilitator starts inviting 'foreign' guests to enable students

to get used to different people as part of audience – Heads

of Departments, Foundation director and lecturers

Stage 7 - Start rehearsing for the project

Reading Programme

A reading programme forms part of the intervention programme. This programme is integral to the intervention. Students must be willing to read anything English that interests them to immerse themselves in the language and absorb as much as is possible through natural methods. Shakespeare is not required.

Students will be provided with a reading list in which they will have to specify what they have read per day during the course of the week. The importance of absolute honesty will be discussed with them.

The reading may be anything of their choice that they will enjoy. This may range from newspapers to magazines to books. The facilitator has received contributions of You magazines, Reader's Digests and Move from Media24 which are always available to students.

Paired Reading Programme

Tutors assist students with their reading doing paired reading.

Web 2.0

Blogging: In order for students to become comfortable with English, we have started a blog. The students will be encouraged to comment on chapters written by lecturers based on the discussion in the Conversation Class. When all the lecturers have written a chapter, the tutors will follow with their chapter. The story will then be thrown open to the students who will be encouraged to write notwithstanding mistakes.

Facebook: As many students still wish to continue the discussion started in Conversation class, they will be offered the opportunity to do so by using a restricted group (class members only) on Facebook.

Mxit: As many students do not have home computers, the story started in the blog, will be continued on Mxit during any university holidays. Multi-mix sessions will be organised by the students where they will be encouraged to take part and express their

feelings.

APPENDIX 2: DIAGNOSTIC WRITTEN TEST

Written work – Pre-Test

You are asked to write a letter concerning 1 or all of the following:

- the **importance** of language skills for an engineer;
- the necessity of reading;
- your feelings about learning; languages at school; and
- your own communication problems.

Please be honest. I promise you will not be punished if you feel negatively about these issues. You may give examples of incidents that happened to you.

- Address your letter to MS Ogle

- The letter should be one A4 page long

- Use the extra paper to scribble your notes

- Indicate clearly what is rough work.

- Do not use an address, start with Dear Ms Ogle

- Please write in pen

- Write your name and class (A, B, C) clearly on the front of the paper.

Written work – post-test

You are asked to write a letter concerning one or all of the following:

- How you felt about the Engineering ECP course this year
- How you experienced Conversation class

Please be honest. You may give examples of incidents that happened to you.

- Address your letter to MS Ogle

- The letter should be one A4 page long

- Use the extra paper to scribble your notes

- Indicate clearly what is rough work.

- Do not use an address, start with Dear Ms Ogle

- Please write in pen

- Write your name and class (A, B, C) clearly on the front of the paper.

APPENDIX 3: SCALE FOR RATING FAL WRITTEN WORK

	Score Range	Criteria	Mark 100
Content		**Excellent to very good**: thorough development of theme relevant to assigned topic **Good to average:** adequate range, limited development of theme, mostly relevant but lacks detail **Fair to poor:** little substance, inadequate development of topic **Very poor:** not pertinent, not enough to evaluate	
Organization		**Excellent to very good**: fluent expression, clear supported ideas, succinct, well-organised **Good to average:** choppy, loosely organized but main ideas stand out, limited support **Fair to poor:** non-fluent, ideas confused, lacks logical development Very poor: does not communicate, no organization, not enough to evaluate	
Vocabulary		**Excellent to very good:** sophisticated range, effective word/idiom usage, appropriate register **Good to average:** adequate range, occasional errors of word/idiom usage but meaning not obscured **Fair to poor:** limited range, frequent errors of word/idiom usage, meaning confused **Very poor:** little knowledge of English vocabulary, idioms, word forms, not enough to evaluate	
Language Use		**Excellent:** effective complex constructions, few language errors: agreement, tense, number, word order, articles, pronouns, prepositions **Good to average:** effective but simple constructions, minor	

		problems in complex constructions *(meaning seldom obscured)*	
		Fair to poor: major problems in simple complex constructions, frequent errors of above *(meaning confused)*	
		Very poor: virtually no mastery of sequence construction rules, dominated by errors, not enough to evaluate	
Mechanics		**Excellent to good:** mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing	
		Good to average: occasional errors of above, *but meaning not obscured*	
		Fair to poor: frequent errors of all the above meaning confused or obscured	
		Very poor: no mastery of conventions, dominated by errors of spelling, punctuation as above, handwriting	
		illegible, not enough to evaluate	

Name of student:……………………………………

(Adapted from Jacobs, Zinkgraf, Wormuth, Hartfiel, Hughey (1981, P30))

APPENDIX 4: ORAL RUBRIC

ORAL MARK SHEET		
Name:	**Time:**	**Marker:**
Topic:	**Audience:**	
Introduction Subject of Talk Objectives of Presentation Rapport with Audience		/10
Body of Presentation Logical Structure Transitions between sections Support for main points		/10
Conclusions Linked to objectives Major points reinforced Note of finality		/10
CONTENT		

Delivery Confidence/Poise Eye contact Enthusiasm Appropriate manner Pace of delivery and timing Posture Liveliness/Involvement Facial expression/animation		/40
Language Vocal clarity Fluency Grammatical usage Word choice		/25
Visuals Construction (Size, Colour) Relevance, Impact Handling		/5
TOTAL		

(Adapted from Professional Communication Unit's Oral Mark sheet, University of Cape Town)

APPENDIX 5: PRE- AND POST-TEST ORAL PRESENTATION

COMMUNICATION SKILLS

(Pre-test)

Good morning Engineering ECP students. Welcome to university. We hope that you will be very happy at CPUT. In order to work with all of you and consider all your individual needs, we need to know just what those needs are. We are sure you will get to know ours just as fast so that we can form a good team.

You will see that your first assignment is due tomorrow. The following week will be devoted to you introducing yourself to us. Please prepare an oral presentation of 2 – 3 minutes on the following topics:

- **This is who I am**

- **Why I chose engineering**

- **What I feel my communication problems are? (Think of learning languages at school… How did you feel about languages at school. Why did you feel that way? Do you think engineers should do communication skills?)**

You have been divided into groups of ten at a time.

 Please consult the timetable and find your slot.

Report to Room 4.35 on the day.

Those not speaking do not have to attend until Friday.

You do not need visual aids of any sort, just yourself.

Punctuality is critical to an engineer – do not be late.

We look forward to meeting you to find out what you are going to share with us.

COMMUNICATION SKILLS

(Post-test)
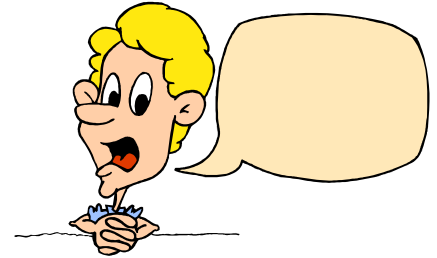
We hope that you will look forward to saying good-bye. What we mean by that is that this time you won't mind talking and will tell us how you feel now with confidence.

You have had time to experience your first year at CPUT. Please prepare a 2 – 3 minute speech on

- **how you felt about the year at university; and**

- **how you felt about Conversation Class.**

The instructions remain the same:

You have been divided into groups of ten at a time.

Please consult the timetable and find your slot.

Report to Room 4.35 on the day.

Those not speaking do not have to attend.

You do not need visual aids of any sort, just yourself.

Punctuality is critical to an engineer – do not be late.

We look forward to saying good-bye to each one of you, and finding out what you are going to share with us. *M Ogle and G Bohle*

APPENDIX 6: PRE-TEST INTERVIEW SCHEDULE

PRE-TEST INTERVIEW SCHEDULE

(after 1st pilot study - 10 October 2006)

Main question	Reason for question	Probing questions
1. When can you remember learning to speak English?	To determine the English background and experience of the user	Can you remember where you first heard English? At what age did you actually have to produce some English words yourself?
2. Who/what was the MAIN influence on you during the time you learnt English?	To determine the origin of the student's first meeting with the language Was language acquisition a natural occurrence?	Family Members? School? Friends? Media? Reading? Other?
3. How much time per week was spent on English **at school** during your high school career?	To determine how much assistance the student received during this period from teachers	Do you think these classes helped you to speak English?
4. How much time did **you personally** spend reading or speaking or listening to English outside school?	To determine the extent of the student's own desire to learn or simply how much effort she put into it	How enthusiastic were you about learning English?
5. What can you remember about your English classes?	Was this a pleasant experience for the student?	Did you enjoy your English classes at school?
6. Do you feel your English teacher at school struggled with the pronunciation or correct words at school?	Was the student exposed to correct pronunciation/grammar at school?	Don't want teacher's name
7. Were you ever called upon to speak in front of the class?	What exposure did the student have to speaking in front of others?	Is the student used to being in front of an audience? Do you feel you got your message to your class members across

		successfully?
8. What kind of person are you usually: Shy, quiet, talkative, outgoing, confident, loud, extrovert	What type of person is the student? Would she normally say very little or have problems of her own regarding communication?	How do you behave when you are with other people?
9. Do you get a lot of chance to speak English where you live now?	Does this place affect the student's communication? For example, very noisy residence, isolated room behind a house, are there any other English speakers?	Do English students come to talk to you a lot? Do you feel you ever get a chance to talk English to anybody else?
10. Is this very different from your previous ciucumstances?	Has the student lost the security of home?	Where did you live before this? Were there a lot of people to talk to? Did you ever speak English to them?
11. What language do you mainly speak to your friends in Cape Town?	Is the student having to use English to socialise?	What languages do your friends speak? Do you ever all speak just English? When?
12. Do you feel you are getting your message across when you speak to lecturers at CPUT?	Is the student forced to use English to help him with his studies?	Would you use your mother-tongue if you could?
13. Do you understand everything that is said in class?	Does the student feel he is coping with the language he has to use to study?	Do you always understand the notes you receive? Do you feel free to ask questions in English?
14. How do you feel about having to use English?	Is there any resentment at the fact about having to use English?	Do you feel it is unfair that you cannot use your mother-tongue? Do you feel that people don't always understand you?
15. Did you do oral presentations regularly at high school?	Has the student been exposed to speaking in front of people?	

	Did the teacher bother to train students to do orals?	
16. Did the teacher tell you how to do a presentation in front of people?	What chance has the student had to grow in confidence?	Were you given sufficient help/guidance when you prepared a presentation/talk?
17. How do you feel while speaking in front of your peers at university?	Where do the problems lie? What areas can be considered?	What happened to your mouth, knees, eyes, hands, self-confidence?
18. Why do you think you feel like this?	How does the student explain the fear?	
19. How do you feel about speaking in front of lecturers or strangers?	Is this any different to speaking in front of peers? If so, why?	What happened to your mouth, knees, eyes, hands, self-confidence? Was it easier or more difficult to speak in front of people who are strangers or not peers? Explain your reason?
20. Why do you think you feel like this?	How does the student explain the difference?	Did you plan the presentation properly? Did you know who you were speaking to?
21. Would you feel more confident if you were doing a presentation in your home language?	Is L2 the problem?	Do you struggle with grammar and vocabulary when you speak English? Do you have to search for words?
22. How much time do you spend reading English per week? (Approximately)	Is there any back-up/support for the student's acquiring a language when he is no longer at school?	Would you like the chance to carry on studying English after school? Do you think you will have time to go on studying English after school? Do you believe it is necessary for you to go on studying English after school?
23. What kind of literature/books/magazines do you like to read?	Is the student enjoying the English contact?	What are the student's interests?

APPENDIX 7: POST-TEST INTERVIEW SCHEDULE

POST-TEST INTERVIEW SCHEDULE

(after 1st pilot study - 10 October 2006)

Main question	Reason for question	Probing questions
1. Describe your first presentation at CPUT?	To establish whether there has been a change in the 6-month period?	Can you remember how you felt at the beginning of the course?
2. How did you feel when doing this presentation?	To establish whether there has been a change in the 6-month peirod	Were you scared or confident? Did you tremble, forget your words, hear yourself speaking?
3. How did you feel during your first conversation class?	To establish the initial feelings when starting out	What were your impressions of the first conversation class?
4. Did you enjoy the conversation classes during the year?	To determine whether the facilitator was able to create a positive relaxed atmosphere for the student	Did you want to come to each conversation class? Why?
5. If you did enjoy them, why did you do so?	To determine which elements stood out for the student	What was nice about the classes?
6. Give your impressions of what happened during the conversation class?	To determine the student's of what was happening to him	If you had to tell someone outside the class what happened in conversation class, what would you say/
7. Do you feel that you learnt anything during these classes?	To establish whether the student felt his time had been fruitfully spent	What do you personally feel you gained during this class?
8. Do you feel that the facilitator was clear as to what she wanted you to do?	Was the student satisfied that he understood what was required of him by the facilitator? Was the facilitator fulfilling his role effectively?	Did you always understand what the facilitator wanted you to do?
9. Did you ever feel pressurized by the facilitator to answer questions?	Was the element of fear eliminated by the facilitator?	Were you ever forced to answer any questions when you didn't want to?
10.In what ways has your	What are the student's of what	How do you feel that your

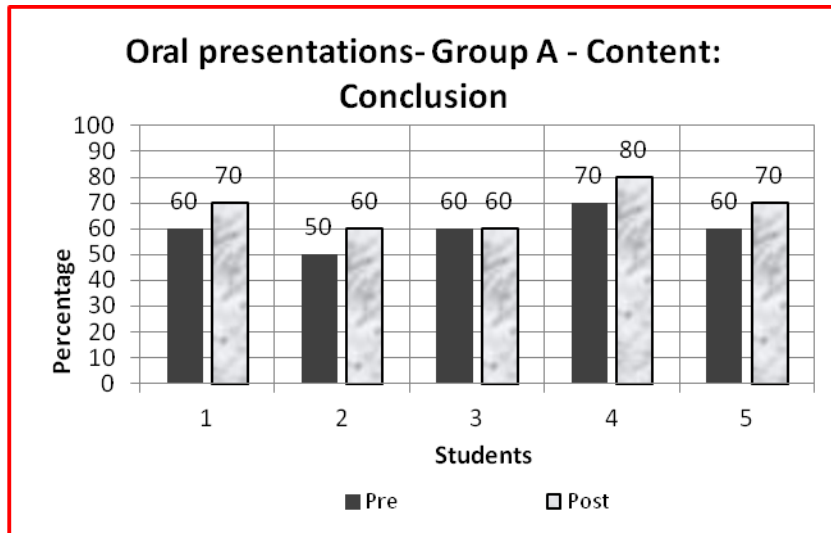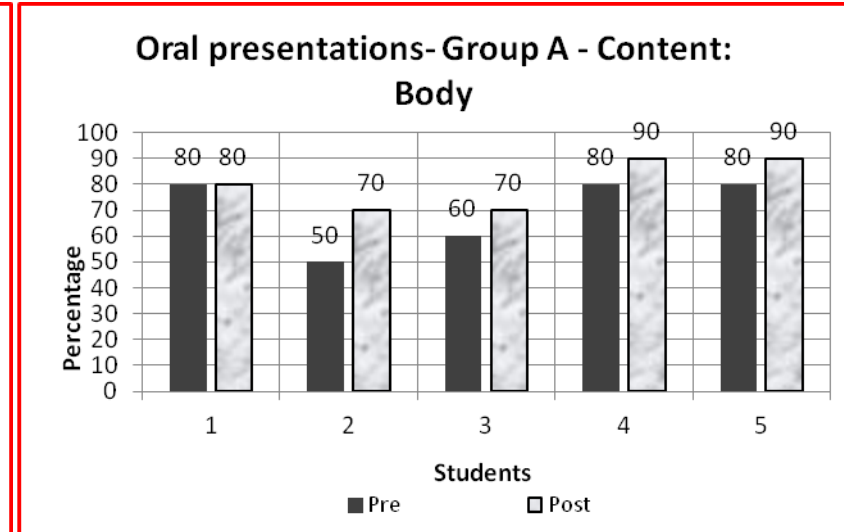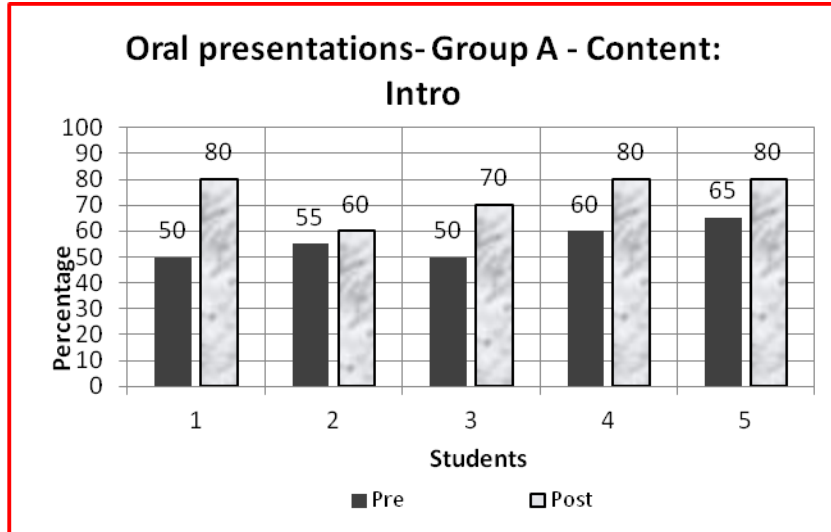|		
confidence changed/remained same/worsened because of these conversation classes?	has happened to him/her?	confidence has changed? Has it become better or worse?
11. How do you feel about talking in front of the class now?	Does the student feel he/she has grown to be able to tackle this task?	Do you feel comfortable standing in front of your peers now to talk?
12. Do you still feel that grammar/not knowing a word is a problem?	Can the student cope with the situation of speaking in a second/third language?	What would you do now if you don't know a word, or make a mistake?
13. Explain why you feel this way?	Does the student thought about why he/she feels this way?	Why do you think it is important to be able to deal with mistakes?
14. How did you feel about reading before you started the reading list?	What is the student's literary background?	Were you at all interested in books, magazines before you knew how important it is to read?
15. Has your reading pattern changed in any way since you started the course? Did you feel there was anything you really enjoyed reading?	Has there been any improvement in the student's reading? In which area would this improvement lie?	Do you think that you are reading any more now? Was there any book or magazine that you particularly remember?
16. How do you feel about doing a presentation in front of the camera now?	What is the measure of the student's confidence?	Are you still scared to speak in front of a camera?
17. Do you think your writing has improved at all? Why do you say this?	According to the student's , has there been an additional improvement?	Are you more confident when you write?
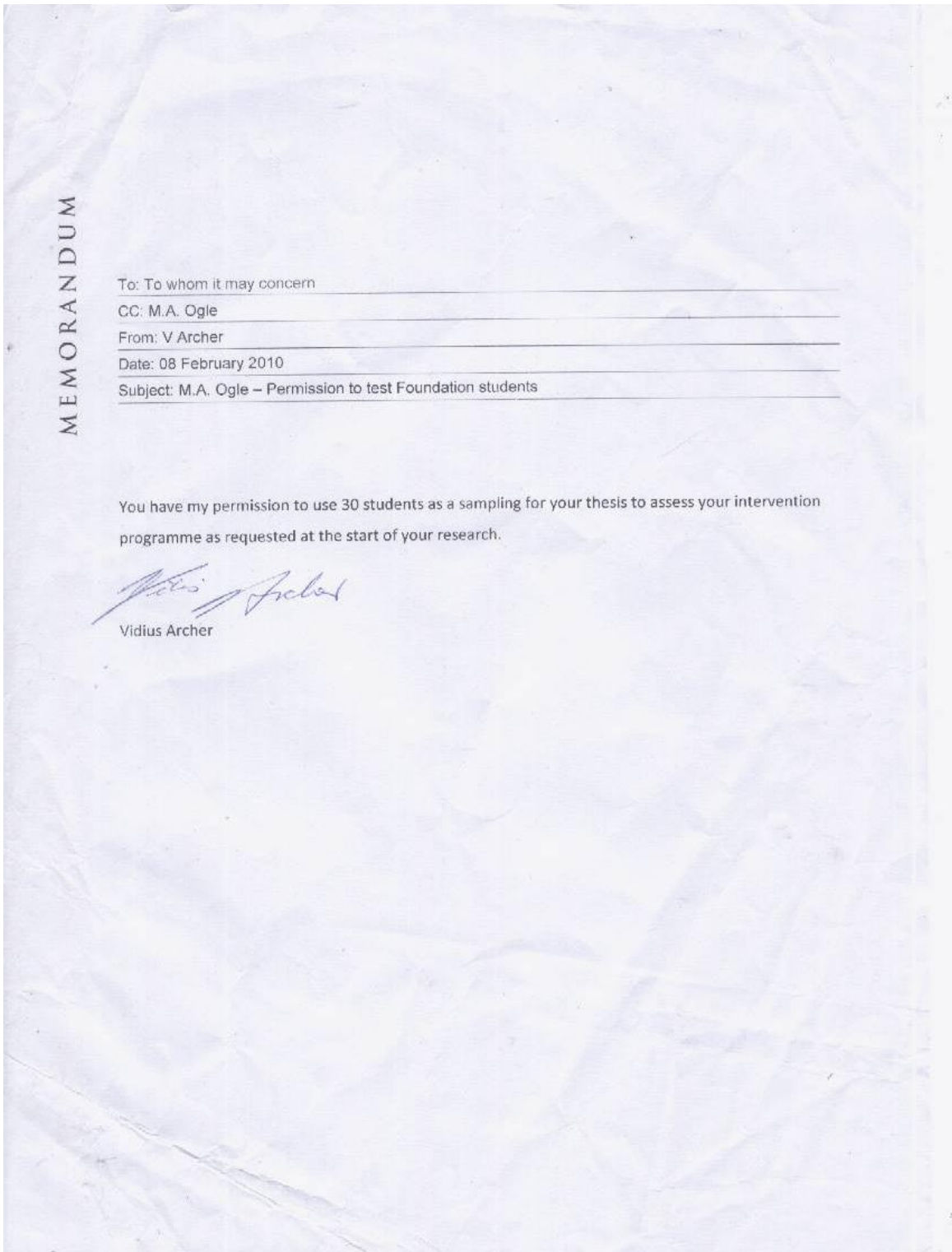
MEMORANDUM

To: To whom it may concern

CC: M.A. Ogle

From: V Archer

Date: 08 February 2010

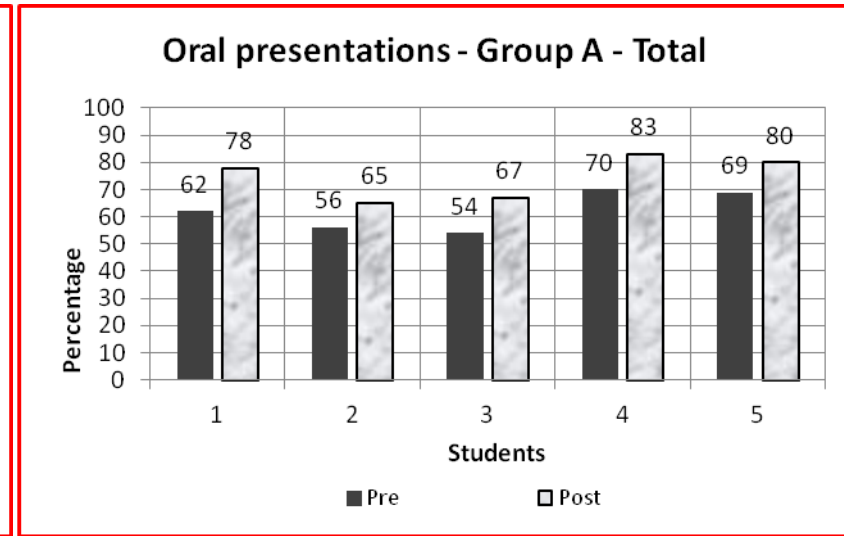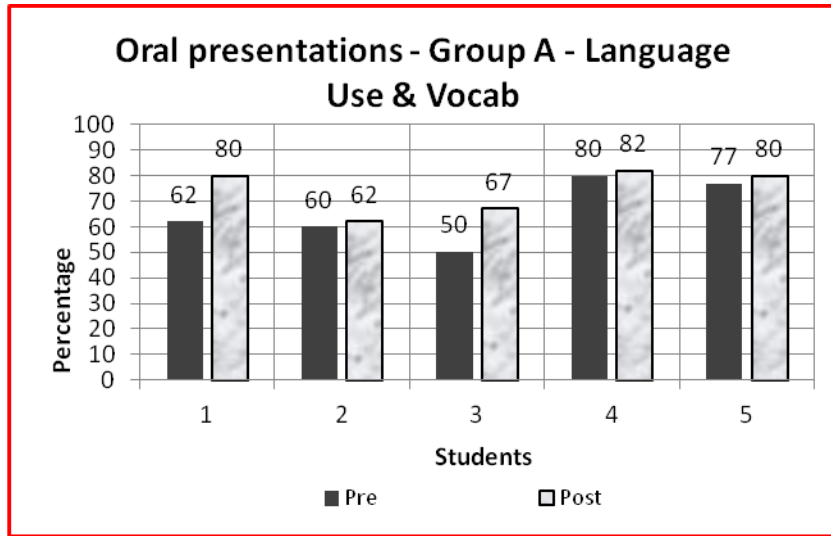Subject: M.A. Ogle – Permission to test Foundation students

You have my permission to use 30 students as a sampling for your thesis to assess your intervention programme as requested at the start of your research.

Vidius Archer

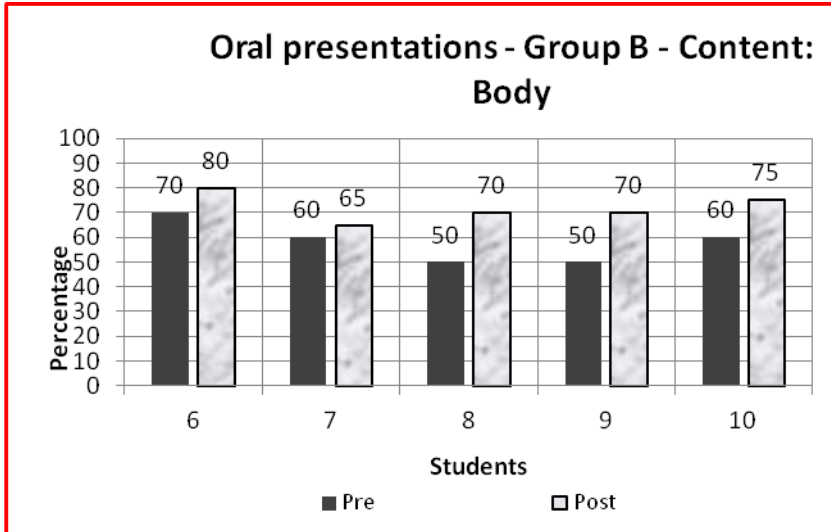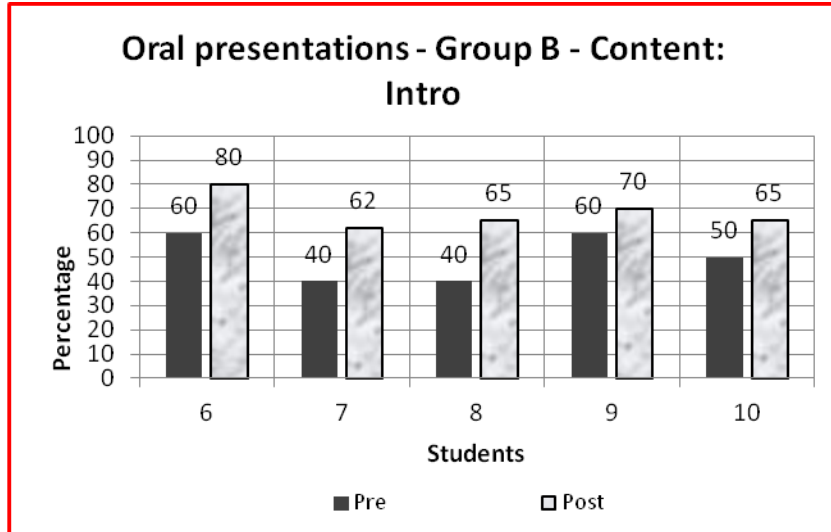## APPENDIX 9: DATA ANALYSIS OF ORAL WORK FOR GROUP A

Group A	content: intro		content: body		content: conclusion		delivery		lang use & vocab		total	total
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	50	80	80	80	60	70	60	80	62	80	62	78
2	55	60	50	70	50	60	65	70	60	62	56	65
3	50	70	60	70	60	60	50	70	50	67	54	67
4	60	80	80	90	70	80	59	85	80	82	70	83
5	65	80	80	90	60	70	65	80	77	80	69	80
Average	56.0	74.0	70.0	80.0	60.0	68.0	59.8	77.0	65.8	74.2	62.2	74.6
Standard Dev	6.519	8.944	14.142	10.000	7.071	8.367	6.140	6.708	12.498	9.066	7.294	8.081

Oral presentations- Group A - Content: Intro

Oral presentations- Group A - Content: Body

Oral presentations- Group A - Content: Conclusion
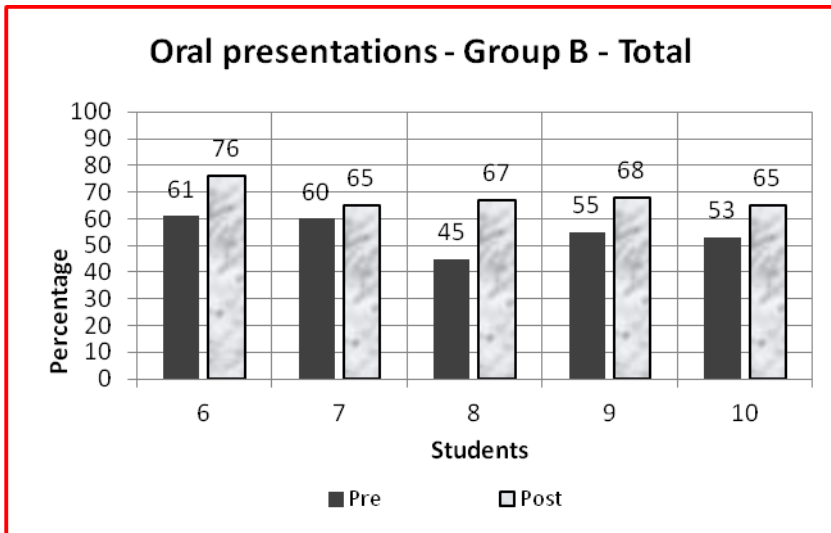

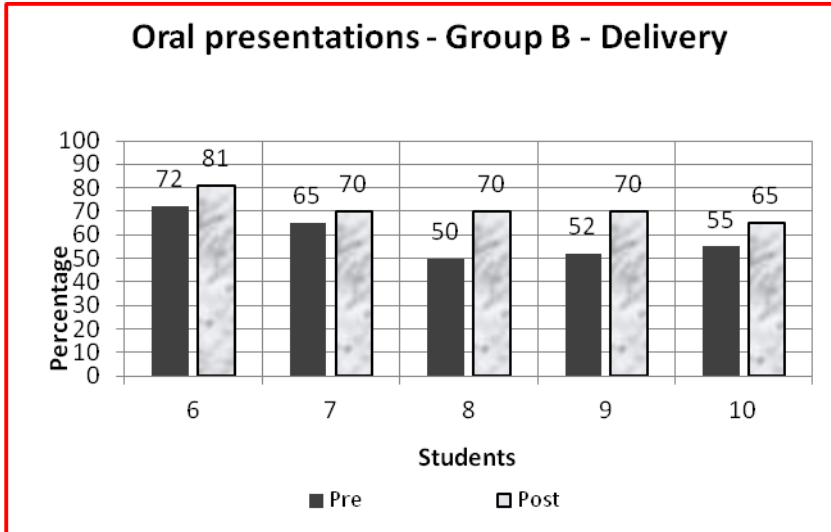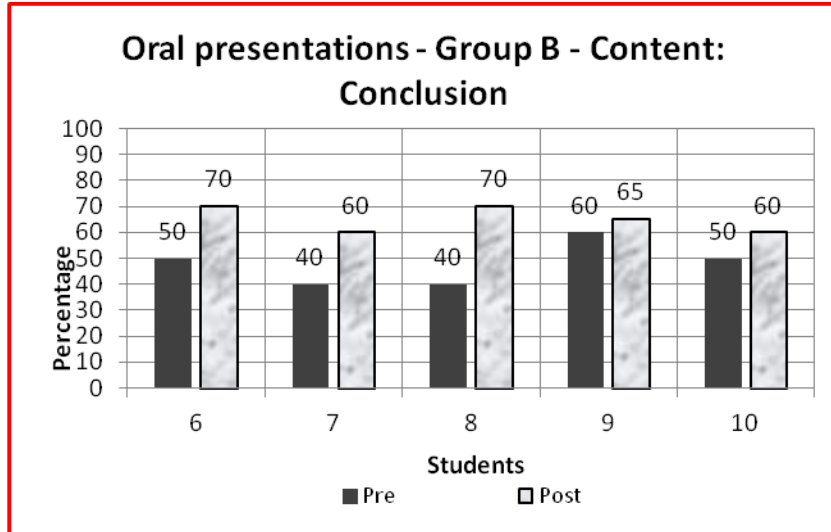Oral presentations- Group A - Delivery
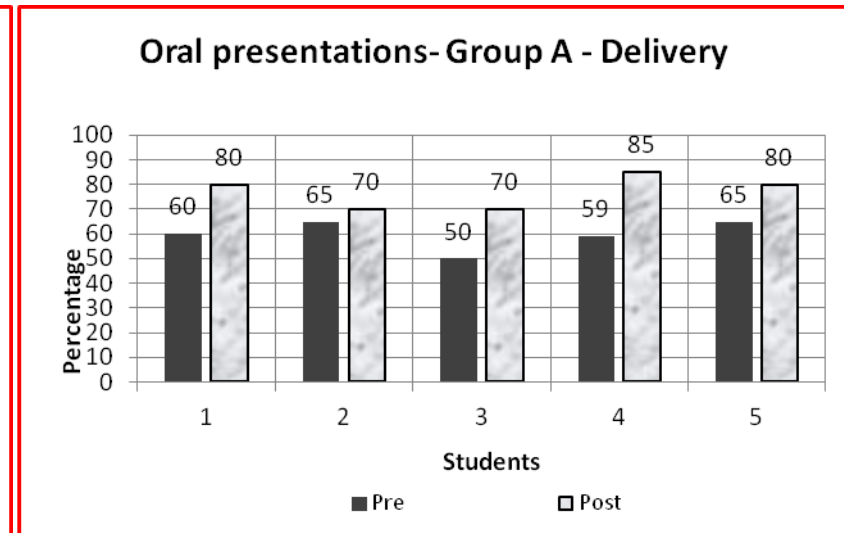
APPENDIX 10: DATA ANALYSIS ON ORAL WORK FOR GROUP B

Group B	content: intro		content: body		content: conclusion		delivery		lang use & vocab		total	total
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
6	60	80	70	80	50	70	72	81	52	70	61	76
7	40	62	60	65	40	60	65	70	67	70	60	65
8	40	65	50	70	40	70	50	70	47	59	45	67
9	60	70	50	70	60	65	52	70	57	67	55	68
10	50	65	60	75	50	60	55	65	50	60	53	65
Average	50.0	68.4	58.0	72.0	48.0	65.0	58.8	71.2	54.6	65.2	54.8	68.2
Standard Dev	10.000	7.092	8.367	5.701	8.367	5.000	9.365	5.891	7.829	5.357	6.419	4.550

Oral presentations - Group B - Content: Intro

Oral presentations - Group B - Content: Body

Oral presentations - Group B - Content: Conclusion

Oral presentations - Group B - Delivery

Oral presentations - Group B - Language Use & Vocab

Oral presentations - Group B - Total

APPENDIX 11: DATA ANALYSIS ON ORAL WORK FOR GROUP C

Group C	content: intro		content: body		content: conclusion		delivery		lang use & vocab		total	total
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
11	70	78	70	80	50	80	72	82	70	73	69	78
12	60	60	50	57	50	58	42	57	52	58	48	58
13	70	80	80	82	60	80	70	83	77	78	72	81
14	70	78	80	78	70	76	67	80	62	70	68	76
15	60	60	50	58	50	58	45	58	52	62	50	59
Average	66.0	71.2	66.0	71.0	56.0	70.4	59.2	72.0	62.6	68.2	61.4	70.4
Standard Dev	5.477	10.257	15.166	12.410	8.944	11.437	14.481	13.285	11.036	8.136	11.437	11.014

Oral presentations - Group C - Content: Intro

Oral presentations - Group C - Content: Body

Oral presentations - Group C - Content: Conclusion

Oral presentations - Group C - Delivery

Oral presentations - Group C - Language Use & Vocab
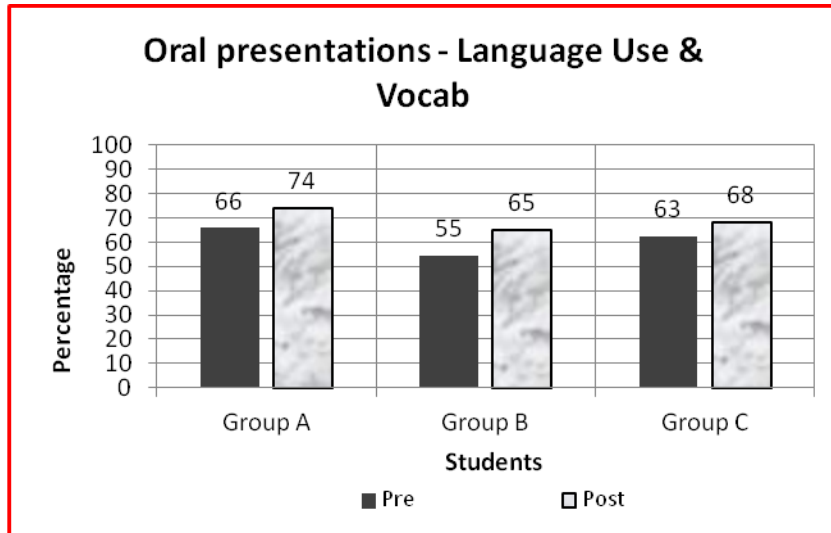

Oral presentation - Group C - Total
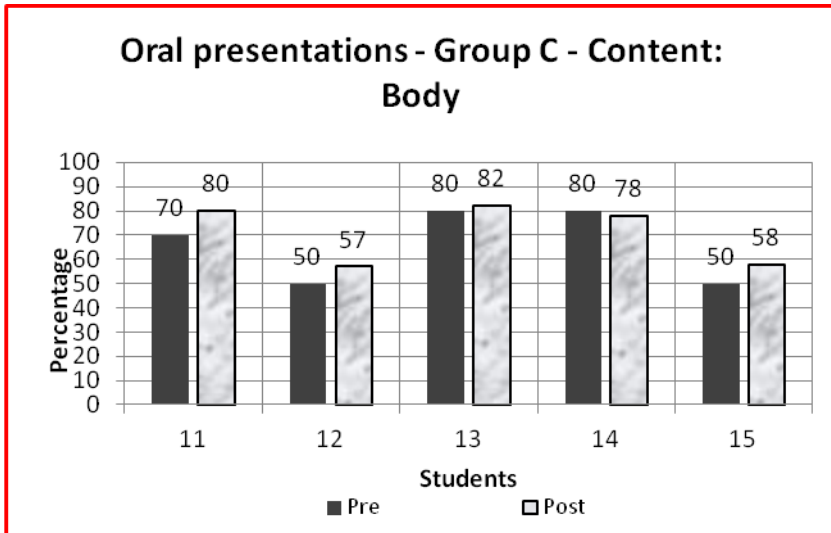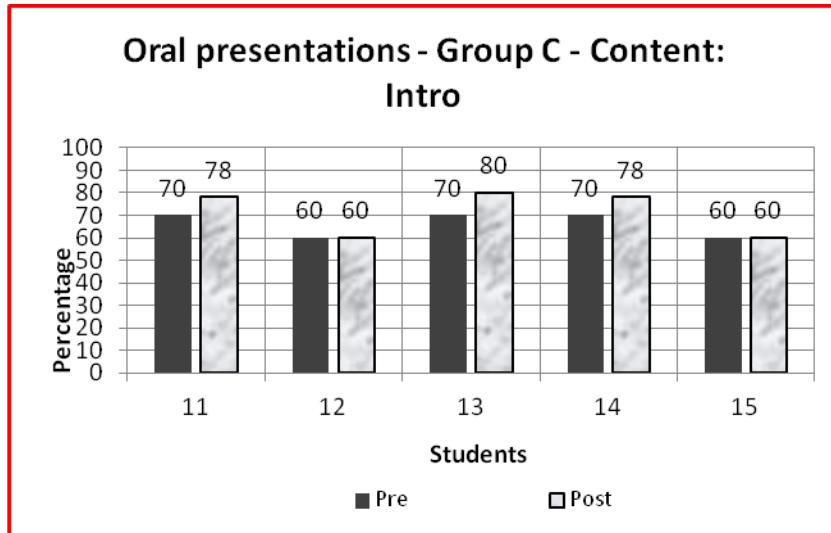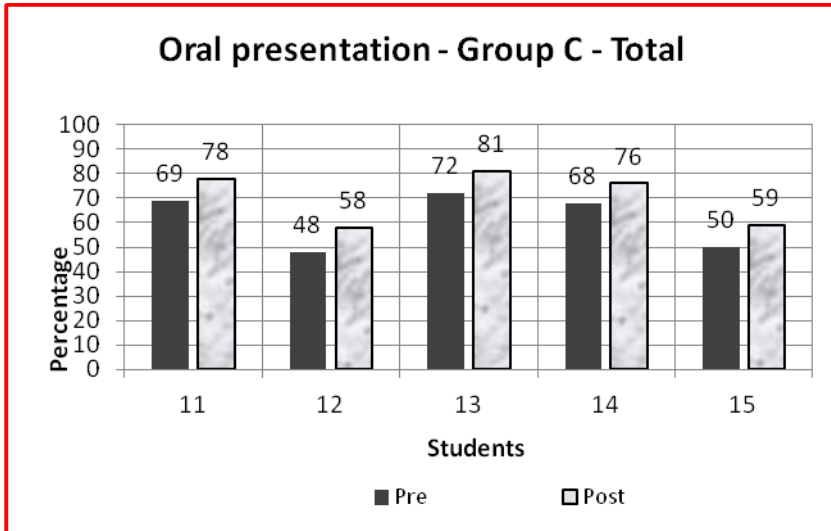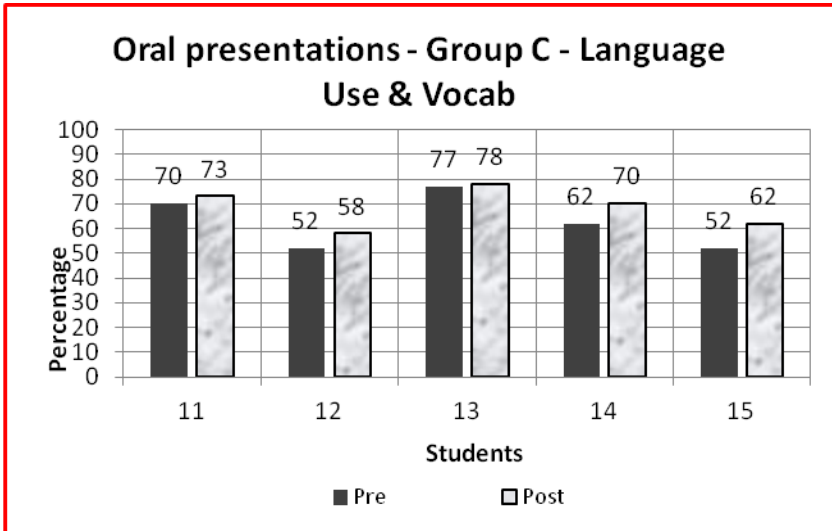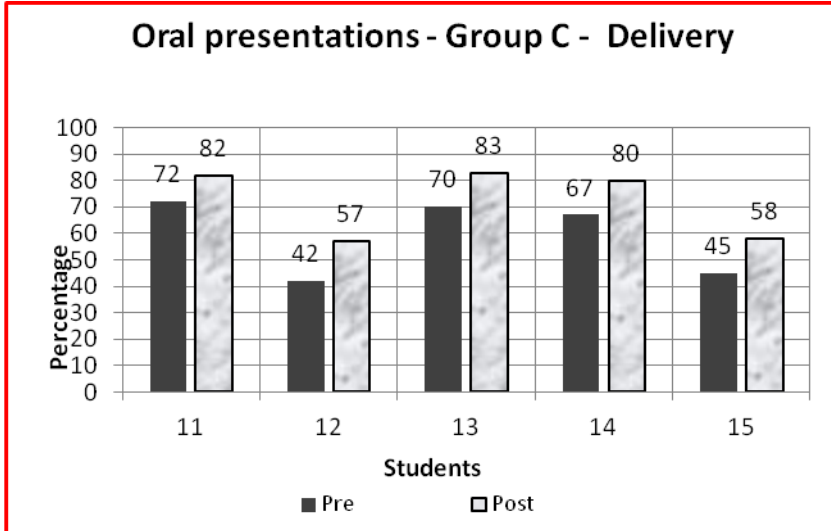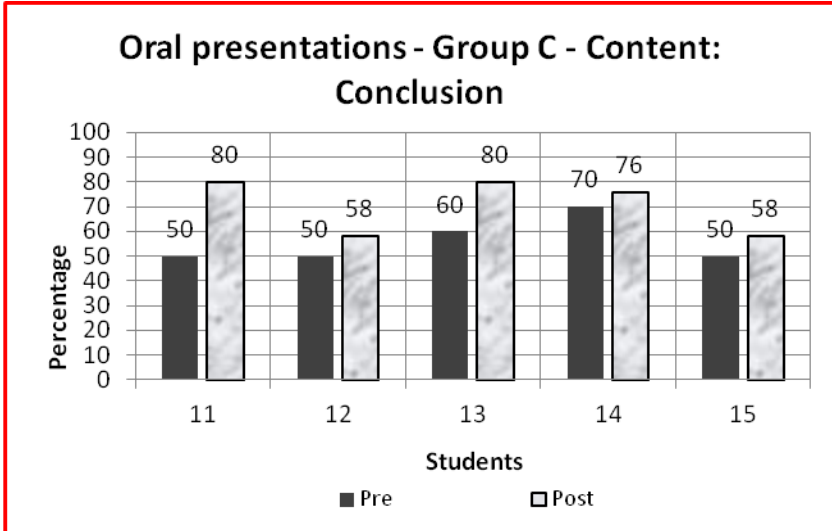
APPENDIX 12: DATA ANALYSIS ON ORAL WORK - AVERAGES

All	content: intro		content: body		content: conclusion		delivery		lang use & vocab		total	total
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Group A	56	74	70	80	60	68	60	77	66	74	62	75
Group B	50	68	58	72	48	65	59	71	55	65	55	68
Group C	66	71	66	71	56	70	59	72	63	68	61	70
Average	**57**	**71**	**65**	**74**	**55**	**68**	**59**	**73**	**61**	**69**	**59**	**71**
Standard Dev	**8**	**3**	**6**	**5**	**6**	**3**	**1**	**3**	**6**	**5**	**4**	**3**

Oral presentations - Content: Intro

Oral presentations - Content: Body

Oral presentations - Content: Conclusion

Oral presentations - Delivery

Oral presentations - Language Use & Vocab

Oral presentations - Total

Oral presentations - Average
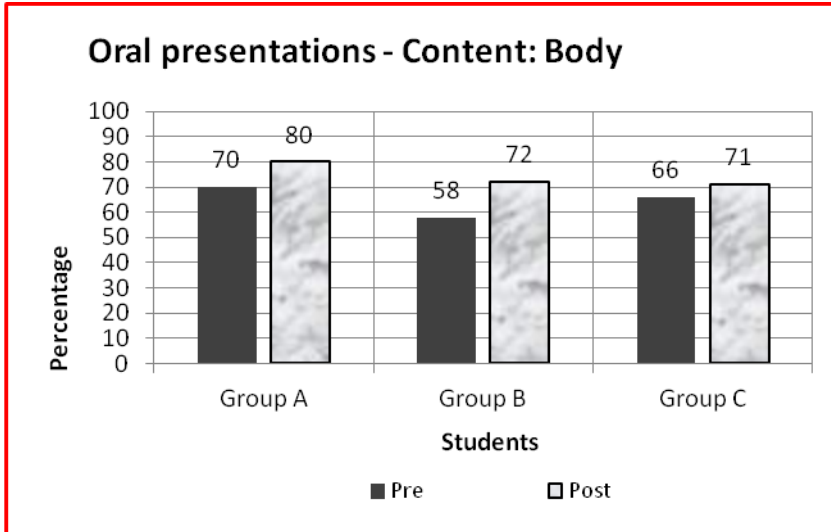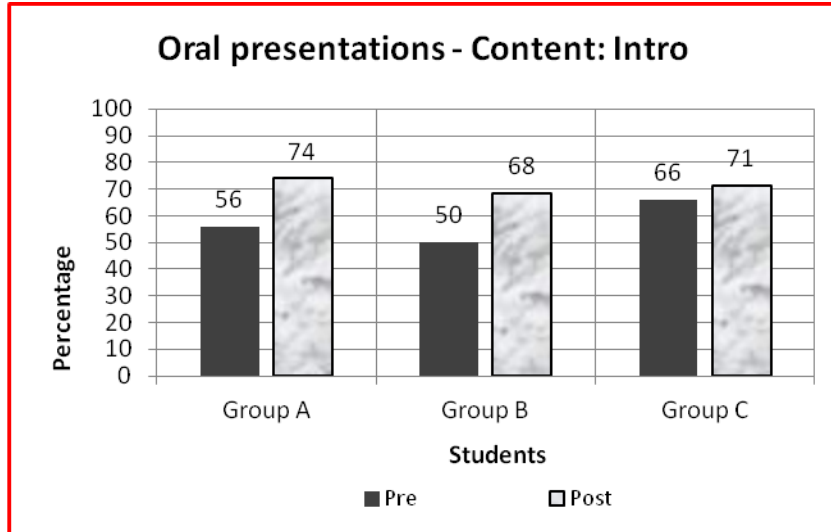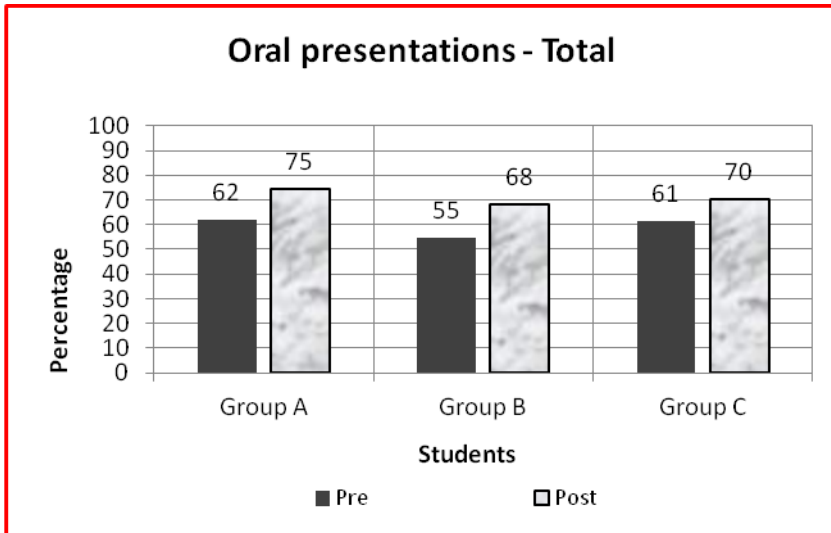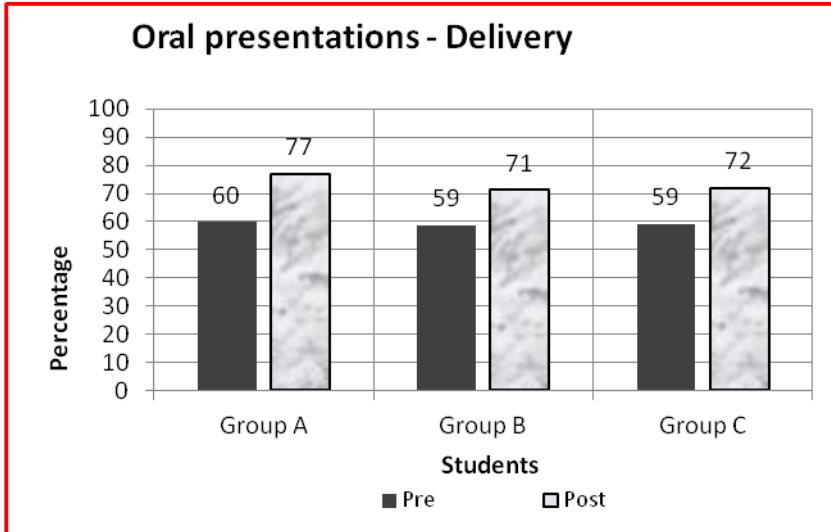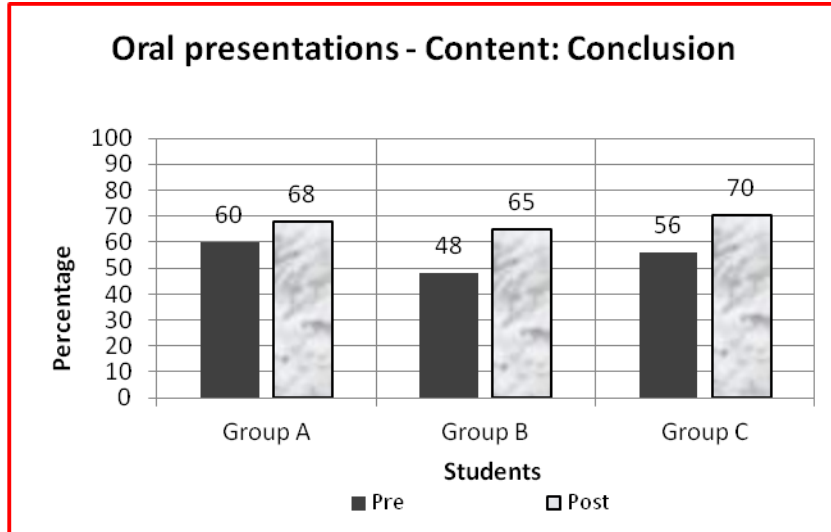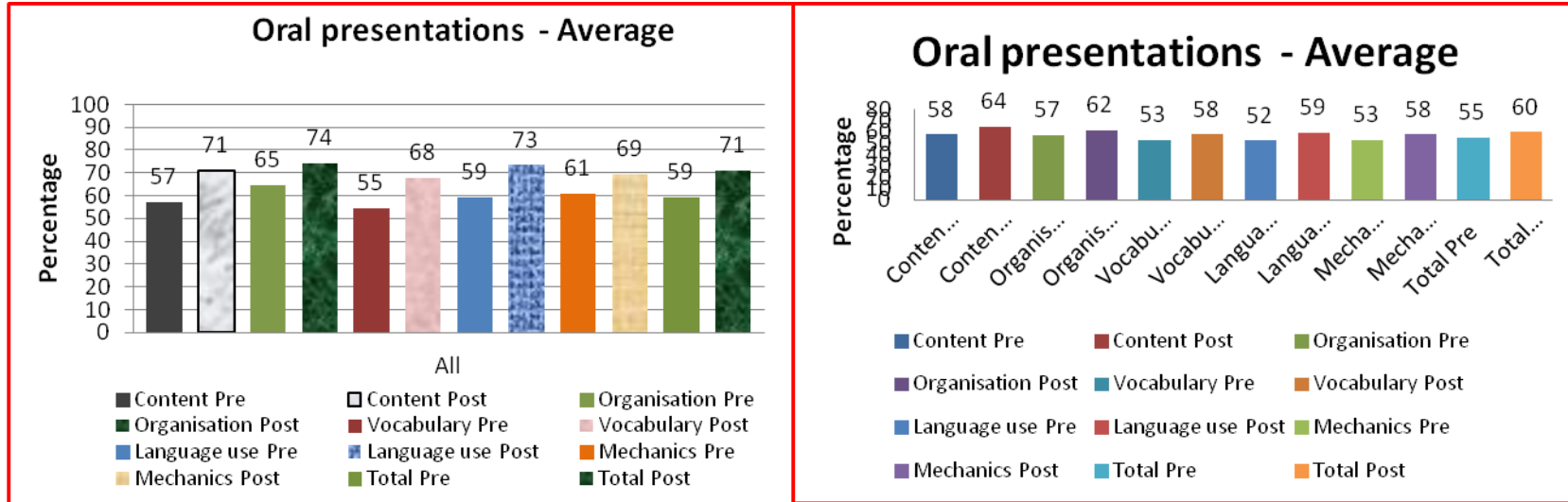
APPENDIX 13: DATA ANALYSIS ON WRITTEN WORK FOR GROUP A

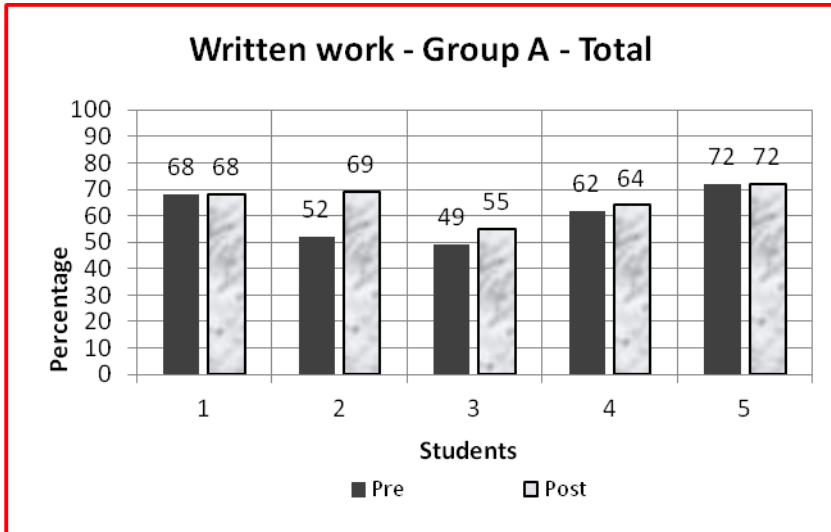|	content		organisation		vocabulary		language use		mechanics		total	total
Group A	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**
1	70	70	65	70	70	75	70	65	60	65	68	68
2	55	65	55	65	50	65	55	65	30	70	52	69
3	55	60	55	55	50	50	45	58	40	40	49	55
4	65	65	65	65	60	65	60	65	60	65	62	64
5	65	65	70	75	68	70	73	78	70	65	72	72
Average	**62.0**	**65.0**	**62.0**	**66.0**	**59.6**	**65.0**	**60.6**	**66.2**	**52.0**	**61.0**	**60.6**	**65.6**
Standard Dev	**6.708**	**3.536**	**6.708**	**7.416**	**9.529**	**9.354**	**11.371**	**7.259**	**16.432**	**11.937**	**9.940**	**6.580**

Written work - Group A - Content

Written work - Group A - Organisation

Written work - Group A - Vocabulary

Written work - Group A - Language Use

Written work - Group A - Mechanics

Written work - Group A - Total
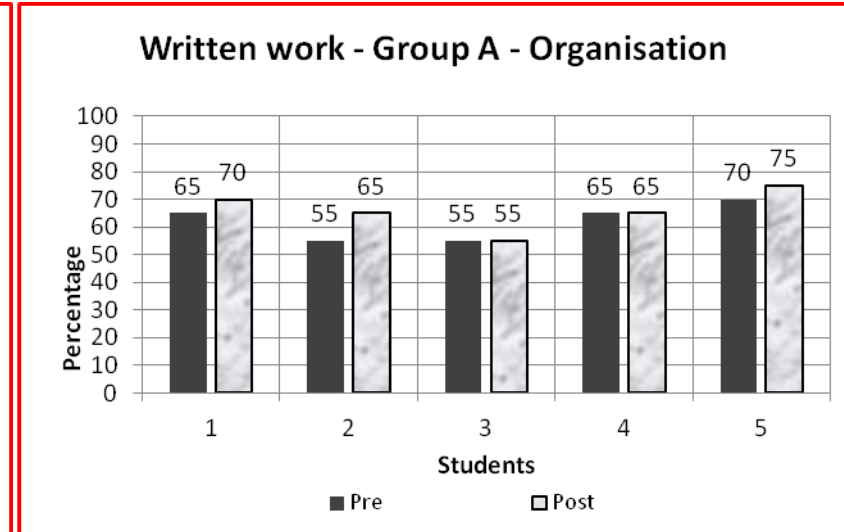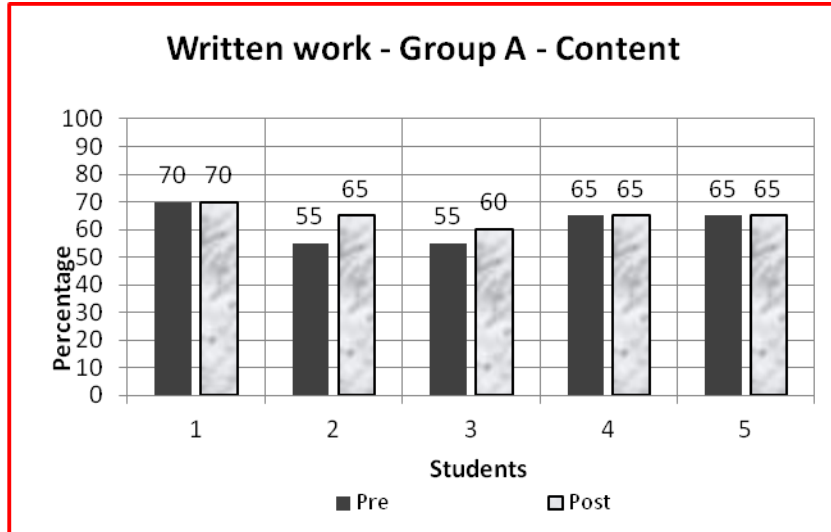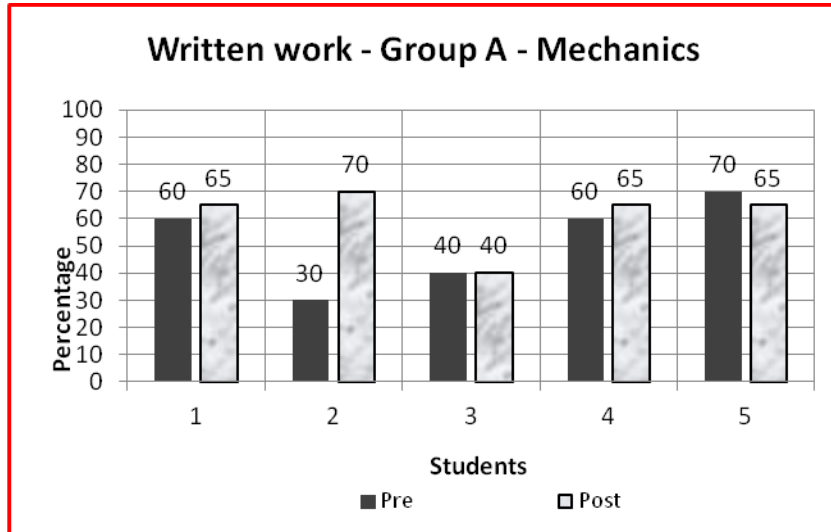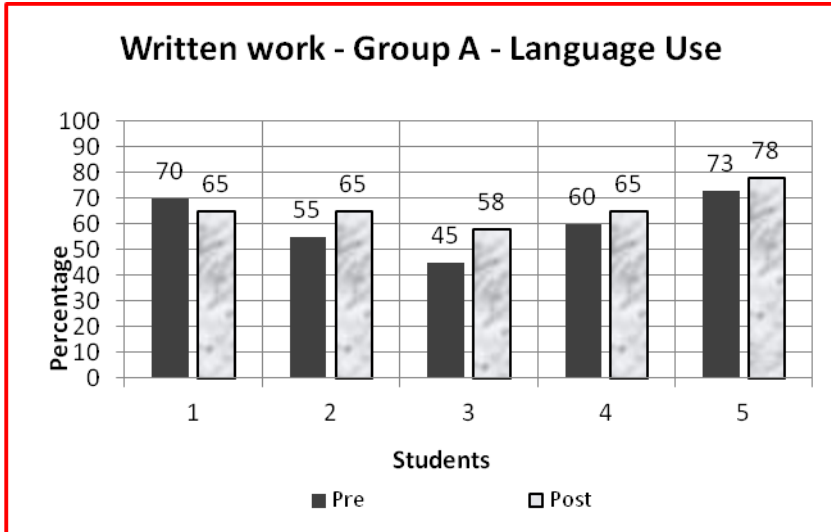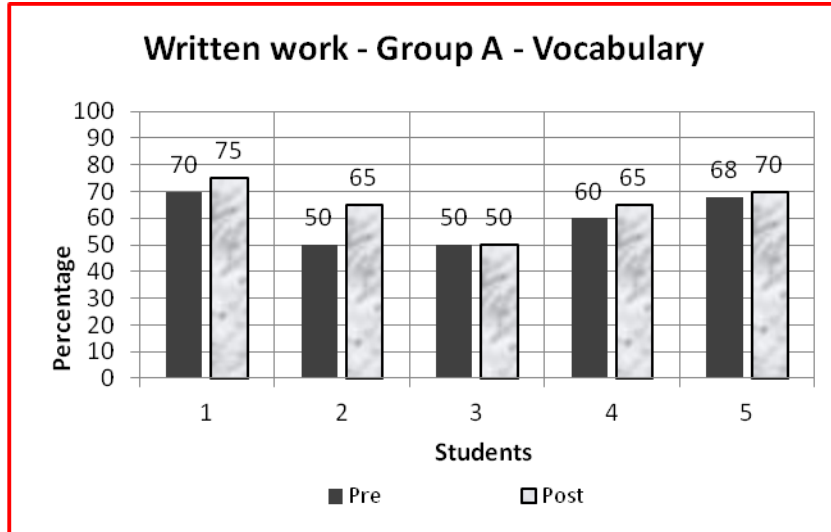
APPENDIX 14: DATA ANALYSIS ON WRITTEN WORK FOR GROUP B

Group B	content		organisation		vocabulary		language use		mechanics		total	total
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
6	50	70	50	60	50	50	52	65	60	50	54	59
7	60	65	55	60	50	55	50	55	60	60	54	59
8	45	65	45	60	50	50	38	45	40	50	42	53
9	60	60	60	60	40	50	45	52	40	50	50	53
10	60	70	60	60	50	55	55	58	50	60	57	59
Average	**55.0**	**66.0**	**54.0**	**60.0**	**48.0**	**52.0**	**48.0**	**55.0**	**50.0**	**54.0**	**51.4**	**56.6**
Standard Dev	**7.071**	**4.183**	**6.519**	**0.000**	**4.472**	**2.739**	**6.671**	**7.382**	**10.000**	**5.477**	**5.814**	**3.286**

Written work - Group B - Content

Written work - Group B - Organisation

Written work - Group B - Vocabulary

Written work - Group B - Language Use

Written work - Group B - Mechanics
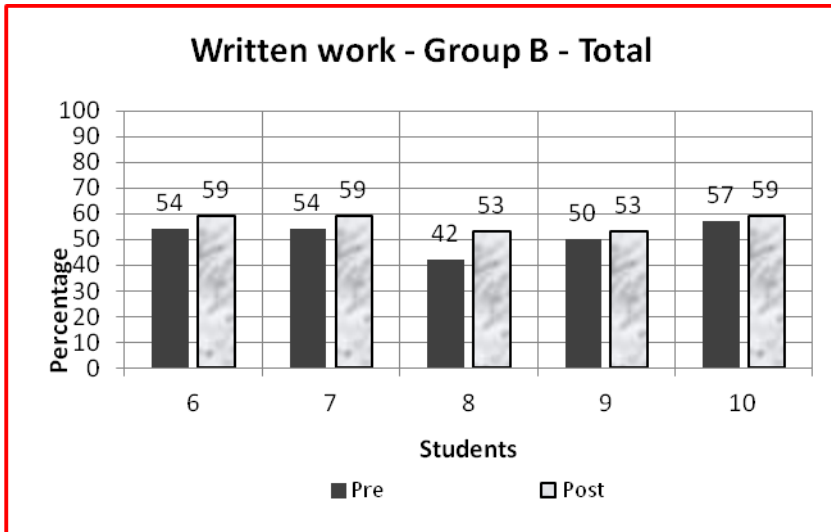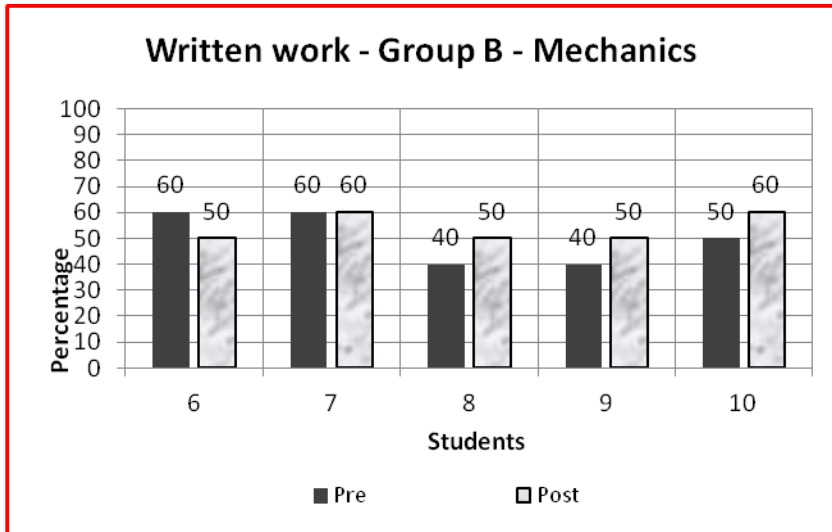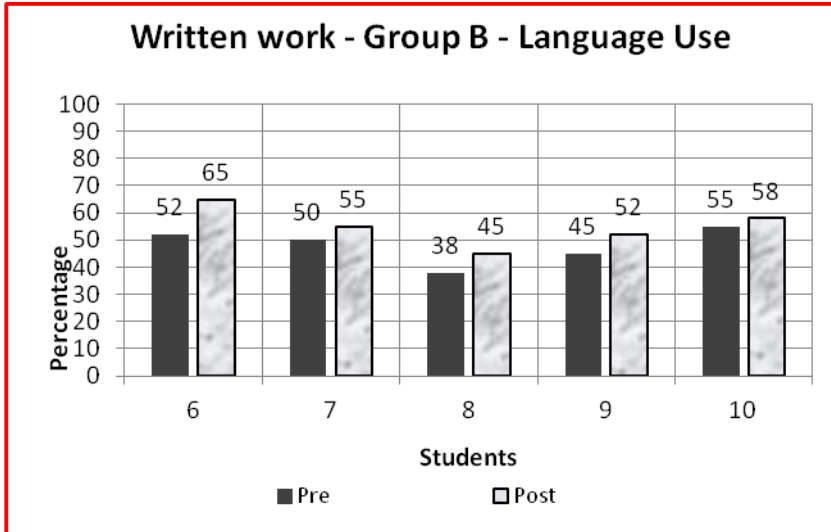

Written work - Group B - Total
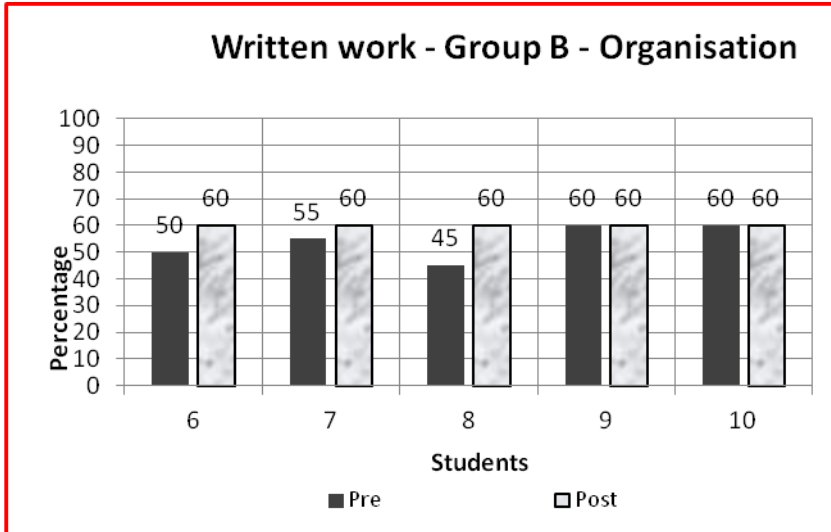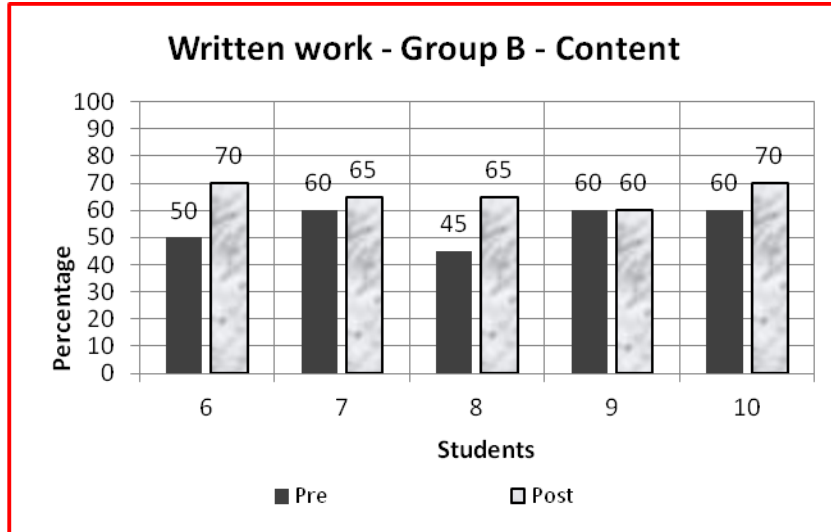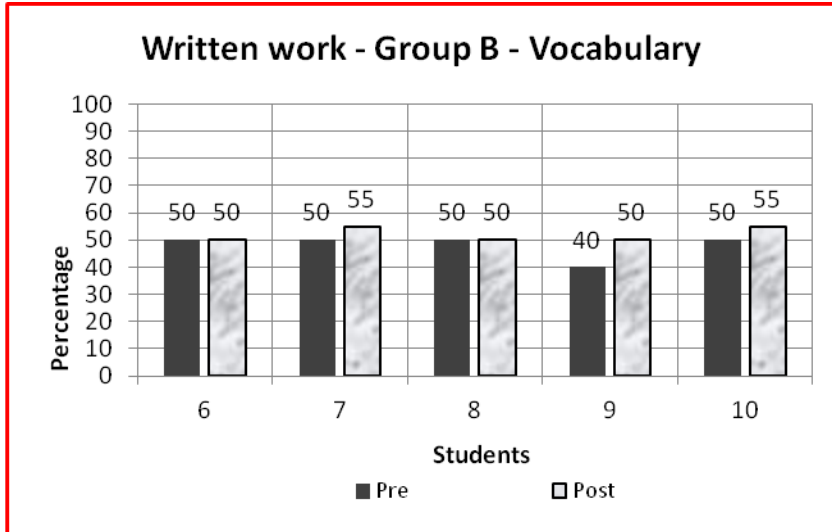
APPENDIX 15: DATA ANALYSIS ON WRITTEN WORK FOR GROUP C

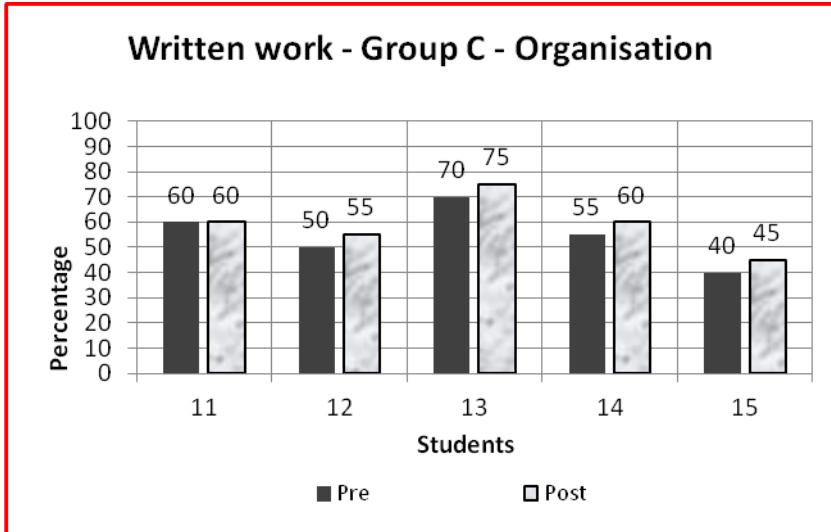|	content		organisation		vocabulary		language use		mechanics		total	total
Group C	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**
11	60	65	60	60	60	60	54	65	60	60	58	63
12	50	60	50	55	40	55	40	45	50	40	44	51
13	75	75	70	75	70	70	60	70	60	70	65	70
14	55	65	55	60	50	50	50	50	70	70	54	58
15	40	47	40	45	40	45	38	49	40	50	39	46
Average	**56.0**	**62.4**	**55.0**	**59.0**	**52.0**	**56.0**	**48.4**	**55.8**	**56.0**	**58.0**	**52.0**	**57.6**
Standard Dev	**12.942**	**10.188**	**11.180**	**10.840**	**13.038**	**9.618**	**9.317**	**10.986**	**11.402**	**13.038**	**10.512**	**9.503**

Written work - Group C - Content

Written work - Group C - Organisation

Written work - Group C - Vocabulary

Written work - Group C - Language Use

Written work - Group C - Mechanics

Written work - Group C - Total
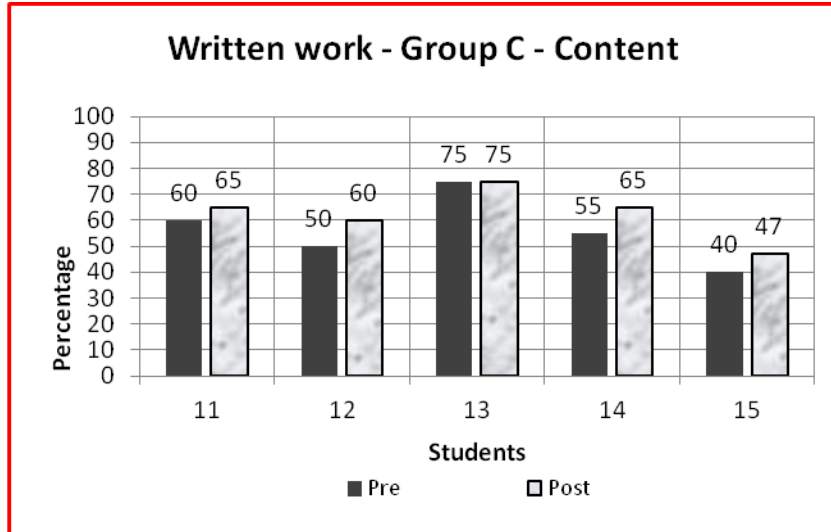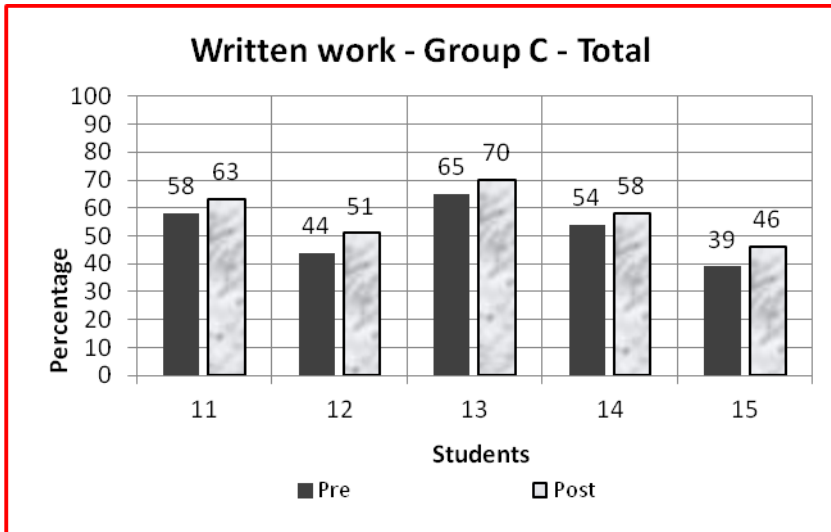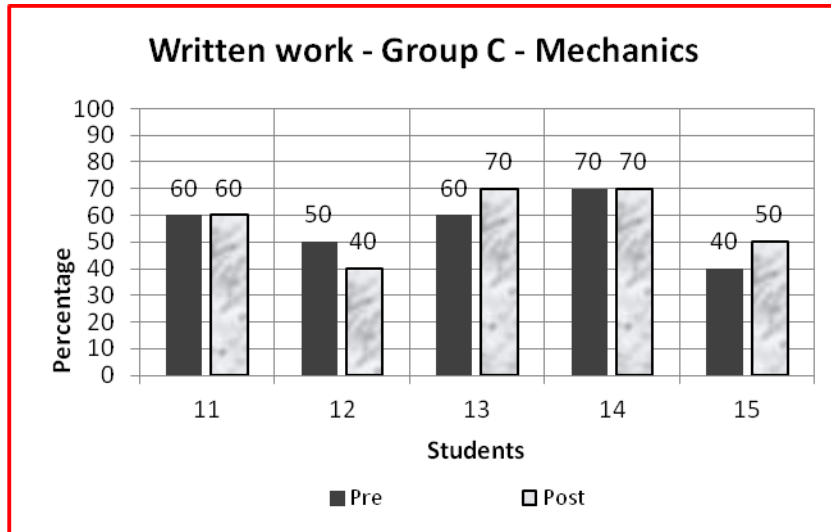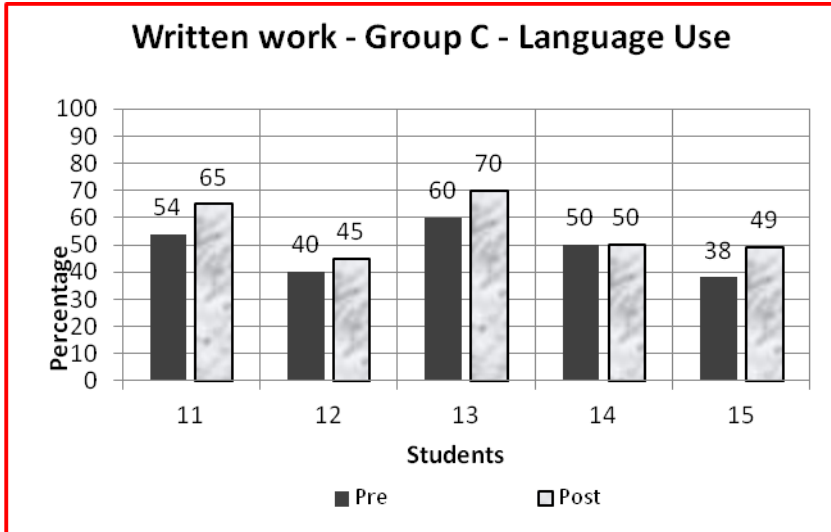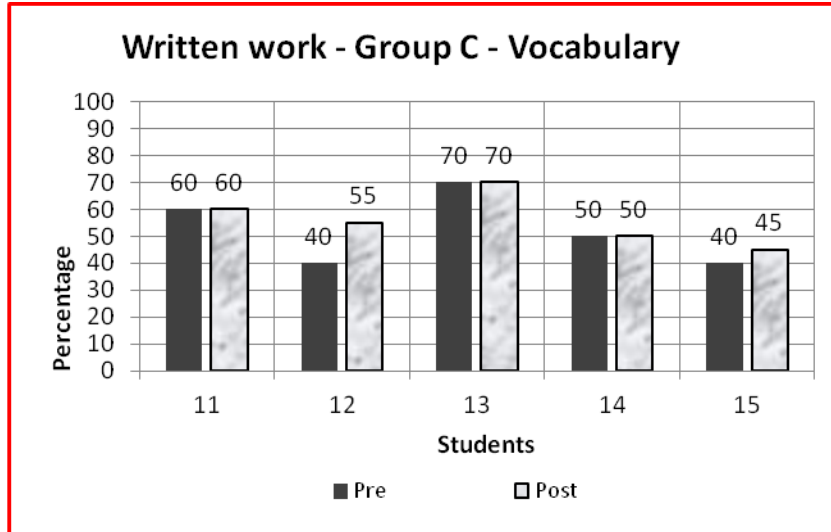
APPENDIX 16: DATA ANALYSIS ON WRITTEN WORK - AVERAGES

	content		organisation		vocabulary		language use		mechanics		total	total
All	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**
Group A	62	65	62	66	60	65	61	66	52	61	61	66
Group B	55	66	54	60	48	52	48	55	50	54	51	57
Group C	56	62	55	59	52	56	48	56	56	58	52	58
Average	**58**	**64**	**57**	**62**	**53**	**58**	**52**	**59**	**53**	**58**	**55**	**60**
Standard Dev	**3.786**	**1.858**	**4.359**	**3.786**	**5.892**	**6.658**	**7.162**	**6.248**	**3.055**	**3.512**	**5.147**	**4.933**

Written work - Vocabulary

Written work - Language Use

Written work - Mechanics
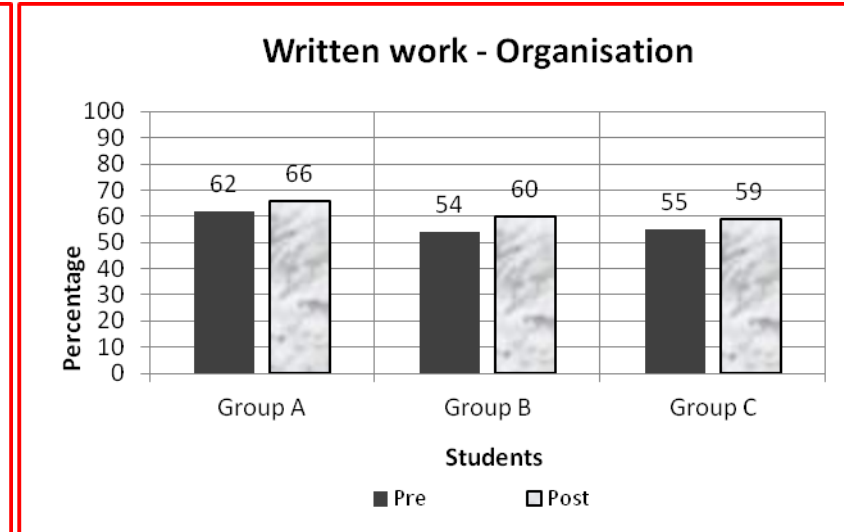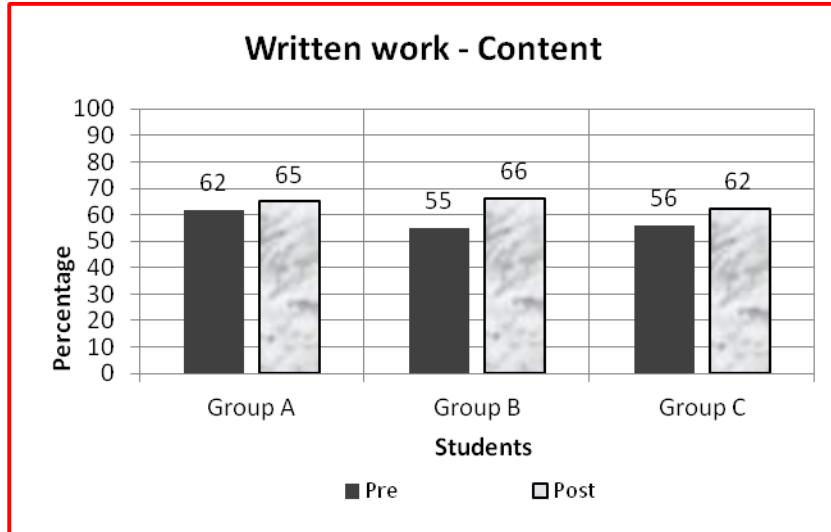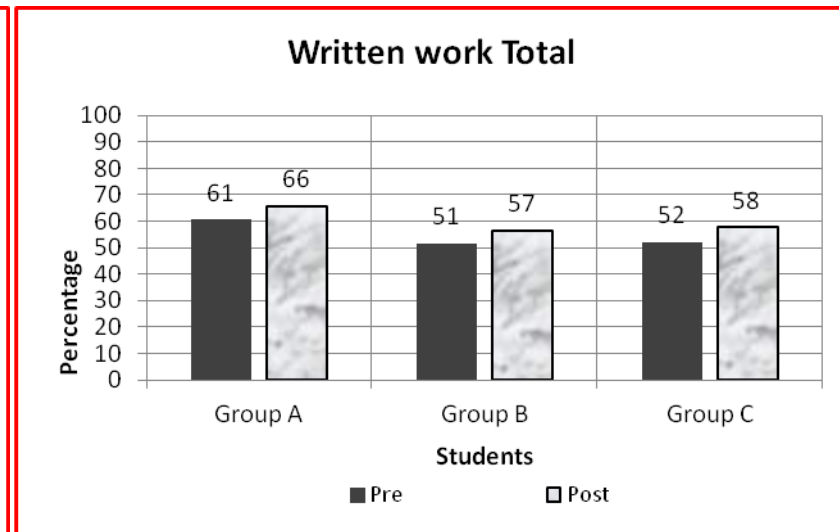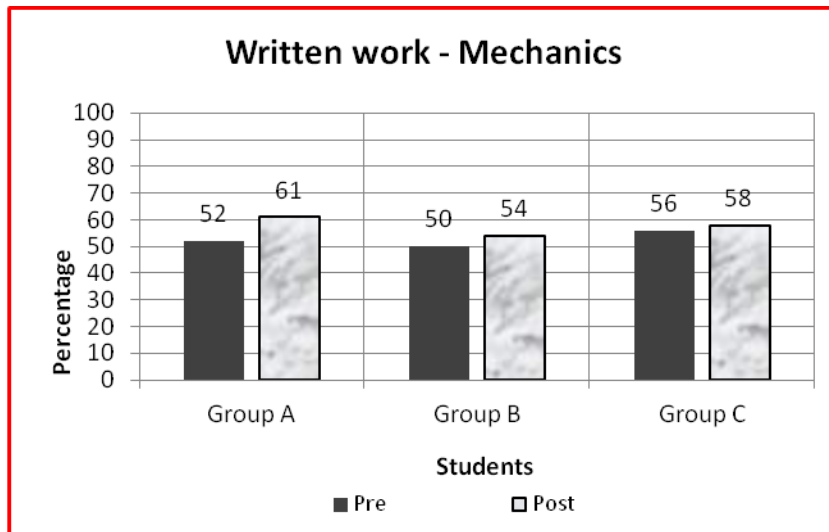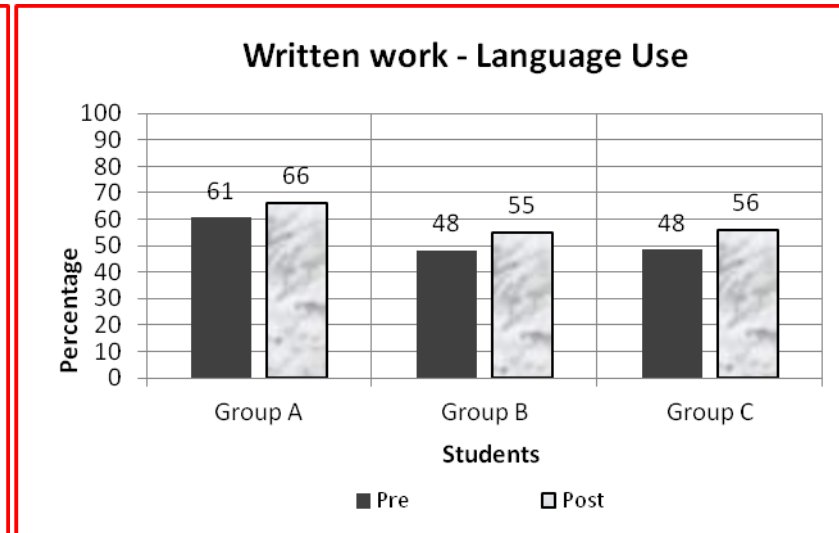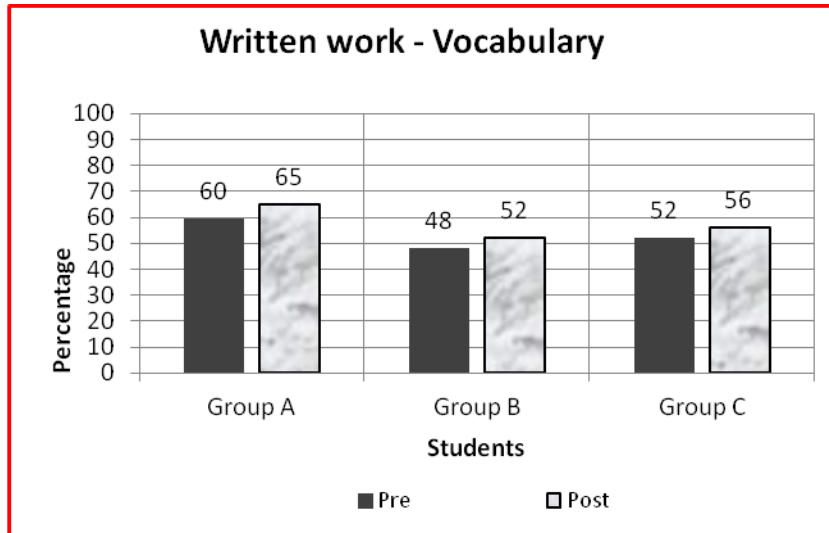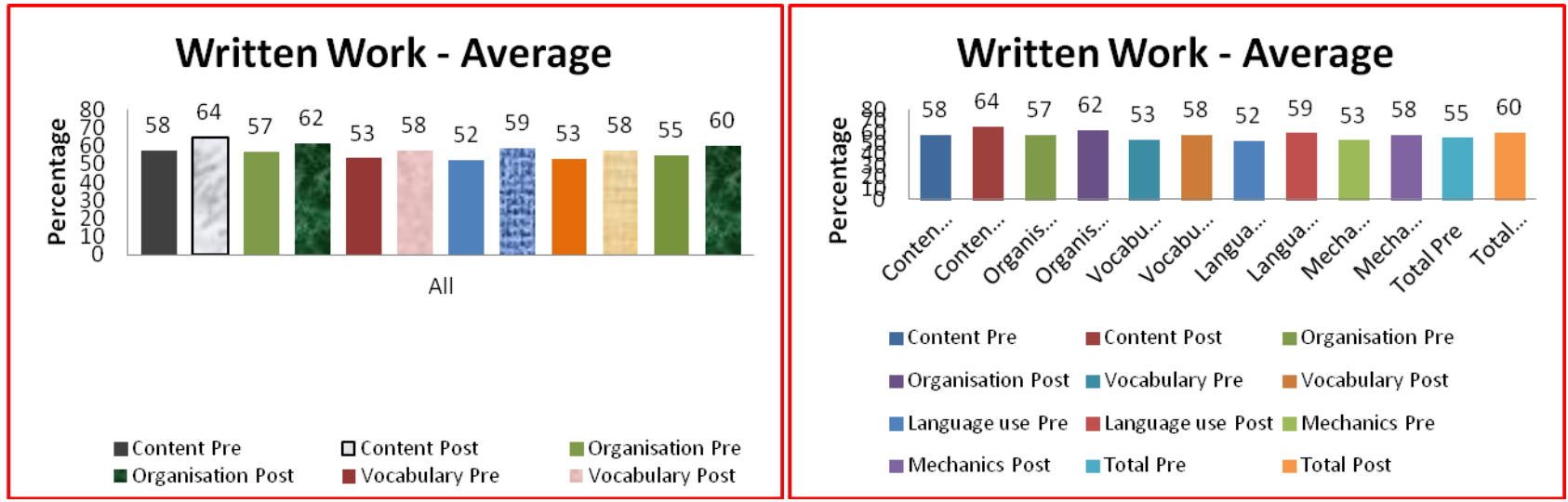
Written work Total

APPENDIX 17: EXAMPLES OF STUDENTS' RESPONSES FOR THE ORAL PRESENTATION, INTERVIEW AND WRITTEN WORK

POST
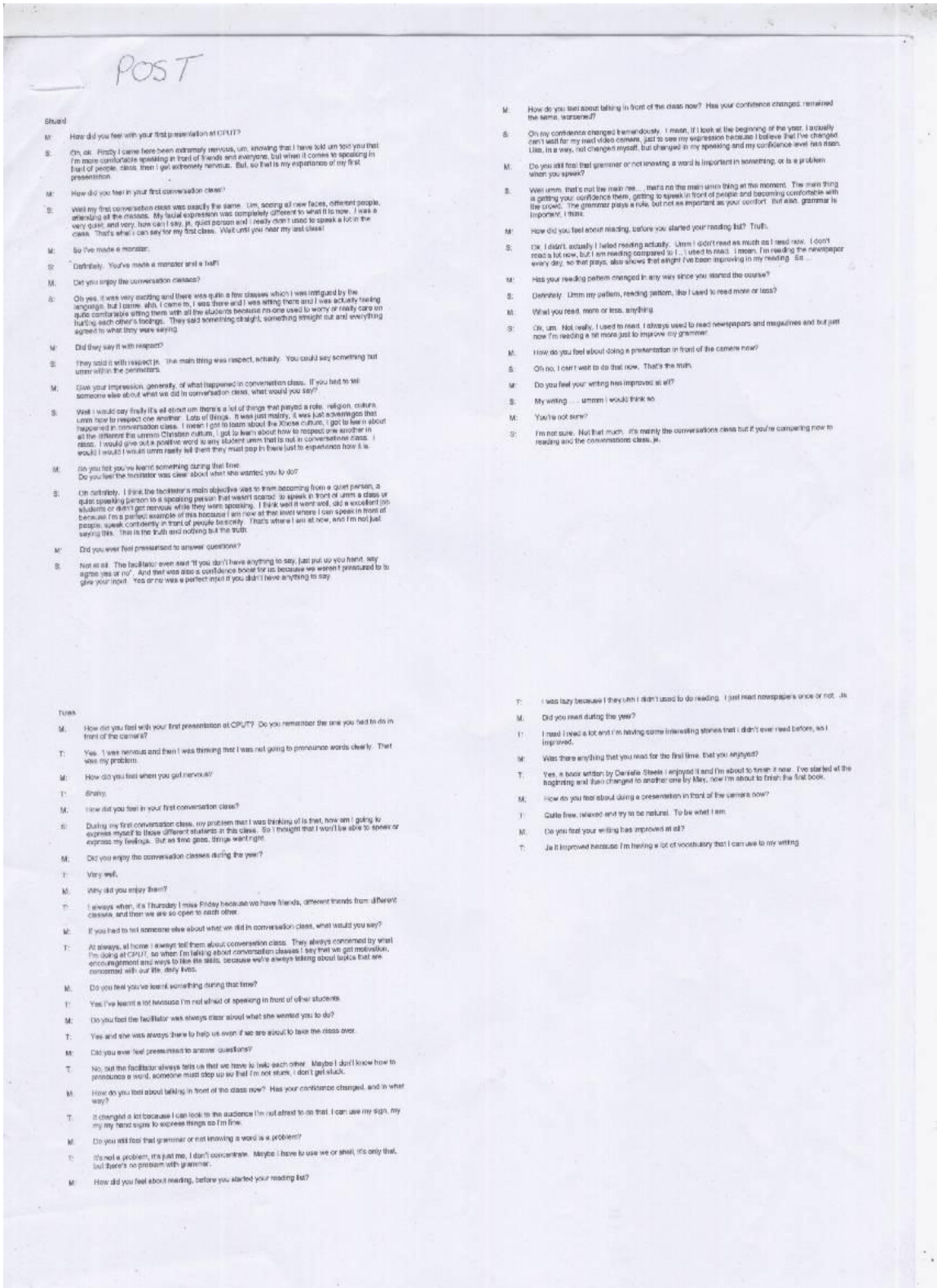
Scale for rating L2 written work

Name of student:...... Kalengay Mutombo Codrick

	Score Range	Criteria	Mark 100
Content	20 — 16, 12, 10, 6	Excellent to very good: thorough development of theme relevant to assigned topic Good to average: adequate range, limited development of theme, mostly relevant but lacks detail Fair to poor: little substance, inadequate development of topic Very poor: not pertinent, not enough to evaluate	9 9
Organization	20 — 16, 12, 10, 6	Excellent to very good: fluent expression, clear supported ideas, succinct, well-organised Good to average: choppy, loosely organized but main ideas stand out, limited support Fair to poor: non-fluent, ideas confused, lacks logical development Very poor: does not communicate, no organization, not enough to evaluate	10 9
Vocabulary	10 — 8, 6, 5, 3	Excellent to very good: sophisticated range, effective word/idiom usage, appropriate register Good to average: adequate range, occasional errors of word/idiom usage but meaning not obscured Fair to poor: limited range, frequent errors of word/idiom usage, meaning confused Very poor: little knowledge of English vocabulary, idioms, word forms, not enough to evaluate	5 5
Language Use	40 — 32, 26, 20, 10	Excellent: effective complex constructions, few language errors: agreement, tense, number, word order, articles, pronouns, prepositions Good to average: effective but simple constructions, minor problems in complex constructions (meaning seldom obscured) Fair to poor: major problems in simple complex constructions, frequent errors of above (meaning confused) Very poor: virtually no mastery of sequence construction rules, dominated by errors, not enough to evaluate	17 15
Mechanics	10 — 8, 6, 5, 3	Excellent to good: mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing Good to average: occasional errors of above, but meaning not obscured Fair to poor: frequent errors of all the above meaning confused or obscured Very poor: no mastery of conventions, dominated by errors of spelling, punctuation as above, handwriting illegible, not enough to evaluate	5 4

(46)

(42) Mod

Adapted from Jacobs, Zinkgraf, Wormuth, Hartfiel, Hughey (1981, P30).

KALENGAY MUTOMBO CEDRICK   06.02.2007
    207057443
CLASS: A
GROUP DREAM TEAM

⟵ DEAR Ms OGLE

The importance of language skills for an engineer is to communicate
to people, to discuss in a good way to understand each other,
to stand in front of people and talk to them. Sometimes you can
not converse with people because of communication. It is very bad you
not going to work properly.
✗ The necessity of reading is to be rich in vocabulary and grammar
to know many word in many way and meaning, to know how
to treat problems in many way.
My feelings about learning languages at school is not bad because
is at school where everybody get educating.
For me it is normal to learn languages because I'm still at school
to be prepared in future ○
My own communication problem is to give message to somebody
properly, to explain how the thing happened exactly. I'm not
rich in Vocabulary.
                        Lang. organisation

Appendices

POST-

Name?

Scale for rating L2 written work

Name of student:................Ceclos.........................

	Score Range	Criteria	Mark 100
Content	20	Excellent to very good: thorough development of theme relevant to assigned topic Good to average: adequate range, limited development of theme, mostly relevant but lacks detail Fair to poor: little substance, inadequate development of topic Very poor: not pertinent, not enough to evaluate	13 14
Organization	20	Excellent to very good: fluent expression, clear supported ideas, succinct, well-organised Good to average: choppy, loosely organized but main ideas stand out, limited support Fair to poor: non-fluent, ideas confused, lacks logical development Very poor: does not communicate, no organization, not enough to evaluate	12 13
Vocabulary	10	Excellent to very good: sophisticated range, effective word/idiom usage, appropriate register Good to average: adequate range, occasional errors of word/idiom usage but meaning not obscured Fair to poor: limited range, frequent errors of word/idiom usage, meaning confused Very poor: little knowledge of English vocabulary, idioms, word forms, not enough to evaluate	5 6
Language Use	40	Excellent: effective complex constructions, few language errors: agreement, tense, number, word order, articles, pronouns, prepositions Good to average: effective but simple constructions, minor problems in complex constructions *(meaning seldom obscured)* Fair to poor: major problems in simple complex constructions, frequent errors of above *(meaning confused)* Very poor: virtually no mastery of sentence construction rules, dominated by errors, not enough to evaluate	18 18
Mechanics	10	Excellent to good: mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing Good to average: occasional errors of above, *but meaning not obscured* Fair to poor: frequent errors of all the above, *meaning confused or obscured* Very poor: no mastery of conventions, dominated by errors of spelling, punctuation as above, handwriting illegible, not enough to evaluate	5 5

Adapted from Jacobs, Zinkgraf, Wormuth, Hartfiel, Hughey (1981, P30)

55 No

53

FOUNDATION YEAR

Name? ¿=?

When i came here, it was main stream (first year) but it was full, and then for my second choice (i did an exam which they could see where is my background, i did satisfy them with my mark, that why i went to foundation year instead of doing nothing). The highlights of my foundation year was definitely different of what i was thinking. Because i thought that we would be getting things like in high school or it was an extended matric, but i was coming i found things differently changed day by day. So now i realised that the foundation year was important for me because of my language, before i could not speak or write properly, within i said it really help me. It is true sometimes you felt boring because of some courses of which was a repetition for me like, Maths, Applied Mechanics. With foundation i open the door of engineering which appeared to be difficult for me because of languages which is not my first language. The foundation help me to speak in front of people, to stand close, to behave like an engineer, help also to work in group. Before it was difficult for me to understand, or to listen properly, the foundation class teach me how to respect others, how to think, in a group and to respond, sometimes when you are one in a bad mood you didn't feel like talking (construction classes). But we learn how to behave, we learn some manners which help us to direct our mind correctly and clearly. As the time goes by, i was improving, (getting the) my knowledge in reading, talking, thinking, speaking. Some lecturers were nice before in doing their lecture properly, smoothly like in communication skills (the lecturer was following or watching us closer to know if we did understand what, sometimes we were lost, the lecturer was explained or clarified everything. Now i can speak or stand in front of people confidently and talk even if i did not prepare my speech, to thing surely and correctly before the problem, to judge, to respond to search. In conclusion the foundation year help us a lot; in almost everything in term of engineer, now i realise i did need foundation to open the engineering.

PRE

<table>
<tr><th colspan="3">ORAL MARKSHEET</th></tr>
<tr><td>Name: Sacha Rich</td><td colspan="2">Time: 3m31　　　Marker:</td></tr>
<tr><td>Topic:</td><td colspan="2">Audience:</td></tr>
<tr>
<td>**Introduction**
Subject of Talk
Objectives of Presentation
Rapport with Audience</td>
<td>Too dramatic but nice attempt
Didn't work because
inappropriate for audience
Took command in military way</td>
<td>5
/10</td>
</tr>
<tr>
<td>**Body of Presentation**
Logical Structure
Transitions between sections
Support for main points</td>
<td>Nice back up for points.
Excellent 'filling in detail'</td>
<td>8.0
/10</td>
</tr>
<tr>
<td>**Conclusions**
Linked to objectives
Major points reinforced
Note of finality</td>
<td>Too abrupt
Ended very suddenly</td>
<td>6
/10</td>
</tr>
<tr><td>**CONTENT**</td><td></td><td></td></tr>
<tr>
<td>**Delivery**
Confidence/Poise
Eye contact
Enthusiasm
Appropriate manner
Pace of delivery and timing
Posture
Liveliness/Involvement
Facial expression/animation</td>
<td>Over dramatic – overwhelming
Huge dramatic pauses
Pace a little slow
Very expressive
Good eye contact –
Needs to let go of notes</td>
<td>24
/40</td>
</tr>
<tr>
<td>**Language**
Vocal clarity
Fluency
Grammatical usage
Word choice</td>
<td>Very articulate – very expressive
Too rehearsed – tripped over
words. Great possibilities
to be a great speaker but</td>
<td>25
/25
30</td>
</tr>
<tr>
<td>**Visuals**
Construction (Size, Colour)
Relevance, Impact
Handling</td>
<td>needs to polish problem
areas. Vocab good</td>
<td>/5</td>
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<tr><td>**TOTAL**</td><td></td><td>62</td></tr>
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(Adapted from Professional Communication Unit's Oral Mark sheet, UCT)

Appendices