Action Research on the implementation of Writing Approaches to improve Academic Writing Skills of Namibian Foundation Programme students.

By

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DECLARATION

Student number: 31246524

I declare that An Action Research Study on the implementation of Writing Approaches to improve Academic Writing Skills of Namibian Foundation Programme students is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

…….. ……

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To Whom It May Concern

Re: Declaration of support rendered to Mrs. Karoline du Plessis

I, Anthony Muganza, hereby declare that I supported Mrs. Karoline du Plessis with her studies at the University of South Africa (UNISA) towards a Master's degree in TESOL.

I personally entered the data collected for her research project, cleaned and verified it, ran frequencies and performed relevant tests of significance using the Statistical Package for Social Sciences (SPSS Version 18) and presented the results in an analysis report.

The results as presented by me in the analysis report which the student interpreted and discussed on her own are valid and a true reflection of data collected in respect of the research conducted.

Signed,

Anthony Muganza

Research and data management consultant

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ABSTRACT

Foundation Programme (FP) students at the University of Namibia (UNAM) Oshakati Campus display inadequate academic writing abilities. As their aim is to gain admittance to UNAM main campus science-related courses, it is vital to have effective academic writing skills. This action research (AR) study is a comparison of three writing programmes, the process approach, the modeling approach, and the process genre approach which were implemented separately to three different class groups in 2008 and 2009 to improve the writing skills of students and the teaching practice of the researcher. The effects of the interventions were examined using a combination of the quantitative and qualitative research methods. Data were collected using questionnaires, pre- and post-intervention essays and laboratory reports and interviews. The findings indicate that all three approaches improved the academic writing skills of FP students. The process genre approach had a higher rate of effect than the other two approaches.

Key terms:

Foundation Programme (FP) students; academic writing; process approach; modeling approach; process genre approach; focused instruction; academic essays; laboratory reports.

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

> No single description would ever be adequate to describe writing processes, nor would any prescription be adequate to create good writing. (Liebman-Kleine 1986: 785)

The focus of this study is on the English academic writing competence of Foundation Programme (FP) students and the researcher's teaching practice at the Oshakati Campus of the University of Namibia (UNAM). The researcher (I) identified a problem with regard to students' academic writing competence. This problem was identified in students' essay answers in the non-standardized entry tests and students' laboratory report writing skills. In order to try and improve the weak academic writing competence of the students, I decided to implement two different writing approaches (process approach and modeling/imitation approach) in 2008 in two different classes. These two approaches were chosen because I realized students needed guidance when writing essays, but I was not sure how to assist them effectively. In my search to find effective ways to help students write more effective essays I found information on the process approach and the modeling/imitation approach. I felt that the teaching and learning context was suitable to apply the methods and that the learners might benefit from the implementation of the approaches in their writing programme. In order to measure the outcomes of the implementation I decided to carry out action research to determine the effectiveness of the interventions. Action research is seeking information to gauge the implications of change and to reflect on practice and is therefore appropriate to improve a teaching situation (Bell 2005: 9). It is also cyclical in nature with observation, planning, action and reflection as parts of a cycle. The cycle can be repeated with a revised plan, action, and reflection (Blaxter, Hughes & Tight 2006: 71). After the 2008 study, evaluation of the outcomes of the study resulted in the application of another approach in 2009, the process genre approach, and the outcomes of this intervention were also reflected and reported on. The process genre approach was selected as it is a combination of the effective characteristics of the process and the modeling/imitation approach. I wanted to determine if the process genre approach would yield better results than the process approach and the modeling imitation approach in isolation.

This study reports on the evaluation of my teaching practice designed to improve English academic writing skills of FP students and an assessment of three different writing

interventions, two applied in 2008 and the third in 2009. In 2008, I applied the process approach in Class 1 and in Class 2 the modeling approach was used. In 2009, I applied the process genre approach in both classes. Convenience sampling was applied as I used the existing classes of 2008 and 2009 as my population and sample since, for ethical considerations, I could not exclude any student from the implementations. However, convenience sampling might have an impact on the transferability and generalisability of this study.

South African researchers Jackson, Meyer and Parkinson (2006) observed that students in South Africa who enter the university want and need to become part of a certain discourse community which has certain "literacy practices" as component of the community. However, students who want to pursue academic study in their additional language, English, are not necessarily equipped to do so effectively (Phillips 2004: 4; Heffernan 2006). At the main campus of the University of Namibia (UNAM) in Windhoek and at the Oshakati Campus, a similar situation to that of South African students exists with regard to a lack of writing proficiency with students having to use their first year of a four-year degree course to improve, among other study skills and subjects, their English competencies. Even though there is no specific empirical evidence on the weakness of Namibian students' academic writing skills, lecturers at UNAM main campus are frustrated by students' English writing abilities as one former lecturer mentioned, 'I have lectured to these students for many years, the cream of the Namibian senior secondary school leavers, and can testify to the poor English writing proficiency of the majority' (Tötemeyer 2009: 3). What are the deficiencies in students' writing skills?

1.2 BACKGROUND TO STUDY

> **…**, the issue becomes how teachers can help students express themselves freely and fluently to be more autonomous writers, and how teachers can help students become more successful readers and writers of academic and workplace texts. (Kim & Kim 2005: [2])[1]

The entry requirements at UNAM (C in English, C in Mathematics and at least 25 points in 5 subjects including English and Mathematics) lead lecturers to assume that successful

[1] The page number is given in these brackets [] to refer to a page of a document without original numbers, usually html documents. I numbered the document pages, to ease the process of finding quotations in the documents. This procedure is followed throughout the dissertation.

applicants are able to write meaningful, coherent academic essays, as related to specific learning outcomes and assessment criteria. These essays are supposed to display students' ability in presenting content that shows that a concept or an idea is analysed critically, there is comprehensive and accurate subject matter and relevant reading is incorporated (Murray & Johanson, 1990: 22). The structure should show that the content is well-organised and well-presented, there is systematic and concise development of the argument and the introduction and conclusion are "well-thought out" (Murray & Johanson, 1990: 22). In terms of language and vocabulary, students are expected to have high standards of spelling and punctuation which means errors are rare; grammar issues like tenses and subject-verb agreement should show advanced skills in English writing. Students are also expected to use a style of language that is suitable for the purpose, context and audience of the piece of writing (Murray & Johanson, 1990: 22). The marking grid providing these criteria is presented in Appendix 2.

Jackson, Meyer and Parkinson (1990) reported on the problem that many ESL students attending universities and colleges in South Africa do not have the necessary skills to communicate effectively using an appropriate academic register and might struggle with writing laboratory reports. Nordin, Halib and Ghazali (2010: 46) confirmed this view by citing socio-economic and political reasons, as well as overcrowded classrooms, teachers' heavy workloads and insufficient reading practice as issues contributing to language proficiency problems. Similarly, UNAM FP students get below 60 % as related to the learning outcomes above and the marking grids in Appendix 2 and 3, in their writing activities. In fact, despite many attempts at rectifying the social and educational situation, one main impediment in the South African and Namibian students' ambition to study for their chosen careers is still their weak writing ability (Baba 2006: iii; Reid 1984: 450; Spack 1988). Yeld (2003), and Jackson, Meyer, and Parkinson (2006) indicated that the level of academic literacy of students from various educational backgrounds is unsatisfactory as "lecturers complain about the students' lack of expertise in writing coherently and correctly…" (Jackson, Meyer & Parkinson 2006: 266). In addition, Uys, Van der Walt, Van den Berg, and Botha (2007: 69) reported on the issue by stating: "a lack of attention to the teaching of functional language skills may be considered a *raison d'être* for learners' lack of academic achievement". This is one of the reasons I decided to conduct a study which would determine whether writing interventions would aid in improving the academic writing skills of students on the Foundation Programme (FP). My decision to find ways to improve the writing skills of the FP students compelled me to find information on different writing

approaches and to adapt my teaching method to incorporate the techniques and strategies of the writing approaches. Based on the strengths outlined below, the two approaches that I initially chose in 2007 were the process approach and the modeling/imitation approach. In 2008, the process approach was applied in Class 1 and the modeling/imitation approach was implemented in Class 2.

1.2.1 Process approach

The value of the process approach, in teaching and learning writing, lies in its application. A writing programme based on the process approach is characterized by a range of classroom activities that are learner-centered and teacher-facilitated. These activities include elements of writing that function "simultaneously, recursively, and/or in a linear fashion" (Pianko 1979: 5) depending on the students' preferences and the purpose for the writing activity. Kim and Kim (2005: [3]) commented on the interactive nature of these activities that can at any time or stage in the composing process be "reviewed, evaluated, and revised, even before any text has been produced at all." Initial and final meaning is constructed by making use of one, two or more composing steps, followed and/or interrupted by review, evaluation and revision of the text. These three techniques are present in a number of steps or activities proposed by the process approach. There are variations of sets of activities and the interpretations of the steps and stages do not necessarily follow a linear step-by-step mode (Chan 1988; Geyser 1996; Kim 2005; Perl 1980; Pianko 1979; Zamel 1982). The main activities are divided into three sections: Pre-writing, writing and reviewing (Kim 2005: [3]). The pre-writing phase is often called the planning stage and includes: analyzing the topic; generating ideas, and organizing ideas (Kim 2005: [3]). Geyser (1996: 222) proposed that the writing phase involves organizing and developing ideas into paragraphs, "with the aim of developing the topic to its fullest". At this stage, not much attention is given to grammatical issues. The content is the most important aspect and needs to be reviewed, evaluated and revised if necessary, to ensure that meaning is created. This is a stage which requires sufficient time and preferably an environment suitable for writing and thinking, which is not always the English classroom (Perl 1980: 363). The language aspect of the text written by the students can also be reviewed in three different ways or by combining two or three techniques. Students can review and edit their work independently and individually based on the criteria provided by the teacher. Peer-editing can be done, during which students help each other with the review and editing task (also using criteria provided by the teacher), or the teacher

can have individual consultations with the learners (Chan 1988: 85, Geyser 1996: 233). The students need to re-work the draft based on the editing before handing in a final draft.

Despite the incontestable benefits resulting from the characteristics and application of the process approach as explained above, some drawbacks have to be briefly mentioned here:

1. Students do not always use the same process when writing a text;
2. There is not much information on different types of texts and reasons why certain texts are produced (genres, purpose and audience);
3. There is too little focus on rhetorical conventions and linguistic issues (style and grammar) (Kim & Kim 2005: [4]).
4. Students are not adequately prepared for the examination essay because of the time limit. (Horowitz 1986: 41-42; Caudery 1995: [1])

1.2.2 Modeling/Imitation Approach

The writing approach that was administered to Class 2 in 2008 was the modeling/imitation approach. I use the two terms together because of their compatibility but also their slight difference in my view. Modeling means two things to me: firstly, using model genre essays as examples, and secondly, facilitators actively and practically, illustrating to students how the writing steps and techniques are done. Imitation means when students try to imitate the form, the style and the language used in a genre essay that was provided as a model. In a sequential way, it can be seen that modeling happens before imitation in the writing process, they follow each other.

Humans have always had a tendency to imitate other people in various sectors of their lives. This inclination to follow in somebody else's footsteps has been ensconced in the educational area for hundreds of years. Eminent proponents in the subject of imitation include Quintilian, Aristotle, Plato, Piaget (Butler 2002: 27, 30, 31). These scholars realized that the basic educational principle underscoring this approach is that students learn better when they have an example. A number of researchers recognized that modeling and/or imitation can provide assistance in writing essays (Badger & White 2000, Cope & Kalantzis 1993, Kim & Kim 2005, Farmer & Arrington 1993). In order to avoid the 'hit-and-miss' attempts among writing students, the modeling/imitation approach is useful in creating an awareness that texts differ from each other in terms of content, structure, language and style based on the purpose

and audience of the text. This awareness is created when students receive examples of the same genre of essays they are expected to write. These examples are obtained from a variety of sources, for instance authentic materials like newspapers, journals, text books, and magazines, or from English Second Language (ESL) books like *Great Essays* by Folse, Muchmore-Vokoun, Solomon (1999), which have examples of academic essays that are to be dealt with in the writing lessons. This hypothesis and strategy is strengthened by research concerning imitation as a tool for learning to write. Farmer and Arrington (1993: 12-29) and Killgallon (2010: 2) commented positively on the imitation of style linked to genre-writing. In addition, the heuristic principle inherent in learner-centered teaching can be exploited by imitation and modeling when students get the opportunity to find things out for themselves without having to be expressly told. This can be done with regard to generating ideas and making meaning, using appropriate styles for different genres as well as the type of content initiated. According to Farmer and Arrington (1993: 18) there is a distinct link between stylistic and structural imitation and the invention process which determines the content of the text. One could say that the students' texts are analogues of the model text. The following quotation captures the essence of imitation as a tool for generating ideas and, potentially, effective writing:

> … how imitation helps generate ideas and insights comes from Barret Mandel. Believing that the conscious mind inhibits or even precludes the kind of "fresh thinking" necessary for good writing, Mandel argues that activities such as copying, imitating, and parodying can elicit discoveries much in the same way as free-writing is thought to do – through bypassing the conscious mind. (Farmer & Arrington 1993: 19)

There are a number of strategies that can be followed when adopting the modeling/imitation approach, which will be fully described in the Literature Review.

Important to make clear is the fact that students should imitate the facilitators' methods and not their words when the facilitators model their writing process in a class situation (Farmer & Arrington 1993: 20). Another justification for using the modeling/imitation approach to teach writing is explained by Falk (1979: 439) when she claims that professional writers acknowledge the "influence of other writers" on their own work. All writing is, in effect, inter-textual, and this should be acknowledged.

Arguments against imitation as a tool for writing are that imitation restrains the writer and that creativity, originality, and sincerity are reduced (Farmer & Arrington 1993: 23). It seems that the intellectual challenge of writing is reduced by the use of models, since it is fairly easy to follow a rule or a formula in the form of a model. Tourney ([n.d.]: 3) even called modeling and imitation "cheap, facile, bad and mere" (Farmer & Arrington 1993: 23). Doubts also arise about how much of the models that serve as input is actually taken in by writing students: "how far can study and analysis of these products strengthen the students' understanding of how good writing is actually made, let alone help them to produce some for themselves?" (Watson 1982: 6). The modeling/imitation approach will be critiqued further in the Literature Review.

1.2.3 Combination of process and modeling approaches: Process genre approach

Because of weaknesses inherent in both approaches and limitations of a single approach, in 2009, a combination of these two approaches was implemented in Class 1 and 2. The application of the combination of the process and modeling/imitation approaches is, in my view, very similar to the process genre approach and the justifications for the process genre approach coincide with those advocating the combination of the process and modeling approaches. Literature indicates that when some principles and features of the process and modeling/imitation approaches are merged, the resulting approach is called the process genre approach (Badger & White 2000, Watson 1982, Heffernan 2006, Horowitz 1986). Watson (1982: 12) made a very strong case for subsuming the modeling approach in the process approach:

> The model has thus in a sense been demoted by being brought within the process. But surely this is entirely desirable. If students can treat the model as a resource rather than an ideal, if they can explore it with each other as well as with the teacher, if they can comfortably compare their own products at various stages of composition with that of the professional, then the alien product is truly involving them in the original process.

The process genre approach (as an outcome of the combination of the product and the process approach) will be discussed in greater detail in the Literature Review.

Kim and Kim (2005: [5]) made the observation that the process genre approach is dual-viewed with a focus on writing and the "development of writing". The following elements belonging to the process approach are present in the process genre approach:

- the "input to which learners respond" (Kim & Kim 2005: [6]), which relates to the ideas and the content of the intended text,
- the techniques and strategies students can use to arrive at a meaningful, comprehensive essay in terms of content,
- the continuous assistance from the teacher/facilitator.

From the model/genre approach "the context in which writing happens", a model or an example, suitable language for the specific genre, purpose (Kim & Kim 2005: [6]), and audience are utilized. Kim and Kim (2005: [7]) also suggested "scaffolding" the activities, which means writing students move from the known to the unknown in small steps and thereby learn new skills, concepts and reach "new levels of understanding". This links in with one of the principles of the process approach as explained by Badger and White (in Yan 2005: 19): students' background knowledge contributes to their writing skill. Badger and White (2000: 157) provided a very useful description of the synthesis of the process and genre approach.

> The essential idea here is that the writing class recognizes that:
>
> Writing involves knowledge about language (as in product and genre approaches), knowledge of the context in which writing happens and especially the purpose for the writing (as in genre approaches), and skills in using language (as in process approaches)
>
> Writing development happens by drawing out the learners' potential (as in process approaches) and by providing input to which the learners respond (as in product and genre approaches).

The value of combining the process and modeling approaches in the process genre approach as an instrument in the writing class lies in the fact that the two approaches are different but complement each other. Newfields (1999: 47) stated: "not only are both approaches compatible in some respects, they may actually be complementary". Furthermore, the focus on the process and the emphasis on form in the process genre approach make it a potentially useful approach for beginning writers. If the relevant features of the approaches are employed effectively based on the level of the writing skills of the students, it could "help

students use their individual writing processes to construct a text in a familiar genre" (Yan 2005: 22).

1.2.4 The Process and Modeling approaches in the English curriculum in Namibia

Apart from a multitude of reasons that may account for weak writing skills of students (which fall outside the scope of this study), it is my view that the writing curriculum in Namibian schools contributes to the inadequacy of students' writing skills. The weak English results as well as comments on the lack of writing skills indicated by a number of Namibian researchers like Benjamin (2004: 7), Nyathi (2001: 9), Willemse (2005: 1, 9) and Wolfaardt (2005: 2360) attest to students having inadequate writing skills. The starting point to determine why students are unable to live up to the writing expectations, is to look at what academic writing conventions are dealt with in senior secondary level syllabi. While this is not in the scope of this dissertation, a brief look at the syllabus explains the learning outcomes students are supposed to have mastered before entering tertiary education. In addition, five secondary school English teachers agreed to provide information on the application of the two approaches or elements of the two approaches in the actual teaching setting, since no information is available in the literature about writing skills in Namibian schools.

The current Namibia Senior Secondary Certificate (NSSC) syllabus for English as a Second Language for Grades 11 and 12 was first implemented in 2006 and the first examinations written in 2007. The document was developed by the National Institute for Educational Development (NIED) in collaboration with the University of Cambridge International Examinations. The curriculum content for writing is divided into three categories: Skills, Objectives and Competencies. A few competencies related to academic writing outlined in the syllabus are worth mentioning here: writing paragraphs, using introductory, developmental and concluding paragraphs, linking ideas, planning, structuring, drafting and editing, using appropriate style, format, layout, vocabulary, grammatical structures and focusing on interpretation of the topic, giving factual information, defending ideas and opinions (NIED 2005: 10-11). On inspection of the competencies listed in the syllabus, it seems that the writing curriculum has been extended to comply with the features of the process approach. One would, therefore, assume that students should have better writing abilities than reflected in the actual grades of the final examination (refer to Appendix 1: the spread of symbols for English as a Second Language) and that they would have more effective writing skills at university level. In the syllabus there is no mention of using any texts as examples to guide students in any of their writing activities, which leads me to

assume that the modeling/imitation writing approach is either not well-known or not deemed acceptable as a learning tool.

The International General Certificate of Secondary Education (IGCSE) English as a Second Language syllabus used before the NSSC syllabus (from 1991 to 2006) was vague in terms of curriculum content. The writing component prescribes learners to:

- Carry out simple writing tasks, such as completing forms, writing postcards or short letters in an appropriate and accurate form of English in response to a written stimulus;
- Demonstrate the ability to describe, report, give personal information; identify, organize and present given material in particular form;
- Carry out longer writing tasks on a wider range of topics (only for the Extended option) (University of Cambridge International Examinations 2004: 15).

These curriculum objectives are linked to six (6) assessment objectives which relate to clear communication, conveying information and expressing opinion; employing and controlling grammatical structures; understanding and using a range of vocabulary; observing conventions of paragraphing, punctuation and spelling and employing appropriate register (University of Cambridge International Examinations 2004: 2). Again, nothing is said anywhere in the syllabus about the process approach or the imitation approach or any other approach in relation to any of the skills that students are expected to acquire.

The current NSSC syllabus is much more descriptive in terms of academic writing learning outcomes and specific items to be covered by students during Grade 11 and 12, which theoretically results in students being able to meet the academic writing learning outcomes at university level. But, the final IGCSE and NSSC results (as indicated in the statistics) and the testimonies of UNAM lecturers display another picture. This inconsistency directed my study in terms of finding a method to improve the academic writing skills of students at UNAM, Oshakati Campus.

1.2.5 [2]Comments from five Namibian teachers

As part of background information to determine whether the process and/or modeling/imitation approach were formerly or are currently applied in secondary schools I obtained information from five English teachers regarding the application of these

2 The identities of the teachers are concealed. Teachers granted permission to use the information.

approaches. No print information is available on the extent of the application of the process and modeling/imitation approach in Namibian schools. Therefore, five teachers were contacted for first-hand information on the application of the process and imitation approaches in Namibian schools. The teachers have been teaching at secondary school level for more than ten years. I believe their approach to teaching writing has changed over the years depending on the level and the need of the students, but I have not asked whether they had always had followed the same procedure of teaching writing since they started teaching. These comments should by no means be seen as representative of the whole country. In terms of the process approach the following information was gleaned from teachers' responses: three teachers announce the topic of the essay and analyze or explain the topic. Learners generate their own ideas without assistance from teachers. Two of the three teachers allow time for planning in the form of writing down notes of the ideas, after the teachers have provided a simple example. One teacher believes that pre-writing activities are a waste of time since learners are not committed enough to do that activity. The following activities or features are not explicitly dealt with at all: peer-editing, writing multiple drafts, revision and re-writing. Two of the three teachers give time for language editing. There is no mention of the recursive nature of the process approach. In fact, when learners are required to write an essay, they have only one English lesson to write their essays. Peer-editing is avoided as teachers reason that learners' abilities are too weak, and thus they will not be able to help each other and there is no time to do peer-editing.

These three teachers felt that the process-genre approach could be useful in improving the writing skills of learners, but at primary school level, since there was not enough time in Grade 11 and 12 to apply this approach to writing.

The imitation approach seems to be the least-applied of the two approaches: only one teacher mentioned that she tells a story which is similar to the essay that learners are expected to write. The teacher believes that learners will merely copy the example, therefore no modeling of the actual writing process is done either. Teachers do not explicitly teach or model any of the following aspects: structure and paragraphing, topic and supporting sentences, writing introductions and conclusions. Teachers commented that it is too time consuming to use the modeling approach at secondary school level. According to the two teachers in Grootfontein and one in Windhoek modeling/imitation is something that learners should have done at primary school level and there is no time to catch up on skills that were

neglected at primary school level. One teacher provides a model essay to students after the graded essays have been handed back to learners.

Two teachers at two local schools, however, make use of the process approach in their Grade 11 and 12 classes to a certain extent. One teacher mentioned it to be "a very effective approach especially when introducing/teaching essay writing for the very first time". She also mentioned that some learners are still struggling with writing despite the extensive guidance she offers. The other teacher allows her learners to do the pre-writing activities in groups of three and the teacher marks the group work. After checking the group work (editing by learners themselves and the teacher), learners write their individual essays on a similar topic. She uses the group essay as a model that students can use when they prepare for their individual essays. Learners are allowed to change or add ideas at any time during the process at both schools. One teacher only uses the modeling approach when she does revision with the learners towards the end of the year before examinations, when she provides model answers from previous examination papers, Examination Busters and Namibian Open College of Learning (NAMCOL) modules.

These findings influence the research context of the study in that they present information which shows that students have not had much (if any) exposure to the process approach, or the imitation approach at school level.

In the next section the context of the current study will be explained.

1.3 THE RESEARCH CONTEXT OF THIS STUDY

> With the language policy that emphasizes English as a sole official language, Namibia, like other countries in Africa such as Zambia, will limit the participation and involvement of the majority of its people in economic, political and social development.
>
> (Mutumba 1999: 4)

Namibia, like many other African countries, is characterized by linguistic complexities. According to Tötemeyer (2009: 1) there are 14 spoken and written languages in Namibia. Since language is the tool for communication "and the medium through which thoughts, values and attributes are transmitted" (Mutumba 1999: [1]), multilingualism is an objective incorporated in the national language policy.

Before Namibia obtained independence from South Africa in 1990, the language policy stated that Afrikaans was the medium of instruction (MOI) in schools and Afrikaans and English were the official languages (Tötemeyer 2009: 1). After Independence in Namibia, learning in students' mother tongue is limited to the first three years of primary education (Ministry of Education and Culture (MEC) 1993: 4). English is introduced in the Namibian primary school curriculum as the MOI in Grade 4 and English as a subject is offered from Grade 1 (Government: Presidential Commission Report 1999: 109). Students at school and at tertiary institutions are challenged with understanding the subject content in the MOI through listening, reading, writing and speaking, "'no matter how imperfectly [English is] used'" (Tötemeyer in Harlech- Jones 1990: 87). Yet, only 0, 8% of the Namibian population use English as a First Language (Wolfaardt 2005: 2360).

English is a second, and sometimes even a third language, to almost all the learners in the north-central region of Namibia, since the mother tongue is Oshiwambo, which has 7 dialects (Nyathi 2001: 3). Despite the number of years learners had been in contact with English, the failure rate in Grade 12 is a serious problem as the statistics[3] indicate. However, some students do manage to obtain a C-symbol on the International General Certificate of Secondary Education (IGCSE) or National Senior Secondary Certificate (NSSC) for English as a Second Language and are therefore able to apply at UNAM main campus or Oshakati Campus. Once students are at the university, lecturers find that despite students having a C-symbol or better in English they lack academic writing proficiency skills (Willemse 2005; Nyathi 1999; Tötemeyer 2009: 3). Little formal writing practice is done in lesson time at UNAM in *English Communication and Study Skills* and *English for Academic Purposes.* The learning outcomes for the unit focusing on academic writing conventions are: role and purpose of writing; paragraph writing mechanics (thesis statement, main and supporting sentences); determine and categorise arguments for and against a topic; use cohesive devices in writing; distinguish between academic writing and other forms of writing; generate an academic text following academic writing conventions; apply the American Psychological Associations (APA) documentation style; plagiarism in academic writing; identify effective introductions and conclusions in academic writing; employ the mechanics of drafting and editing essays; design essay titles, plans and outlines; compose memos, reports and business letters; and prepare minutes and assemble business reports (Language Centre UNAM 2009:

[3] Statistics and graphs are included as Appendix 1. These statistics are referred to again later in this section.

vii). These outcomes are measured with essays that students have to write during the semester tests and examinations. Marking grids are provided to lecturers for grading essays (Appendix 3) and students to use as guidelines during the writing process.

1.3.1 Student and campus background

UNAM Oshakati Campus is a satellite campus of the main campus in Windhoek and has tuition and research facilities, which include classrooms, a library, computer centres, video conferencing rooms and offices and laboratories. The Oshakati Campus offers a full-time nursing degree and also focuses on part-time studies in education. Another programme currently running at UNAM Oshakati Campus is the Foundation Programme (FP).

This programme is a full-time 9 month pilot course (March to November). Classes started in February 2005 with an intake of 60 students from the north-central region of Namibia. Currently, the intake is 150 students per year. The FP offers Physics, Chemistry and Biology in addition to Mathematics and English. Materials were written by lecturers based on a needs analysis that was done at the conception of the course. Each class gets one hour more for English and Mathematics as these are the two subjects which are deemed to require more input. Students also receive Career Guidance and Computer Literacy lessons.

Students on the FP come from weak educational backgrounds as many schools in this area are resource poor. The majority of students come from the rural areas of the north-central region of Namibia where parents are subsistence farmers with very little or no financial income. The ages of students range from 17 to 24. Most students have as their mother tongue Oshindonga or Oshikwanyama, but there are students from other regions who have different mother tongues like Otjiherero, Damara, Nama or Rukwangali.

The main aim of the English syllabus is to develop students to be conversant with English for academic purposes. Overall, the teaching philosophy intends to enable FP students to acquire the necessary skills for university studies in general and science courses in particular. The English Communication and Study component of the curriculum focuses on the full range of communication skills needed for academic studies at university level. There is no formal textbook that is used by the lecturer and students. The lecturer selects materials that can be used in an interactive way in the English classroom to enhance students' English reading, writing, listening and oral skills. The content of the materials is often changed depending on the interests, needs and the level of the students. In addition, cross-curricular teaching is

encouraged and the English lecturer(s) therefore often use science-based texts in the English lessons.

1.3.2 Learning outcomes of the English Foundation Course

(Extract from the Course Outlines of the Foundation Programme UNAM Oshakati Campus)

Here, only the learning outcomes and skills relevant to the research project are provided. These learning outcomes were determined before I started with the research.

Writing skills**:**

Write clear, accurate summaries and notes; write clear, accurate scientific reports and assignments; convey information effectively using a range of appropriate vocabulary; employ and control a variety of grammatical structures; observe conventions of paragraphing, punctuation and spelling. Write logically and cohesively within a structured argument; use definitions, examples; plan and edit work; and clarify observations and descriptions.

Critical reading and thinking skills:

Understand and respond to information presented in various academic genres; select and organize material relevant to specific purposes; infer, interpret information and draw conclusions from scientific texts. Identify key points and analyse and synthesize information from texts.

Study skills:

Research and reference texts; time management and organizing work; rules concerning plagiarism; library skills; revision and memory techniques.

1.3.3 Grading Criteria for Essays

The grading criteria used in the Foundation Programme to grade essays are extracted from Murray and Johanson (1990: 22) (Appendix 2).

These criteria were selected as suitable for the writing purposes of the FP English course as they address the issues raised in the curriculum of the course. The grading criteria of content relate to the writing skills outcomes in terms of accuracy of facts, meaningfulness of information, critical analysis and synthesis of information and key points. Regarding form or structure of essays, the outcomes and criteria show a relationship: paragraphs, coherence and

cohesion, introductions and conclusions, topic and supporting sentences and logic are factors addressed by both the learning outcomes and the marking criteria.

The grammatical learning outcomes are reflected in the criteria by the focus on punctuation, general grammar conventions and sentence structure.

Style in the FP English learning outcomes is connected to the marking criteria by the following points: purpose, sense of audience, and useful rhetoric.

1.3.4 The situation of the researcher

I am the English lecturer on the FP at UNAM Oshakati campus. After completing my degree in languages in South Africa, I have been teaching English as a Second language for 18 years in Namibia. I started at secondary school level, then taught for three years at a Teacher Training College. I then moved on to teach English International General Certificate of Secondary Education (IGCSE) to students on the Access Course (UNAM), a former programme offered at the Oshakati Campus, before teaching the English component on the current course, the Foundation Programme. In 2006, I obtained my Honours degree through UNISA in Teaching English to Speakers of other Languages.

Two observations are central for understanding the choice of my research:

The value and importance of writing is recognized by many ESL practitioners, especially for students at tertiary level. A quotation from a well-known South African linguist explains the essence of the relationship between coherent writing and academic achievement very effectively:

> How important is it that students 'write well'? Although it is very difficult to quantify the relationship between students' ability to write coherently and their levels of academic achievement, these two variables could be expected to correlate positively – an expectation strongly supported by one of the findings of a recent empirical study (Hubbard 1989). Given this correlation, and the present widespread concern about the first-year failure rate at South African Universities, the need to improve students' writing skills becomes a matter of urgency.
>
> (Hubbard 1989: 1)

I believe that focused instruction in the writing process and extensive practice with models as examples will improve the academic writing skills of Foundation Programme

students. The process approach will help with showing and practicing the actual process of writing as advocated by Ho (2006); Liebman-Kleine (1986); and Geyser (1996) and the imitation approach gives examples of genre essays which help students to understand what is expected of them as explained, amongst others, by Geyser (1996); Flowerdew (1993); Horowitz (1986); and Jones & Freeman (2003).

This statement immediately brings to mind the tension between process and product, where the process approach has a strong focus on the actual composing process whereas the modelling/imitation approach to writing emphasises the product. Yet, writing is both, and thus a combined approach should be more effective than one that focuses on only one aspect. Geyser (1996: 222) quoted Richards (Richards et al 1992: 229-230) and explained the difference between process and product very clearly, but she also argues for the combination of the two approaches:

> The process approach to writing differs from the product approach, in that the whole process of writing, from the pre-writing to the final editing and proofreading, should be done under the supervision of the teacher. This process results in a final writing product, namely the letter, proposal, essay, et cetera, that the student had to write. Language teaching and learning are concerned with both process and product.

Geyser (1996) and Richards (1992) believe that the values of process and product as portrayed in the modeling/imitation approach should not be pitched against each other as opposing strategies to teach writing effectively. Instead, process and product both form an important part of language learning and could be effectively used to teach writing, hence my aim to determine whether a combination of both approaches results in materials that are more effective in improving students' writing skills and ultimately their English results, than just using one of the two approaches. This controversy between process and product will be discussed in more detail in the Literature Review section.

In the next section the research problem and the proposed intervention are discussed.

1.4. RESEARCH PROBLEM

English Additional Language (EAL) academic writing proficiency among secondary and tertiary students has been identified as a problem in previous studies (Benjamin 2004, Nyathi 1999; Nyathi 2001; Pflaum 1996; Swarts 1995, Yeld 2003) conducted in Namibia and

elsewhere. Reasons for the challenges in the Namibian educational system were provided. However, after visiting the UNAM main campus library, the Oshakati Campus library and the National Institute for Education Development and conducting a desktop search, no Namibian research could be found on the application of different writing approaches to determine the level of efficiency of improving students' writing skills. Three studies (Nyathi 1999; Nyathi 2001; Willemse 2005) have reported on the impact of weak academic writing skills and offered recommendations on improving the status quo of EAL teaching and learning in Namibia but these are broad in nature and should have a positive effect in the long term. Nyathi (2001: 9) contends that a "lack of academic writing skills in the ESL curriculum definitely affects academic writing required in other subject areas like geography and history". However, I believe that a more pragmatic, hands-on approach is necessary to help teachers and learners in their quest for effective academic writing skills.

Observations of weak and/or ineffective academic writing skills were made among the Foundation Programme (FP) students at UNAM Oshakati Campus. These students displayed inadequate essay writing skills in terms of content, structure and language usage (grammar). This is obvious in the essays written by students who attended the course in 2005, the year of inception of the FP. The English lecturers found that writing skills of students were not up to standard based on the marking grid (Appendix 2). Prospective students' marks for the entry test essays ranged between 17% (the lowest) to 76% (the highest score), with the majority between 30 and 49%. The FP Biology, Physics and Chemistry lecturers also confirmed this finding by stating that former (2005 – 2007) students' laboratory report writing skills were below the level of accepted academic writing conventions in the science fields. Interviews held in 2006 with 3 UNAM Main campus science lecturers and 2 lecturers from the main campus Language Centre confirmed the researchers' assumptions about the weak academic writing skills.

The current study intends to address an issue raised by Nyathi (2001: 178) when he recommended that the Ministry of Education introduces writing materials that better prepare students for tertiary education in terms of academic writing. His recommendation entails the following:

> These activities should entail among others, helping learners to use their cognitive skills to generate ideas and organize them in their written compositions. Activities should involve practices like, planning, organizing information in accordance with

academic requirements e.g., how and what to include in the introductions, the body and conclusions. For instance, all introductions would need to have thesis statements, all paragraphs would need to have topic sentences that develop the thesis sentence of the introduction and the conclusion that sums up what the entire composed text carries (Aaron, 1997). Similarly, purpose and audience should be stressed in this teaching of writing through composing as these carry the core of ESL writing under the communicative syllabus (Krashen & Terrell, 1983; Rivers, 1968; Bialystok, 1990; Lightbrown & Spada, 1993).

This study, therefore, aims to report on the levels of improvement recorded in the implementation of three approaches: process approach, imitation approach and the process genre approach. In each case I developed special writing programmes to improve the general academic writing ability and laboratory report writing skills of FP students.

The Research Problem was approached in the following manner:

2008: Action research on the effectiveness of:

a.) The process approach to improve academic writing skills of FP students (Class 1);

b.) Modeling approach to improve the academic writing skills of FP students (Class 2);

2009: Action research (AR) on the effectiveness of the process genre approach, a combination and adaptation of materials used for the process and the modeling approach in 2008 in Class 1 and 2. This means in 2009 both classes had the same materials which were based on the process genre approach.

The history, principles and applications of these three writing approaches as well as information on academic writing will be explained in the Literature Review. In the next section, however, brief mention will be made to the proposed intervention, which entails using the modeling and process approach and the process genre approach to teach academic writing skills.

1.4.1 The proposed interventions

An intervention is deemed necessary when the current situation yields unsatisfactory results. An intervention is inextricably part of an action research, in the form of an action that is intended to bring about a beneficial change (Bell 2005: 8). In the case of the current project

an intervention was called for to improve the academic writing skills of FP students and to improve the teaching practice of the lecturer/researcher.

This forced me to think critically and systematically about the content of the curriculum and syllabus and what approaches are to be followed. It also linked with the next planning and decision activity: what type of texts will be used? According to Shih (1986: 618), "to prepare students for university courses, it is important to have information about the types of writing tasks actually required across academic disciplines and about instructors' purposes in assigning these tasks."

The intervention is based on the belief that students need explicit tuition and instruction in the value and practice of academic writing skills in order to enable them to improve their abilities in ESL writing and consequently in writing in their other subject areas, in this case science-based subjects. The intervention is grounded in theory relating to writing. These components form part of the conceptual framework of the study and will be mentioned here but discussed as part of the theory base in the Literature Review.

The conceptual framework of the intervention:

- Academic Writing: This is a formal type of writing that requires students to adhere to certain conventions or characteristics which identify the specific type of writing as academic, for instance hedging, using third person singular, passive voice, having topic and supporting sentences and many more to write different kinds of reports and essays (descriptive, process, argumentative, cause and effect, compare and contrast). Thaiss and Zawacki (2006: 4) define academic writing as "any writing that fulfills a purpose of education in a college or university".

- Process approach: Proponents of this approach maintain "that writers create and change their ideas as they write" (Caulk 1994: 181) and that writing is a recursive activity (Geyser 1996: 222), which involves a number of not necessarily linear steps like prewriting, composing, revising, evaluation and the final publishing of the product.

- Modeling approach: The modeling approach to writing involves providing students with examples of effective pieces of academic writing or laboratory reports and it helps students to emulate the stages that are involved in the writing process.

- Process genre approach: This is an eclectic approach with features from the process approach, the modeling approach and the genre approach (in the case of this study). According to Badger and White (2000: 159) the following components from part of this approach: situation, purpose, mode, field or tenor, planning, drafting, publishing. In this study (and in Falk 1979: 438; Spencer: 1982-1983: 42; Yan 2005: 21) the importance of example texts for analysis and imitation is stressed as a useful tool to improve academic writing. The focus on form and structure of different genres is given equal weighting as the focus on content. In addition, revising and re-writing are also encouraged.

The proposed intervention is anticipated to address the research problem.

1.5 AIM OF RESEARCH

This mixed method action research study focuses on the experiences and perspectives of the researcher, the students and four science lecturers on the FP in relation to the specially designed materials for the three different approaches. This links with the purpose of qualitative research, which is to understand situations from various angles and to offer a rich and deep interpretation of data. However, as this study also has a quantitative element, the aim can be extended to explaining whether there is a relationship between the intervention materials used to improve academic writing skills of FP students and their actual performance after the intervention.

Therefore, the specific aim of this action research is to determine the effectiveness of the writing intervention programme that is developed to improve academic writing skills. For the purposes of this study, action research is defined as a collaborative, pragmatic and critical activity (Herr & Anderson 2005: 4), which is carried out by the researcher, in this case with the students of the Foundation Programme.

Specific aims:

- To determine whether the process approach is effective in improving the academic writing skills of FP students;

- To determine whether the modeling/imitation approach is effective in improving the academic writing skills of FP students;

- To determine whether the process genre approach is effective in improving the academic writing skills of FP students.

- To determine which of the three above-mentioned approaches is the most effective in improving FP students' academic writing skills.

1.6 HYPOTHESES

Hypothesis is defined by Nunan (1992: 230) as "A formal statement about an expected relationship between two or more variables which can be tested through an experiment." Leedy and Ormrod (2005: 7) propose that a hypothesis is a "tentative solution to the problem(s)".

The following hypotheses of this research study are constructed based on the four research aims:

- There is a positive relationship between the application of the process approach and improvement in academic writing skills of FP students.
- The application of the modeling/imitation approach results in an improvement in academic writing skills of FP students.
- The process genre approach leads to improved academic writing skills of FP students.
- The three writing interventions are effective in improving academic writing skills with regard to English essays and laboratory reports in Physics, Chemistry and Biology.

1.7 RESEARCH QUESTIONS

Research questions are very specific questions related to the topic and the aims of the research project. The purpose of having research questions is to ensure that every part of the research problem is addressed and the problem is broken down into smaller, more manageable chunks. Questions (a) and (b) aim to determine whether students had any background knowledge or experience of academic writing. The remaining four questions deal with the focus of the research: the effectiveness of the three writing approaches and show a clear relationship to the hypotheses.

This study aims to find answers to the following questions[4]:

a) What background knowledge do FP students have of ESL academic writing and laboratory report writing?

   A questionnaire was used to determine the students' experience and knowledge about academic and laboratory report writing. (Appendix 6)

b) To which extent were they exposed to academic writing skills at secondary school? Did they do any activities that would introduce them to academic writing skills? Did they do any pertinent academic writing activities?

   The same questionnaire used in (a) was used to find out whether students had any specific exposure to academic writing skills. (Appendix 6)

   A pre-test essay (before the teaching actually starts) was also used to determine any practical application of what students learnt in terms of academic writing before coming to the FP.

   This essay is evaluated by 2 UNAM lecturers who do not teach the 2 classes which are involved in the intervention. The marking grid with clear criteria was used (Appendix 2).

   Pre- and post-intervention laboratory reports were written by students to determine their level of academic writing skills.

c) How can the interventions be described?

   A brief explanation of the interventions is provided in Chapter 4. I wrote the materials and made use of authentic materials based on the content of the other subjects on the course. I also used books on academic writing and general writing skills to provide theoretical background and model essays as well as activities.

d) How have students' experiences of and attitudes towards academic writing changed during and as a result of the writing intervention?

[4] These questions were set up based on the research of Creswell (1998: 105).

This was determined by supplying a questionnaire (the same questionnaire as in (a)) to students which asked questions about their experiences and attitudes.

e) To what extent do the students believe they have benefited from the writing intervention programme?

The questionnaire proposed in (a) provided feedback on their individual and collective benefits (if any). Also, the interviews with science lecturers and a comparison analysis of the pre- and post-intervention essays and laboratory reports provided an answer to this question.

f) How effective have the interventions been to improve students' writing results in academic essays and laboratory reports?

The marks of the pre-intervention essays and laboratory reports were used as an indicator of the students' initial academic writing ability. The marks of the post-intervention essays and laboratory reports provided information about the extent of their improvement (if any).

1.8 DEFINITION OF TERMS

Approach: An approach is a method which is used in teaching language. Each approach is based on theoretical principles with regard to language learning and teaching. Brown (1990: 158) defines 'approach' as follows: "a set of assumptions dealing with the nature of language, learning, and teaching."

Laboratory report: This is a report that is written after students have conducted experiments in the Biology or Physics laboratory. The reports have to show the topic, the aim, materials, procedure, results, and conclusion of the experiment.

Modeling approach: This approach involves students reading and analyzing effective examples of writing and using the features of the examples to write their own pieces of writing effectively. The focus is on the product. It also includes the emulation or imitation of activities used to follow the different stages of the writing process.

Process approach: This approach is based on the principle that writing is a process that involves a number of steps and skills that are applied in a recursive manner to produce a clear, understandable, meaningful piece of writing. The focus is on the process of writing.

Process genre approach: The process genre approach is an eclectic approach that combines the development of writing/composing skills (process) with the situation, audience, function and form of a text (genre). In the case of this study the imitation aspect of the modeling approach was fore grounded with multiple examples of a specific genre used for analysis and emulation.

1.9 ABBREVIATIONS

BSc. Bachelor of Science

ESL: English Second Language

FP: Foundation Programme

MOI: Medium of Instruction

UNAM: University of Namibia

NSSC: National Senior Secondary Certificate

IGCSE: International General Certificate of Secondary Education

VSO: Volunteer Service Overseas

IT: Information Technology

1.10 CHAPTER OVERVIEWS

Chapter 2 gives information on the three writing approaches: process, modeling/imitation and process genre approach. This Chapter provides the features of each approach, information on research of the approaches in application and arguments against the approaches.

In Chapter 3, the focus is on the qualitative and quantitative action research design and the research instruments. The Chapter explains how the interviews, questionnaires and essay and laboratory report marks were used to collect data. Attention is also given to the population and convenience sampling and how the data were analysed.

Chapter 4 deals with the results of the data. Extracts and a meta-analysis of the interventions are provided in the Addendum. Personal reviews about the effectiveness of the three approaches explain how I evaluated the actual application of the approaches in the FP English lessons. The results of the pre- and post-intervention essay and laboratory report marks are presented in mean score and Independent Samples t-test tables as well as Bar graphs. The closed-question questionnaire results are provided in frequency tables to compare the pre-

and post-intervention academic writing experiences, habits and attitudes. Open-question questionnaire results are dealt with in a qualitative, descriptive manner with a few tables and graphs to illustrate the results. The results of the 2009 pre- and post-intervention interviews with science lecturers are explained and discussed lastly.

In Chapter 5, I present the findings and conclusions of this study. Observations regarding the contributions of this study and suggestions for further research are provided in this last Chapter.

1.11 CONCLUSION

In the first chapter, the scene has been set for the proposed research study. This chapter provides information on the research problem, and gives an overview of the complexities leading to the problem. The implications of the research problem are broken down into research questions.

The next chapter will be a synthesis of Literature reviewed on the theory and principles of the three writing approaches and of similar studies conducted in other situations.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter I aim to inform the reader about the theoretical perspectives underlying the current study. I also provide a critical analysis of previous research on the process approach, the modeling/imitation approach and the process genre approach.

In the first section of the chapter, I will look at academic writing, a broader issue related to the research problem. The next section deals with the domain of the approaches used in the intervention: the process and modeling approaches and lastly the process genre approach.

2.2 THE "MYSTERY" OF ACADEMIC WRITING SKILLS

2.2.1 Academic Writing

> ESL students experience great difficulties when they make the transition to the English-medium academic mainstream. (Shih 1992: 290)

Academic writing is like trying to hold a slippery fish: you know it is there and it has actual, real consistency, but it is very hard to pin down and actually describe it in clear, uncontested terms. Lillis (1999: 127) explained that "academic writing is 'mysterious'", and that it is commonly misunderstood by students and lecturers. The history of academic writing does not make it easier to find a tangible definition (Spack 1988; Horowitz 1986a, 1986b, 1986c; Liebman-Kleine 1986). Thaiss and Zawacki (2006: 4) reasoned that the concept academic writing is "used imprecisely yet almost always for what the user regards as a precise purpose; e.g., commonly by teachers in explaining what they want from students." Furthermore, they contended that abstract definitions of academic writing are abundant and there are "differences in standards and expectations among disciplines and among teachers" (Thaiss & Zawacki 2006: 4).

Students need to be made aware of and able to use the basic rhetoric, linguistic aspects, form and the cognitive processes involved in academic writing at their specific level of education. Hofstee (2006: 187) proposed that academic writing has the following characteristics: clarity, accuracy, brevity, simplicity, and focus, whereas Thaiss and Zawacki (2006: 4-6) listed the characteristics as follows: attention to the topic of study and reflective thought about it, that reason dominates emotion, and that an academic writer should display analytic ability. There

are also differences in the meaning and teaching of academic writing depending on the institution where students are studying and their level of education.

The main aim of writing about academic writing is to illustrate the competencies and skills that students are expected to master at tertiary level. Academic writing at UNAM is required in the first year English courses as well as in other subjects. Even though there are differences in the lecturers' understanding of what constitutes academic writing, in my view there is a basic definition: academic writing shows students' understanding of an expository or argumentative topic and of writing conventions by providing a clear, meaningful thesis statement that is discussed in an organized, logical, fluent and accurate manner. Academic writers have to use semi-formal or formal voice and mainly third person point-of-view. I would like to further clarify the issue by providing some information that "demystifies" academic writing. Weideman (2003: 55-65) outlined the "abilities and components ... students are required to have at tertiary level". According to Weideman (2003: 61) the following important components constitute academic literacy. Students need to

- understand a range of academic vocabulary in context;
- interpret and use metaphor and idiom, and perceive connotation, word play and ambiguity;
- understand relations between different parts of a text, be aware of the logical development of (an academic) text, via introductions to conclusions, and know how to use language that serves to make the different parts of a text hang together;
- interpret different kinds of text type (genre), and show sensitivity for the meaning that they convey, and the audience that they are aimed at;
- interpret, use and produce information presented in graphic or visual format;
- make distinctions between essential and non-essential information, fact and opinion, propositions and arguments; distinguish between cause and effect, classify, categorise and handle data that make comparisons;
- see sequence and order, do simple numerical estimations and computations that are relevant to academic information, that allow comparisons to be made, and can be applied for the purposes of an argument;

- know what counts as evidence for an argument, extrapolate from information by making inferences, and apply the information or its implications to other cases than the one at hand;
- understand the communicative function of various ways of expression in academic language (such as defining, providing examples, arguing); and
- make meaning (e.g. of an academic text) beyond the level of the sentence.

These components were identified in the South African field of education as relevant to improve academic literacy of all students. Since Namibia has a similar situation with regard to underprepared students wishing to do degree courses at tertiary institutions, these components are relevant in the Namibian context as well (and a number of abovementioned aspects are present in the current FP English curriculum). The aim of academic literacy programmes according to Blanton (1994: 230) cited in Weideman (2003: 58) is to get students to "speak and write with something we call authority". This notion is in line with the aim of my intervention materials of the current study at UNAM Oshakati Campus. While knowing "that academic writing conventions are neither universal, nor independent" (Peretz 2005: 55) and not static (since they change as a result of linguistic, educational, and technological development), it is critical that students have guidelines for their initial academic writing activities across the curriculum (Leki & Carson 1994: 82). The responsibility of the writing teacher is to expose students to various writing strategies which "include combinations of activities such as outlining, drafting, or free writing" (Lavelle & Bushrow 2007: 808; Spack 1988: 34) based on their level of general and academic writing experience. Given the limited time of many academic writing courses, the materials and teaching and learning situation are often a "short-cut method of raising students' proficiency" (Dudley-Evans: 2002 [2]) to reach the required level before starting their undergraduate studies. The "short-cut method" is supposed to help students achieve at least the following: "an expository writing model which includes a thesis statement in the introduction, followed by paragraphs that start with topic sentences, and examples that support the thesis, which are then followed by a logical conclusion" (Heffernan 2006: 4-5).

This should help students write more effective essays especially in tests and examinations, since they would have been exposed to a range of genres identified as core writing tasks in English as well as other subjects, like Biology or Physics. However, the composing process

vis a vis the process approach "emphasizes linguistic skills, such as planning and drafting, and there is much less emphasis on linguistic knowledge, such as knowledge about grammar and text structure" (Badger & White 2000: 154). The next section provides a detailed account of the principles and applications of the process and the modeling approaches and evidence for the functional features of the process genre model. This approach will be dealt with lastly.

2.3 PROCESS APPROACH

> To think of writing as a process instead of a product is simply one perspective, a way of looking at writing, an orientation that has led to hundreds of different approaches for researching and teaching and theorizing about writing. *Process* is not a dogma, but a concept that enables people to see writing in a new way and thereby ask questions that were not asked as long as people saw writing simply as finished products.
>
> (Liebman-Kleine 1986: 785)

2.3.1 What is the Process approach?

The **process approach**[5] emerged in the mid-1970s as a counter reaction to the product approach (Yan 2005: 19). According to Nordin and Norhisham (2006: 76) the criticism leveled against the product approach dealt with formalistic rhetoric which was said to devalue the actual, individual creative writing process and an over-emphasis on the product. Other issues, like expecting students to "create a perfect first draft" (Yan: 2005: 19), and the constant focus on error correction had writing teachers and researchers concerned. The process approach movement began with studies about the composing process of writers (Emig 1971; Perl 1980; Pianko 1979) and resulted in informing students how to approach a writing task. The process approach was developed initially for first language classrooms (Caudery 1995: [1]) in English-speaking countries (Gao 2007: [5]). It has later been adapted for additional language teaching (Caudery 1995: [1]). According to Brown (1994: 320) at that time the product approach was used in composition classes where the focus was on grammar, vocabulary, spelling, punctuation, content and organization (Yan 2005: 19) and the writing activities were mostly decontextualized (Gao 2007: [4]). Learners were instructed to write essays on given topics. These were collected, critical comments were provided and the

[5] I indicate the key concepts of the principles and features of the process approach in bold for easier reading

essays were assessed and evaluated (Caudery 1995: [1]). The essays were returned and learners were supposed to do corrections. The actual process of how people write was negated by the use of the product approach. Also, the continuous error correction reduced learners' motivation and self-esteem with regard to writing. Consequently, learners seldom learnt that an effective piece of writing can hardly be produced in only one draft. In addition, Zamel (1983: 165) pointed out that written products do not show teachers much about learners' " instructional needs", which means then that teachers do not know how to help their learners if only written products are expected and if teachers are not part of the learners' writing process at all. Even though an effective piece of writing, or the product, is the ultimate aim for any writer, there are different methods or strategies available to reach the product stage. This was recognized by some composition teachers and researchers (Emig 1971; Zamel 1982, 1983; Hairston 1982) and the traditional thinking about writing was questioned.

2.3.2 Features of the process approach

In the 1970s writing teachers of native English learners started to explore "**the processes that went on in the creation of written text**" (Caudery 1995: [1]). It was found that during the writing activity a variety of sub-processes occurred in "cyclical and in varying patterns" (Caudery [1]). Another observation was that experienced writers used different processes as opposed to inexperienced writers (Caudery [1]; Zamel 1983: 165). "Prescriptive, formulaic" (Zamel 1983: 165) writing approaches with the focus on "correctness" were challenged by the realization that the composing process of learners needs to be examined and learners should be exposed to an instructional design that gives "students direct experiences with the composing process, that establishes a dynamic teaching/learning relationship between writers and their readers, and that enhances further linguistic development in the context of making and communicating meaning" (Zamel 1983: 165). In order to find answers about the dynamic composing process teachers and researchers (Flower 1979; Pianko 1979; Zamel 1976; Zamel 1982; Zamel 1983) asked the following regarding the composing process: How do writers write? Where do the ideas come from? How are the ideas formulated? How are the ideas developed? What stages do writers use? On account of these questions studies (Emig 1971; Perl 1980; Pianko 1979; Zamel 1976; Zamel 1982; Zamel 1983) were aimed at finding information about how writers write and how writers discover ideas and make meaning. In addition, these studies which involved observing writers during the composing process also showed that writers write according to basic patterns and that they make

decisions and choices in the writing process. Individual differences in making decisions, choices and in the use of patterns during the writing process were also reported. Revision and several drafts on the same topic were highlighted as common characteristics among all studies mentioned above. Consequently, various strategies and techniques were implemented or experimented with by writing teachers who addressed writing as a holistic process comprising not a single method but a culmination of writing considerations, which were then called the process approach.

Furthermore, a new perspective was adopted regarding the **role of the writing teacher**. In contrast to the limited input from the teacher using the product approach, process approach teachers supported learners throughout the whole writing process and showed the learners how to overcome difficulties when composing effective essays (Caudery 1995: [1]). According to Zamel (1982: 195) a writing teacher should adopt the role of a guide who intervenes when necessary. The responsibility of a writing teacher depends on the level of the learners' writing experience. Skilled writers need less guidance than unskilled writers. Most importantly, at the beginning of a writing programme for inexperienced writers, writing teachers are advised to explain the composing process and that writing is not a matter of getting everything right with the first attempt. All the misconceptions about the so-called importance of form before content and knowing exactly what to write, should be cleared (Zamel 1982: 205). Writing students need information on the characteristics and the benefits of the writing process. As an introduction writing teachers can show their own examples of the composing process including especially the behaviour during the actual pre-writing, drafting and other stages, which are hardly ever clear right from the start of receiving a writing task. Shaugnessy (1977: 222) agreed with this perspective: one of the most important facts about the composing process that is not made clear to the students is that "the process that creates precision is itself messy" (Zamel 1982: 205). Writing teachers are advised to illustrate to students that ideas get deleted and re-written, whole paragraphs become transformed after adding new ideas, revision of ideas and organization is a constant process and editing of form should take a less prominent position in the composing process (Zamel 1982: 205). While the level of involvement differs for skilled and unskilled writers, Zamel (1982: 203) advised that writing teachers of less skilled writers should actually teach learners pre-writing techniques and how to generate ideas to get them started. Moreover, research (Brostoff & Beyer 1980) suggests that further involvement from the writing teacher in terms of developing the ideas and finding relationships between the ideas results in

learning to use different types of "invention techniques" (Zamel 1982: 204). The value of the writing teacher's focused facilitation and intervention is reflected in the learners' ability to become effective writers when exposed to the writing process approach (Flower 1981; Graves 1983; Ho 2006; Zamel 1982). Teachers are required to be flexible, and interact in the learning environment. They have to offer a variety of methods and stimuli (Pianko 1979: 21). These qualities are constructive factors in the complex writing process which consists of hierarchical stages as explained in the next section.

The process approach involves **several stages** which appear to follow each other but which do not necessarily result in clear sequential steps. The process approach is not linear, but rather recursive, which means the stages can appear anywhere in the process depending on the writers' choices. Most proponents of the process approach (Yan 2005; Shih 1986; Geyser 1996; Tessema 2005; Zamel 1983) agree that the number of stages range from three (3) to five (5). Pianko (1979: 7) calls the stages composing behaviours and contributes to information of the stages by categorizing them as follows:

Prewriting – all the activities that occur from the moment writers receive the essay topic until they write their first words.

Planning – this stage involves the setting of parameters for the essay to be written. Planning activities can be mental, written, or both.

Composing – this is what happens between the writing of the first word for the essay and the final part of writing. When writers compose they display three major types of behaviors exhibited - writing, pausing, and rescanning. Writing is the actual writing of the text. Pausing is when writers take a break in the actual writing for the purpose of thinking or for diversion (when the writer takes a break from the actual writing and does something totally different like, playing soccer or drinking tea).

Rescanning – this involves a rereading of words, or sentences, or a paragraph. It is not a rereading of the entire text. During rescanning, revisions are usually made, most of which are single word, multiple words, or punctuation changes. At this time writers might also contemplate what they are writing.

Rereading - when this occurs, writers reread the entire script for the purpose of seeing what has been accomplished, revising and proofreading, and, in some cases, for deciding on a conclusion. In many instances, rereading is done also

for the counting of words. Stopping occurs when students think they have written all they wish to about that topic and for that particular time.

Contemplating the finished product – Writers often contemplate the finished product. The contemplation is most often of quite brief duration.

Handing in of the product – writers hand the finished product to the teacher. (adapted from Pianko 1979: 7-8)

The stages and explanations above as proposed by Pianko can be adapted to suit the writing teachers' and the students' needs and objectives. These stages involve a variety of different techniques or strategies which can be selected by learners depending on their preferences, skills and abilities, also called the "unique composing process" (Emig 1971). The stages that are the norm according to researchers (Zamel 1983; Shih 1986; Geyser 1996; Tessema 2005; Yan 2005) are (1) the pre-writing stage, (2) the composing/drafting phase, (3) the editing and revising stage (4) the rewriting or final draft stage. A crucial issue about these stages is the fact that they are non-linear and recursive (Emig 1971; Flower & Hayes 1981; Zamel 1983). This flexibility and uniqueness of the composing process is supported by Pianko's study (1979: 20) which shows that "the text of a written composition unfolds" and that writing students should never be forced to write outlines if they do some of the composing processes mentally. Pianko (1979: 20) is of the opinion that writing students can consider the first writing of a text as the first draft, which can be added to, taken from or totally re-written without necessarily always having a clear outline of ideas. The fluidity of the process approach allows students to think outside the box in terms of generating ideas, writing, editing, revising, and rewriting. If writing tasks have been set for evaluation purposes, in my opinion, stage four (4) will be the last stage since a final draft - the product – is frequently handed in to the teacher for assessment and evaluation. Students can go back and forth between the stages depending on their needs, which are not the same with each essay. This leads to learners having multiple drafts based on one topic, and a continuous thinking about the topic of the intended product (Liebman-Kleine 1986: 786).

Liebman-Kleine further emphasized the **complexity of the writing process** which encompasses among others, "cognition, emotion, sense of self, sense of others, situational background, experience, development" which all depend on the fact that this is a "pedagogy of difference" (1986: 785). Each writer has a different set of parameters regarding above-mentioned factors (cognition, emotion, sense of self, etc), which indicates that one set of rules

or guidelines regarding the writing process is not suitable for every single writing learner. Each writer is unique, and does not use the same process as the next to compose writing. The dissimilarity in the composing process between skilled and unskilled writers (Perl 1980; Sommers 1980; Zamel 1983) also creates a case for acknowledging the complex nature of the writing process. For example, Perl (1980) found that even though skilled and unskilled writers showed similar behaviour in discovering ideas during the composing process, unskilled writers became pre-occupied with language factors such as sentence structure, spelling, and vocabulary earlier on in the composing process than skilled writers. Consequently, the exploration of ideas of unskilled writers was done at a more superficial level than that of skilled writers (Zamel 1983: 166). The individual variables among writing learners add to the complexity of the writing process as explained by Zamel and Spack (2006: 127): some learners had limited access to academic experiences, resulting in difficulties to adapt to unfamiliar linguistic practices and new classroom customs; others can speak more fluently than write; or there might be opposing attitudes towards the practices of the writing process approach. In acknowledging the multiplicity of the writing experiences of the learners and the complexity of the writing process itself, writing teachers should introduce and/or allow an assortment of strategies and techniques to equip learners to become effective writers. Apart from the variety and sequence of techniques and strategies that can be employed in the writing process, a deeper level of thinking about writing was established when the process approach emerged.

The process approach to writing takes into account that a **multi-faceted thinking process** takes place when composing a text. During the composing process writers do not consistently think only about the writing assignment expected to be completed. The 'composing thoughts' get derailed by distractive thoughts about our lives outside the realm of the composing process. Perl (1980: 363) included a quotation of a teacher which shows the reality of writing behaviour, for instance the teacher who was part of the study explained that while she was supposed to be composing, her thoughts shifted from what vegetables she needed for dinner to the rain outside and back again to comments made by her colleagues in the writing class.

According to Liebman-Kleine, the **similarity between the process approach and academic writing** is useful in the sense that in both the writer has to think about "ideas, self, audience, situation and purpose" (1986: 786). The underlying factor present in both concepts is the ability to "invent, organize, and revise" (Liebman-Kleine 1986: 786) which indicates a

dynamic, generative process. Whereas the process approach assumes that writing is learning, academic writing is done to illustrate students' knowledge and understanding, in other words: their learning. But academic writing also assumes that the writing tasks in the content subjects like Biology, Physics or Chemistry develop learning. Therefore, in academic writing, writing to learn is also reinforced. In brief, this means writing in the process approach assumes the following: writing as a tool for thinking, and thinking how to write. These are vital skills to be adopted by especially tertiary education students who need to display their knowledge and understanding through academic writing.

The deep level of thinking during the writing process allows learners to explore the **generative and inventive nature of composing** (Zamel 1983: 166). This characteristic of the process approach is present throughout all the stages of the writing process, which emphasizes that the final text - the product - is not pre-determined. At the outset of the task of having to write an essay, the learners do not know what to write, as writing is not the result of "the development of some preconceived and well-formed idea" (Zamel 1982: 197). On the contrary, Shaughnessy is credited with illustrating that writing is an instrument that is used to record the ideas that are developing (Zamel 1982: 197). Shaughnessy states that writing in this perspective is seen as "an act of discovery" (Zamel 197). The learners initially generate ideas based on the topic and the purpose of the writing task, the audience, and background knowledge (Zamel 166). In the stages following the pre-writing stage, more ideas may be generated, because writers read and re-read their texts to reflect on what was written and how that contributes to the meaning of the text and the direction of their thoughts (Zamel 1982: 197). Meaning is constantly discovered by the interactive process of thinking, writing, and revising in a non-linear fashion. The actual act of writing assists writers in the generating and invention procedure of composing a text, which guides us to another crucial facet of the process approach to writing: revising and re-writing.

Goldstein and Carr (1996: [1]) view **process writing as highly recursive** as a result of the actions and writing behaviour that include planning, translating ideas into words and sentences, and then especially reviewing what has been written – not necessarily in that order. A number of studies concur with the key notion of recursion (Badger & White 2000; Emig 1971; Perl 1980b; Zamel 1982): "the recursive nature of the writing process … is that writers go back in order to move forward" (Zamel 1982: 197). Murray (1980: 4-5) observed, that the recursive quality creates interaction between the different stages which contributes to the discovery of meaning in a more comprehensive way than a linear model (Zamel 1982: 197).

Flower and Hayes (1981: 374) commented on the recursive nature of the writing process by stating: "The sub-processes of revising and evaluating, along with generating, share the special distinction of being able to interrupt any other process and occur at any time in the act of writing." In addition, the role of the teacher as intervener is emphasized in the recursive nature of the writing process, as the teacher offers guidance throughout the composition process instead "of reacting only to the final product" (Shih 1986: 623). The different strategies or techniques used in the writing process can be viewed as tools to help the writers achieve their goals. The tools can be used at any time and in any order. In reality and based on its recursive nature, the writing process seems like a chaotic, unstructured way of composing, yet, it is believed to lead to writing that is coherent, purposeful and meaningful (Flower & Hayes 1981: 377).

A main aspect in the process approach and in fact, the recursion process is the act of **revising**. Revising or review occurs when the writer re-reads the text for different reasons, either to check the relevance and progress of the content, or the appropriateness of the form and style or language issues. Shih (1986: 630) offered a distinction between two revising strategies: "internal revision" or "revising to fit intentions". Internal revision refers to the content and structure of the written text. Students re-read their texts to determine whether what they have written matches with their intentions. The second type of revision, "external revision" deals with "conventions of grammar, diction, style, and mechanics" (Shih 1986: 631). Review is usually followed by re-writing, which is preceded by generating additional ideas. The reflection activity and consequent action(s) are triggered by seeing the actual ideas on paper. This corresponds with the idea that writers only know what they write if they can see what they write. Writers can only see what is missing in their writing if they read what they have written already. This concept is called "retrospective structuring" by Perl (1980b: 368). Drafting, reading, revising and re-writing take time. Time is a crucial pre-requisite to allow for purposeful, goal-oriented writing that is characterized by the use of recursive writing behavior as well as meaningful review.

As part of the theory of the writing process, **sufficient time** to compose is a keystone. Geyser (1996: 222) referred to time in the following manner: "A process approach requires enough time, which in turn means that the teacher has to plan time and resources very carefully. Spending enough time on the pre-writing phase, but neglecting the rewriting phase because of a lack of time, is unacceptable." She also stated that although teachers and writing learners perceive planning and pre-writing activities as "time-wasting" the activities usually

yield an improved "final product" (Geyser 1996: 231). The characteristics of the process approach to writing (recursive, stages, complex, generative and inventive) indicate that the writing behaviour, which involves meta-cognitive thinking about writing, is a time consuming act. According to Shih (1986: 623) it is crucial that students have "sufficient time to write and rewrite, to discover what they want to say and to consider intervening feedback from instructor and peers as they attempt to bring expression closer and closer to intention in successive drafts".

2.3.3 Arguments against the process approach

In the mid-1980s the process approach was heralded as an approach to writing that yields many benefits. But in the late 1980s Horowitz (1986: 141) argued that discussions about its drawbacks "are almost nowhere to be found" due to the zealous advocacy of the success of the process approach in improving writing skills of learners. Horowitz stated that the process approach has been accepted without looking at it critically, which has resulted in a number of issues which could affect students' writing negatively.

The first issue Horowitz (1986: 141-142) addressed as being overlooked by process approach writing teachers is the fact that the process approach does not prepare the students adequately for writing in the examinations. The reason for the underpreparedness is **the issue of time**. In-class writing activities allow the learner to write multiple drafts. But Horowitz (1986: 141-142) stated that it has not been determined yet whether this approach leads learners to writing essays faster in an examination setting. In addition, the teacher's role in the process writing approach as guide and facilitator and 'being there' for the students who need help might also result in students' higher level of dependence on the teacher. Is that useful in the examinations, where the teacher may not help the student? Furthermore, Horowitz (1986: 142) commented on the variety of writing processes and the fact that "there are as many writing processes as there are academic tasks and that anyone who claims to understand the former had better have a specific taxonomy of tasks in mind." It is not proven beyond doubt that the writing process approach has a beneficial impact on all writing tasks, especially examination essays.

Moreover, Badger and White (2000: 157) asked the important question about the validity of the process approach. Horowitz concurred by asking: "is there **only one process, only one product**?" (1986: 142). It appears that the same sort of composing processes can be used to produce any kind of writing. Very little attention is given to the different types of texts that

need to be produced and even less focus on the purposes of having different texts (Badger & White 157). In addition, very often the social context in which the text is supposed to be written is not regarded at all (Yan 2005: 19). The result of these inadequacies of the process approach might lead to questions among writing learners about "linguistic rhetoric choices" (Gao 2007: [6]) and a possible failure when having to produce texts that are context relevant.

Another issue that was observed by a number of researchers (Rose 1983; Rose 1984; Shih 1986: 627) is that the process approach is particularly useful in the genre of **personal narration** or descriptions. While many of the prewriting techniques and strategies are useful for different types of personal writing, brainstorming and free writing cannot be as successfully applied to all academic writing activities, (Shih 1986: 628). According to Rose (1984: 91) the inappropriate use of free writing and brainstorming might cause "more disorder than order, more confusing divergence than clarifying focus". Shih further contended that if writing students are advised to primarily use their own background knowledge and personal experience in the composing process then the skills of collecting ideas from external sources, interpreting and synthesizing ideas are neglected (Shih 1986: 628). This is true for especially students in the academic field, who seldom receive assignments which require personal experience or opinion. In most tertiary academic courses students are required to complete assignments which involve using lecture notes, text books and other academic materials (Shih 1986: 628). This requires a more abstract type of thinking, something that is far removed from the generic first year writing course as well as the bridging course (FP) in which much of the process-related research was conducted.

Horowritz's critical stance against the absolute usefulness of the process approach claimed by advocates continues when he questioned the activities and behaviours that characterize the beginning of the composing process, **the pre-writing activities**. He mentioned that some writers "do better by producing an outline first" (1986: 142), implying that other writers do not necessarily always need an outline. He also noted that the writing requirements for some academic courses are very prescriptive and often include a rigid structure of points to be included in the essay answer, which leave the writers no choice about different techniques and strategies to include the relevant content. His conclusion about this point is that it is not clear whether the writing process approach prepares students adequately for these tasks (Horowitz 1986: 142). According to Rodrigues, (1985: 26) the pure application of the process approach is "artificial", because students need structure, models, instruction with regard to mechanical skills, time to generate ideas, write and revise and consider purpose and

audience. These issues need to be explicitly taught and not left for students to figure out, especially when students enter a new academic environment with requirements regarding a **"rhetorical community**" (Purves 1986: 39) in a specific discipline. Swales (1986) feels that the process approach does not prepare the students adequately for the expectations regarding **writing in reality** where the audience is conversant in the genre of his/her respective discipline (Horowitz 1986: 446). In the same vein, Horowitz also claims that the process approach does not take into account the external factors that cannot be manipulated by the writer "which define, shape and ultimately judge a piece of writing" (Horowitz 1986: 446).

Horowitz (1986: 143) also believes that a pure application of the process approach is "**too soft**" in the sense that students get false expectations when their work is **peer-edited**. Although he believes in the value of peer-editing as students can learn from each other, he also states that the reality of academia does not work that way. The humanistic approach does not do justice to the rigor of examination marking of essays, where markers focus on the product and not the student. Badger and White (2000: 157) remarked that teachers using the process approach to teach writing, in trying to be humanistic and student-centered, fail to give enough input regarding linguistic aspects, different types of texts (genres) and purposes for writing.

Horowitz (1986: 143) argued against a pure use of the process approach because it colours the application negatively by suggesting that any other approach is wrong (Caudery 1995: [2]). Horowitz also commented that the essence of the process approach has been reduced by its confrontational slogan: "Process, not product" (Caudery [2]).

2.3.4 Research: process approach in Application

There are three research methodologies relating to research of the process approach to writing. One focuses on the actual process that writing learners use when composing. This means researchers gave learners topics to write about and then they observed how the students went about composing. Learners also kept journals to record their composing process. And their 'think aloud protocols' during the process of composing were recorded on a tape recorder. Another examines whether the process approach has affected students' writing abilities in a positive way. These studies determine whether students would have improved writing skills and consequently have better marks when using the process approach to writing. A third, more unfamiliar methodology, is that of determining "the ease or difficulty of implementing this non-traditional approach in the situations in which individual

teachers find themselves" (Pennington & Cheung 1995: 22). The focus here is on how teachers cope in different circumstances when actually applying the process approach to writing.

The teaching contexts of the studies reported on here differ in terms of geographical location and language background of research subjects as well as teachers and/or researchers. All the studies reported on here refer to teaching contexts outside of Africa. Most studies were conducted in the United States of America (USA), a mainly English first language speaking country. One study reported on here was done in Hong Kong, where English is presumably an additional language, like in Namibia. The subjects of the studies described in this section are mainly from cities, whereas my study is in the rural areas. Most students in Namibian schools and tertiary institutions use English as their additional language even though it is the medium of instruction. Unfortunately, no Namibian research could be found involving the application of the process approach.

2.3.4.1 Sample studies based on the actual composing process

Zamel (1983), Flower and Hayes (1981) and Perl (1980) did research on how students actually compose using some or all process approach techniques proposed as beneficial for essay writing activities. Brief summaries of two other research studies into the composing process with regard to the process approach are presented here, followed by a more comprehensive description of Pianko's research study on the effect of process approach instruction on students' writing strategies and techniques.

Zamel (1982: 199-201) did a study at the University of Massachusetts, Boston with eight ESL students. He described a case-study that investigated the extent of attention spent on correct language and form, how students generated ideas, what happened after students had recorded the ideas and what their writing experiences were. He observed eight proficient ESL students. The experiences and writing behaviours of these students were recorded. He found that students benefited from classroom discussions about the writing topic, reading and note taking strategies to generate ideas, notes and outlines, thinking and re-thinking of ideas, using a great deal of time to write and re-reading and changing if dissatisfaction is felt with the text. They felt that writing was 'painful' but had a great sense of accomplishment when they finished and felt satisfied with their efforts.

Urzua (1987) did a study in the southwest of the United States of America to determine what effect certain process approach instructions had on the children's composing strategies and

secondly "the ways in which the children used the processes to write more effectively" (281). She used four children from two different schools and tested how children were prepared to help each other, and what effect having the knowledge of an audience will have on their writing. She found that the children helped each other in the revising process when they read their pieces to each other, gave peer responses and feedback, and drafted and re-drafted until they got tired of the project and started a new one. What culminated from that was a sense of audience, a sense of voice and a sense of power in language. The main conclusion of this study is that revision done in different ways and also by different people has benefits for the composing student and results in improvement in certain areas like manipulating language to suit the audience and the purpose of the text.

While an in-depth analysis of the research about the actual composing process is outside the scope of this study, the study reported on by Pianko (1979) will serve to represent this research. The information above indicates that research into the composing process shows that the process is non-linear, recursive and complex, and requiring metacognitive skills and behaviour, but a study by Pianko (1979) revealed that college freshman writers seemed less concerned with some of the issues regarding the process approach. Pianko (1979: 6-7) selected 24 students from a freshman composition course at a community college in rural New Jersey. She selected the students based on 3 categories: class status (traditional versus remedial), age (under 21 versus above 21), and gender (male versus female). She managed to get 12 students above 21 and 12 below 21, 12 traditional college freshmen and 12 remedial, and 12 males and 12 females. Seven students dropped out during the course and the remaining subject population was from an economically mixed group. The research lasted for 5 weeks and students were given one writing assignment of 400 words each every week. They received the assignment in the morning and it had to be completed by the same afternoon. They were allowed to take as much time as necessary within the parameters of the same day of receiving the assignment. The assignments ranged from narratives to description, argumentation and exposition. The studies showed that even if students got expository or argumentative topics, most students (55%) wrote in the narrative. The researcher observed and video-taped each student at least once and the students were interviewed on their composing behavior after each writing episode. The questions covered topics based on the students' writing behavior, and their feelings and attitudes during the writing session to determine their level of self-awareness and reasons and causes for the individual writing behaviours. The first surprising finding was that students did not make use

of the maximum time-limit they were given to compose the essay. Despite the time that students had to write the essay, they seemed to be unmotivated to commit. Students spent less than two minutes on pre-writing activities (Pianko 1979: 7), their composing time was 41.61 minutes for males and 35.75 minutes for females. The re-reading activity took them on average 3 minutes as did the revision activity. Pauses lasted on average 16 minutes (Pianko 1979: 7). The reasons could relate to the fact that students had to remain in the class while composing; they were not allowed to finish the essay at home. This was done for better control measures by the instructor. According to the students they did not have enough time "to regroup their energies and thoughts, therefore they merely attempted to complete the assignment in some expedient fashion and 'give the teachers what they want'" (Pianko 1979: 9-10). This dilemma had two sides: if instructors allowed students to write at home, friends or family members might have been contracted for help and instructors would not really know whether the final product reflects the students' real ability. On the other hand, it would be beneficial if students were allowed to complete the majority of the writing at home in their own environment with a more relaxed atmosphere and less pressure.

A second contradiction relates to the fact that not all students need to write a detailed outline before attempting the first draft. In Pianko's study (1979: 9), students started writing without having an outline and without a clear idea of what they would write about. On the contrary, it seemed that the most planning occurred while students were writing and it happened mentally.

Thirdly, Pianko found that poor writers' experience of the writing process seems to be incomplete in the sense that they get instruction on grammar and usage, but not much on the actual composing process. They basically do not know how to compose, they know very little about re-reading and revising in terms of content and stylistic issues. They lack the ability to reflect on what was written before. If poor writers do attempt any of the strategies that are used in the re-reading and revising process they do it for a much shorter time than stronger ESL writing students (Pianko 1979: 11).

In addition, in Pianko's study (1979: 10), students chose to write only one draft. This stands in contrast to the one feature of the process approach: writing multiple drafts. Students cited having to write the essay in class resulted in writing only one draft, and that they would sometimes write more drafts if allowed to write at home. The word number limit was also a contentious matter and students would often stop to count words to measure how much more

they would have to write. If they were close to the allocated word number they would then write one or two more sentences to conclude the essay.

To summarize these observations by Pianko, it seems that when students were requested to write the essay in class time, they did not go about the process as critically and reflectively as expected. They claimed that they would have been more critical and reflective if they were able to write the essay at home. Students indicated that at home they would have been able to seek out diversion after a certain time of composing and then return to the essay again at a later stage to continue. It seems therefore that having to write the essay at school was an inhibiting factor relating to the composition process.

On the other hand, Zamel (1983: 181) commented on the effectiveness of the process approach by linking the effects to certain beneficial outcomes. Even though the study did not gauge the improvement of students' writing skills per se, he states that through his study of and research into the composing process he found the process approach allows students to explore ideas based on a topic, to solve problems as they proceed in the process of writing, to evaluate and value the content which gives meaning to their own writing, to incorporate their own voice in their text, and to have a dynamic relationship between writer text and reader. These features aim at making writing students more autonomous, confident writers, an aim of most writing teachers.

2.3.4.2 Studies based on the effectiveness in improving the writing skills based on the process approach

Ho (2006: 4) reported on a number of studies focusing on the process approach to writing. She mentioned that Goldstein and Carr (1996) conducted a study in America based on the 1992 NAEP writing assessment which involved about 7000 grade 4 learners, 11 000 grade 8 learners and 11 500 grade 12 learners. The findings of the study indicated a strong relationship between the process approach to writing and writing proficiency.

Another study reported on by Ho (2006: 4) refers to the findings of Jacob and Talshir (1998). The study was conducted in the grade 4 and grade 6 classes of the Pisgat Ze'ev Bet School in Israel. The process writing approach was adopted and the findings showed that the learners "developed into active, independent writers" (Ho 2006: 4).

Mahon and Yau (1992) also implemented the process approach to writing in a primary school class of thirty five learners, who have improved their writing ability as a result. Pianko's

study (1979: 21) reported on the composing process and behaviour of college freshmen writers and although she did not mention any improvement in students' writing grades, she conveyed the message that a "definite, prescriptive writing programme [can] enrich students' composing processes".

A 6-month observational study was conducted by Urzua in 1987 in the northwest of the USA to determine the effect of the process approach to ESL writing. It was a small scale study involving two Grade 4 learners and two Grade 6 learners. Urzua intended to find out whether "aspects of process writing instruction which had been demonstrated by Graves (1983) to be efficacious with children and by Flower (1981) to be effective with adults" (Urzua 1987: 281) would be effective with the 4 ESL writers. In addition, they also set out to find how the learners used the process approach to write more effectively. Urzua was particularly interested in determining how the learners might help each other and "what effect having an audience for their written work might have on their reading and writing" (Urzua 281-282). Their writing was not restricted to class time only and learners did revising, peer response and feedback. Learners also did dialogue journals in which they could write anything that interested them, and Urzua's co-researcher read the journals and sent them back in time for the following week's entry. The data indicated a development in the learners' writing in terms of the following: sense of audience which was linked to the peer response and to the co-researcher's response of the dialogues; the revision process was developed also as a result of the peer response activity; and meaningful revision during which learners added information and changed the sentence structure (Urzua 1987: 283-288). A second aspect that was influenced by the process approach to writing was the learners' sense of voice, which relates to how an idea or a concept should be said "to an audience of another culture" (Urzua 289). Voice indicates the uniqueness of each writer, and in the study this became more developed as the learners progressed with their writing and showed more confidence in their own style. The study thirdly showed that the learners' sense of power in language increased. Through peer discussion and revision of their written texts the learners managed to manipulate the language and change the information as they started feeling more confident to use new language forms and learn new vocabulary to express their ideas more accurately.

Tessema (2005) also commented on the usefulness of the process approach when he gave 45 Ethiopian advanced English students problem-based writing tasks. Tessema introduced a writing project to his students which proved to be successful in terms of motivation to write, adding confidence about the students' own writing abilities, a higher level of independence in

writing activities, authentic audience and purpose for writing, helping each other and generating ideas in different ways. Tessema's study at the Alernaya University in Ethiopia indicated that students' writing abilities did improve and had further positive implications on their next writing projects.

2.3.4.3 Studies based on the ease or difficulty of the implementation of the process approach

Pennington and Cheung (1995) addressed the issue of how eight teachers of secondary schools in Hong Kong managed to adopt the process approach in their writing classes. According to Pennington and Cheung (1995: 16) any educational change or innovation affects contextual issues like culture, politics, administration, education, institution and finally the class room, since change does not occur in a vacuum. In addition, personal teaching philosophies and style also have a bearing on how readily change is accepted and implemented. If an intended change is perceived as challenging the existent issues mentioned above, then the agents to adopt and implement the change might be resistant. On the other hand, should the agents perceive the change as beneficial, the adoption and application of the innovation would be accepted more willingly. The study indicated various levels of knowledge and understanding of the process approach, a disparity between teachers' ideal teaching situation and outcomes and the practical reality in the class room, and a difference in levels of enthusiasm to introduce the process approach. Another observation was the matter of compatibility which indicated a level of difficulty in implementing the process approach due to learners' "low language proficiency, previous product writing experience, inability or unwillingness to follow new approaches, and concern about public examinations" (Pennington & Cheung 1995: 28). The authors indicated that although these issues were valid the problems were not insurmountable, but that they needed addressing in terms of teacher training in the process approach. Teachers should also be involved in the problem solving process since they know and understand the teaching and learning situation and the constraints the best. The final outcome of the study revealed that the Hong Kong teachers felt the move towards the implementation of the process approach would be beneficial but not without obstacles in terms of syllabus design, available materials, classroom situations and teacher and learner attitudes.

2.4 MODELING/IMITATION APPROACH

> The instinct of imitation is implanted in man from childhood, one difference between him and other animals being that he is the most imitative of living creatures, and through imitation learns his earliest lessons, and no less universal is the pleasure felt in things imitated. (Aristotle 1895: 5)

2.4.1 What is the Modeling/imitation approach?

Imitation and modeling were recommended as effective tools in ESL writing instruction (Stolarek 1994: 154). Over the years these two concepts have been named differently by various ESL rhetoric and writing theorists, for instance the Sample Approach (Harwood 2005: [1]), Prose Modeling (Stolarek 1994: 154), traditional formal approach (Coe 1987: 14), model-based tradition (Watson 1982: 6) and then the more common names: imitation approach (Butler 2002; Farmer and Arrington 1993) or the modeling approach. There are subtle differences among the theoretical characteristics and parameters and the application of the modeling/imitation approach based on the perspective(s) of the authors, but in general the understanding is that model texts are used as input to acquire and/or improve ESL writing skills.

Farmer and Arrington (1993: 13) stated that imitation in ESL writing is an intangible concept since there are so many varying meanings attached to imitation in the area of writing as well as other fields of inquiry, like Psychology. Their **definition** however, serves the purpose of explaining how imitation is viewed in the context of this current study: "Imitation is the approximation, whether conscious or unconscious, of exemplary models, whether textual, behavioural or human, for the expressed goal of improved student writing" (Farmer & Arrington 1993: 13).

Bender (1993) reported extensively on the **history of imitation** as a tool to learn effective writing. The principle of emulation in education and other sectors of human behaviour has been recognized and applied since ancient Rome (Bender 1993: 120; Watson 1982: 5; Jones & Freeman 2003: 169). Flanigan (1980: 211) explained that rhetoricians have used modeling and imitation "as far back as 3,000 B.C. when the Sumerians had students keep 'copybooks' to imitate works central to their culture". He mentioned Cicero and Quintilian as strong supporters of imitation and modeling to consummate content, form and style. Farmer and

Arrington (1993: 12) describe the influence of well-known authorities in the field of imitation on different educational areas, for instance Plato, Erasmus and Blair. In addition, Irmscher (1976) and Winterowd (1975) have been reported to perceive models as an integral part of writing instruction of especially novice writers (Flanigan 1980: 211).

The pivotal position of imitation as tool in education and specifically writing instruction has undergone various changes as a result of the inevitable evolutionary character in philosophies, theories, applications and evaluations "In the last few decades, however, we have witnessed dramatic changes in how we look upon imitation – changes largely influenced, we think, by the 'process movement', with its various emphases on invention and revision, expression and discovery, cognition and collaboration" (Farmer & Arrington 1993: 12).

Stolarek (1994: 155) and Flanigan (1980: 211) reported that the use of imitation in writing classes has never ceased: "The use of models has not decreased by any means today." Flanigan (1980: 211) further explained that curricula and books are written in such a way that novice writers have models which they can use to improve their writing skills. Watson (1982: 5) confirmed this perspective even though she does it with a sense of skepticism: "it is still assumed that the study and imitation of a model, a sample of writing that is by definition successful, is a valid means of helping students to learn to write in their first or second language".

Other scholars (Butler 2002; Bender 1993) believe that the imitation and modeling approach, or certain aspects of it, has to be re-introduced. The word "re-introduced" implies that the imitation approach has been abandoned for another writing instruction approach, the process approach. Nevertheless, it is interesting to see that the debate is still going on and history is still in the making. Knowing that debates create more questions encourages us to look at whether and why a technique or an approach might be useful in our own ESL writing instruction situations. This has indeed happened in the ESL writing instruction realm and many questions were asked about the imitation/modeling approach. Questions are usually linked to analysis, examination, assessment and evaluation which results in either approval or objections. Scholars analyzed and examined the imitation/modeling approach to teaching ESL writing and a number of these scholars found objections against this approach, whereas others still believe in the beneficial nature of the modeling/imitation approach.

Most of the scholars quoted here (Bender 1993; Farmer & Arrington 1993; Flanigan 1980; Harwood 2005; Kim & Kim 2005) seem to agree on the beneficial value of the imitation approach. They, nevertheless, reported on other scholars who had refuted the positive claims of the imitation/modeling approach as a useful ESL writing instruction strategy (see 2.4.3).

2.4.2 Features of the modeling/imitation approach

Jones and Freeman (2003: 169) attest to the useful position of imitation and modeling in the general learning process in informal or educational contexts. Bender's key point regarding imitation supports the view of the **usefulness of imitation** in writing practices: "I wish to argue that certain 'ancient' writing practices can enhance a widely recognized need to make writing instruction truly democratic, aware of and responsive to culturally diverse audiences within our national life" (Bender 1993: 108). Bender argued further that writing as part of language training using imitation as tool can be real discovery writing when discussions in classrooms about contemporary issues like marriage, fame, the "generation gap", or other issues have taken place (Bender 1993: 110). This view strengthens the notion of flexibility and that imitation and modeling as tools do not restrict the teacher and learners to write about a teacher-initiated topic only. Speaking and reading activities before, during and after the actual writing are encouraged by Bender (1993: 110) and Spencer (1982-1983: 43). Bender's (1993) argument focuses on oral discussions about content, whereas Spencer explained how reading the same narrative in four different styles exemplified the meaning of style. In addition, Harwood (2005) commented that, what he calls 'The Sample Approach', is economic and efficient especially in situations where a number of different essay genres need to be written over a short period of instruction time by inexperienced writers.

Watson (1982: 6) offered a qualified case for modeling/imitation in ESL writing. She does not deny the value of models as strong "input", but she questions the extent to which models can become "intake". Her justification of models also refers to the choice of an effective model, using model-based tasks and exercises and using the product within the process approach. This position counters the fears of the critics who perceive that there is very little flexibility (Kim & Kim 2005: [3]) in the modeling/imitation approach. In fact, writing instructors can decide when and how they want to introduce the model and for what purposes. Models do not necessarily have to be placed at the beginning of the teaching and learning sequence. They can be used if and when the need arises and for the purposes that students need the models. Butler (2002: [2]) and Gorrell (1987: 53) commented on the usefulness of the imitation and modeling techniques: both feel that imitation and modeling is particularly

useful for beginning writers who do not have enough experience or skill regarding the use of words, sentence structure, the structure of paragraphs and entire essays in general. Therefore the reading of examples and models is widely encouraged among imitation/model advocates.

Reading various examples and models often precedes discussions in the classroom, as Butler explained: "I found that these sample 'themes' helped me give form to my ideas, to construct essays that were organized, clear, and coherent" (Butler 2002: [1]). According to Ferris and Hedgcock (1998: 34) and Abe (2008: 14) reading models and examples enhances the writing ability of students since it is difficult for additional language learners to acquire and/or improve the writing skills by writing only. This perception is challenged by Watson's remark that we do not know how much "input" (reading) becomes "intake" (effective application), since we have inadequate knowledge of how the transfer between input and intake works. On the one hand, Watson (1982: 6) expressed her doubts about models: "How far can study and analysis of these products strengthen students' understanding of how good writing is actually made, let alone help them to produce some for themselves?" On the other hand, she recognized the value of models as examples by stating that writing teachers and students can use models as a "resource and support, stimulus and guidance, experience and reassurance" (Watson 1982: 6). But, Watson answered her own questions by explaining that if models and examples are used creatively and analytically at various stages throughout the writing process, they can prove useful to improve students' writing (Watson 1982: 7). In her view, the positive impact that reading has on writing cannot merely be dismissed. The positive link between reading and writing in the writing instruction class is emphasized by Ferris and Hedgcock (2005); Gay (1921); Watson (1982); Jones and Freeman (2003) and Farmer and Arrington (1993).

Bender (1993: 111) agreed that extensive reading of a variety of models allows writing students to "activate the writer's *own* personal interests and emotions", and Butler believes that form and content are inseparable (2002: [2]), which allows the writer to acknowledge that time, audience, and place are reflected in writing. Bender emphasized the importance of reading with regard to writing and that imitation can enhance "social awareness and formal technique" (1993: 123). Shih (1986: 622) agreed that especially nonnative writers benefit from using models that show rhetorical conventions, display principles of organizing ideas in academic discourse and illustrate patterns in certain genres of academic essays.

Flanigan (1980: 212) implied that when students read models and examples they move backward in terms of determining how the writer arrived at the product, identifying effective features and techniques and considering how the writer manipulated content to form a meaningful, effective essay. This leads to the choice of model texts as an illustrative tool in the modeling/imitation approach.

According to Butler (2002: [3]) "composition teachers [should] teach students what we expect them to write". Writing instructors at any level of education should avoid assuming that students know what to write and how to write, but they should also bear in mind that models might lead students to merely "ape" the model and become "stuck with nothing but the ability to ape" as warned by Flanigan (1980: 214). Writing instructors should always keep in mind that the model is a "bridge to uncovering the individual writing talents in each person" (Flanigan 1980: 214), and therefore an over-reliance on models is not recommended. Illustrating the writing expectations by means of examples is a valuable strategy to encourage students to write effective essays. It is therefore crucial to select a model that is directed at achieving the aim of the writing activity. **The choice of model essays** depends on factors such as the objectives of the course, the interest, culture and educational level of the students and the accessibility to resources. It is preferable that instructors choose authentic models rather than write texts to use as examples, but in some cases the latter has its advantages as well (Watson 1982: 7). The criteria for the model texts (whether authentic or specially written) should be of such a nature that the texts illustrate the thematic content as input for ideas, rhetorical features, structure, and linguistic aspects (lexical and syntactic considerations). It is often difficult to find a text which explicates all the requirements to the same extent, and then a text that fits the objectives of the genre closest should be chosen. Students can then identify that gap in the illustrated requirements of the text. The purpose of showing the model is that students become familiar with how a certain text is written in a specific genre, for a specific purpose, preferably a text that is realistic in nature, something which they will be required to do in their further studies (in the case of this study) or in the working world. It is important to choose models which exemplify the "communicative functions" (Watson 1982: 7) prescribed by the objectives of the course. It is said to be even more desirable to have more than one model on one theme or genre to expose students to multiple choices which might lead to a deeper understanding of the concept in question or the rhetoric, structure and linguistic quality and features (Bender 1993: 119). Hudson (1991: 87) proposed criteria when choosing model texts: the materials must be current and

contemporary; the materials should be relevant to students' background knowledge; the length of the text should be realistic; the language usage and grammar should be suited for the purpose of the objectives; students should be able to follow arguments; and subtitles, divisions, graphs, tables and illustrations are beneficial but not obligatory.

Analyzing examples and model texts: Reading of models and examples should be an active activity and therefore analyzing the characteristics and features of texts is encouraged (Bender 1993; Butler 2002; Connors 2000; Delpit 1995; Farmer & Arrington 1993). If students read and analyze models, they are exposed to content, genre, style, lexical, syntactic and structural features which all contribute to the cohesion and coherence of a specific text (Watson 1982; Jones & Freeman 2003; Swain 2002). Students can see why a specific text is effective in its communication of meaning and use the features as objectives to write parallel essays. Analyzing models encourages the student writers to become analytical and critical when reading texts. In addition, if these activities encourage students to become analytical and critical of their own writing, they will become more independent learners. The success of the analysis activity partly lies in how effective the model is which the instructor has chosen and to which extent the model relates to students' background knowledge about the concept, their environment, culture and socio-economic experiences. The analysis of a text should be instructor facilitated at the onset of the writing course, because it is very possible that students do not know how to analyze a text. Students need to be prompted and can discuss the prompts in pairs or in groups as a collaborative activity. After a few instructor facilitated analyses, the students should know what is expected of them and should be able to analyze the text independently.

The focus on form, style and rhetoric is frequently referred to in literature about imitation and modeling. Flanigan (1980: 215) offered constructive advice about this issue. He explained that models should be used as problems arise among student writing. The model should be directly related to the students' social or intellectual problems which need solving. Then the model would be used as a dynamic, actual tool to solve writing problems. This would then mean that student motivation and personal input are not necessarily negated by the modeling/imitation approach. In fact the interaction between the model and the student becomes purposeful and intentional.

Rodrigues (1985: 26-27) challenged the arguments against focus on form: "[Students] need structure, they need models to practice, they need to improve even mechanical skills,…".

Flanigan concurred by saying that models in the pre-writing stage help writing students to discover ideas, and the active interaction between writer and reader (writing student) "unlocks the creative process" (Butler 2002: [6]) when students manipulate the text. According to Coe (1987: 20) form has generative power only if it encourages an information search, but it limits the exploration of more information that does not fit the form. The focus on form provides a type of rhetorical apprenticeship to inexperienced writers and it is believed to help students to find effective ways to express themselves in a structured way. Coe agrees with this standpoint:

> … the traditional formal approach essentially taught good form. It answered, formally, the question, 'What is good writing?' Because it radically dichotomized form from 'content', its answer emphasized structure, even the proper structures for term papers, business letters, resumes – all that Winterowd calls 'dismal stuff'. (Coe 1987: 14).

Even though Winterowd (1975: 163) showed his aversion to form he has, however, also acknowledged the importance of form,"…the concept of form in discourse is utterly fascinating, for it concerns the way in which the mind perceives infinitely complex relationships. The way, indeed, in which the mind constructs discourse" (Coe 1987: 13). Purves (1986) asserted that the process of learning and teaching is "acculturation", when the students are lead to the "interpretive community" of any discipline, which in turn has its own "rhetorical community" with certain distinctive conventions and requirements (Horowitz 1986: 446). In essence this means that each discipline, including academic writing in ESL classrooms, has a unique rhetorical community. The features and characteristics of these unique rhetorical communities are meant to be adopted and "absorbed" by students of that community by exposure to what to write and how to write. The focus on form, style and rhetoric may result in improvement in their writing. Coe (1987: 16) urged that "form" should not be seen as the evil opponent of "content". Form stands in relation to content as form gives meaning to content in terms of context and without form content becomes "unknowable" (Coe 1987: 16). Based on Richard's explanation in Coe, a lack of form in ESL writing might lead to a breakdown in understanding meaning and intention. We have a shared "schema" of how texts look (poems, songs, dialogues, abstracts, narrative essays, newspaper reports, etc.), and these schema contribute to the effectiveness of meaning-transfer. Coe (1987: 17- 19) made a very strong case for the relevance of attention to form by stating that knowledge of formal patterns enables students to communicate more effectively,

whether they read (models: receptive) or write (their own essays: productive). He contended that when writers and readers use the same form, understanding is a given. The generative characteristic of form allows student writers to look for information, to be creative and communicative and to fulfill the social purpose of the specific essay that is dealt with at a certain stage. Coe argued for two implications of the emphasis on form in the imitation/modeling approach: form should be explained in relation to function, and as the world develops and new writing needs arise, new forms should be invented (Coe 1987: 21). Form, rhetoric and style and the new discourse family cannot be divorced: students have to be conversant in the writing genre that is expected of them to succeed academically in a specific discourse family. Therefore focus on form should not be regarded as unworthy.

Imitation also acknowledges the **impact of our environment, our culture, our parents and our childhood experiences** on our writing efforts (Bender 1993: 113). Bender called these issues 'life' models that enter into the classroom subconsciously and states that they have a crucial role in our writing attempts (Bender 113). In practice this would mean that we have internalized models about many issues and concepts in life and we measure each new experience with what we have known before. If the experience was positive or if the knowledge is beneficial, then we model it in order to get a positive outcome in a new experience. If the experience was negative we seem to want to avoid it in future, but we still have a model which we use to measure new experiences against. Learning effective writing skills may be based on the same principles. If we show students a variety of models and discuss the content and identify why the models are effective, students should have access to "rhetorical and moral multiplicities" as well as "linguistic and cultural diversity" (Bender 1993: 115). Quintilian commented on the advantageous nature of imitating a successful invention (in Bender 1993: 119): "And it is a universal rule of life that we should wish to copy what we approve in others".

According to Bender **an imitator is actually a synthesizer** who constructs new discourse based on information and structures from examples and models, who adapts and/or adopts features of the original text (1993: 119; Watson 1982: 7). He explained that Quintilian compared the imitative writing process with the digestive process, where eating is compared to reading different types of texts, chewing is related to thinking about all the aspects of the text and getting familiar with those aspects. An important part in the next stage is what Quintilian calls "dialysis: rhetorical nutriments are split from unwanted detritus, and as this separation continues, the model disappears, becoming a set of stylistic and intellectual

materials from which the new writer's commitments, interests and stylistic preferences will be written" (Bender 1993: 121). Pincas (1982a: 22) agreed with this notion by stating that when students reach the stage of independent writing their initiative is used by them to generate a text that is eventually their own. This ultimate aim of the imitation writer, to become an independent and individual writer with the help of models and examples, is underscored by Butler: "Using the writing of others to teach writing can yield effective and long-lasting benefits that give students the confidence to write convincingly on their own" (Butler 2002: 3).

2.4.3 Arguments against the modeling/imitation approach

According to a number of scholars imitation and modeling have been relegated to teaching techniques that belong to the past (Bender 1993; Butler 2002; Farmer & Arrington 1993). The reasons for this occurrence range from the perception that imitation equals plagiarism (Jones & Freeman 2003: 168) to the view that imitation stifles the inventory nature of the writing process or, that students produce "artificial" (Watson 1982: 6) essays. Butler (2002: [2]) and Bender (1993: 109) alluded to the fact that imitation and modeling are product approaches, which was viewed as an undesirable approach in writing instruction. Gruber (1977: 496) commented on the effect that the imitation approach to teaching writing might have on the students' opinion of themselves. He mentioned that imitation might result in a feeling of initial suspicion and inferiority among students, as imitation might be a totally unfamiliar approach to them. He went as far as to say that to the inexperienced and less confident writer, the imitation approach might seem self-destructive if students believe that they are not good enough to produce an original piece of writing without the help of models. Therefore the use of imitation and modeling was ceded in favour of other techniques that were deemed more useful and in the process approach which followed the product approach.

Critics comment on the fact that imitation and modeling is static and unthoughtful, artificial, it lacks originality, it is mindless, repetitive, and anti-intellectual (Flanigan 1980; Harwood 2005; Kim & Kim 2005). Models are also viewed as a mental aid used by those writers who have a mind that is "careless, unexacting, and unable to manage complex systems of abstract representation" (Pemberton 1993: 40). Using models to teach writing is often perceived as an inferior modus operandi and does not result in true scientific thinking (Pemberton 1993: 40). The implication is that the approach is said not to address the cognitive and meta-cognitive processes that occur during the writing process, and according to the critics it stands in opposition to the process approach which encourages originality, individuality, and invention.

According to Bender (1993: 109) "Imitation is stigmatized by the sign of its origin. An 'ancient' kind of composition instruction, imitation subordinates individual talent to the unsavory goal of standardized, hence derivative, fluency." Imitation as part of the product approach is further criticized for its focus on one draft only, constant error correction and very little student motivation (Yan 2005: 19). In addition, student involvement is relegated to attention to superficial form and syntax and therefore rhetorical drills (Flanigan 1980: 214; Nordin & Mohammed 2006: 76). Nordin and Mohammend view this approach as teacher centered "as the teacher becomes the arbiter of the models used" (2006: 76). The teacher initiates the writing, so writing is not viewed as a "need" by students to say something that relates to their problems, ideas or concerns in a form and structure that they have found to suit the content of their writing. Rather students are given forms, structures and linguistic rhetoric which have to be used to convey their ideas. This is viewed negatively by Flanigan (1980: 214) as he believes that the actual purpose for writing and the process of problem solving are negated by the product approach. He mentions that the product approach and therefore imitation is like "playing with a puzzle or performing an exercise" (Flanigan 214).

The focus on form, style and rhetoric is frequently referred to in literature about imitation and modeling. Critics disapprove of the focus on form, stating that the emphasis on grammatical accuracy, and structure negates the importance of content and the ability to invent, to create something new and unique (Flanigan 1980; Harwood 2005; Kim & Kim 2005; Pincas 1962). Shih (1986: 622) contended that requiring students to start the writing process from given patterns that need to get topics and content is to reverse the normal writing process. Then the importance of purpose and audience and the inventive and generative nature of writing are disregarded. Similarly, Pincas and Flanigan questioned the place for student motivation and the search for truth and real experience in the modeling/imitation approach if the focus is on form. Flanigan (1980: 214) also reported that the focus on form overlooks the fact that students write better when they write about a 'felt need', their concerns or interests. When students have to 'solve a real problem', writing becomes purposeful and has a true, realistic intent. But with the imitation/modeling approach students are merely "figuring out its parts or shapes" (Flanigan 1980: 214) to solve the problem, like building a puzzle. Bender (1993: 109) also reported an objection to the focus on form by stating: "…classical writing pedagogy is seen as formalism, and organizing schemes, rules and formulas. Imitation is seen to commemorate ideal structures and desired consummations, which, frankly, do not guide students in their inner exploration of possible meanings." In the same vein, Spack reported

that Horowitz's limited survey of real university academic writing assignments that students needed to complete, indicated that students were not asked to "start form patterns and produce essays to fit them" (1988: 31).

Boyd (2006: [2]) provided a totally different perspective as argument against imitation. He comments that university lecturers assume that students want to be part of a discourse family that is based on the language that is used in academia. And, if students through imitation successfully manage to enter the privileged discourse family, they can write from a position of power and knowledge. Boyd questioned that assumption: do students really want to be part of a distinguished discourse family or do they have other motives for writing academically well? He believes that students come to university to get a degree which would result in an economically profitable job for them. Students perceive their writing instructor to be the person who has to provide them with skills to reach their goal (a degree which leads to a job). When students do not get the results they had hoped for in their writing assignments, they do not complain that they have not been assimilated into a new discourse community. Instead, they complain because the writing instructor has failed to supply them with the skills to reach their pragmatic goal. In addition, the role of the teacher as model to be imitated was also drawn into question by Boyd. He criticized the claim that students want to be like their instructor, even take on their identity, when imitation is used as teaching strategy. The problem with that is that the instructor assumes the role of power and authority and that the students' identity is subsumed and surrendered to be replaced by that of the desired model (Boyd [3-4], Sullivan 1989: 18). Sullivan also commented negatively on the instructors' use of a text as model to be imitated. He mentioned that if writing instructors recommend models as examples they actually demote their ability to teach students how to write and with that admit that they do not know every aspect of the writing process (Sullivan 1989: 18).

To conclude the arguments against modeling/imitation, Sullivan's conviction must be mentioned: "They, or perhaps I should say "we", came to think that our primary goal was to help students find their own voices, and so it seemed ill-advised to recommend that they imitate others, a practice that obviously produces conformity" (Sullivan 1989: 17).

2.4.4 Research: modeling/imitation approach in Application

Stolarek (1994: 155), Bender (1993:118), and Flanigan (1980: 213) reported that there exists a distinct lack of accurate recent research on the use of modeling and imitation as a technique to improve writing skills. In the Namibian context there is no existing research of which I am

aware. According to Flanigan and Stolarek, referring to studies conducted by Mills (1967) and Wheeler (1978), the research that was indeed done on the usefulness of models as examples, seemed to be of a confusing, inconclusive or questionable nature. Very few post-2000 texts on the application of the modeling/imitation approach are available. This occurrence is probably as a result of the emergence of more eclectic approaches in teaching writing. Stolarek conducted her own study at Ferris State University, Michigan, USA, to determine whether prose modeling would have a positive effect on the writing skills of expert and inexperienced writers. Her findings illustrate that the students who more consistently used the model examples also showed most improvement in their meta-cognitive skills and were "most successful in completing the study" (Stolarek 1994: 157). She requested 143 college freshmen (all volunteers) and 21 university composition instructors to produce a text based on an unfamiliar prose form, the "modified chosisme". The students were categorized into five groups. These groups received five different instructions for producing their own writing, as illustrated below:

- Group 1: Description Only
- Group 2: Model only
- Group 3: Description/Model
- Group 4: Model/Explication
- Group 5: All Items (Description, Model, Explication).

The student essays were marked by two English department graduate students and various tests were done. The outcome was that students who followed the Description Only approach scored more or less the same marks than the students in the Model Only group, whereas the faculty members had a higher score for Description Only than in the Model Only Group. But the students in the Group 3 and 4 scored higher than both Group 1 and 2, while the faculty members of Group 3 scored higher than Group 4. Finally though, students and faculty who received all three items showed the best improvement. An important conclusion was made after the study: conscious imitation of the modeled form by expert as well as inexperienced writers leads to greater effectiveness in writing skills.

Another relevant observation, rather than a full-scale study, was made by Spencer (1982-1983: 42-45) with regard to the relationship between imitation and style. She found that students in her class did not understand the literary concept of style and decided to use the imitation strategy to teach style. She chose the fairytale of "Goldilocks and the Three Bears"

and presented it in four different styles: business-like, the dramatic style of Shakespeare, the King James Bible style and a South American dialect style). Spencer reported that after their reading the texts and the analysis of style, students succeeded in understanding and applying the concept style to their own writing. She also used copying sentences from various sources as technique to improve students' (and her own) writing skills, and found that she and the students benefited from this imitation technique to improve their writing with regard to spelling, vocabulary, sentence structure, fluency and style. Gorrell (1987: 53-59) agrees: "Another form of imitation that is often effective with inexperienced writers is exact sentence imitation". Gorrell has applied this strategy in her class successfully to teach students how to use sentences structures and punctuation (Gorrell 53-59).

Focusing on another aspect of imitation, Brooke (1988: 26) described how a teacher he calls Janet Rich, dealt with the relationship between a writer's identity and the writing students' ability to approximate this identity in a quest to improve writing skills. Janet taught an introductory English class at the University of Nebraska at Lincoln in 1986 and provided the students with a model of a writer's identity that the students could choose to emulate or not. The writer that was modeled was Margaret Laurence, author of *A Bird in the House.* Janet established a relationship between the identity of the author and the students' own writing by providing in-class reading and discussion sessions and by giving scaffolded writing activities that were also peer-edited. Three patterns emerged from the study: acceptance, transformation and rejection. The majority of students managed to accept the writer's identity and model it in their own writing, some students struggled with feeling excited and/or threatened by the author's identity and had to focus on what excited them. One student could not accept Laurence's identity at all to help her improve her own writing. The overwhelming outcome however, was that modeling a writer's identity seemed to be useful in improving students' writing abilities. This unusual technique of the imitation approach can, in my view, only be used in certain writing situations, for instance when students are aiming to write certain types of narratives. Academic and/or scientific writing is a genre where high value is placed on objectivity and therefore this technique would probably not be suitable. There might be ethical issues as well, as accepting another author's identity might lead to plagiarism.

Charney and Carlson (1995) gave an account of a study that they conducted at The Pennsylvania State University with ninety-five Psychology majors. The aim of the study was to determine how useful models would be when students had to learn to write in a new genre

of their discipline (Psychology). The researchers also had as a goal to determine whether graded models have an influence on the students' writing ability. The students were required to write the Method section of two simple experiments using different types of materials provided by the lecturers. The students were divided into two groups and each group received different information about two topics. One group received models to help with the construction of their own writing, whereas the other group received no models. The group that received models was further divided into two categories: one group received graded models including good, average and poor models, whereas the other group received only good models.

The researchers came to the following conclusion: "Taken as a whole, the results indicate that models do not have automatic benefits for the writing process. Likewise, they begin to reveal why models have produced mixed results in previous studies and in classroom practice (Charney & Carlson 1995: 111). However, the researchers succeeded in finding that models do have an impact on certain aspects of students' writing skills. It was found that reading models helped students remember and write about some concepts that they would otherwise have omitted. The results also showed that models helped with the genre-specific organization of ideas. In addition, the researchers found that labeling and grading the models did not influence the quality of students' writing. The final conclusion was that "active analysis of a model (even before taking on a specific writing task) may help students construct new textual patterns or enrich the patterns they know" (Charney & Carlson 1995: 114). Secondly, when students were allowed to consult models during the writing process they could determine whether their ideas were relevant in the text they aimed to produce.

The following study is very valuable in terms of similarity to my study. Even though the geographical context differs, there are similarities with regard to the purpose of the study (improve laboratory report writing), the subjects, who had English as their second language, and the outcome of the study. This study was conducted by Jones and Freeman in late 2000 and early 2001 at Macquarie University, Sydney, Australia (Jones & Freeman 2003). The study involved 240 students who enrolled for a Computing Science degree and had to take an introductory Physics course for which they had to write laboratory reports. The students were a mixed group, the majority coming from East-Asia, and others from Australia, most had English as a second language, but did not have Physics as a school subject. Students displayed a distinct lack in laboratory report writing skills as observed by their Physics lecturers. Two needs were identified: students needed guidelines about the structure of a

laboratory report as well as the language that is appropriate when writing laboratory reports. The lecturers (researchers) provided students with a host of materials including a course guide, course notes, laboratory notes, report writing worksheets and Physics textbooks. Lecturers also modeled 'drafts of example laboratory reports' on Overhead Projectors to illustrate the writing process. Students were required to write laboratory reports using the sources they received.

The researchers found that students often copied verbatim from the laboratory manuals despite instruction from lecturers not to do so. This was probably done because students lacked the "understanding of the grammar and lexis of the specific register, an appropriate level of complexity, and familiarity with the procedural expressions common to scientific and academic writing" (Jones & Freeman 2003: 174). Students managed to include all the relevant sub-headings in their reports, but nearly half of the group wrote *PROCEDURE* instead of *EQUIPMENT* and *METHOD* in the sections where they had to report how the experiment was conducted. Some students incorrectly copied from the wrong models or left out "important functions from the appropriate sections" (Jones & Freeman 2003: 175). Even though 18% of the students used the imperative mood in the methods section, the rest managed to paraphrase. The researchers found these results to be an eye opener on how to further streamline the materials and instructions to the benefit of students' writing abilities. Some suggestions on how to improve the writing of laboratory reports were given by the students themselves: they would have liked instruction on laboratory report writing earlier in the course, and they would have appreciated more lecturer input and feedback. The lecturers decided that a more critical analysis of the implementation of models and instruction would be needed.

Twomey (2003) completed a study for her Master's degree with first year students at Virginia Tech in 2002. Her observation was that students entered the university without enough background knowledge on how to write essays and without sufficient strategies to use models as writing aides (Twomey 2003: 38). Her study involved 49 students from diverse educational backgrounds. Twomey's study aimed to determine whether students' writing skills would improve if the writing process was modeled to students, and if written products were used as examples. She also taught students adaptive skills that are needed when writing in a new writing process and new written forms. The nature of her study focused on the following: would students improve if they were given opportunities and study models and imitate the models to produce their own texts?

Twomey showed students examples of different types of writing appropriate to different situations and discussed these examples. Students did activities based on audience, purpose, and conventions using the examples. Students had to draft, edit and re-write their own texts based on the discussed examples. She exposed them to different types of academic texts and focused on issues like thesis development and genres. These texts were analysed and the writing behaviour was imitated by students when they produced their own essays. She also made use of other imitation techniques like copying sentences and paragraphs and discussing these before attempting to write their own sentences or paragraphs.

The results of the study show that the students benefited from the modeling and imitation strategies used in the lessons: six students received an A symbol, twenty seven got B's, 12 got C's and only 3 scored D's (Twomey 2003: 55). Twenty seven students commented positively on their writing experience. The researcher's observation was that teaching writing with the help of models is better than without models. She felt that "learning to write with models is more productive and less frustrating than trying to meet the writing specific expectations of teachers or employers with only a description or a set of assumptions about the desired product" (Twomey 2003: 68). Unfortunately no mention was made of a pre-test result of the students which would have made the study more reliable.

2.5 PROCESS GENRE APPROACH

> Such an eclectic approach offers advantages such as a more focused use of texts as models without sacrificing the flexibility to acknowledge elements of other approaches.
>
> (Nordin 2006: 75)

2.5.1 What is the process genre approach?

The evolutionary character of ESL writing approaches is well-known by ESL researchers and teachers. The rigid adherence to only one writing approach has been questioned by several writing teachers and researchers like Horowitz (1986) and Yan (2005) who looked with new lenses at the benefits and drawbacks of the process, the imitation and the genre approach. As a result, a combination of approaches has been proposed by writing teachers and researchers such as Badger and White (2000), Harwood (2005), Henry and Roseberry (1998), Kim and Kim (2005) as beneficial in improving students' writing skills at various levels of their education.

In this section I explain the process genre approach. Since I have already given elaborate information on the process and the imitation approaches, it is not necessary to repeat their

features, benefits and disadvantages here. A brief recount of the genre approach will be presented, but the major focus will be on the process genre approach.

In the 1980s the genre approach was hailed as constructive in the ESL writing mainstream based on the perception that the different purposes, social contexts, structures and linguistic features of specific texts should be taken into consideration when teaching writing (Bhatia 1993; Henry & Roseberry 1998; Halliday 1985; Swales 1981; Yan 2005: 19). The context, structure, purpose and linguistic features are reflected in typical texts according to their genre (Nunan 1999: 280) and students can attempt to "approximate" these when writing their own texts (Harwood 2005: 3). According to Kim (2007) emphasis on the reader and the purpose for writing are paramount in the genre approach. As the reader is usually an experienced member of a specific community, albeit academic, technical or in the business field, he/she expects the writing discourse to comply with known, acceptable schemata and writing conventions based on the identifiable genre (Silva 1990: 16-17).

Kim (2005) reported that, the genre approach acts as a support mechanism in ESL writing instruction, where examples of a particular genre are provided to students which can be used systematically to meet the expectations of the reader, the linguistic and structural requirements and the communicative purpose of the text. Students' knowledge of linguistic features and structural conventions of a variety of genres based on their communicative purposes is often very limited (Kaunda & Ball 1998: 130; Swanepoel 1999). Therefore, the writing teacher can play an active role in guiding, assisting and supporting students to advance to the point where they can employ their skills to be conversant in a variety of genres. In comparison to the product approaches, clear similarities can be detected in terms of input, as examples or models play just as an important role as in the imitation approach (Badger & White 2000: 155). The genre approach (just like the imitation approach) assumes that students learn more effectively when exposed to multiple examples of texts (in the genre approach the importance of genre is emphasized more than in the imitation approach). In fact, the theory of learning of the genre approach seems to consist of three parts: imitation, understanding and application (Badger & White 2000: 156). The exposure involves reading and analyzing the texts and determining audiences, communicative purposes, common patterns and features that, when combined, make up a text which can be classified as belonging to a specific genre (Kim 2007).

In the genre approach students know exactly what is expected of them since they have received explicit instruction in and examples of the specific genre (Kim 2007). The awareness of the association between content, purpose, audience, style, structure, and language usage will stand students in good stead when encountering a similar writing situation later in their academic career or even the working world. Dudley-Evans (2002: [2]) suggested that "genre knowledge involves increasing awareness of the conventions of writing, and teaching students to produce texts that, by following the conventions, appear well-formed and suitably structured to native-speaker readers. Indeed, it has been argued that knowledge of organization, arrangement, form and genre can systematically lead to knowledge of subject matter." They can then tap into their rhetorical conventions background knowledge to write a text that is acceptable and effective for its purpose. The genre approach is believed to release the stress and anxiety about writing experienced by especially ESL writers (Kim 2007).

The process genre approach is the product of a carefully selected set of features that would address issues like instruction in different genres, example essays, and a focus on linguistic skills to compose more effective essays. In other words, the beneficial parts of the different approaches are preserved, but in essence a new approach is formed, in this case the process genre approach (Kim & Kim 2005: [7]; Nordin 2006: 79; Yan 2005: 20). Badger and White (2000: 158) stated: "An effective methodology for writing needs to incorporate the insights of product, process and genre approaches." For the sake of practical application it means that the modeling and imitation activities and the analysis and manipulating activities are added to the recursive phases and the linguistic skills and strategies of the process approach (Yan 2005: 20). The genre approach is used to provide the input and strengthen students' knowledge of genres and the process approach is mainly employed to allow students to use their potential creativity in an extended, recursive procedure to produce effective essays.

The justification for using the process genre approach is based on the fact that both approaches (process, genre) have very useful benefits on the one hand, but some limitations on the other hand (Gao 2007: [7]). For instance, Lindemann (1995: 295) portrayed process writers as "isolated individuals … divorced … from the social contexts in which language always operates." She continued by saying that writers should not always confine the audience mainly to the self, since "expressivist pedagogy had stripped rhetoric of its important cultural, often political, force" (Lindemann 1995: 295). This is a 'gap' that can

be comfortably filled by the genre approach which acknowledges that language is a tool for and a form of social interaction. On the other hand, the process approach allows students to tap into their own cognitive abilities and use linguistic strategies suitable to their unique writing style to solve problems and write meaningfully (Lindemann 1995: 293). Therefore, it can be derived that the process approach and the genre approach complement each other since the features of both approaches are compatible. If the features of the two approaches are combined then the writing lessons will include the model of the genre, emphasis on purpose and audience of the genre, an awareness of the context to make the activities more realistic as well as linguistic writing skills and the various phases that students might follow over an extended period of time (not just one lesson) to produce an essay. Gao concurred by stating that "…, teachers should raise learners' awareness of a variety of genres…" (2007: [11]).

Since process approach writing emphasizes mainly narrative and self-initiated writing, where students determine their own rhetorical problem and collect their own material, it is not always useful in the academic writing realm (Shih 1986: 627). On the other hand, the genre approach helps students to gain entry to discourse communities, like university classrooms. In academic writing at university level, students are often presented with certain rhetorical problems for which they have to gather information and write an essay that is appropriate for a specific genre. For academic writing purposes and in order to avoid confusion and divergence from the task, it would benefit the students if they receive direct instruction in pre-writing activities which centers their attention on techniques and strategies that would enable students to gather, analyze, synthesize, and interpret information (Shih 1986: 627; Gao 2007: [7]). These pre-writing activities can effectively be applied using the process genre approach. In addition, at university not much personal writing is expected of students. Horowitz (1986: 447) stated that an analysis of writing tasks at university level will "create a new writing syllabus by telling us which tasks our students can expect to encounter during their academic careers". Students get the opportunity to transfer skills from one subject to another, which makes the English courses more meaningful in the context of their studies. The application of the process genre approach could bring students into contact with the relevant content schemata (genre approach) required of them, and also with linguistic skills to apply the phases of the process approach (Gao 2007; Kim & Kim 2005). Shih (1986: 628) concluded her argument by saying that a practically-oriented process genre approach might strengthen and expand

students' comprehension of the topics in their content subjects, which are often used in writing classes as basis for writing activities.

In addition, the content of the writing at university level is at a higher cognitive level than at primary and secondary schools. If the value of the activities in the process genre approach is examined we can find that the process genre approach facilitates cognitive skills of students in the sense that they have to identify, determine, analyse, evaluate and apply, all elements of Bloom's taxonomy (Atherton: 2011) for effective learning. These skills will in turn assist in problem solving and decision making skills. Furthermore, student motivation may be increased when their writing is linked to the tasks that they are required to do in their content subjects (Shih 1986: 628). The process genre approach fosters active learning and learner-centredness as students are actively involved in the teaching and learning process and the teachers act as facilitators, guides and assistants.

2.5.2 Features of the process genre approach

The features of the process genre approach are exhibited in the application or activities and phases involved in the actual process before, during and after composing a text.

Writing is constrained by specific social situations: Writing is a tool for communicative discourse, which, in the real world, is hardly ever done without attentiveness to the audience, the purpose, the subject matter or topic, style, appropriate vocabulary and related aspects of the social context of the text to be produced. Ferris and Hedgcock (2005: 48) stated the necessity for L1 and L2 students to have an awareness of "genre knowledge, text comprehension, and production skills". They also emphasised the role of the writing teacher to expose students to the social discourses and to "meet the demands and challenges of academic institutions" (Ferris & Hedgcock 2005: 48). For instance, an application letter and Curriculum Vitae have a unique set of conventions that will be suitable for the purpose of writing the letter and the CV. Similarly, a laboratory report has a distinctive style, structure, vocabulary and grammatical conventions based on its purpose and audience. In order to get the piece of writing to achieve the purpose, certain writing schemata have to be acknowledged and applied. The form and function nature of the genres is often unfamiliar to inexperienced writers. The writing teacher can use the process genre approach effectively to introduce the students to the writing constraints determined by the contextual nature of the genres. Badger and White (2000: 158) suggested that, "teachers need to replicate the situation as closely as possible and then provide sufficient support for learners to identify the

purpose and other aspects of the social context". The teacher creates a situation suitable to the genre that students are supposed to learn about. In fact, according to Ferris and Hedgcock (2005: 51), ESL composition teachers can help their students become part of "institutional and discipline-specific literacy clubs, discourse, and communities of practice by acquainting learners with the enterprises and literacy practices of people who are already part of these communities".

Models or examples as input: Badger and White (2000: 159) recommended that writing teachers should provide students with "sets of corpora of the kinds of texts their learners want to write", in other words, they need model or example texts. Kim and Kim (2005: [9]) explained that genre specific texts are "functional planning tools" which assist in the teacher's role of setting up syllabus goals, materials and the techniques and strategies in the actual classroom to help students to write effectively. The specific conventions based on the chosen genre are usually found in "expert" texts of the specific genre. Therefore, the teacher selects texts which exemplify the conventions in all respects regarding subject matter, purpose, audience and other associated aspects (Gao 2007: [11]). The example texts and types of activities should be pitched at levels which show a scaffold from the known to the unknown, from the simple to the more complex, from understanding to synthesis and evaluation. The example texts should adhere to certain criteria, which were discussed in the Section on Imitation. Kim and Kim (2005: [9]) suggested that the reading material should be selected from a wide range of sources to show that different genres have a useful purpose in various sources. According to Kim and Kim (2005: [9]), this will help students to broaden their general knowledge, expand their vocabulary, and they encounter the "linguistic and semantic features of a language". The principles and features of the process genre approach are of such a nature that some diversion from the prescribed syllabus can be allowed.

Analysis and/or manipulation of models: The students should be actively involved in the appropriation process by completing language awareness activities or activities relating to the structure, grammar, vocabulary or activities which show the relationships between the different parts of a text and the subject matter that is presented in these parts. Kim and Kim (2005: [7]) emphasized the importance of language and structure activities to illustrate to students "the roles they play in conveying appropriate meaning". The activities should incorporate all the aspects relating to the genre, so that at the end of the activities students would be able to write their own criteria based on their observations, analyses and active involvement. Types of activities would vary depending on the genre that students are busy

with, since "different genres require different kinds of knowledge and different sets of skills" (Badger & White 2000: 158). In that way students determine their own objectives and aims, which makes the whole exercise more learner-centred and motivational. Students are trying to reach goals which they have set themselves. Student independence and autonomy is created in a true sense and students manage to enter the desired discourse community feeling that they have accomplished it mostly by themselves, with the teacher as guide and facilitator.

Another important point in the presentation and execution of the activities is **scaffolding**. Scaffolding is the assistance provided by the teachers. It is a temporary strategy (Kim & Kim 2005: [7]) that helps students to reach higher levels of understanding, to learn new skills and to understand unfamiliar concepts. In the process genre approach, teachers assist in various ways from the beginning of the process until the end. The extent of involvement depends on the students' level of dependence and ability. Some students need more assistance than others, and with close monitoring and control the teacher will be able to recognize how much support is needed. There should be clear parameters in the measure of involvement from the teacher, with minimum and maximum levels. This ties in with Vygotsky's (1978) Zone of Proximal Development, where the students move from the known and what they can manage independently without the help of the writing teacher to the unknown and challenging position which they can reach with the assistance of the teacher.

Consolidation: Students and writing teachers do "joint construction". A topic based on the specific genre is chosen and students and the teacher write a text together based on all the conventions that were regarded as useful and suitable for the genre. The teacher can model functional techniques to gather ideas, organize the ideas and write a first draft:

> Learners may also require input about the skills needed for writing. A rich source here comes from observing other students and the teacher. Teachers may find direct instruction on skills effective - but an alternative is a demonstration by the teacher or other skilled writer, possibly accompanied by a commentary attempting to explain the mental processes that underlie the exercise of the skill. (Badger & White 2000:159)

> Students can follow suit individually, in pairs or in groups until enough key points were gathered to write a meaningful essay. The teacher may be able to determine the students' level of mastery of the skills and knowledge needed to produce an effective essay. If group work was opted for, students can help each other with the subject

content and construction, and the teacher monitors the students' level of understanding and success in applying the aspects that were explained and exemplified. The writing teacher and students should attempt to complete the whole essay using the features of the process genre approach and emphasizing the recursive nature of the process approach. For instance, after doing an experiment in the English lessons, the students and the writing teacher can write a laboratory report together, with the teacher eliciting writing information from students but also modeling techniques to illustrate how information is found, analyzed, synthesized, and used in the text. Reflection and feedback are also stressed, to teach students to be observant and critical. In this way the academic writing process is 'demystified' (Kim & Kim 2005: [8]) for the students and they will become more motivated, secure and confident to complete the writing task effectively. Additionally, the jointly constructed text can serve as another example for students.

Stages or phases of the actual writing process: Just like in the process approach, students must firstly acknowledge the recursive nature of the writing process. The categories mentioned below are presented in a linear fashion, but do not necessarily have to be followed in that order. Secondly, some phases overlap, meaning while students are busy with one phase they can concurrently employ skills or activities from another phase. For instance, while students compose their first draft, they can already do rereading and revising. Or, as declared by Zamel, "…planning [for example] is not a unitary stage but a distinctive thinking process which writers use over and over again during composition (1982: 206)". An additional point is that the process genre approach does not only involve the skill of writing. Speaking, reading, listening are also incorporated in the lessons and according to Yan (2005: 20) the "four language skills promote the expansion of the students' overall language competence".

Pre-writing phase:

After students have been familiarized effectively with the genre and the relating conventions by direct instruction, models and the manipulation of the models, they are ready to create their own text. Students then use the background knowledge about the possible subjects or topics, the linguistic features and linguistic skills to write their own text in the specified genre. Students would now be at a higher level of independence, but close monitoring and assistance is still crucial.

What do students actually do in the pre-writing phase? Students would receive or decide on their topic for the essay with the guidance of the teacher. They would discuss issues pertaining to the subject content, the audience, the purpose, the style (formal/informal), and grammar issues like tense, in other words the constraints of the genre. The main part of the pre-writing stage is gathering information from various sources and recording the information in a useful form, like a table for compare and contrast or key arguments in note from for a discussion essay. This stage would take up to several hours, depending on the accessibility of sources and the students' skills on identifying sources, recording the key points and arranging the points in logical order.

The teacher can still provide several techniques to read about a topic, gather ideas, analyze, synthesize and organize these ideas. The teacher's involvement should be constructive and sensitive. Some students are capable of finding information themselves, whereas others need some help. A certain amount of autonomy and confidence should be demonstrated by students at this stage, and their individual creativity should be encouraged and acknowledged (Gao 2007: [8]).

Composing:

Composing means to structure the ideas in meaningful sentences based on the conventions of the specific genre. When the students have the topic and the gathered ideas, they do not necessarily know exactly how they will use the information in their independent essays. Shih (1986: 628) illustrated the action of writing the first draft as follows: "…writers take the material previously gathered and organized and structure it into a linear piece of discourse". In other words, they construct sentences and paragraphs. But, since the students' ideas are hardly ever completely formulated before they write their first draft, multiple drafts on various levels are to be expected. There are differences in the composing process of the writing students and the process genre approach allows writers to go about the composing task in their unique way.

Re-reading and revising:

A very powerful observation about revision and re-writing was made by Maimon et al (1982: 61): "successful papers are not written; they are re-written" (Clenton 2005: [3]). Once the first draft is completed or while students are still busy composing (depending on the length of the text and the preference of the students), they are encouraged to re-read their text firstly to

determine whether their subject content matches the topic and what they intended to say (Shih 1986: 630). They look at their ideas critically and evaluate the meaning and message; changes or alterations can be made. Students can even add or delete ideas. The second focus is on structure where students evaluate the organization of their text to make it more reader-orientated (Shih 1986:

631). Students should check whether their paragraphs have a logical order with clear topic and supporting sentences. After that, another revision technique is to check the grammar used in the text. If the students used sources, then the referencing of these sources should be checked and edited as well, if necessary.

Peer-editing:

Peer-editing is a text production skill that is characteristically applied in the process approach. Peer-editing means that students read each other's work, and then offer feedback on content, structure and grammar concerns. This skill can successfully be used in the process genre approach to writing if administered effectively. Peer-editing is also a form of input, as discussion on content with other students might lead to addition of ideas. Students should get guidelines on how to peer-edit. It is always useful to give students the criteria as a guideline in the form of a structured feedback form or checklist to be filled in or ticked off (Gao 2007: [9]). Objectivity must be stressed and the teacher could model a peer-editing session before students embark on editing each other's work in pairs. After the peer-editing session, students should be allowed more time to re-write the text if necessary.

Teacher feedback:

Once the first draft is written, self-edited and peer-edited, and revised, possibly re-written, the teacher is responsible for editing and evaluation. After having read the essay, the teacher can use one or more methods of feedback. A very useful but time-consuming method is to go through the essay together with each student, asking questions and making suggestions in a positive, motivating way. This is called teacher-student conferencing (Kim & Kim 2005: [9]; Nordin 2006: 81; Gao 2007: [13]). This technique can give the teacher insight into the students' level of competence and it helps the students to recognize their strengths and weaknesses in terms of academic writing ability. Another technique favoured by many ESL writers is written feedback from the teachers (Kim & Kim [9]). This means the teacher evaluates the essay and does error correction on a grammatical level, but also makes

suggestions about structure and content (Gao [13]; Nordin 81). The teacher might want the student to re-write the essay again based on his/her recommendations and suggestions. The final draft is handed in to the teacher, who can then evaluate the essay and give written feedback and allocate marks based on the specific course and genre criteria and marking grid.

2.5.3 Arguments against the Process genre approach

The potential advantages of the process genre approach are well recorded (Badger & White 2000, Gao 2007, Kim & Kim 2005). However, it is challenging to find concrete criticism against the use of the process genre approach in the literature about writing and among the prominent writing researchers or practitioners. Perhaps that might be one argument against using the process genre approach: its value and effectiveness have not been determined fully yet, the approach is still 'young', 'new' and innovative. It might currently still be viewed as a tool of deliverance from the process -, imitation - or the genre approach with their well-documented drawbacks. It will take some time before obvious weaknesses are determined and recorded by researchers and practitioners. On the other hand, some points of criticism against the three approaches that were synthesized to form the process genre approach are still prevalent. They did not disappear miraculously. Since these disadvantages are thoroughly discussed in their respective sections, I will only mention them here to avoid repetition.

The first concern raised by Horowitz (1986: 141-142) is time. In fact, the synthesis of the three mentioned approaches compounds the time problem. If time was a problem when using the process approach, it is an even greater issue in the process genre approach. The reason for that is that more activities and strategies, like reading, manipulating language features and analyzing model examples are added to help the students to write more effectively.

This leads on to the matter of examination-writing. It has not been determined yet, whether the process genre approach helps students to write better and/or faster in examination settings. The assumption underlying the process genre approach is that if students are instructed based on genres and have had the opportunity to analyse and manipulate model examples, then they should be able to compose more effectively in an examination setting. I failed to find any empirical studies that could corroborate that assumption.

The level of dependence on the teacher is also not reduced by the process genre approach. Indeed, students might demonstrate a higher level of dependency, because they are expecting to get input in the form of model essays, genre analysis and feedback. This might compound

the difficulty for students when dealing with writing under time pressure and without any resources or guidance to help.

Another factor is the peer-editing feature of the process approach. As a feature of the process – and the process genre approach, its disadvantage was stated by Horowitz (1986: 143) as being "too soft". Even though students can learn from each other, false impressions might still be created if students edit each other's work whether it is the process approach or the process genre approach.

It remains to be seen how useful, practical and functional the process genre approach really is in real teaching and learning situations. A few studies summarized below give information on the effect of the process genre approach on students' writing skills. Note that, of the three studies summarized only one study compared the effectiveness of the process genre approach with another approach, the genre approach.

2.5.4 Research: Process genre approach in Application

The mêlée regarding the effectiveness of major ESL writing approaches has resulted in a number of studies to determine which approach is most suitable to improve students' writing abilities. Three studies regarding the effectiveness of the application of the process genre approach will be briefly accounted here.

Nordin, Halib, and Ghazali, (2010: 46) conducted a study at the University Teknologi Petronas, Malaysia to determine the effect of the process genre approach on the writing skills of engineering students. Researchers selected 138 students through stratified random sampling; these students were divided into an experimental and a control group. The researchers did a pre-test to determine the mean scores of the students' writing. The experimental group received writing instruction based on the process genre approach, whereas the control group used the genre approach. In the ninth week of treatment a post-test was administered. The researchers provided students with a technical writing test and 3 independent raters used holistic scoring to assess the papers, where a score of 6 is 'clearly excellent' and a 2 is 'rudimentary'. The raters used the following elements to award a score: purpose, organization, development, style, correctness and visual aids (Nordin, Halib & Ghazali 2010: 50). The findings of the study indicate that the writing ability of students participating in the experimental group is better than those in the control group. An Independent Samples t-test was used to determine whether there was a statistically significant difference between the mean scores of the experimental group and the control group. The

test indicated that the experimental group benefited more from the application of the process genre approach than the control group who did the genre approach. The majority of students (79.6%) who received process genre approach instruction scored between 5.00 and 5.63, which is translated into 'still impressive', just below 'clearly excellent'. No student scored below 4.13 (adequate). However, only 23.1% of the students in the control group who received genre approach instruction, scored between 5.00 and 5.25 and 8.6% of the students received scores between 3.00 – 3.63 (developing). The study highlights the advantageous nature of the process genre approach to teach technical writing. The implications of this study are that besides the practical benefits of the genre approach, some features of the process approach seem to facilitate improved writing skills among students. These features are: peer- and teacher feedback throughout the composing process, drafting, revision and individual pace.

In 2009, Nihayah did a study at SMP[6] Negeri 8, Malang in Indonesia, to determine how the implementation of the process genre approach can improve students' writing ability. Before the study the students' writing ability exhibited weaknesses and it is reported that "the teacher used to ask students directly to write without teaching them the ways of doing it" (Nihayah 2009: [1]). The researcher recorded the students' mean scores before the study and again after the study. The researcher used Collaborative Classroom Action Research to conduct the study with the assistance of the class teacher. The findings showed that there was a notable improvement in students' writing ability after the implementation of the process genre approach. A comparison of the mean scores (with a maximum score of 4) taken before and after the study indicate the improvement: 1.29 to 3.15 on content, 1.62 to 3.01 on organization, and 1.55 to 2.98 on language use. The researcher failed to report whether a control group was used to compare the results of the experimental group. The study would have been more convincing, had the researcher included a control group as measure.

Foo (2007) did a PhD study on the effectiveness of the process-genre approach in a Malaysian secondary school. The study focused on how successful the process genre approach was in contributing to students' ability to develop strategies to write more effective essays. The researcher applied the process genre instruction to the experimental group (30 students) for sixteen eighty-minute sessions. The control group (30 students) received the same number of sessions but with product-centred writing instruction. The researcher did a

[6] The researcher could not determine the meaning for SMP.

pre-test and two post-tests: one immediately after the treatment session and another three months later. The study reports that there was a notable improvement in the experimental groups' ability to communicate their ideas, and to develop more relevant ideas related to the purpose of the task as compared to the control group. However, no improvement was found in the organization of ideas or in the control of language. The students of the experimental group commented that they had a better understanding of "conceptual writing strategies" (Foo 2007: 16) and that they would be willing to apply practical strategies when writing essays. The consequence of the process genre writing instruction was that students sustained their improved writing status quo "over a period of time without any further instruction" from the researcher (Foo 2007: 16).

No evidence of any Namibian studies on the application of the process genre approach could be found. The studies described above, which were mainly conducted in Malaysia, suggest that the process genre approach is beneficial. It is not only the writing instructors' confusion about which approach "is best" that has led to the application of the process genre approaches in various ESL and ESP situations. It is also the needs of the students that have compelled writing instructors to evaluate critically the effectiveness of their approaches in the writing class. There are numerous other factors that have led to an innovative shift in the ESL and EFL writing instruction approach. True to the evolutionary nature of ESL writing, a 'post process-genre approach' (my own coin) is probably being contemplated as this dissertation is being written.

2.6 CONCLUSION

Chapter 2 provides an overview of literature on the three writing approaches which were applied in this study: process approach, modeling/imitation approach and the process genre approach. In my explanation I described the origin and history of the writing approaches, features and principles. Another point discussed in each of the three approaches was criticism brought against the approaches. I furthermore included a summary of previous studies on the application of each of the three approaches in various settings.

The next chapter will focus on the method and techniques I used to conduct my study with regard to the implementation and evaluation of the three writing approaches.

CHAPTER 3: RESEARCH METHODOLOGY

> For successful completion, a building requires plans that are clearly conceived and accurately drawn. A research project should be no less completely visualized and precisely detailed. (Leedy & Ormrod 2005)

3.1 INTRODUCTION

I used action research as my research design as the study consisted of two cycles and several steps in the cycles. The intention of the study was to determine the effectiveness of the three writing interventions in improving the academic writing skills of FP students. In 2008, I implemented the first action research cycle, the process and modeling writing approaches, in two different classes: Class 1 did the process approach, whereas Class 2 did the modeling approach. Cycle 2 was implemented in 2009 as a result of the reflective stage in the action research which considered the effectiveness of these two approaches and led to a change in direction. Consequently, the process genre approach was implemented in the 2009 FP English course to determine whether this approach served to improve the academic writing skills of students in the FP to a greater extent than the two writing approaches in 2008. This means that in 2009 both classes did exactly the same writing syllabus based on the process genre approach. I did not use the experiment and control group format on ethical grounds. I could not ethically justify giving a writing intervention to one group, and exclude control group students from the potential benefits of the interventions. Convenience sampling was thus used.

This Chapter will firstly look at the theoretical and practical issues relating to research design, and the research instruments against the background of the researcher's philosophy regarding classroom practice and effective materials. The next section in this Chapter will provide information about the methodology and data which includes a description of the population and sample. The methodology explanation provides information on the techniques used to analyse the data and a justification of the techniques. Also included in this Chapter are the limitations of the research project and ethical considerations. The structure followed in this Chapter was extracted from Hofstee (2006: 112).

RESEARCH

In this dissertation I adhered to the belief that "research is a systematic process of collecting, analyzing, and interpreting information (data) in order to increase our understanding of the phenomenon about which we are interested or concerned" (Leedy & Ormrod 2005: 2). Key issues are: problem, goal, plan, sub-problems, research question/hypothesis, critical assumptions, collection and interpretation of data, and the cyclical nature of the research process in action research. In addition, my study illustrates that research is a process and a product as stated by Nunan (1992: 2). The process of this study involves the journey from identifying the problem to the interpretation of the findings. Research is a product when knowledge is acquired as a result of the process. Furthermore, research normally relates to a design that is used to map out the steps used to come to a valid conclusion about the research problem.

3.2 RESEARCH DESIGN

Research design refers to the plan of scientific inquiry (Babbie 1991: 89). I applied a research design because I wanted to find something out and reach a conclusion. The impetus for the study came from my concern about the inadequate academic writing skills of FP students. Therefore, I planned a strategy to observe and interpret the observation based on a research design that dealt with the procedures that were followed, the data that was collected and the way the data was analysed (Leedy & Ormrod 2005: 85).

The research design for this study to determine the effectiveness of the intervention materials is an action research using qualitative and quantitative data collection and analysis methods. The next section explains these three concepts and gives a justification of the mixed method.

3.2.1 Action research: theory and justification

Action research:

I took a critical position regarding my teaching practice and the writing materials used to improve students' academic writing skills. I selected action research as research design with qualitative and quantitative data collection methods. Action research is a reflective problem solving process "in which participants examine their own educational practice systematically and carefully, using the techniques of research" (Ferrance 2000: 1).

The goals of this research project are to firstly, improve the academic writing skills of the FP students and secondly to improve my teaching practice. These goals are related to action

research which has as its aim professional self-development based on an investigation and evaluation of what is happening in real-life, practical situations (Varasarin 2007: 86). The features of action research relate to the emancipatory goal and critical research methods that allow for changes to the status quo (Myers 1997: Philosophical Perspectives, par 9). In addition, Welman, Kruger and Mitchell (2005: 205) illustrated the versatility of action research by stating that the research design is not formally finalized in advance and then followed strictly until the end of the research. Rather, the tentativeness of the action research process is emphasised by explaining that action research is cyclical and the next cycle depends on the outcome of the previous cycle. Action research is a holistic process during which measurement instruments may change in the process of data gathering. In my study the cyclical feature is reflected in the fact that the first cycle took place in 2008, followed by critical reflection. This led to the second cycle in 2009, with the addition of interviews with the science lecturers as another data collection method.

My study reflects Nunan's observation (1992: 17) that action research is practitioner-orientated, "collaborative" and with the purpose of changing or rather improving an unsatisfactory real-life situation. I am involved in the research (practitioner) as the person who initiated the study and whose practice is critically examined and I am also leading the research. I have an "insider perspective" (Nunan 1992: 3). My study is not so much 'collaborative', except that students and lecturers are requested to cooperate and provide information that would yield relevant results.

The findings are reported in a literary narrative, with reference to the participants' perceptions and contributions (Leedy & Ormrod 2005: 95). The participant features prominently in action research. Ferrance (2000: 1) stated that in the educational field "action research specifically refers to a disciplined inquiry done by a teacher with the intent that the research will inform and change his or her practices in future". The connection between this statement and the goals of the research project undertaken are that the research would lead to a change in my teaching practice and improvement in students' academic writing abilities.

The functionality of an action research as strategy for the current study lies in the emphasis on change through research (Davis 2003: 5; Blaxter, Hughes & Tight 2007: 68). The present study not only investigates and describes a problem experienced in practice (like a case study would do), but it focuses on the action that can be researched and "changed and re-researched" (Davis 2003: 6). Davis also emphasised another feature of action research,

which is the constant need for critical reflection throughout the process of research. Critical reflection can be obtained by regular feedback during the process of the action research. Feedback might lead to either positive confirmation of the applied change or a change of direction, should the feedback illustrate that the intended change does not show the assumed results. The systematic checking of progress links in with the cyclical pattern of action research (Blaxter, Hughes & Tight 2007: 69).

A practical way of conducting an action research is to have a cyclical plan which involves posing a question, gathering data, reflecting on the data, and applying an action to change the initial problem situation, getting feedback about the effectiveness of the action and possibly having a second cycle, if necessary. This cycle and, in fact the term action research, was coined by Kurt Lewin in the 1940s when he found that investigation into work and the action necessary to solve the identified problem in a natural setting can develop into a valid research strategy (Ferrance 2000: 7).

Action research is not limited to one cycle only. In the case of the current project two cycles are described. Two different interventions were applied in 2008 and a third intervention in 2009. The implementations of the interventions of both years yielded meaningful data and therefore the data of both years were included in this study. Students' lack of effective academic writing skills was identified as a problem. This came about as a result of a needs analysis conducted in 2007, but for the sake of brevity the needs analysis and a detailed description of the students' learning background is not provided in this study. The first cycle of the action was planned and implemented in 2008, and through critical reflection the researcher determined the effect and effectiveness of the action to bring about beneficial change. This change was analysed and further changes were made to improve the effectiveness of the action, which was evaluated again in 2009. This indicates the importance of flexibility of the researcher, as the researcher knows where the problem comes from, and has an idea where the research could lead to, but also realizes the fickle environment of working with humans who could react differently to change than anticipated. This means that transformation is possible but cannot conclusively be predicted (Wadsworth 1998: 5). In addition, "change does not happen at 'the end' – it happens throughout" (Wadsworth 1998: 6). This notion is also confirmed by Davis (2003: 7) where she cited Winter (1998: 63-64): "The progress of one's inquiry over time – noting what happens as different things occur, as the situation develops: all this is essential to the learning process ... ."

The value of having used an action research design lies in the fact that action research is suitable for longitudal, cyclical research like mine. In addition, a researcher can be flexible when using action research, which was useful when I added the interviews as data collection tools and two sections to the questionnaires in 2009. Action research is a holistic process during which measurement instruments may change in the process of data gathering. Action research is also useful in measuring qualitatively and quantitatively whether the goals and objectives of the study have been achieved, i.e. have the students' writing skills improved, has my teaching practice improved, has a change been observed?

Elements of Qualitative data gathering and reporting:

According to de Vos et al (1998: 267, 269) a qualitative design is determined by the researchers' actions and choices regarding the data collecting and reporting method. Leedy and Ormrod (2005: 133) explain qualitative research as a design that focuses on issues in their natural setting. Qualitative data collection was used in this study to ensure that all the "complexities" and contextual "idiosyncrasies" (James 2006: 3) were taken into account. The qualitative nature allows for a rich description extracted from the interviews and open-question questionnaires used in this study. Qualitative enquiry is said to be subjective and from an "insider-perspective", that is the perspectives of the students, the science lecturers and my own (Nunan 1992: 3). In addition, human behaviour is fore grounded and therefore detailed descriptions and verbatim responses extracted from interviews and open-ended questionnaires in the current study show the "multiple … realities of phenomena" and as a result provide findings that are fluid and dynamic in nature. (Neill 2006: 1; Leedy & Ormrod 2005: 95).

The participant features prominently in qualitative research which makes the connection between a qualitative design and action research particularly effective.

Elements of Quantitative data gathering and reporting:

Phenomena can also be measured objectively, "that is the feelings and the opinions of individuals" (Welman, Kruger & Mitchell 2005: 6) are not taken into account and the researcher is the 'outsider' (Nunan: 1992: 4), who is not concerned with any subjective matters going on during the research process. In this study pre- and post-intervention essays

and laboratory reports were marked by two independent markers. The marks were analysed objectively and statistically, thus treated quantitatively.

In quantitative research, also called the positivist approach, causal relationships are attempted to be uncovered (Welman, Kruger & Mitchell 2005: 7) by using particularistic measurements and data collection techniques. Positivists support research that is started with a specific hypothesis to be tested (Leedy & Ormrod 2005: 94) about something that can be measured objectively. This is reflected in the current study by the research instruments used to gather statistical data in an objective manner: pre- and post-intervention essay and laboratory report marks and pre- and post-intervention closed-question questionnaires. In addition, the causal relationship is reflected in the hypotheses about the effect of the three interventions on academic writing skills of students. The statistical data "exists independently of the feelings and opinions of individuals" (Welman, Kruger & Mitchell 2005: 6) and the relationship between the two sets of data is explained objectively, which links it to logical positivism.

Quantitative, statistical information yielded by the questionnaires and essay and laboratory report scores is analysed, interpreted and reported on objectively, which then either refutes or confirms the hypothesis that the writing interventions improve the academic writing skills of FP students (Leedy & Ormrod 2005: 94).

Validity in action research:

The concept of validity of action research is inextricably linked to validity of qualitative research. According to Golafshani the terms 'validity' and 'reliability' cannot be used in qualitative research the way they are used in quantitative research (Golafshani 2003: 600). He is of the opinion that in qualitative research these two terms cannot be seen as two separate entities, and should rather be substituted by concepts like "credibility, transferability, and trustworthiness" (Golafshani 2003: 600).

Hofstee (2006: 127) specifically warns the action researcher to be careful of subjectivity; generalisability of results and replicability. This is because of the contextual nature of the research problem. Subjectivity was reduced in this study by contracting external markers (who did not know the students) for marking the essays and the science lecturers marked the laboratory reports.

3.2.2 Justification of the hybrid design of this study

Research activity is traditionally categorized as being either qualitative or quantitative. However, as Nunan reports: "a binary distinction between qualitative and quantitative research … is simplistic and naïve" (1992: 3). In the case of my study, I accepted and adopted "methods and values of the alternative paradigms" to suit the purposes of the research aim. Leedy and Ormrod (2005: 95) confirm this perspective by stating that occasionally both research designs can be used to answer different types of questions which will yield more comprehensive knowledge about the world. Creswell (1998), Glesne and Peshkin (1992) and Moss (1996) agree that the qualitative and quantitative approaches can complement each other in the research process (Leedy & Ormrod 2005: 95). This means that even though I agree with Nunan that "all knowledge is relative, that there is a subjective element to all knowledge and research, and that holistic, ungeneralisable studies are justifiable" (1992: 3), I also believe that my study can generate data which is generalisable to the Namibian education community and that quantitative data that will be collected can be interpreted to enhance the descriptive interpretation of the qualitative data presented in this study. This is sanctioned by a critical discussion of research designs by Grotjahn (1987), in which he explains that hybrid forms of research paradigms are possible (Nunan 1992: 5). In addition, Nunan (1992: 20) remarks that "the distinction [between quantitative and qualitative research] is a philosophical one which is not always reflected in the actual conduct of empirical investigation". Leedy and Ormrod (2005: 97) mention that the two approaches "are not mutually exclusive" and "it is not unusual for researchers to *count* (and therefore quantify) certain kinds of data, in what is, for all intents and purposes, a qualitative research investigation".

In practical terms this means, I have used data collection, analysis, interpretation and reporting techniques that fall into the qualitative camp (open-question questionnaires and interviews) and others that are more quantitative in nature (closed-question questionnaires and essay and laboratory report results). The techniques will be discussed in detail in a later section of this Chapter.

3.3. METHODOLOGY

Here I explain the research instruments used and how I used the research instruments. I also illustrate how I applied the action research cycle to gather the data.

3.3.1 Research Instruments: Data collection techniques in relation to Qualitative and/or Quantitative research design

3.3.1.1 Interviews: theory, uses, strengths and limitations

An interview is defined by Nunan (1992: 231) as "the elicitation of data by one person from another through person-to-person encounters". I chose interviews because these research tools are widely used to collect data about facts, people's feelings, motives, beliefs and perspectives and people's reasons for actions or behaviours (Leedy & Ormrod 2005: 146). Interviews can be placed into three categories: structured, semi-structured and unstructured, depending on the type of information sought after, the degree of formality and "the degree of control the interviewer wishes to exert" (Nunan 1992: 149). The interviewer chooses a structured interview when a "collection of questions from a previously compiled questionnaire" (Welman, Kruger & Mitchell 2005: 165) is used. The interviewer does not deviate from the questions at all, and records the responses of the interviewee on a specific record-sheet. A semi-structured interview is conducted if the interviewer has a list of questions, topics and themes, which is called an interview guide (Welman, Kruger & Mitchell 2005: 166). It is important that all themes or topics are covered during the interview, but the interviewer has the freedom to change the wording or the order of the questions depending on the responses of the interviewee. The interview is normally recorded with a tape recorder and the interviewer also writes the responses down. In an unstructured or informal interview the interviewee is looking for in-depth information about a specific theme. No pre-determined questions are set up, but the interviewer needs to have a thorough idea about what needs to be explored. The interviewee is allowed to talk freely about the theme or topic. The interview is recorded with a tape recorder and the interviewer takes notes. For the purpose of this study semi-structured interviews were used and are discussed here.

I used semi-structured interviews because I had certain topics and issues in mind, rather than pre-determined sets of questions. This means that although the same questions were asked, I had a certain degree of flexibility to find rich and informative data that allow for meaningful interpretation (Nunan 1992: 149). Questions were mostly open-ended and I was able to ask follow-up or elaboration questions (Welman, Kruger & Mitchell 2005: 167).

Advantages of semi-structured interviews are, firstly, that the interviewer has power and control over the interview (Nunan 1992: 150). Secondly, the semi-structured interview allows for flexibility in elicitation techniques and the interviewer gets a picture of the interviewee's life related to the theme of the study. The semi-structured interview was the

best type of interview in this study because I had access to the interviewees. The interviewees are known to me and therefore the setting was not formal and threatening.

On the other hand, the information yielded might not be comparable because different interviewees might give different information (Leedy & Ormrod 2005: 146). Another disadvantage relates to the role of the interviewee, which might cause bias (Nunan 1992: 150), as the interviewee does not have the same rights as the interviewer. Also, information provided by the interviewee mostly relates to the past which the interviewee might not remember so well and that might yield inaccurate information, or the interviewee is intimidated by the interviewer and gives information that he thinks the interviewer would like to hear. The apparatus or equipment used during an interview (tape recorder) might be intimidating for the interviewee. The possibility of disadvantages was reduced because I conducted the interviews in an unthreatening manner in a familiar room. Interviewees were informed well in advance about the interview and how it would be conducted. The interviewees are my colleagues, and understand the necessity of recording the interview. Ethical considerations, such as privacy and anonymity were considered.

How did I use interviews as data collection technique?

The data collection method of the first cycle of the AR in 2008 was intended to be quantitative, using only the pre- and post-test marks and questionnaires of students as data. However, after reflecting on the proposed tools, I realized that the data would be too narrow and I decided to add interviews as research tools in 2009 to complement and add depth to the quantitative data. Information from and perspectives of FP Science lecturers on the quality of laboratory reports would be useful to indicate the extent of the writing problem with regard to laboratory reports and to include their suggestions on how to improve the quality of the students' reports. The post-intervention interviews would also provide qualitative, interpretive data about the effectiveness of the three writing approaches in improving laboratory report writing skills of FP students.

I scheduled individual interviews with four Science lecturers. The interviews were tape recorded. The pre- and post-intervention interviews had questions based on the quality of students' report writing abilities. See Appendix 5. No interviews with the students were held because I believed that questionnaires would be more suitable to target the whole group of students. It would prove challenging to have interviews with 66 students, and analyse and interpret the data.

3.3.1.2 Questionnaires: theory, uses, strengths and limitations

Questionnaires are defined by Nunan (1992: 231) as instruments "for collection of data, usually in written form, consisting of open and/or closed questions and other probes requiring a response from subjects". Questionnaires used in this study provide quantitative data for and relate to questions of the research problem (Welman, Kruger & Mitchell 2005: 174). It is also advisable to use questionnaires from previous studies that have a distinct bearing on the current study. Therefore I used and adapted the questionnaire from a study called *Effectiveness of using the process approach to teach writing in six Hong Kong primary classrooms* (Ho 2006). As the title of the study indicates, the two studies (Ho and the study described here) are comparable in aim and content. The questionnaire designed by Ho focuses on key issues in my research. The constructs are relevant and applicable to determine FP students' attitudes and writing habits. However, whereas Ho used the questionnaires to determine the effectiveness of only the process approach, I used it for all three approaches. In addition, I adopted only two sections in 2008: attitudes and writing habits and in 2009 I added the section about the evaluation of materials following the critical evaluation cycle of my action research project.

The closed-question questionnaire was set up with pre-coded items. In the case of the current study students had to respond to statements by indicating their degree of agreement: strongly agree, agree, uncertain, disagree and strongly disagree – a five-point Likert scale. The advantages of this scale are that it is easy to compile, "multi-dimensional attitudes" (Welman, Kruger & Mitchell 2005: 157) can be measured using a collection of statements and that numerical data can be obtained. Another advantage relates to the time it takes to complete a questionnaire, as closed-question questionnaires are usually not as time consuming as open-ended questions. The disadvantage is that the respondents do not get a chance to explain why they have ticked a certain block. In addition, a respondent who does not want to fill in the questionnaire can tick any answer, just to finish quickly, and then the reliability and validity of the analysis and interpretation is compromised. Interests, attitudes, and beliefs or experiences are difficult to measure accurately as a result of "faking, and social desirability and the response style of acquiescence" (Welman, Kruger & Mitchell 2005: 143). Respondents can tick boxes that they think would "create a desired impression" (Welman, Kruger & Mitchell 2005: 143) and this is referred to as faking. Social desirability means respondents give answers that they believe are socially acceptable. Acquiescence refers to respondents answering for instance "yes" consistently without even considering the content

of the question. To counter these potential problems posed by the questionnaire and Likert scale, I decided to also employ an open-ended questionnaire considering the same constructs.

Anonymity can have advantages as well as disadvantages. The advantage is that no matter what the respondents' attitudes, beliefs, experiences or perspectives, they will be protected and their answers might be more truthful. Anonymity could also be a disadvantage in that any of the above-mentioned response problems might occur (faking, acquiescence, and social desirability). The danger of a low response rate was averted as the questionnaires were presented to the participants and they were answered in class time. However, misinterpretation of questions might be another drawback (Leedy & Ormrod 2005: 185).

I selected closed-question questionnaires for quantitative data collection and open-question questionnaires were used for qualitative data collection. I wanted to give students the opportunity to fully explain their views and opinions by answering the open-question questionnaires to complement the results of the closed-question questionnaires and to add depth to the data.

How did I use questionnaires as data collection technique?

Pre-intervention:

Closed-questions questionnaire (Appendix 6): This questionnaire was given to students before the interventions in 2008 and 2009 respectively. The questionnaire firstly elicited biographical and educational background information. The statements in the following parts of the questionnaire were based on the following themes: attitude towards writing; writing habits; materials; importance of writing. Participants had to respond on a Likert scale: strongly agree, agree, uncertain, disagree, strongly disagree. Students received the questionnaires in lesson time and had to complete the questionnaires in the lesson.

Open-question questionnaire (Appendix 7): Students received these questionnaires before the intervention in lesson time. This questionnaire elicited information based on the same themes as the first questionnaire, but students were required to write longer responses, to allow them to give more detailed information regarding the themes of the questionnaire.

Post-intervention:

The same questionnaires were used after the intervention with the only difference that the statements on the closed-questions questionnaire were written in such a way that students had to give information based on the writing materials of the FP. The questions on the open-question questionnaire also focused on the writing experience of students and materials used on the FP.

3.3.1.3 Results of the (pre-intervention and post-intervention) essays and laboratory reports

How did I use essay and laboratory report marks as data collection technique?

Scores/Marks: Results of the pre-intervention and post-intervention essays and laboratory reports

2008: Students had to write an essay before the intervention started. The essay topic was: *Explain how the current floods (January 2008 – March 2008) affect the living conditions of people in the north-central region of Namibia.* The essays were marked and graded by two English lecturers on campus. I selected these lecturers as they are familiar with the educational backgrounds of the students and they know what is expected of the students in terms of academic writing ability as they teach first year English. These essays were marked and graded according to the marking scheme provided in Appendix 2. After the intervention, students wrote another essay on exactly the same topic as the pre-intervention essay. Results of the essays before the intervention and after the intervention were tabulated. A statistician used the Statistical Package for Social Sciences, version 18 (SPSS) tool to determine statistically significant differences in the mean scores.

Students wrote a laboratory report before the intervention, and these were marked by the science tutors. The marks were recorded on a class list. Students wrote another laboratory report after the intervention, which were graded again. The results of the last report were also recorded.

The statistician used the Compare Means and the Independent Samples t-test to determine the levels of significance for the pre- and post-intervention essay and laboratory report scores. This test is useful in determining whether there are differences in the performances of the same sample of students before and after the interventions. Independent Samples t-tests are

often used in situations where the number of subjects is comparatively small like in this study.

2009: The same procedure to collect comparative results of essays and laboratory reports was followed as described for 2008. The essay topic was different: *Explain the importance of tertiary education in Namibia.*

The above mentioned information shows that this study has both, qualitative and quantitative data, and there will be an interpretive and a statistical analysis of data obtained before and after the interventions.

3.3.1.4 How the Action Plan and instruments were applied in my study

Action research: practical application: The explanation below shows the steps followed to implement the two action plan cycles.

Cycle 1: Step 1: Pre-thinking and needs analysis: **The first step of the study was the problem identification**, which was that FP students had ineffective academic writing abilities. The problem identification was not done with the deliberate purpose of conducting this study. My colleague and I noticed the weak academic writing abilities and lack of preparedness for tertiary studies of students in 2005, and deliberated on how the teaching practice could be changed and what materials would be suitable to improve the writing abilities of students. We also communicated with the Science lecturers on the FP course about the quality of students' writing. At a visit to UNAM main campus in September 2006, I had the opportunity to talk to first year English Communication Skills lecturers as well as the Mathematics, Chemistry and Biology lecturers, who all confirmed that most first year students did not have the academic background to write effective academic essays and laboratory reports. After this informal reconnaissance mission my colleague and I did a needs analysis in 2006. Based on this needs analysis, the information I gathered from previous students' writing abilities and comments from Science lecturers, I decided to change my teaching practice and write materials that I hoped would improve the writing abilities of students. I assumed that if FP students who attended the course in 2005, 2006 and 2007 had ineffective academic writing skills, then students in 2008 (and 2009) would have the same problem, since they came from the same educational background and had the same aim, namely to be admitted at main campus after doing the FP. I came to the conclusion that this writing ability intervention would be a suitable topic for the study.

Cycle 1: Step 2: November, December 2007, January 2008: Materials development: I wrote **writing materials based on the process approach and the modeling/imitation approach.** Extracts of the materials are provided in Chapter 4.

Cycle 1: Step 3: March 2008: First investigation of AR cycle 1:

I had to determine the extent of the problem of the 2008 students. I instructed students to write an **essay** on a specific topic: *Explain how the current floods (January 2008 – March 2008) affect the living conditions of people in the north-central region of Namibia*. Participants (class 1 and class 2) wrote the essay in class. The essays were marked and graded by two lecturers at Oshakati Campus. The essays were graded according to the Grading criteria grid illustrated in Appendix 2. No inter-rater reliability was done.

I designed two **questionnaires** based on the same constructs and these were completed by students. The first questionnaire (5-point Likert scale) had close-ended questions, where students had to tick the box most relevant to their experience and attitude towards writing, as well as the nature of the writing materials they were exposed to at secondary school level (Appendix 6). The second questionnaire (Appendix 7) consisted of open-ended questions, where students had to give longer responses to questions about the same constructs dealt with in questionnaire 1. These questionnaires were not piloted.

April 2008: Students wrote their first **laboratory reports** in Chemistry, Biology and Physics, and these were marked and graded by the respective science lecturers according to the marking grid in Appendix 4. The Biology lecturer marked the Biology laboratory reports, the Physics lecturer marked the Physics reports and the Chemistry lecturer marked the Chemistry reports. I felt that they would be the most suitable people to mark the reports as they conducted the experiments on which the reports were based.

Cycle 1: Step 4: March - October 2008: Implementation of process and modeling/imitation approaches: I **implemented the writing materials**. Class 1 received the materials based on the process approach. Class 2 received materials based on the modeling/imitation approach. I did not have a control group based on ethical considerations.

Cycle 1: Step 5: November 2008: Evaluation: At the end of their academic year on the FP, I had to **determine the effect** of the two writing approaches on the writing abilities of the 2008 students. I instructed students to write an essay on a specific topic: *Explain how the current floods (January 2008 – March 2008) affect the living conditions of people in the north-*

central region of Namibia. I gave the same topic as before the intervention to ensure reliability: another topic might have been easier or more difficult to write about which would compromise the reliability of the data. Participants (class 1 and class 2) wrote the essay in class time. The essays were marked and graded by two lecturers at Oshakati Campus. The essays were graded according to the Grading criteria grid illustrated in Appendix 2. No inter-rater reliability was done.

The last laboratory reports for Chemistry, Physics and Biology were written and graded in October, and these marks were also used for data collection of my study.

Students also had to complete the same questionnaires as in March. However, the wording of the questionnaires was changed slightly since the participants had to report on their experience and attitudes towards writing after having completed the FP. In the pre-intervention questionnaire the statements would read, for instance: I like the writing lessons **at school**. After the intervention, the same question would read: I like the writing lessons **on FP**.

Cycle 1: Step 6: November 2008: Record keeping: I **recorded the results** of the questionnaires, essays and laboratory reports and did a preliminary analysis of the results to determine the effect of the writing interventions on students' writing ability.

Cycle 1: Step 7: December 2008: Critical reflection after cycle 1: At the end of the intervention in 2008, I conducted a **critical review** for each of the two classes. This was an in-depth process which allowed me to reflect on the quality and effectiveness of the two writing approaches respectively. I managed to determine the strengths and weaknesses of the intervention materials. This is a core feature of action research and the thinking involved in this phase is described fully in Chapter 4.

Cycle 2: Step 1: December 2008, January 2009: Materials development: I wrote **writing materials based on the process genre approach.** I merged the materials of 2008 to get a hybrid approach which then formed the process genre approach. The materials are thus a combination of the recursive steps of the writing process as well as focus on the finished product in the form of example essays for different genres of academic writing (cause and effect essays, compare and contrast essays, classification essays, laboratory reports and argumentative essays).

Cycle 2: Step 2: March 2009: First investigation of the action research cycle 2: In 2009 with the new intake of students, I followed the same steps as in 2008. The **essay** topic was different: *Explain the importance of tertiary education in Namibia*. The essays were marked and graded by two lecturers at Oshakati Campus. The essays were graded according to the Grading criteria grid illustrated in Appendix 2. No inter-rater reliability was done.

Students also completed closed-question and open-question **questionnaires** based on their school writing experience, attitudes, habits and materials.

I also conducted **interviews** with the Biology, Physics and Chemistry lecturers with regard to students' laboratory report writing abilities.

Cycle 2: Step 3: March - October 2009: Implementation of process genre approach: I **implemented the writing materials**. The materials were used in exactly the same manner in class 1 and class 2. I had to use two classes as I could not exclude one class from the intervention for ethical reasons. This means class 1 and 2 students received the same modules which involved the process genre writing. I did not have a control group based on ethical considerations.

Cycle 2: Step 4: November 2009: Evaluation: At the end of their academic year on the FP, I had to **determine the effect** of the process genre approach on the writing abilities of the 2009 students. I instructed students to write an essay on a specific topic: *Explain the importance of tertiary education in Namibia*. I gave the same topic as before the intervention to ensure reliability: another topic might have been easier or more difficult to write about which would compromise the reliability of the data. Participants (class 1 and class 2) wrote the essay in class time. The essays were marked and graded by two lecturers at Oshakati Campus. The essays were graded according to the Grading criteria grid illustrated in Appendix 2. No inter-rater reliability was done.

The last laboratory reports for Chemistry, Physics and Biology were written and graded in October, and these were also used for data collection of my study.

They also had to complete the same questionnaires as in March. However, the wording of the questionnaires was changed slightly since the participants had to report on their experience and attitudes towards writing after having completed the FP. For instance, in pre-intervention questionnaires a statement would read: There were useful materials relating to writing activities **in school**. The post-intervention statement would say: There were useful materials

relating to writing activities in **FP English lessons**. They were also asked to comment on the nature of the materials that they received on the FP.

I conducted post-intervention **interviews** with the Biology, Physics and Chemistry lecturers with regard to students' laboratory report writing abilities.

Cycle 2: Step 5: November 2009: Record keeping: I **recorded the results** of the questionnaires, essays and laboratory reports and did a preliminary analysis of the results to determine the effect of the writing interventions on students' writing ability.

Cycle 2: Step 6: December 2009: Critical reflection after cycle 2: At the end of the intervention in 2009, I conducted a **critical review** for the 2009 classes. This was an in-depth process which allowed me to reflect on the quality and effectiveness of the process genre approach. I managed to determine the strengths and weaknesses of the intervention materials. This thinking phase is described fully in Chapter 4.

3.3.2 Data

3.3.2.1 Population and sample

Qualitative research tools:

Interviews 2009: Population: Four FP Science lecturers were interviewed. These lecturers were the existing Science lecturers of the FP, therefore convenience sampling was used to determine the sample for the interviews. The Science lecturers were two Physics lecturers, one Biology lecturer, and one Chemistry lecturer. These lecturers were chosen as they presented the Science lessons to the FP students, did the experiments with them and also marked their laboratory reports.

Questionnaires 2008 and 2009: Population: Convenience sampling was used to identify the population. Because of the nature of the study and my responsibility towards the students I was not able to choose a subset from each class or one class only to carry out the intervention. The population used in all the research tools reported on below (qualitative and quantitative) was the FP students registered at UNAM Oshakati campus. For action research cycle 1 in 2008, the population was the FP class 1 and class 2 students. In 2008 there were 24 students in Class 1 and 25 students in Class 2, adding up to 49. For action research cycle 2 in 2009 there were 33 students in Class 1 and 33 in Class 2: 66 students all together. The total population for 2008 and 2009 is thus 115.

Sample: Open-question Questionnaire 2008: The sample is the students of Class 1 and 2 who were present on the day the questionnaire was done in lesson time.

Open-question Questionnaire 2009: The sample is the students of Class 1 and 2 who were present on the day the questionnaire was done in lesson time.

Quantitative research tools:

Essay marks 2008 and 2009 pre- and post-intervention: The sample is Class 1 and 2 students who were present on the days the essays were written in class time. In 2008, for the pre-intervention essay, one student was absent, which brings the total number of essays handed in to 23. Four students were absent on the day the post intervention essay was written, with the total number of essays handed in 20. In 2009, only 27 out of the 33 Class 1 students handed in their essays, whereas 25 Class 2 student essays were handed in.

Laboratory report marks 2008 and 2009 pre- and post-intervention: The sample consisted of the students that handed in the laboratory reports.

Closed-question Questionnaire 2008 pre- and post-intervention: The sample is the students of Class 1 and 2 who were present on the day the questionnaire was done in lesson time.

Closed-question Questionnaire 2009 pre- and post-intervention: The sample is the students of Class 1 and 2 who were present on the 2 days the questionnaire was done in lesson time.

Next follows a detailed list of the number of students present on the days the data was collected:

Essays:

2008 pre-intervention: Class 1: 23; Class 2: 22

2008 post-intervention: Class 1: 20; Class 2: 24

2009 pre-intervention: Class 1 and 2: 52

2009 post-intervention: Class 1 and 2: 52

Questionnaires:

2008 pre-intervention: Class 1: 24 responses; Class 2: 25 responses

2008 post-intervention: Class 1: 15 responses; Class 2: 18 responses

2009 pre-intervention: Class 1 and Class 2: 56 responses

2009 post-intervention: Class 1 and Class 2: 59 responses

Laboratory reports:

2008 Biology pre-intervention: Class 1: 24; Class 2: 23

2008 Biology post-intervention: Class 1: 24; Class 2: 23

2008 Physics pre-intervention: Class 1: 24; Class 2: 19

2008 Physics post-intervention: Class 1: 23; Class 2: 19

2008 Chemistry pre-intervention; Class 1: 24; Class 2: 24

2008 Chemistry post-intervention: Class 1: 24; Class 2: 24

2009 Biology pre-intervention: Class 1 and Class 2: 66

2009 Biology post-intervention: Class 1 and Class 2: 66

2009 Physics pre-intervention: Class 1 and Class 2: 66

2009 Physics post-intervention: Class 1 and Class 2: 66, but 3 were absent

2009 Chemistry pre-intervention; Class 1 and Class 2: 66 with 3 absent

2009 Chemistry post-intervention: Class 1 and Class 2: 66 with 12 absent

3.3.2.2 Data: Explanation of the Data obtained

Interviews: I set up the interview questions and the four Science lecturers were interviewed before the intervention and again after the intervention in 2009. The interviews were tape recorded. The data is qualitative and descriptive. The data obtained during the interviews focused on the quality of students' laboratory reports before and after the intervention. I wanted to find out what the students' strengths and weaknesses were regarding laboratory report writing.

The interview questions can be separated into three different sections. The purpose of the first section was to gain an overall insight into the types of writing activities done in the Science lessons. It also focused on the students' strengths and weaknesses in the writing skills to determine if there were any similarities compared to the quality of the students' English writing skills. The second section aimed to find answers about the students' laboratory report writing experiences as perceived by the science lecturers. It also dealt with the lecturers' part in preparing the students to write laboratory reports and the strengths and weaknesses in the laboratory report writing skills of students as identified by the Science lecturers. In the third section the interview questions became more specific with regard to

students' ability to use the appropriate vocabulary, style, grammar, cohesion techniques and structure when writing laboratory reports.

The semi-structured interviews included the following questions:

1. What writing activities do students do in Biology/Physics/Chemistry lessons?
2. Which writing activities are students good in and which are weak?
3. How do you prepare students to write effective laboratory reports?
4. What aspects of laboratory report writing are students doing effectively?
5. What are they struggling with?
6. Do students use grammar effectively, like correct subject-verb agreement, or past tense passive voice in the procedure section?
7. Do students use words like 'to determine', 'to test', 'to examine' in the aim?

The complete set of questions is found in Appendix 5.

Closed-question questionnaire answers: The questionnaire was self-administered in class time under my supervision. The first closed-question questionnaire was administered before the intervention focusing on information before students started with the writing programme on the FP. The second closed-question questionnaire was done after the intervention with some adaptations. In 2008 I had only three sections on this questionnaire: section 1 – biographical and educational background; section 2: attitudes towards writing and section 3: writing experience. After personal reflection, I found that the questionnaires did not give me enough information on the materials and pedagogical purposes of writing. Therefore, I added two sections in the 2009 questionnaires. In 2009 the statements were divided into five sections.

The first section of the data received from the application of the closed questionnaires in 2008 and 2009 will provide insight into students' biographical and educational background. This helped me to understand the students' past learning situation and socio-economic background which would have a bearing on the material planning and presentation, but will not be reported on in the data analysis and interpretation, as it was summarized in the background of the students in Chapter 1. The statements in the following sections relating to

the writing habits, attitudes towards writing, the type of materials they were exposed to and their expectations focus specifically on their writing experience and ability before and after the intervention. I will be able to determine whether any changes have taken place in their experience of, attitude to and ability of academic writing. The strength of this data is that I will have a complete set of all the participants present on the day of application since it was done in class time. The weaknesses relate to possible faking, acquiescence and misunderstanding the questions. The data is presented based on certain topics and in a numerical and/or statistical manner. The statements were rated on a five point Likert scale. The questionnaire can be found in Appendix 6.

Open-question questionnaires: This self-designed questionnaire was applied to counter the weaknesses of the closed-question questionnaires and to allow students to give a richer description of their writing habits, experience of and attitude to academic writing. The data consists of sentence answers given by students. The data obtained by this questionnaire can be used in a quantitative manner based on topics and in a qualitative way, describing the experience, attitudes and expectations comprehensively.

Some questions from questionnaire 2:

1. How did you feel when your teacher/lecturer instructed you to write an essay?
2. What type of essay questions did you get (e.g. articles, letters)?
3. How much time did you spend on average on writing an essay of about 200 words?
4. What are your weaknesses in writing?
5. What kind of writing do you expect to get on the FP?

The complete questionnaire is in Appendix 7.

Essay evaluations: The essay results are those marks that students scored after they wrote the pre- and post-intervention essays in 2008 and 2009. The essays were marked out of 20 and then the percentages were calculated. There are two sets of marks for each student, provided that the student was present on both days when the essays were written. The first mark is the pre-intervention result and the second mark is the post-intervention result. The marks were

recorded and an Independent Samples t-test was done to determine if a statistically significant improvement was achieved.

Laboratory report evaluations: The first laboratory report marks obtained after the students did their first actual experiment in Biology, Physics and Chemistry were recorded by the Science lecturers and provided to me. These marks constitute the pre-intervention marks. The post-intervention marks are the marks of the last laboratory report that students wrote in the same year. That means there are 2 sets of marks for Biology, Physics and Chemistry each. The results were analysed using an Independent Samples t-test to establish if a statistically significant improvement had resulted.

3.3.3 Analysis

3.3.3.1 Analysis code

2008: Process approach: Class1 and Modeling/imitation approach: Class 2

Pre-test and post-test essays: quantitative: percentages: Independent Samples t-test and Bar graphs to indicate changes in marks.

Pre-test and post-test laboratory reports: quantitative: percentages: Independent Samples t-test and Bar graphs to indicate changes in marks.

Closed-question questionnaire: qualitative and quantitative: Bar graphs of significant issues and descriptions.

Open-question questionnaire: qualitative and quantitative: Bar graphs of significant issues, verbatim responses and interpretive descriptions.

Critical reviews: descriptions to indicate the strengths and weaknesses as experienced by the English lecturer (researcher)

2009: Process genre approach: Class 1 and 2

Pre-test and post-test essays: quantitative: percentages: Independent Samples t-test and Bar graphs to indicate changes in marks.

Pre-test and post-test laboratory reports: quantitative: percentages: Independent Samples t-tests and Bar graphs to indicate changes in marks.

Closed-question questionnaire: qualitative and quantitative: Bar graphs of significant issues and descriptions.

Open-question questionnaire: qualitative and quantitative: Bar graphs of significant issues, verbatim responses and interpretive descriptions.

Interviews: Themes and concepts are described qualitatively. Interviews were done qualitatively and results were analysed qualitatively, some verbatim responses are provided.

3.3.3.2 Description of the Methods of Analysis

Essay results: SPSS was used to calculate and compute the results. The mean percentages of the pre- and post-intervention essays written in 2008 and 2009 were compared using an Independent Samples t-test, to determine a statistically significant improvement in the academic writing skills of students. In addition, the 2008 marks of Class 1 were compared to the marks obtained by Class 2 students, to determine whether either the process or the modeling writing approach was more useful in improving academic writing skills of students. In 2009, all students received the same writing instruction based on the process genre approach, therefore only the marks before and after the intervention were compared to determine any changes. However, the results of the three different approaches were also compared to each other to determine which of the three approaches yielded improvement and to what extent. The data is displayed in tables and Bar graphs to clearly illustrate whether any improvement has occurred.

Laboratory reports: The first percentages of the first laboratory reports written in Biology, Chemistry and Physics (before the intervention) were compared to the laboratory report marks obtained by students after the writing intervention. Independent Samples t-tests were used to determine statistical data to indicate whether there was a statistically significant improvement in the students' laboratory report writing skills. The 2008 marks underwent another comparison: the marks of Class1 (who did the process writing approach) were compared to the marks of Class 2 (who did the modeling approach). In 2009, there was only one comparison of marks to determine whether the students' laboratory report writing abilities had improved, since both classes did the process genre approach. In addition, the results of the three different approaches were also compared to each other to determine which of the three approaches yielded improvement and to which extent. Graphs are used to show any differences in the percentages obtained by students.

Closed-question questionnaire: (qualitative and quantitative): The results were analysed using a frequency count and indicating the pre-and post-intervention differences in a summative

table. Since the questionnaire was divided into themes, the data was categorized into the themes and thoroughly discussed.

Open-question questionnaire: The answers of the students were analysed and categorized into themes and described to add depth and richness to the quantitative data. The most important information was provided in a descriptive format and supplemented with graphs or tables where necessary.

Interviews: The data obtained from the interviews were categorised into themes and concepts to provide answers to the research questions and presented qualitatively, often including verbatim responses from the science lecturers.

3.4 LIMITATIONS

Time was the biggest limitation. Action Research involves a longitudinal study with constant critical evaluation and re-thinking. Due to the space constraints of the dissertation, I omitted much detail relating to the needs analysis (Step 1, Cycle 1: 2008). I felt the project was too long and overwhelming, especially in 2009. The time lapse between the beginning of the study and the final writing up felt too long. Perhaps I was too ambitious with having so many research tools to gather the data, and by studying three different writing approaches over a period of two years.

Secondly, some students were absent on the days when the essays, laboratory reports or the questionnaires were written. Also, in hindsight, regarding the questionnaires, I should have adopted the other sections as used by Ho (2006) on the Evaluation of the programme as well, useful information would have been provided if the students could give their opinion about the English course on the FP.

However, I still have adequate data, since the majority of the students handed in their essays, laboratory reports and questionnaires. I believe that the data will still be useful to determine whether any improvements have been made in the FP students' writing abilities, and which writing approach produced the best results.

Also, I was unable to use a control group, which would have increased the internal validity of the study. As a result of my teaching context and ethical reasons I could not exclude one class from the intervention treatment. I used convenience sampling, which will impact on the transferability of my study and the generalizations drawn from the conclusions.

The study will provide information which will demonstrate the value of the three writing approaches in improving students' writing skills. However, this study will not necessarily be transferable to other teaching contexts.

3.5 ETHICAL CONSIDERATIONS

I was in a position to use my own classes in 2008 and 2009 as subjects in the study. Students were briefed about the purpose of the study and they gave their written consent. Another advantage was that there were no prescribed books and I had to write my own materials based on the syllabus objectives. I aligned the syllabus objectives with the writing skills of the process approach, the modeling approach and in 2009, the process genre approach respectively. The project thus contains a materials development aspect in addition to the research itself. These self-generated materials were evaluated by two groups of UNAM lecturers from the Language Centre at the main campus in Windhoek, including the Director of the Language Centre and three English lecturers respectively, for the purpose of quality assurance. The three FP Science lecturers and the laboratory assistant also agreed to participate in the study after I informed them about the aim of the study.

3.6 CONCLUSION

In this chapter, I described and justified the use of an action research project using a mixed method research design. Information on research tools was provided, which was followed by an explanation of the population and samples used for every research tool. The data analysis, as described in this chapter, will provide information on the effectiveness of the three interventions. The chapter concludes with accounts of the limitations and ethical considerations. The next Chapter will focus on the data and data analysis.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

In this chapter I provide the data that I obtained during the study. The data include three reviews (2008 and 2009) of the impact of the three approaches. An extract of the three interventions as well as a meta-analysis in the form of track changes to illustrate how the materials are grounded in the three writing approaches follow. Then I present the data based on the essay and laboratory report results, the closed-question questionnaires, the open-question questionnaires, as well as the individual semi-structured interviews.

Statistical Package for the Social Sciences (SPSS) software was used to illustrate the context of the data in terms of numbers of participants, and the impact of the three approaches used in the interventions on essay and laboratory report results. Inferential statistics was employed to determine a difference among the results entered for each student for the essays and laboratory reports. Tests to determine the pre- and post-intervention mean scores were done, followed by Independent Samples t-test which indicate the statistically significant differences between the pre- and post-intervention essay and laboratory report results. After that, Bar graphs were produced to illustrate the results of the analyses. A summative, overall conclusion was created which indicates clearly the level of pre-intervention and post-intervention performance of the students in 2008 and 2009. In addition, a conclusion could be reached about the extent of the three approaches' potential to improve students' writing skills with regard to the post-intervention results. SPSS was deemed useful for the analysis of the results, because it is simple (Hofstee 2006: 117) and it helped to make the data clear and understandable (Hofstee 2006: 151). All redundant information is removed, and only cumulative information that provides answers to the research questions is presented.

The results of the closed-question questionnaires and open-question questionnaires were grouped according to the constructs given in the questionnaires. Only the most significant findings of the closed-question questionnaires are presented here in the form of frequency count tables, Bar graph displays and descriptions of the meanings concluded from the tables and graphs. Results of the open-question questionnaire are provided in descriptive form with verbatim responses from students' questionnaires. The data which produce relevant information related to the research questions in Chapter 1 are presented.

The 2009 semi-structured interviews were analysed qualitatively to add more depth. The results of these interviews would indicate whether the science lecturers found the interventions beneficial with regard to students' laboratory report writing skills. The results are described based on the most significant answers provided by the lecturers. The opinions of the science lecturers only relate to the 2009 intervention, meaning the process genre approach. Interviews were not conducted in 2008.

The data presentation follows the following sequence.

4.1 **The interventions**: These are presented as a separate document (Addendum of the dissertation) as they contain track changes which alter the format of the document. The track changes contain a meta-narrative indicating my thinking behind the materials development.

- 4.1.1 The process approach
- 4.1.2 The modeling/imitation approach
- 4.1.3 The process genre approach

4.2 **Reviews**:

- 4.2.1 Review of Class 1 (process approach) 2008
- 4.2.2 Review of Class 2 (modeling approach) 2008
- 4.2.2 Review of 2009 process genre approach

4.3 The **context** of the 2008 and 2009 studies and overall assessments are presented next.

4.4 Independent Samples t-test to indicate statistically significant differences in pre- and post-intervention results are provided as well as Bar graphs illustrating the **effects of the interventions** on the **essays**. The 2008 and 2009 pre- and post-intervention essay marks were used to show the impacts of the interventions.

4.5 The 2008 and 2009 marks of the pre-intervention and post-intervention **laboratory reports** were used to indicate whether the interventions had a cross-curricular effect. Independent Samples t-test to determine statistically significant results were used. Bar graphs illustrate the difference in results obtained by students and also the difference of results produced by applying the three different approaches.

4.6 The results of the 2008 and 2009 pre- and post-intervention **closed-question questionnaire** are given.

4.7 The results of the 2008 and 2009 pre- and post-intervention **open-question questionnaire** are provided.

4.8 **Interview results**: 2009

4.2 THE INTERVENTIONS

Please see the separate document (Addendum).

4.3 REFLECTION REVIEWS

Review refers to a reflection activity and is recommended as an important step in the action research cycle. I did formal reflection in 2008 and 2009 and the following three sections present the information resulting from the review activity. The 2008 reviews provided crucial input for the decision to explore the usefulness of the process genre approach to improve the writing skills of FP students.

General information related to all students (2008 and 2009) involved in the study:

In general, students could communicate orally in English and they passed their Grade 12 Science subjects which means their understanding must have been of intermediate to a high level. Their ability to understand diagrammes like tables and graphs was good, but in general they lacked the skill to explain the diagrammes fully. In terms of writing, most were struggling. They knew that an essay must have an introduction and a conclusion, and they could identify those two concepts, but they struggled to write them. Their content was a mixture of ideas, opinions, suggestions and recommendations with no logical order. Their ideas were generalized with no depth and very little evidence or examples for statements. There was no logical development in their essays. There was no logical, clear, meaningful paragraph structure. Students had difficulty with correct language usage as explained below. When students had sources to find ideas for their essays, they did not know how to extract relevant, essential points, make notes and summarize. In fact, they often plagiarized and failed to give references.

4.3.1 Review 2008: process approach

After the introduction to the idea that writing is a process and not a once-off activity (the house-building analogy), it seemed as if students realised the lack in their approach to writing.

Features of the process approach:

Analysing topics:

This short unit to identify the key points in a topic was useful to most students. Whenever students wrote essays, this activity was done together in class time, not with every single topic, but with four or five. This helped them to provide relevant ideas and not miss the topic. However, in examination conditions, students seemed to forget what they learnt in class: how to actually circle and underline the key concepts in an essay topic. There were some cases where students missed the topic in exam conditions.

Specific techniques to generate and organizing ideas:

Students seemed to find this unit very interesting and they liked the group work activities to generate ideas. I introduced them to the different techniques one at a time. The first technique was free-writing, which they liked, but hardly any student used that technique when they had to actually generate ideas for their assigned essays. The second technique was spider diagrammes, which most students favoured and used when they had to do pre-writing activities in the writing units that followed. I think the simplicity and time efficiency of this technique lead to many students using it. However, their ideas were still very shallow. The tables and flow charts also seemed useful, but not to the same extent as spider diagrammes. Very often, the relationships between their ideas were not clear, but it did improve with time. For instance, when I showed them in the classification unit how to organize ideas of three or four items to be classified, they grasped the concept and applied it well, which lead to more meaningful ideas and organization. They wrote especially effective compare and contrast essays, and their cause and effect essays also showed a good understanding of the relationship between structure and content, as well as relationships between ideas, which starts with generating and organizing ideas.

Paragraphs:

Once students realized how simple it is to take the key points of the ideas and write them into topic sentences, they could apply this really well. On the other hand, some students persisted in giving sub-headings instead of topic sentences or their topic sentences often lacked a predicate. Writing strong and sufficient supporting sentences in each paragraph was more challenging. Even though they understood the concept of writing topic and supporting sentences, their ideas often lacked depth, but it was in general still better than at the

beginning of their FP year. As a result of organizing paragraphs into topic and supporting sentences, they had more ideas and could easily reach the word limits.

First drafts:

I checked all students' first drafts to ensure that their content was valid and in relation to the topics, which they mostly managed well. However, their language usage was still a worrisome issue. Students were very appreciative of this action and eager to hand in their first drafts to receive help.

Language usage:

The biggest problem with language usage was their subject-verb agreement. Many students failed to add the plural form if their subjects were supposed to be plural and consequently the plural verb form was also wrong. They also often failed to add the –s at the end of a verb if the subject and the verb was singular. We did many grammar activities in class to practice this concept, and then students managed very well but when they wrote their essays independently they 'forgot' about it or did not know how to apply the rule successfully. This suggests that language items taught discretely might not transfer to the students' independent writing. I employed different ways of explaining this issue, but failed to get all students to understand it.

At the beginning of the FP, students also cut off their words at the end of the line at the wrong places. This means they did not know about syllables and the appropriate places to separate the words. Because of a lack of time to teach this concept, I took the expedient route and told them never to separate words at the end of a line and rather write the whole word correctly on the next line. This was understood quite well.

Students also displayed linguistic characteristics of the language variety we call "Namlish". This includes the overuse of the present continuous tense (I am having a book), the terms "used to", "whereby", "starting to...", phrases like "Newton was the one who invented...", "lions they are carnivores..", "I am footing/moving to school", the correct use of "again" and "also", "both" and "all", "this" and "these", "a", "an" and "the", etc. One big problem was the spelling of words containing l and r. As a result of mother tongue interference, students confused these two letters and had many spelling errors, for instance: rular instead of rural. These issues were dealt with in error correction lessons and spelling tests and mostly

eradicated, but entrenched features of a developing variety of a language proved challenging, and some students persisted with these practices.

Sentence structure was problematic at the beginning. Students tended to write very long sentences which then became confusing. Sometimes their paragraphs consisted of two sentences or even only one. We did practical activities in class to correct this, and their sentence structure became more effective.

Punctuation, especially the use of capitals, was an issue at the beginning. Students started paragraphs and new sentences with small letters and even wrote names with small letters. This was also addressed in error correction lessons and most students improved.

All in all, I felt the process approach writing intervention was effective in improving the academic writing skills of the students. The important principle, writing is a process, was implemented successfully, but mostly in lesson time and with my guidance. Students did pre-writing activities before the actual composing, they wrote one draft which was edited in class by themselves and their peers and they re-wrote. My role to provide input and assistance was very labour-intensive but rewarding.

Laboratory reports: My observation was that the students improved their laboratory report results considerably, especially in Biology and Physics. They found the unit on laboratory report writing very useful as they could see the relevance clearly and after the unit they were very pleased with the improvement in their laboratory report marks.

However, the recursive principle was not consistently evident in students' actual composing process. Even though I would have wanted to agree with proponents (Goldstein and Carr 1996; Badger and White 2000; Emig 1971) of the recursive-principle, I cannot do that. In class, this principle was encouraged but it is not a very practical issue with large classes and students who are still dependent on a considerable amount of input and guidance from the lecturer. Lessons are usually structured and organized into steps and activities that follow logically. Perhaps, students used this principle when they continued with their essays at home. But, there is no conclusive evidence to support this. If recursiveness is understood as the ability to be flexible in the phases of planning, translating ideas into sentences, reviewing and re-writing then that is what was done in class, But, based on the explanations of recursiveness by Badger and White (2000), Emig (1971), it was not achieved in the English

lessons on the FP. For that reason, I decided that recursiveness as a principle of the process approach is not entirely useful in the English FP lessons.

Another issue was time. I agree with Horowitz (1986) that time is a contentious issue. Time was not a problem when the essays were written for continuous assessment in the lessons. When students conducted the essay-writing activities in lesson time, it took at least six lesson hours of 55 minutes each, from analysing the topic to editing the first draft. Students were allowed to re-write the essay at home after the editing lesson and then hand in the following day. However, the essays that students wrote for the study, tests and examinations could only be written in one hour. Then students could not follow all the steps proposed by the process approach. This was reflected in their marks. Whereas their continuous assessments marks for essays were relatively good, the results of the essays for the study, tests and examinations were not as good.

In conclusion, after the intervention, I still felt that the process approach had many features that could be used effectively to improve academic writing skills.

Summary of salient themes/patterns that showed improvement using the process approach:

- Analysing topics was beneficial.
- Spider diagrammes were most successfully used to generate ideas. Idea generating techniques resulted in the following: more realistic ideas, more depth in ideas, more effective relationships between ideas.
- Organising ideas improved: paragraph structure was more meaningful and effective, students managed to write effective topic and supporting sentences. The higher level of depth in paragraphs illustrated a deeper level of thinking about ideas. Students' paragraph structure showed a clear relationship between content and structure.
- Language usage: there was some improvement in subject-verb agreement, cutting of words decreased and spelling and punctuation improved considerably. Students managed to have a better sentences structure and sentence length.
- Laboratory reports: There was a definite improvement in all respects, especially structure. Language usage improvement in the use of past tense passive voice and spelling was evident. Students also managed to use more appropriate vocabulary.
- The following process approach features were helpful in the writing of academic essays, but mostly only during class time and not in the research pre- and post-intervention setting: recursiveness, review, sufficient time, peer-editing, role of the writing teacher.

4.3.2 Review 2008: modeling/imitation approach

This group of students displayed the same inadequate academic writing abilities as the students in the process approach group.

Introduction to Modeling/imitation approach: Students enjoyed playing "Simon says[7]...", which is important as better learning takes place when having fun. The more serious approach to finding the relationship between imitation and writing and the dictionary work to find meanings was also done with enthusiasm, especially because most students did not have dictionaries at school and this was their first encounter with dictionaries.

Features of the modelling/imitation approach:

Reading and analysing weak and strong examples before the actual writing:

Students first had to read the whole essay to get a general understanding of the text. Then the strong and weak essays were analysed in small steps starting with the introduction and ending with the conclusion. A comparison was drawn between the two essays and students had to determine the criteria based on the effectiveness of the strong essay. In my view, reading and analysing examples of a text before writing is beneficial, and a comparison of the pre-intervention and post-intervention essay results shows an average improvement of 12% of Class 2. The process approach comparison of pre-intervention and post-intervention essay results shows an average improvement of 13% for Class 1. This means that the improvements were fairly similar, an outcome also determined by Storalek (1194) in her study into the effectiveness of 5 different types of instructions. Proponents of the modeling/imitation approach (Bender 1993; Butler 2003; Farmer & Arrington 1993) assume that examples help students become more effective and independent. But the FP students failed to become totally independent with this skill. There was never a time when students comfortably and effectively analysed a whole example essay without my input. They still needed assistance until the end of the FP course.

The modeling approach allowed for discovery learning:

[7] A children's game: one person is the leader and the group must imitate the actions done by the leader, but only if s/he announces "Simon says" before the action (e.g. waving arms). If s/he does an action without saying "Simon says" and some group members imitate the action, they are disqualified and have to sit. The last person standing is the winner.

I asked the questions regarding form, structure and language usage and students found the answers in the example essays. Students found the features demonstrated in the examples and could determine the functions and importance of the characteristics of the example essays, which they could model in their own essays. Reading and analysing examples was never a passive, mindless and unthoughtful learning method for FP students as explained by some apprehensive critics (Flanigan 1980; Harwood 2005; Kim & Kim 2005). The examples of laboratory reports were especially welcomed by students as they had written their first reports and received low marks. After reading and analysing the example reports in the English lessons their marks of the following reports improved considerably.

Generating and organizing ideas:

When students had to write their own essays, I compared the form of the essay to a specific template that would help students to structure their ideas meaningfully. This helped them to generate more relevant, meaningful and realistic ideas and organize them successfully into effective paragraphs. I modeled a number of techniques to generate ideas, like diagrammes, notes and free writing. Most students preferred the spider diagramme or note making technique. Their essays were no longer jumbled lists of ideas. Students managed to produce paragraphs with better organization and more depth as proposed by Coe (1987). It was interesting to witness how attention to form resulted in more effective idea generation and structure. Students' positive experience with regard to generating ideas more effectively had an affirmative effect on their skills as academic writers.

Writing first drafts:

Even though multiple drafts is not a principle of the modeling approach per se, I applied it in the lessons. I checked all the students' first drafts to determine whether their writing was related to the topic and the expected structure. The content and structure of the essays improved, but their language usage did not have the same level of improvement. It appeared as if the examples were not as effective as hoped to improve students' language usage. This could be related to Watson's (1982) apprehension regarding the questionable extent of input that leads to intake. In the case of this study the input had a limited effect on the language usage of students. Students of Class 2 showed similar deficiencies as the Class 1 students. To avoid repetition I will not discuss it here again.

Laboratory reports: Class 2 students enjoyed doing the simple experiments in the lesson and using the examples related to the experiments seemed useful. They felt more comfortable writing their own reports. Their marks improved which created a positive attitude towards laboratory report writing.

On the whole, the modeling approach was useful in improving students' academic writing abilities. Under my supervision FP students used the examples of model essays effectively to develop their writing skills. It would be interesting to know whether students continue to use this technique independently in a different learning context. My observation was that the examples demystified the academic texts students were expected to write. It illustrated what was expected of them, which reduced their apprehension. My observations were similar to those of Charney and Carlson (1995): using model texts have an impact on certain aspects of students' writing skills, like generating more relevant ideas they might have omitted without the examples, organization of ideas and, style and rhetoric, and structure or form. The only aspect that was not addressed satisfactorily by the modeling approach was language usage as explained earlier.

As a result of these observations of the two approaches used in 2008, I decided to use the process genre approach in 2009 to determine whether it would have a greater effect on the level of improvement of FP students. These reviews prompted me to re-think the effectiveness of the two approaches used in 2008: process and modeling/imitation. While a measure of success was evident, I would have liked more students to write more effective essays. Therefore, I decided to use the process genre approach in 2009. I believed that if the beneficial features, strategies and techniques of the process- and the modeling/imitation approach were combined, more success could be achieved with regard to writing improvements of FP students.

<u>Summary of salient themes/patterns that showed improvement using the modeling/imitation approach</u>:

Improvement was seen in:

- Reading and analyzing weak and effective essay examples: students were very appreciative when they received examples of model essays. Model essays seemed to be beneficial and helpful for using in the class. Analysing example essays taught students how to read with more concentration and what features and conventions to look out for and to apply in their own writing.

- Discovery learning: the example essays helped students to understand the relationship between form, style, language usage and content.
- Imitation: students realized the advantages of reading effective essays, and using the essays effectively to write their own criteria and their own essays.
- An imitator is a synthesizer: students managed to use what they learned from the example essays. They added their own content and, therefore, became more effective in synthesizing information, form, language usage and style.
- Generating ideas: spider diagrammes were mostly used. The depth of their ideas improved as well as the relationships between ideas.
- Laboratory reports: students used the example laboratory reports to help them write their own reports. The structure of students' laboratory reports showed improvement. Their content was also better because they determined what information is required under each of the sub-headings in laboratory reports. Language improvement was found in the use of past tense passive voice, spelling and writing the conclusion.

4.3.3 Review 2009: process genre approach

I felt that the unique situation presented by the FP students called for an eclectic approach to improve their writing skills. The process genre approach as I applied it is a combination of the process and modeling approaches with an extra focus on genre. The educational background of the 2009 students was similar to that of the 2008 students, thus I will not repeat it here.

Introduction to Process genre approach:

The meaning of process genre approach was explained by using the same introductory materials of the process approach (writing process) and the modeling approach (Simon says, and dictionary work). An added feature was the genre. In hindsight I realized that a considerable amount of writing theory was presented to students, and I am not sure whether they fully understood the relationship between the three key concepts: process, modeling and genre.

Features and stages of the process genre approach:

Models as input:

The models served multiple purposes. They were used to analyse topics and determine the relationship between the title, the purpose, audience, structure, content, language usage and style. For each genre of essay students had to write for continuous assessment pruposes in the English class on the FP, they received example texts or essays: classification, cause and

effect, laboratory reports, compare and contrast, and argumentative essays. The reading and analyzing of the examples in class time helped students to understand how academic texts are written. They were able to see how ideas were stated and clarified by the use of topic and supporting sentences in the input texts. In addition, the variety of effective introductions and conclusions encouraged students to write more effective introductions and conclusions in their own essays. Before the intervention, they normally wrote summaries as their conclusions which were often just repetitions of a collection of sentences in the essay and therefore not very effective. During and after the intervention, students realized that there are many different ways to begin and end an essay, and their own introductions and conclusions improved with regard to content and structure. The examples were helpful to illustrate how theoretical, abstract concepts like purpose, audience, structure, content, language usage and style are practically incorporated in the writing process. However, since model essays were not available during the pre-and post-test essay writing activity for this study, the true effect of this feature cannot be commented on with confidence.

Generating and organizing ideas:

I modeled to students how to generate ideas using the same techniques as in the process approach. The different techniques were dealt with individually and we also did joint idea-generation as class activity, or group- and pair work. This unit was done at the beginning of the programme to allow students to choose the technique(s) that appealed to them most. Students were not expected to write essays after they generated the ideas in this unit. Students felt that they wasted their time generating ideas and then just stopping abruptly to learn a new technique without doing something with their ideas. I believe I should have done this differently, by introducing a new idea generation technique for each actual essay that students were expected to write. On the other hand, there is a disadvantage of not introducing all idea-generating techniques at the beginning of the course: students might only at the end of the course find the technique most suitable for them.

Writing paragraphs:

We looked at example essays to identify topic sentences, and to determine how the supporting sentences are related to the topic sentence of each paragraph. Students analysed the paragraphs to determine the features of the paragraphs based on the genre, purpose and audience. Then students had to write their own paragraphs based on similar topics. Even though most students were able to draw the relationships in the example essays, they needed

a considerable amount of guidance to be able to do it themselves and to reach a certain level of depth in their own paragraphs. The benefit of initially working with paragraphs instead of whole essays was that I could closely monitor each student to determine weaknesses and address them. When students managed to write their paragraphs more effectively, they had more confidence to write longer essays.

Consolidation:

After the units about topic analysis, generating and organising ideas and writing well-developed and structured paragraphs, a class essay was written. A genre was chosen, for instance compare and contrast and then a topic: tigers and lions. The topic was analysed by looking at the meanings of compare (similarities) and contrast (differences). Then in groups students generated the ideas which were recorded by me and then the ideas were grouped into two sections: similarities and differences. I used the ideas to write an essay which students copied. Although time-consuming, these structured activities were useful to students as they became familiar with the genre, the methods and techniques of the writing process and in the end they had a model essay which they could imitate.

Re-inforcement:

Another example essay was provided and analysed based on content, structure and language. The purpose of this activity was to make sure that students understood all the important aspects and their relationships and what a whole essay looks like when all the steps were followed. I believe that this was useful to students as their continuous assessment essays showed improvement.

Writing the essay:

The stages of writing the own essays were done based on the stages of the process approach: pre-writing (analysing or choosing topic, generating and organising ideas); composing (writing the first draft); editing and revising; writing the final draft. These activities were normally done in class time and took about 6 to 8 lesson hours. Students did these activities quite independently and I only offered assistance when asked by individuals. I believe that the examples showed students what was expected of them and the steps showed them how to get to an effective product. The criteria also helped students to stay on track, edit and evaluate their own essays.

Writing laboratory reports:

My general reflection about laboratory report writing is that students gained more confidence after the laboratory report writing unit in the English lesson. However, it would have been better if they could do the experiments in class like in 2008. Nevertheless, the majority of students managed to improve their laboratory report writing skills and that was also reflected in their marks.

My opinion of the process genre approach is that it provided students with all the tools necessary to write more effectively: genres, examples and steps. The time issue as explained in the reflection of the process approach is also an issue here and will therefore not be discussed again. However, in my view, the activities and steps of the process genre approach take more time than only following the recursive steps of the process approach alone or simply using models to imitate.

The same can be said for the language issue. My observation was that the content and structure of students' essays improved noticeably when they had enough time to write, but the language improved only to a small degree, regardless of time.

The outcome of my study based on the process genre approach can be compared to the study of Foo (2007), who also found that after the implementation of the process genre approach, students managed to improve their skills to communicate their ideas and to develop more relevant ideas. Foo did not see great improvement in organising ideas and language usage. In my study students managed to improve in content, and structure, but failed to a large extent to improve in language usage.

Furthermore, writing teachers aiming to use the process genre approach are required to know what types of texts students are expected to write. If these texts are stated in the syllabus, or the course objectives, teachers should be able to determine the genres and incorporate these in their writing syllabus. However, if writing teachers are uncertain about what writing requirements are needed in the students' future discourse community, they might make inaccurate assumptions to the detriment of the writing students. One might argue that writing teachers could attempt to determine the writing rhetoric anticipated for future studies by doing a survey or merely asking future teachers or lecturers about the objectives. But do writing practitioners always have the time, the confidence, and the experience and skills to do that? Do the writing teachers know exactly which institutions or work places the students go

to in future? Are all the rhetorical communities of all educational institutions the same? This means in my view that the process genre approach can only be used effectively if the writing teacher knows what genres to focus on. The disparities in the real classroom situations at students' current or future institutions make it difficult for a writing teacher to decide which genres to choose. In addition, the question that begs an answer is: how well are writing teachers equipped to implement and maintain this approach? How do they know that they have translated the process genre approach successfully into their own teaching situation? How do they know that they are doing the right thing? Do they have to wait until the results of students' writing attempts show that the approach has been effective? What do they do if the approach does not have the desired outcome? These questions could just as well be asked when other approaches are introduced. But they are still valid questions, and they are still drawbacks for almost any writing approach.

Summary of salient themes/patterns that showed improvement using the process genre approach:

- Models as input: The students found the reading and analyzing of model texts valuable. It helped them to understand how academic texts are written. It was useful in improving their continuous assessment marks for FP English essays, but not so useful in the essay writing session for this study or for examinations. However, by that time their writing skill has overall improved to an extent and they produced better post-intervention essays than their pre-intervention essays.

- Generating ideas: students managed to choose a technique that suited them and the writing situation best. The different techniques also helped students to generate more meaningful ideas.

- Organising ideas: students were able to organize their ideas more logically than before the intervention. Their essays had a higher degree of cohesion and coherence.

- Writing paragraphs: this was a useful activity since paragraphs are like short essays and the structure of topic and supporting sentences in each paragraph helped students to have more ideas and write more effective sentences.

- Consolidation: students found the consolidation activity helpful as it practically showed them a framework of how to deal with all the steps when writing essays.

- Writing the actual essay: students were able to write more effective essays with less assistance from me. However, some students were still uncertain about how to narrow a topic and generate and organize ideas.

- Laboratory reports: this unit has mainly helped students to improve their laboratory writing report skills with regard to structure and content. Language issues that improved after the laboratory writing unit were past tense passive voice, sentence structure and spelling.

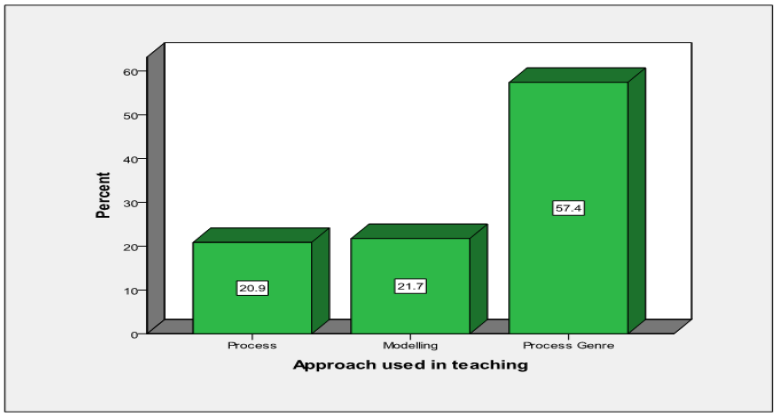
In conclusion, one interesting point of the three review reports is that I have found the same issues as being challenges as students have indicated in their questionnaires: language usage like tenses, and subject-verb agreement. My perception was also that it is easier to improve content and structure, than grammar. Even though students are encouraged to focus on their grammar issues at the end, it is nevertheless an important aspect in writing as effective language usage is part of communicative competence. Language usage affects students' marks, just as one student stated in the open-question questionnaire: "If my grammar is bad, my marks are low, it is discouraging". The reviews indicate that there were some successes with regard to teaching and learning in the writing approaches of 2008 and 2009. But many challenges still remained, for instance students coming to the programme with F in Grade 12 English, and failing to attend the extra-classes offered or office consultations. For those students there was very little hope of showing sufficient improvement as 7 months is not enough to improve all the communicative aspects relevant to academic writing.

4.4 CONTEXT OF THE STUDY

The information below gives the context of the study. It indicates the number of students who took part in the study with regard to the three approaches used in the intervention over two years. In 2008, two different approaches were used: process approach with Class 1, and modeling/imitation approach with Class 2. In 2009, the process genre approach was used with both classes. Important to mention here is that the class sizes differed. In 2008, Class 1 had 24 students, while Class 2 had 25 students. In 2009, both classes had 33 students each. Thus, the adapted intervention (2009) based on the critical reflection after Cycle 1 in 2008, had twice as many students than either group in 2008. The higher number of students in 2009 affected the study mainly in the practical application: I could not provide as much individual assistance to students as in 2008. In terms of the results, it might have an effect: a higher number of students might either get better or weaker results. However, the marks are provided as percentage scores in the tables and graphs that follow. It should therefore not have an effect on the calculations to determine significance levels of mean scores.

Figure 1: Overall context of the study

		Frequency	Percent
Valid	Process	24	20.9
	Modeling	25	21.7
	Process Genre	66	57.4
	Total	115	100



A total of 115 students were taught and monitored in the AR study, which consisted of two cycles spanning over two years: 2008 and 2009. The second cycle was employed after critical reflection on the two 2008 writing approaches. In the first cycle in 2008, 21.7% used the modeling approach and 20.9% used the process approach, whereas 57.4% were instructed in cycle 2 (2009) using the process genre approach. In 2008 the researcher monitored 42% (N=49) of the students while 57% (N=66) of the students were monitored in 2009.

4.4.1 Overall Assessments

The results presented here give answers to research question (f).

(f) How effective have the interventions been to improve students' writing results in academic essays and laboratory reports?

The results are presented first and then an interpretation of the findings is provided.

4.4.1.1 Pre- and post-intervention results compared: essays and laboratory reports (2008 and 2009)

The results of pre-intervention essays and laboratory reports of all three approaches (2008 and 2009) were compared to the results of post-intervention results of essays and laboratory reports of all three approaches. The pre-intervention results of all three approaches were added together to be compared to the combined post-intervention results.

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	427	60.87	14.953	.724
	Post Intervention	403	71.51	13.889	.692

Table 1: Pre- and post-intervention results of essays and laboratory reports compared

The table illustrates the difference in pre-intervention and post-intervention means of essays and laboratory reports. It covers both years to give an overall indication of the effect of the three writing approaches on the academic writing ability of 2008 and 2009 students. It is evident from the table above that the average score at post-intervention assessment (71.51%) was considerably higher than the pre-intervention score (60.87%). The next table provides data which determined the level of significance with regard to the improvement.

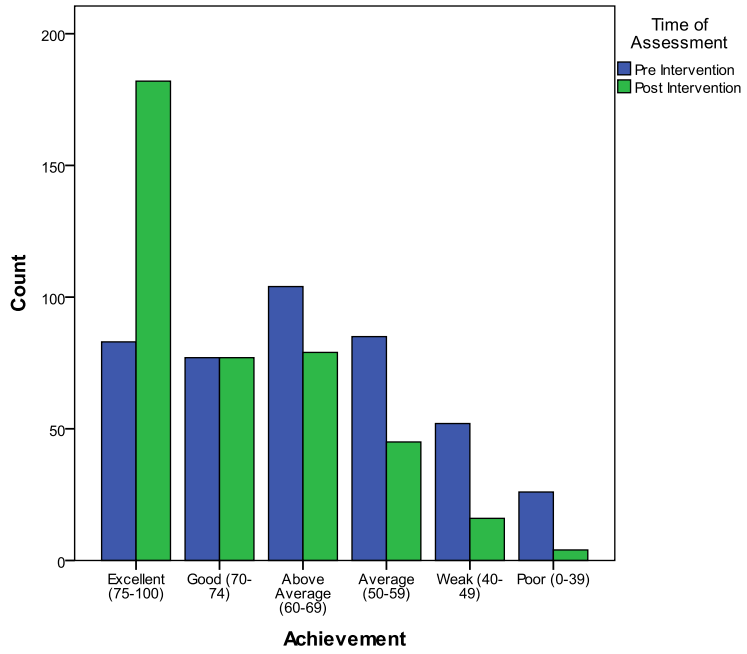
Independent Samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	2.174	.141	-10.604	828	.000	-10.639	1.003	-12.608	-8.669
	Equal variances not assumed			-10.626	827.792	.000	-10.639	1.001	-12.604	-8.674

Table 2: Independent Samples t-test of pre- and post-intervention essay and laboratory report results

In a bid to establish whether the interventions were effective in improving the students' performance on their essays and laboratory reports, a t-test for the equality of means was performed. The null hypothesis was that the interventions had no effect on the academic writing abilities of students. It was shown at the 5% significance level that there was a significant improvement in the performance of the students as a result of the interventions. This conclusion was reached since the p-value of 0.00 is less than the significance level of 0.05. The null hypothesis was rejected. This means that the three interventions had a positive effect on the academic writing abilities of 2008 and 2009 FP students. The following graph illustrates the differences in pre- and post-intervention results.

Figure 2: Bar graph: pre- and post-intervention results of essays and laboratory reports



Results show that the performance of students improved post-intervention. Where only 83 out of 427 students managed to achieve the Excellent result pre-intervention, 182 out of 403 students received an Excellent result post-intervention. Interestingly, 77 students achieved Good results in the pre- and post-intervention measurement. Whereas 104 students received Above Average results pre-intervention, 79 were recorded in the same category post-intervention. 52 Students had Weak[8] results pre-intervention compared to just 16 post-intervention. Furthermore, 26 students were categorized as receiving Poor results pre-intervention compared to only 4 recorded post-intervention. The conclusion of this finding is that there was a distinct improvement post-intervention if results of all three approaches are added together.

The overall results presented above indicate that most students of 2008 and 2009 benefited from the interventions in terms of achieving better marks for their essays and laboratory reports, even if all did not get Good or Excellent results.

This holistic method of presenting the findings creates a background to the individual results for each class and/or each process. Tables 1 and 2 and Figure 2 clearly show that the three

[8] In the Bar graphs Weak and Poor pre-intervention means a higher number of students had 49-0%, whereas Weak and Poor post-intervention means a lower number of students had 49-0%. This means the performance post-intervention is better.

interventions collectively were instrumental in improving students' academic essay and laboratory report writing skills.

4.5 ESSAYS

One of the aims of this study was to determine whether the interventions had any effect on the academic writing skills of the students. In addition, it was stated in Chapter 1 that the study aimed to determine which writing approach would be the most beneficial with regard to improvement of academic writing skills. The tables and graphs below shed light on the two above-mentioned aims. The findings also produce insight into my teaching practice.

4.5.1 Comparison of overall pre-intervention and post-intervention essay results

All the pre-intervention essay results of all three approaches were compared to the post-intervention essay results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	97	46.60	13.041	1.324
	Post Intervention	96	57.08	11.463	1.170

Table 3: Pre- and post-intervention overall essay mean score

It is clear from the table that the post-intervention mean score of 57.08% is higher than the pre-intervention mean score of 46.60%. Thus, there is a difference of 10.45% in the pre- and post-intervention results. However, this is not conclusive to indicate clearly that the interventions had a statistically significant effect on the academic writing skills of 2008 and 2009 FP students. Thus, a test for the equality of means was performed and the results are shown in Table 4 below.

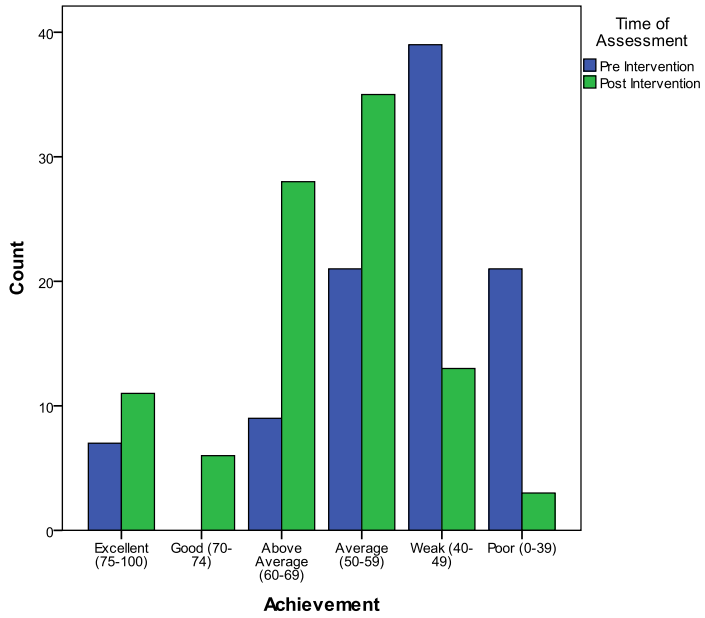
Independent Samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.395	.531	-5.930	191	.000	-10.485	1.768	-13.973	-6.998
	Equal variances not assumed			-5.934	188.380	.000	-10.485	1.767	-13.971	-7.000

Table 4: Independent Samples t-test: for pre- and post-intervention overall essay results

The two-tailed test illustrated above shows that there is sufficient evidence at the 5% significance level to conclude that the interventions were very effective in improving the essay writing skills of the 2008 and 2009 FP students. This conclusion was reached since the p value of 0.00 is less than the significance level of 0.05. Therefore, the null hypothesis was rejected which stated that the performance before the intervention is equal to the performance after the intervention. The following Bar graph illustrates the effect of the interventions on essay results (2008 + 2009).

Figure 3: Bar graph: 2008 and 2009 pre- and post-intervention essay result comparison



Only 7 students achieved Excellent results pre-intervention compared to 11 who achieved Excellent marks post-intervention. There were no Good results pre-intervention. However, 6 Good marks were recorded post-intervention. The Above Average category had an increase of 19 students, from 9 pre-intervention to 28 post-intervention. A high number of students (35) received Average post-intervention, with only 13 and 3 receiving Weak and Poor respectively after the interventions. The post-intervention results indicate a good argument for the three writing interventions with regard to FP students' essay writing skills.

Tables 5 to 10 and Figures 4 to 6 present individual data on students' achievements with regard to the three approaches respectively. These tables and figures provide data which allow a comparison with findings from other studies relating to the three approaches.

4.5.2 Essay Class 1: process approach – 2008:

The tables and the graph below compare the pre-intervention results with the post-intervention results of Class 1 students in 2008. Students wrote these essays in examination conditions in only one hour.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	23	49.35	14.326	2.987
	Post Intervention	20	59.75	12.615	2.821

Table 5: Pre- and post-intervention Class 1 essay mean scores

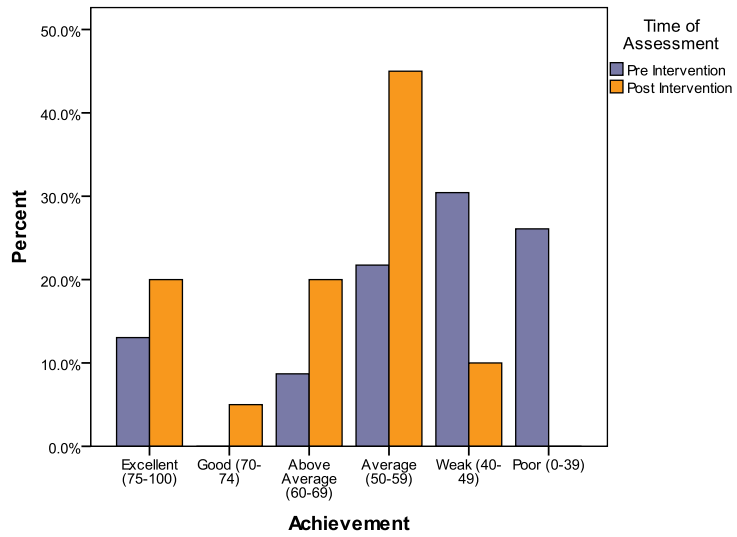
A difference of 10.40% was found between the pre-intervention and post intervention essay scores. The mean pre-intervention was found to be 49.35% and that for the post-intervention score was found to be 59.75%. It was further tested if this difference is significant and the results are shown below.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.264	.610	-2.509	41	.016	-10.402	4.146	-18.775	-2.029
	Equal variances not assumed			-2.532	40.990	.015	-10.402	4.109	-18.700	-2.105

Table 6: Independent Samples t-test for significant difference in Class 1 essay mean scores

The table above shows that Class 1 students managed to improve their academic essay writing skills as a result of the process approach intervention. This is evidenced by a p value of 0.016 which is less than the 5% significance level, allowing the rejection of the null hypothesis which states that the mean scores are the same. Figure 4 presents the data in the form of a Bar graph.

Figure 4: Bar graph: Comparison of Class 1 (2008) pre- and post-intervention essay results



The results show that the post-intervention marks are better than the pre-intervention marks. In Class 1, 13% (3) of students received an Excellent score pre-intervention which increased to 20% (4 students) post-intervention. No Good results were recorded pre-intervention and only 6% - or 1 student - managed to receive Good post-intervention. The Above Average result increased from 8% (2 students) pre-intervention to 20% (4 students) post-intervention. The Average result showed the highest increase from 21% (5 students) pre-intervention to 46% (9 students) post-intervention. The Weak results decreased from 7 (30%) to 2 students and there were no Poor results recorded for post-intervention as opposed to 30% of the pre-intervention results. These results are an indication that the process approach has been useful in improving writing skills of most of the Class 1 students.

Figure 4 shows that students have managed to improve their academic essay writing skills even though 46%, or 9 students out of 20, still have Average results. Researchers citing a positive effect of the process approach on the writing skills of students include Goldstein and Carr (1996), Mahon and Yau (1992), Talshir (1998), and Urzua (1987). However, these studies did not provide comparable quantitative information specifically based on improvements in marks. On the other hand, Ho's findings (2006) indicated quantitative information in the form of pre-and post-intervention comparisons of marks at six schools in Hong Kong. Her results showed post-intervention improvement at the six schools involved

in the study. The results were based on a mark out of 50 for pre-and post-test essays. Improvements ranged from 4.1 points increase out of 50 to a 20 point increase. Only one school received an average 20 point increase, the other schools increased with 11.4, 4.4, 4.1, 5.59 and 5.34 average points out of 50 respectively. These improvements concur with the results of my study.

4.5.3 Essay Class 2: modeling/imitation approach – 2008:

These tables and graph compare the pre-intervention results with the post-intervention results of Class 2 students in 2008. Students wrote these essays in examination conditions in only one hour.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	22	53.18	16.514	3.521
	Post Intervention	24	61.67	11.948	2.439

Table 7: Pre- and post-intervention Class 2 essay mean scores

The table above shows that a mean score of 53.18% and 61.67% was observed for pre- and post- intervention essays in Class 2 respectively. This resulted in a difference of 8.49% in mean scores. In order to determine if the difference in mean scores was significant a t-test was used, as illustrated in the following table.

Independent Samples t-test

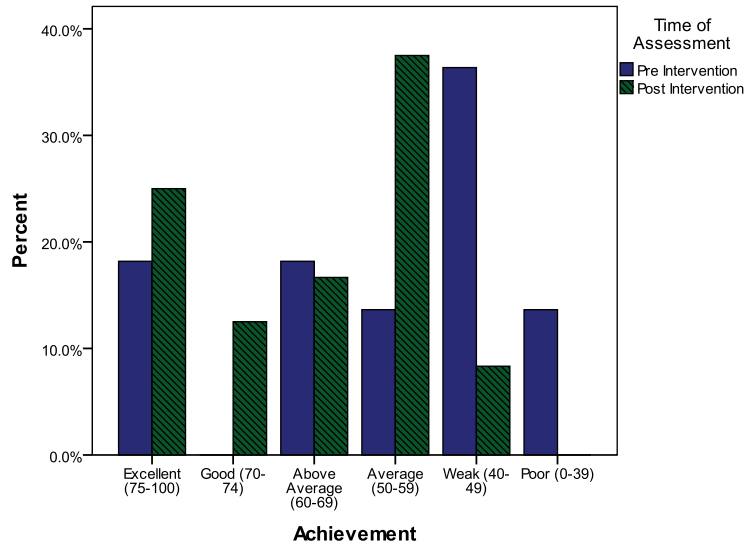
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	1.831	.183	-2.009	44	.051	-8.485	4.224	-16.998	.028
	Equal variances not assumed			-1.981	37.999	.055	-8.485	4.283	-17.155	.186

Table 8: Independent Samples t-test for significant difference in Class 2 essay mean scores

This table indicates that at the 5% significance level the 8.49% difference is not statistically significant since the p value (0.051) is greater than the level of significance (5%). Thus the null hypothesis, which states that the performance is the same, was not rejected. This means that the difference as result of the intervention is insignificant, thus the modeling approach writing intervention did not improve the performance of the class 2 students on essay writing

skills at a statistically significant level. Despite these results the following Bar graph shows that there was a positive change in the essay results of Class 2 students.

Figure 5: Bar graph: Pre- and post-intervention Class 2 (2008) essay results



This graph indicates that in Class 2, the biggest improvement was in the Average category with 14%, or 3 out of 22, students receiving Average pre-intervention and 38% (9 out of 24) post-intervention. There was a slight post-intervention increase in the Excellent section with 7%, from 18% pre-intervention to 25% post-intervention, translated into 6 students, receiving Excellent. No good results were recorded pre-intervention compared to the 13% (3 students) post-intervention. The results show a decrease in the Weak section: from 37% (8 students) pre-intervention to 7% (2 students) post-intervention. No poor results were recorded post-intervention. The results in the graph show that the modeling/imitation approach has affected the writing skills of many of Class 2 students, even though 38% of the students still fall in the Average category.

The results illustrated in Figure 5 indicate a similar tendency to the results achieved for the process approach: there is a slight improvement in Excellent (18% pre-intervention to 25% post-intervention), and Good (no recording: pre-intervention to 13% post-intervention). In the Above Average category the results decreased slightly from 18% pre-intervention to 17% post-intervention. There is a huge difference in Average, from 14% (3 students) pre-intervention to 38% (9 students) post-intervention, the same phenomenon as observed in the

results of Class 1. Two studies conducted by researchers, Stolarek (1994) and Twomey (2003), on the effectiveness of the modeling/imitation approach reported similar results. Stolarek did not quantify her data, but Twomey indicated that out of the 49 students in her study 6 students scored an A post-intervention, 27 scored B's, 12 got C's and 3 got D's. Both contested to the positive impact of the modeling/imitation approach on students' essay marks. A favourable effect of the modeling approach on the academic writing skills of Class 2 students can also be seen in the results of Figure 5.

4.5.4 Essay Class 1 and 2: process genre approach – 2009:

The following tables and graph compare the pre-intervention results with the post-intervention results of Classes 1 and 2 students in 2009. Students wrote these essays in examination conditions in only one hour.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	52	42.60	8.993	1.247
	Post Intervention	52	53.94	9.918	1.375

Table 9: Pre- and post-intervention 2009 essay mean scores

The table above shows that the mean score of Class 1 and 2 pre-intervention results was 42.60%. The post-intervention essay result mean score was 53.94%. There was a difference of 11.34%. It was further investigated if this difference was significant using a t-test as illustrated below.

Table 10: Independent Samples t-test for significant difference in 2009 essay mean scores

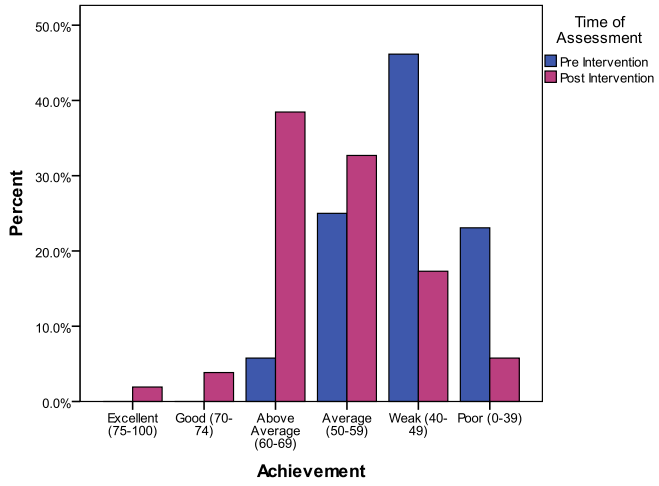
Independent Samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.540	.464	-6.111	102	.000	-11.346	1.857	-15.029	-7.664
	Equal variances not assumed			-6.111	101.037	.000	-11.346	1.857	-15.029	-7.663

The significance level of .000 shows at the 5% significance level the difference of 11.34% is statistically significant. This means that the process genre intervention was successful in improving the performance of the students in essay writing skills. The Bar graph below

shows the pre-intervention results compared to the post-intervention results of the students doing the process genre approach.

Figure 6: Bar graph: 2009 Pre- and post-intervention essay results



The graph indicates that no marks were recorded in the Excellent or Good categories pre-intervention, meaning no student managed to score above 70% pre-intervention. However, only 3 students managed to score above 70% post-intervention, with 2% (1 student) in Excellent and 4% (2) in Good. The 39% (20 students) in post-intervention Above Average compares well with the only 6% (3) pre-intervention. All the pre-intervention marks are from Above Average (5%) to Poor (12 out of 52 students), with the highest result in Weak (24 students), compared to the 18% (9 out of 52 students)in Weak post-intervention. The results in Poor reduced from 23% pre-intervention to 6% (3 students) post-intervention. The steady post-intervention increase from Poor to Above Average is positive in terms of the question whether the process genre approach has benefited students' academic writing skills.

Researchers in different situations have also reported on an improvement in writing skills as a result of the process genre approach. Nordin, Halib, and Ghazali, (2010: 46) reported in their quantitative study at Univesity Teknologi in Malaysia that the process genre approach resulted in a positive outcome for the students. They compared the pre-test and post-test results and found that 79.6% of the students doing the process genre approach received a score between 5.00 and 5.63 out of 6 compared to the 23.1% of the students in the control group who received genre approach instruction, and scored between 5.00 and 5.25, and 8.6% of the students received scores between 3.00 – 3.63. In addition, a study done by Nihayah in

2009 on the effectiveness of the process genre approach indicated an improvement post-intervention. The researcher found that students' mean scores (with a maximum score of 4) taken before and after the study improved with 1.29 to 3.15 on content, 1.62 to 3.01 on organization, and 1.55 to 2.98 on language use. The results of the current study indicate a comparable positive impact on the results of essay writing abilities of students who were instructed using the process genre approach.

4.5.5 Comparison of the essay results of the three approaches: 2008 and 2009:

Most students receiving post-intervention Excellent marks were from the modeling approach at 25% (6 students) with the lowest Excellent achievement recorded in the process genre approach at 2% (1 student). The modeling approach equally recorded the highest Good results (13% - 3 students) with the process approach recording the lowest at 4% (1 student). 39%, (20 out of 52 students) of the students instructed using the process genre approach received above-average marks. However, the highest record in all last three scores namely Average (33%), Weak (27%) and Poor (5%) were recorded in the process genre approach. These results indicate that, if Excellent, Good, and Above Average results are taken into consideration, the modeling approach produced the best essay results (55%), with the process genre approach following in second place (45%). The process approach is not far behind with 44% if the Excellent, Good and Above Average percentages are added together. On the other hand, the differences in mean scores of the three approaches indicate that the process genre approach had the biggest difference with 11.34%, followed by the process approach with 10.4% and lastly the modeling approach with 8.49%.

This finding means that the process genre approach has had the biggest impact on the academic writing abilities of students, albeit marginally. The anticipated improvements resulting from the implementation of the process genre approach were based on the considerations after Cycle 1 of the action research. Despite the fact that there were more students per class in 2009, and that their pre-intervention results (no Excellent or Good recordings and only 6% for Above Average) illustrated weaker writing abilities, there was considerable individual improvement, which resulted in a higher post-intervention mean score. Usually, more students per class translates to less individual assisting, monitoring, input and feedback from lecturers to students, which means students have to be more independent. Interestingly, the process genre approach appeared to have helped the students with their abilities to construct and write academic essays more independently than before, which I believe resulted in a higher mean score than the modeling – and process approach.

4.6 LABORATORY REPORT RESULTS

The effectiveness of academic writing skills is important in writing for the sciences. As the aim of the FP is to equip students with the necessary skills to cope at tertiary level in mainly science-related fields, it is important to help the students write effective laboratory reports. Therefore, students wrote laboratory reports and consequently the pre-intervention laboratory report marks were compared to the post-intervention laboratory report marks to determine any statistically significant difference in their writing ability. The Bar graphs provide information on the effectiveness of the interventions in relationship to the laboratory report writing skills of students in 2008 and 2009.

4.6.1 Overview of how the approaches were used to teach the laboratory report writing unit in the English lessons:

Class 1: 2008: process approach:

Students received information on how to go about writing the laboratory report based on the steps of the process approach. For an introduction, a simple experiment (*The volume and mass of irregular shaped objects*) was done in the English lesson, and then the laboratory reports were written as class activity. The lecturer guided the whole process with leading questions and instructions and application activities. Peer-editing and editing was done regularly. No examples of laboratory reports were provided. A Biology experiment (*Osmosis*) was also done in the English lesson and a laboratory report written in different stages as group work. Special focus was placed on past tense passive voice, how to write in the different sections of a laboratory report and how to use discourse markers, action words and hedging words effectively. Students received the criteria and marked their own laboratory reports. *Ohm's Law* was done in the Physics lesson but the process and the steps of writing the laboratory report were explained in the English workbook and students used those to write their laboratory report. The experiment, *The correlation between the height of a slope and distance travelled by a ball*, was done in the English lesson and reports were written based on the instructions and steps provided in the English workbook and with constant monitoring and input from the lecturer. In effect, this means three experiments were actually done in the English lesson and one in the Physics lesson and four laboratory reports were written in the English lessons.

Class 2: 2008: modeling/imitation approach:

In brief, Class 2 students receiving laboratory report instruction using the modeling approach received examples of laboratory reports: *Titration* and *Volume and mass of an irregular shaped object*. They had to read and analyse the reports based on structure, content, style, and language (this included past tense passive voice, discourse markers, action and hedging words). Criteria were determined. Then students received the instructions for an experiment and had to conduct the experiment in the English lesson. After the experiment they had to write a report (*Volume and mass of an irregular shaped object: the displacement method).* The instructions for another experiment (*The effect of Protozoan Parasites on growth rates in tadpoles*) were provided and students had to write a laboratory report based on the instructions, the model answer was provided afterwards for students to mark their own reports. The third report was based on the instructions for a Biology experiment (*Osmosis*) and students had to write a report, the model answer was provided for editing and correcting. To summarize, Class 2 (2008) analysed two model laboratory reports, did two actual experiments in the English lesson and wrote the reports on it and wrote one report based on instructions only. Model answers were provided for all experiments.

Class 1 + 2: 2009: process genre approach:

The 2009 groups received the laboratory report unit instruction using the process genre approach. The lessons started off with a brief observation- and- writing activity based on a burning candle. Students received a template of a laboratory report and had to complete the template after the simple candle experiment. Students also looked at the reasons for writing laboratory reports, collected vocabulary for action words in the Aim section, discourse markers and hedging words and did Past tense, Passive Voice activities. Then two examples of laboratory reports (*Titration, Volume of an irregular object*) were read and analysed according to guiding questions focusing on all the important issues of a laboratory report. No actual experiments were done in the English lessons. Students set up their own criteria. As a whole class activity an experiment was written together focusing on different steps (*Volume of an irregular object: displacement method*). As a next step students received the instructions and a model answer of a laboratory report of *The effect of Protozoan Parasites in growth rates in tadpoles*. Students had to determine the effectiveness of the report as compared to the instructions. Lastly, students wrote a laboratory report regarding *Osmosis* based on the instructions of the experiment and writing steps given in the workbook. They

received a model answer later to edit and correct their work. The last report to be written for the English laboratory report unit was based on an experiment conducted in the Physics lesson: *Ohm's Law*. Students had to follow the steps in the guidelines to write the report after they did the experiment. In brief, this means students did not do actual experiments in the English lessons, they received two examples and two model answers and the writing steps were clearly outlined in the English workbook and followed in the lessons.

All the laboratory reports used in this study were written after the experiments were conducted in the Physics, Biology and Chemistry practical lessons. Students had one week to work on the laboratory report in their own time before handing in to the Physics, Biology or Chemistry lecturer for grading purposes. The marks of the first laboratory reports (pre-intervention) were compared to the marks of the last laboratory reports (post-intervention) written in each of the three subjects mentioned.

4.6.2 PHYSICS

4.6.2.1 Physics laboratory report results of 2008 Class 1: process approach

The tables and Bar graph illustrate the Class 1 pre-intervention and post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	24	71.25	8.999	1.837
	Post Intervention	23	77.17	7.043	1.469

Table 11: Pre- and post-intervention Class 1 2008 laboratory report mean scores

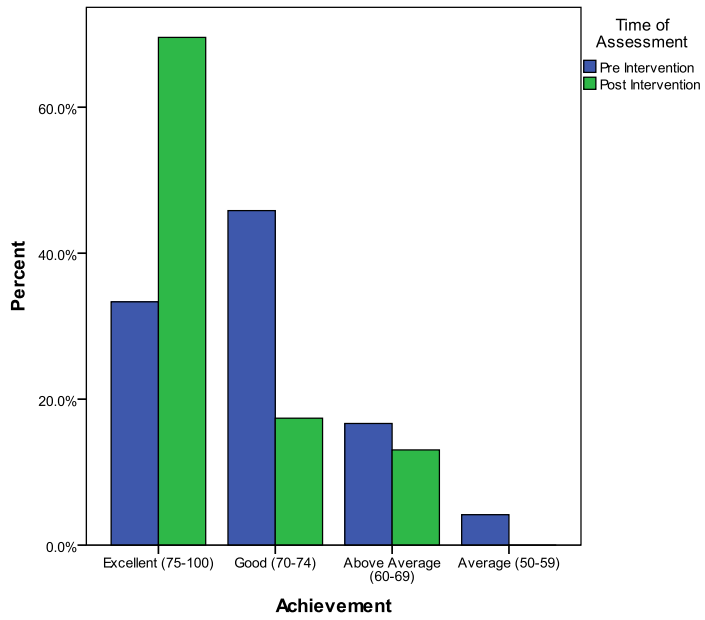
The pre-intervention mean scores (71.25%) on this table show that students started out with above average marks in their Physics laboratory reports. However, after the intervention there was an increase in their results as this table indicates: a difference of 5.82% on the mean scores for the pre- and post-intervention measurement. It was further tested if this difference is statistically significant and the results are shown in Table 12 below.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.313	.578	-2.506	45	.016	-5.924	2.364	-10.685	-1.162
	Equal variances not assumed			-2.519	43.303	.016	-5.924	2.352	-10.666	-1.182

Table 12: Independent Samples t-test for significant difference in Class 1 2008 Physics laboratory report mean scores

The Independent Samples t-test was used to determine the significance of the difference. It is evident from the table above that p=0.016 is less than alpha=0.05, and therefore the null hypothesis was rejected at the 5% significance level. Thus the process approach intervention was effective in improving the performance of the 2008 Physics Class 1 students' laboratory report writing abilities. The following graph illustrates the improvement of the 2008 Class 1 students, doing the process approach.

Figure 7: Bar graph: Pre- and post-intervention Class 1 2008 Physics laboratory report results



The results on this graph show that 33% of students (8 students) managed to achieve Excellent results pre-intervention. However, the Excellent result increased post-intervention to 69%, translating to 16 students out of 23. Eleven students achieved Good pre-intervention (46%), with no Average results for post-intervention. No post-intervention marks were recorded for Average, Poor and Weak. This graph indicates that the process approach has contributed to an improved Physics laboratory report writing result for Class 1, 2008.

4.6.2.2 Physics laboratory report results of 2008 Class 2: modeling/imitation approach

The tables and graph below illustrate the Class 2 pre-intervention and post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	19	51.58	8.983	2.061
	Post Intervention	13	80.77	9.541	2.646

Table 13: Pre- and post-intervention Class 2 Physics laboratory report mean scores

Table 13 clearly shows that a mean score of 51.58% was achieved before the intervention was applied. As a result of the intervention the mean score was found to be 80.77%. There is a 29.19% difference in the pre- and post-intervention mean scores. It was further investigated if the intervention was effective and the results are shown in Table 14 below.

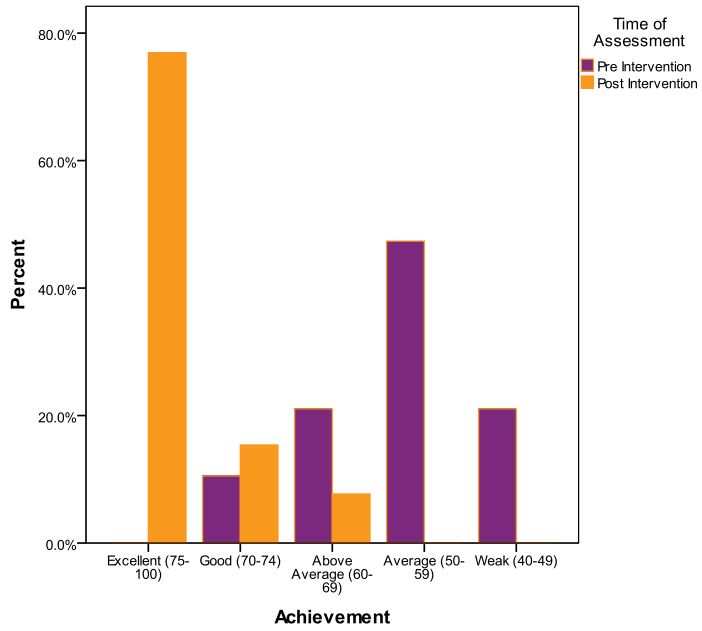
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.068	.796	-8.805	30	.000	-29.190	3.315	-35.961	-22.420
	Equal variances not assumed			-8.703	24.873	.000	-29.190	3.354	-36.100	-22.281

Table 14: Independent Samples t-test for significant difference in Class 2 2008 Physics laboratory report mean scores

It was investigated whether the difference between the pre- and post-intervention score was statistically significant. It is evident from Table 14 above that this difference was statistically significant, ($p=0.00 < alpha=0.00$) meaning that the modelling intervention was very effective in improving the performance of the Class 2 students in Physics laboratory report writing.

The Bar graph below shows the post-intervention improvement.

Figure 8: Bar graph: Pre- and post-intervention Class 2 2008 Physics laboratory report results



Class 2 results have undergone quite dramatic changes. No pre-intervention Excellent mark was achieved by students, but there was an 77% (10 students) Excellent recording for post-intervention. In addition, there were no Average or Weak results post-intervention. All post-intervention results are in the Above Average, Good and Excellent section. Overall, the modeling/imitation approach has added value to Class 2 students' laboratory report writing ability.

4.6.2.3 Physics laboratory report results of 2009 Class 1 + Class 2: process genre approach

The tables and graph below illustrate the Class 1 and 2 pre-intervention and post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	66	60.00	13.700	1.686
	Post Intervention	63	71.11	9.691	1.221

Table 15: Pre- and post-intervention 2009 Physics laboratory reports mean scores

It was found that there was a difference of 11.11 in the mean scores as recorded before and after the intervention: process genre approach. The approach contributed to an improvement in the laboratory report writing skills of students in 2009. The following table will indicate whether the difference in mean scores was significant.

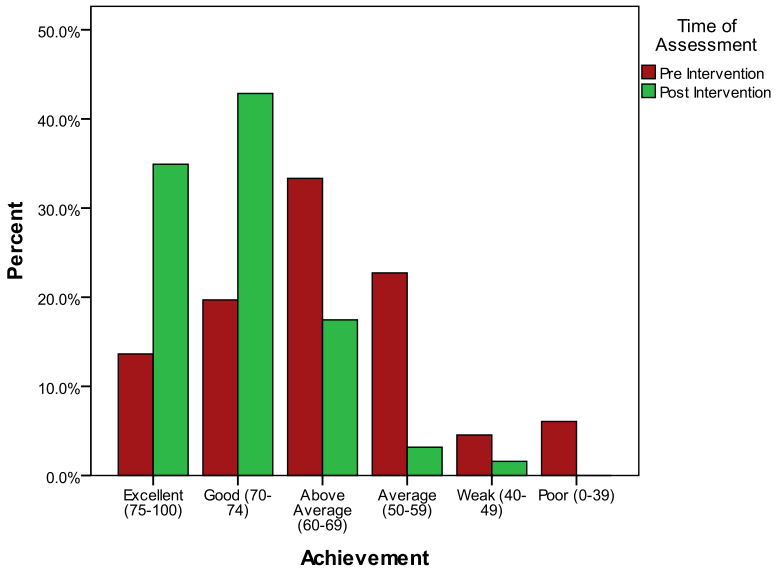
Independent Samples t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	4.029	.047	-5.295	127	.000	-11.111	2.098	-15.263	-6.959
	Equal variances not assumed			-5.337	117.231	.000	-11.111	2.082	-15.234	-6.988

Table 16: Independent Samples t-test for significance difference in 2009 Physics laboratory report mean scores

The table above presented the following finding: since the p value was found to be 0.00, which is less than the level of significance (0.05), it was concluded at the 5% significance level that the process genre intervention was effective in improving the laboratory report writing performance of the 2009 Physics students. The effect is graphically illustrated in the following figure.

Figure 9: Bar graph: Pre- and post-intervention 2009 Physics laboratory report results



The graph indicates that the 2009 Physics pre-intervention laboratory report results show a range from Excellent to Poor. The highest pre-intervention result was for Above Average (33% or 22 out of 66 students). There was a shift to Good and Excellent post-intervention with 43% (27 students), and 33% (22 out of 63 students) respectively. Fifteen (15) students received average results pre-intervention, which decreased to 2 post-intervention. No poor results were recorded post-intervention. The results indicate that the process genre approach was effective in improving the laboratory report writing skills of the majority of students with the biggest group achieving from Excellent to Above Average post-intervention.

4.6.2.4 Comparison of approaches: Physics

Class 2, who did the modeling approach, managed to achieve a 78% for Excellent, which is quite remarkable considering that there were no pre-intervention Excellent results. 68% of Class 1 students (process approach) achieved Excellent, compared to the 36% of the process genre approach. The modeling approach produced the most Excellent results. However, if all the post-intervention results for Excellent, Good and Above Average of the three different approaches are added up respectively, the process and modeling approaches are equal at 100%, with the process genre approach lagging behind by only 5% at approximately 95%. Practically, this could translate into a conclusion that the three approaches were effective in improving students Physics laboratory report writing results. However, the mean scores

indicate that the modeling approach had the highest level of improvement. The differences in pre- and post-intervention mean scores are as follows: the process approach: 5.92%, the modeling approach: 29.19% and the process genre approach: 11.11%. The issue is that the pre-intervention results of the Class 1 students who did the process approach were already good (mean score of 71.25%) whereas the Class 2 students had a pre-intervention mean score of 51.58%. But, the post-intervention mean score of the modeling approach (80.77%) was still higher than the mean score of the process approach (77.17%). Therefore, the modeling approach could be argued to have been more effective than the process approach and the process genre approach in improving students' physics laboratory report writing abilities. These results also suggest that the core issue is not necessarily which approach produces the best results, but rather that all three approaches have strengths that can all be employed to assist students to write better laboratory reports. This confirms the current notion of applying an eclectic approach that suits the level and needs of the students as well as the objectives of a programme.

4.6.3 CHEMISTRY

4.6.3.1 Chemistry laboratory report results of 2008 Class 1: process approach

The tables and graph below show the results students achieved pre-intervention compared to the post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	24	64.79	10.982	2.242
	Post Intervention	24	73.27	12.154	2.481

Table 17: Pre- and post-intervention Class 1 2008 Chemistry laboratory report mean scores

The mean scores before and after the intervention, in Class 1 of 2008, were found to be 64.79% and 73.27% respectively. There was a difference of 8.48% in the mean scores as recorded before and after the intervention: process approach. It was further tested if this difference is significant and the results are shown in Table 18 below.

Independent Samples t-test

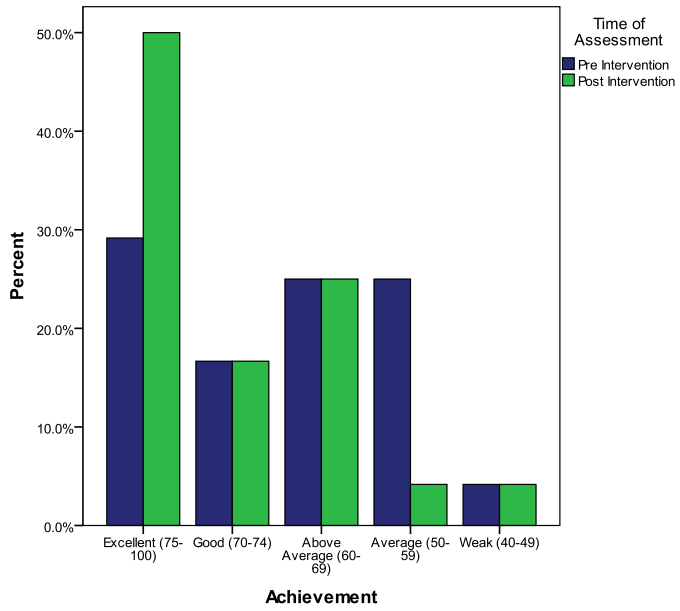
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.239	.627	-2.536	46	.015	-8.479	3.344	-15.210	-1.749
	Equal variances not assumed			-2.536	45.535	.015	-8.479	3.344	-15.211	-1.747

Table 18: Independent Samples t-test for significant difference in Class 1 2008 Chemistry laboratory report mean scores

This table indicates that the p value was 0.015, which is less than the level of significance (0.05). Therefore, the null hypothesis was rejected. It was concluded at the 5% significance level that the process approach intervention was effective in improving the laboratory report

writing performance of the Class 1 Chemistry students. The following Bar graph indicates the level of change among the Chemistry laboratory report writing results of Class 1 students.

Figure 10: Bar graph: Pre-and post-intervention Class 1 2008 Chemistry laboratory report results



A relatively high percentage (29% or 7 out of 24 students) for pre-intervention Excellent was recorded, but it increased by 21% to 50% (12 students) post-intervention. Interestingly, pre-intervention and post-intervention Good received exactly the same percentages (27%, 4 students). A similar situation occurred with Above Average with 35% (6 students). There was a very small recording (4% or 1 student)) for post-intervention Average and then the same percentage (4%) pre- and post-intervention Weak. No Poor results were recorded pre- and post-intervention. Class 1 post-intervention results indicate a slight improvement with regard to Chemistry laboratory report writing.

4.6.3.2 Chemistry laboratory report results of 2008 Class 2: modeling/imitation approach

Table 19 below illustrates the results Class 2 students achieved pre-intervention compared to the post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	22	65.68	9.167	1.954
	Post Intervention	23	69.48	7.309	1.524

Table 19: Pre- and post-intervention Class 2 2008 Chemistry laboratory report mean scores

This table provides data with regard to pre- and post-intervention mean scores. The pre- and post-intervention scores were recorded as 65.68% and 69.48 % respectively. It was found that there was a difference of 3.80% in the mean scores as recorded before and after the intervention. A test for the equality of means was done to see if this difference is significant and the results are shown in table 20 below.

Independent Samples t-test

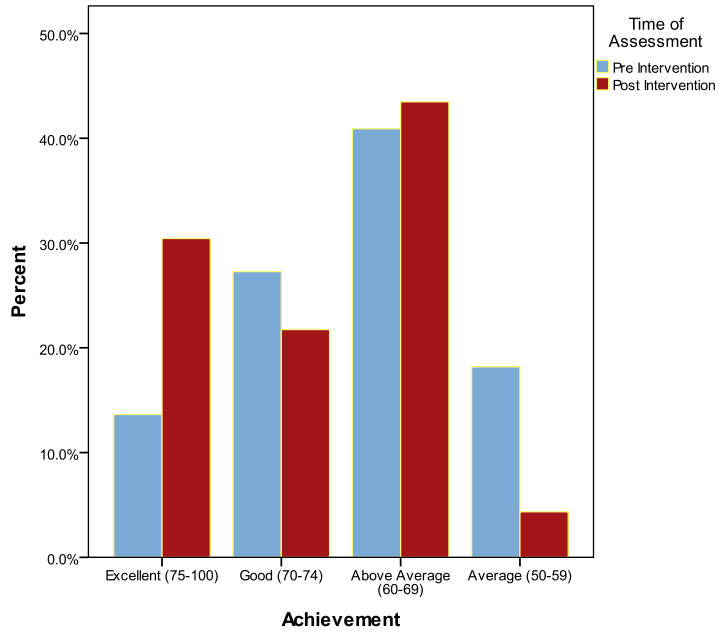
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.499	.484	-1.540	43	.131	-3.796	2.466	-8.769	1.176
	Equal variances not assumed			-1.532	40.137	.133	-3.796	2.478	-8.805	1.212

Table 20: Independent Samples t-test for significant difference in Class 2 2008 Chemistry laboratory report mean scores

This t-test to determine the significant difference in mean scores illustrates that the p value was 0.131, which is greater than the level of significance (0.05). It was therefore concluded

at the 5% significance level that the null hypothesis was not rejected. The modeling intervention was not effective at a statistically significant level in improving the laboratory report writing performance of the Class 2 Chemistry students. The Bar graph below indicates the changes observed as a result of the modeling intervention.

Figure 11: Bar graph: Pre- and post-intervention Class 2 2008 Chemistry laboratory report results



This graph indicates that no Weak and Poor results were recorded pre- and post-intervention. There was an increase of 16.8% in the post-intervention Excellent results, this means 3 students achieved Excellent pre-intervention and 7 students had Excellent post-intervention. A decrease of 5.6% in the Good result was recorded with only 5 students receiving Good after the intervention. Nine out of 22 students received Above Average pre-intervention, with an increase to 10 students post-intervention (40% pre-intervention to 43% post-intervention). Even though the change in the pre- and post-intervention results is quite limited, it can still be assumed that the modeling/imitation approach was effective to a certain extent to improve some Class 2 students' Chemistry laboratory report writing skills.

4.6.3.3 Chemistry laboratory report results of 2009, Class 1 and Class 2: process genre approach

Table 21 below illustrates the results 2009 students achieved pre-intervention and post-intervention.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	63	67.94	13.607	1.714
	Post Intervention	54	72.57	9.334	1.270

Table 21: Pre- and post-intervention 2009 Chemistry laboratory report mean scores

This table illustrates the mean scores of the 2009 Chemistry laboratory report writing performances of students. It was found that there was a difference of 4.63% in the mean scores as recorded before and after the intervention. The performance improved from 67.94% to 72.57%. To establish the significant difference in the means a t-test was performed as indicated below.

Independent Samples t-test

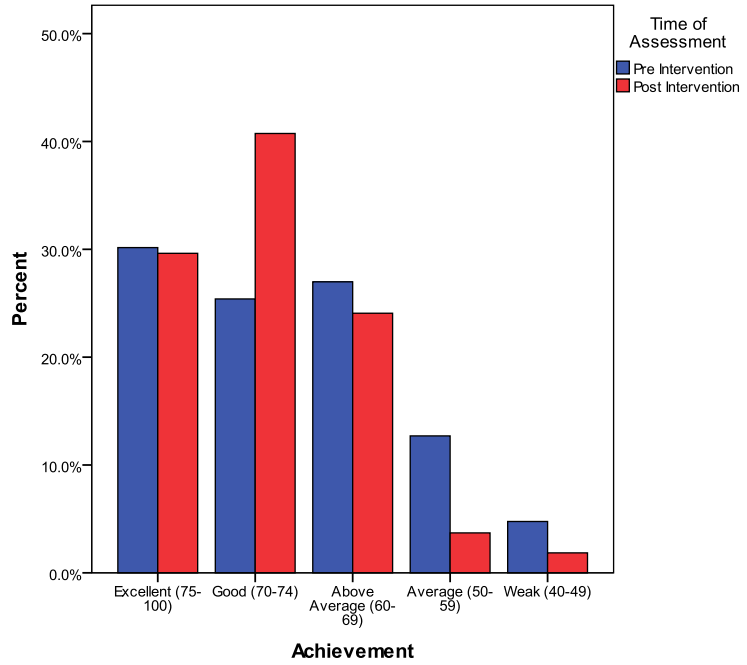
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	8.732	.004	-2.114	115	.037	-4.638	2.194	-8.984	-.292
	Equal variances not assumed			-2.174	109.981	.032	-4.638	2.134	-8.866	-.409

Table 22: Independent Samples t-test for significant difference in 2009 Chemistry laboratory report mean scores

In an attempt to establish if the improvement was significant, a t-test for the equality of means was performed. The p-value was found to be 0.037 which is less than the level of significance (0.05). Therefore, the null hypothesis, which states, that the performance before and after intervention is the same, was rejected. It was concluded at the 5% significance level that the process genre intervention was effective in improving the laboratory report writing

performance of the Class 2 Chemistry students. The following graph depicts the levels of change after the intervention.

Figure 12: Bar graph: Pre- and post-intervention 2009 Chemistry laboratory report results



The graph illustrates that 30% of students (19 out of 63 students) managed to achieve Excellent results pre-intervention, and a very slight decrease (1%) was recorded post-intervention, with 16 out of 54 students receiving Excellent. The Good result increased with 15% from 26% (16 students) pre-intervention to 41% (22 out of 54 students) post-intervention. The remaining results indicate a small decrease post-intervention: Above Average: 37% (17 students) pre-intervention to 34% (13 students) post-intervention; Average: 12% (8 students) pre-intervention to 4% (2 students) post-intervention and Weak: 5% (3 students) pre-intervention to 2% or 1 student post-intervention. It can be inferred that there was only a small measure of improvement in the students' Chemistry laboratory report writing abilities based on the process genre approach.

4.6.3.4 Comparison of approaches: Chemistry

Under the approach used in instruction, the process approach recorded the highest post-intervention Excellent achievement, (50%) but with significant scores in Above Average (25%) and a 17% Good recording. While the scores of the modeling approach for the post-intervention Excellent category (30%) are nearly the same as the process genre approach (29%) for Excellent, there was no Weak recording for Class 2. If the three top scores of the

three approaches respectively are added together they produce results in the range from 92% - 95%. Conversely, the differences in pre- and post-intervention mean scores reflect that the process approach has been the most successful in improving the Chemistry laboratory report writing skills of students: process approach: 8.48%, modeling approach: 3.80% and process genre: 4.63%. These results indicate that all three approaches produced better post-intervention results, with the process approach being the most effective in this case. Taking the results of the Essays, and Physics laboratory reports into consideration as well, there is a good case for the use of an eclectic approach.

4.6.4 BIOLOGY

4.6.4.1 Biology laboratory report results of 2008 Class 1: process approach

The tables and graph below show the Biology laboratory report writing results students achieved before and after the intervention.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	24	61.13	7.936	1.620
	Post Intervention	23	72.83	12.138	2.531

Table 23: Pre- and post-intervention Class 1 Biology laboratory report mean scores

The table above shows the differences in pre- and post-intervention mean scores of the laboratory report results of Class 1 students who used the process approach in 2008. Before the intervention, a mean score of 61.13 was recorded and after the intervention a mean score of 72.83 was recorded. It was found that there was a difference of 11.17% in the mean scores. This means the process approach had a positive impact on the Biology laboratory report writing abilities of Class 1 students. It was also tested if this difference is statistically significant and the results are shown in Table 24 below.

Independent Samples t-test

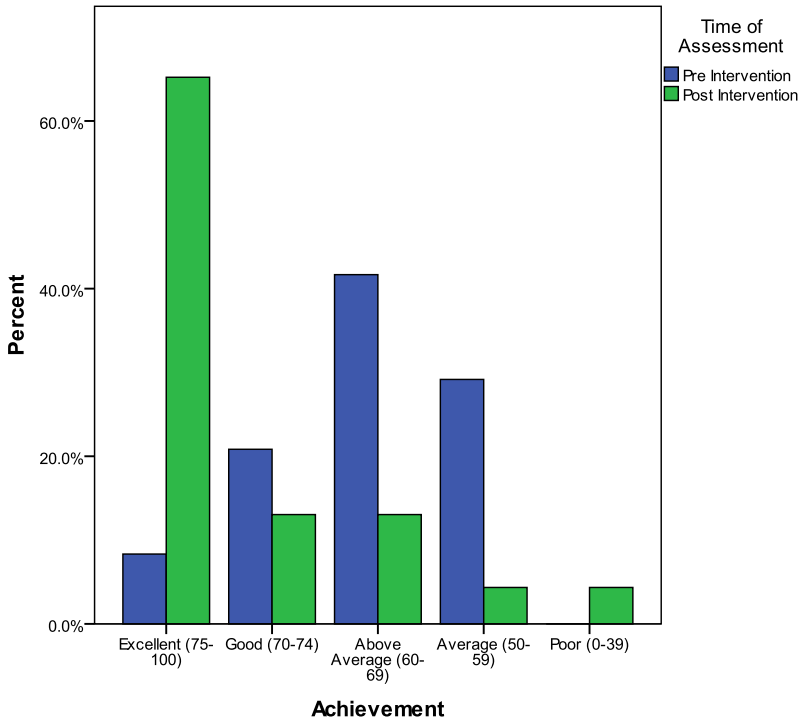
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	1.425	.239	-3.928	45	.000	-11.701	2.979	-17.701	-5.701
	Equal variances not assumed			-3.894	37.671	.000	-11.701	3.005	-17.786	-5.616

Table 24: Independent Samples t-test for significant difference in Class 1 2008 Biology laboratory report mean scores

To establish if the improvement in the performance was significant, a t-test for the equality of means was performed, as illustrated in the table above. The null hypothesis was rejected

because the p-value was found to be 0.00, which is less than the level of significance (0.05). It was concluded at the 5% significance level that the process intervention was effective in improving the laboratory report writing performance of the Biology Class 1 students. The graph below illustrates the changes in results affected by the process approach.

Figure 13: Bar graph: Pre- and post-intervention Class 1 2008 Biology laboratory report results



There were 24 pre-intervention laboratory reports and 23 post-intervention laboratory reports. This graphs shows that the pre-intervention results ranged from a small percentage (7% or 2 students) in Excellent to a high in Above Average (43% or 10 students) and 30% (7 students) for Average. No pre-intervention Weak or Poor results were recorded. However, there were Poor results post-intervention (1 student) and except for the Excellent result, decreases in all other post-intervention results. A substantial increase from 7% to 65% (15 students) was recorded for the post-intervention Excellent result. The increase in the Excellent result can be perceived as an indicator of improvement in Class 1 Biology laboratory report writing abilities.

4.6.4.2 Biology laboratory report results of 2008 Class 2: modeling/imitation approach

The 3 diagrammes below indicate the Biology laboratory report writing results Class 2 students achieved pre-intervention compared to the post-intervention results.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	23	67.17	9.149	1.908
	Post Intervention	23	78.70	11.202	2.336

Table 25: Pre- and post-intervention Class 2 2008 Biology laboratory report mean scores

The mean scores were determined and presented in the table above. It was found that there was a difference of 11.53 % in the mean scores as recorded before and after the intervention. The students' performance increased from 67.17% to 78.7%. This improvement in mean scores results in a positive perception of the potential of the modeling approach to improve the laboratory report writing skills of students. A further test to determine if the improvement was statistically significant was done and the results are shown in Table 26 below.

Independent Samples t-test

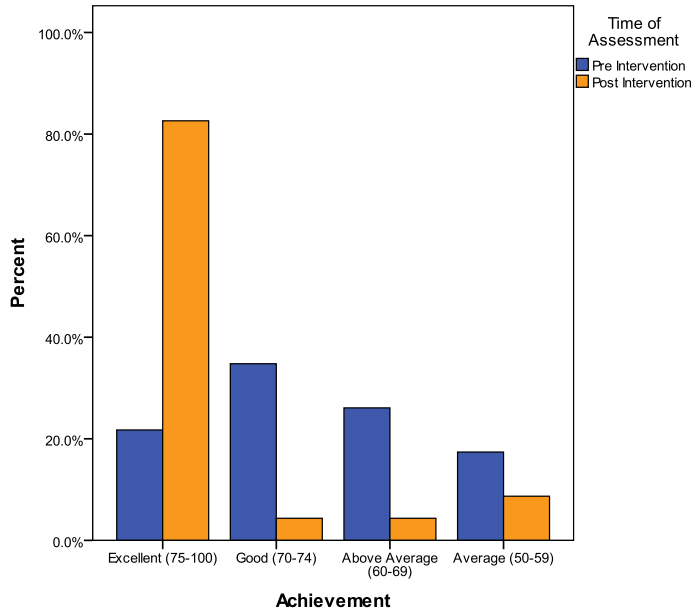
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	.091	.764	-3.820	44	.000	-11.522	3.016	-17.600	-5.444
	Equal variances not assumed			-3.820	42.311	.000	-11.522	3.016	-17.607	-5.437

Table 26: Independent Samples t-test for significant difference in Class 2 Biology laboratory report mean scores

In an effort to see if the improvement in performance which took place as a result of the intervention on the Biology Class 2 students was significant, an Independent Samples t-test was done and the results are shown in Table 26 above. Since the p-value was found to be

0.00 which is less than the level of significance (0.05), there is sufficient evidence at the 5% significance level to say that the intervention was effective in improving the performance of the Biology students. Therefore, the assumption was confirmed that the modeling approach would be useful in improving students' Biology laboratory report writing skills. The data in the table below represent the percentages obtained by students in the different categories from Excellent to Poor.

Figure 14: Bar graph: Pre- and post-intervention Class 2 2008 Biology laboratory report results



The most remarkable observation in this graph is that the Excellent result increased considerably post-intervention (from 21% to 81%). In terms of actual student numbers it was: pre-intervention: 5 out of 23 students to post-intervention: 19 out of 23 students. Whereas the pre-intervention results spread from Excellent to Average with no results higher than 40%, the post-intervention results are all below 18%, excluding the Excellent result. It can be assumed that the modeling/imitation approach helped the majority of students to achieve Excellent results in Biology laboratory report writing.

4.6.4.3 Biology laboratory report results of 2009 – Class 1 + Class 2: process genre approach

The tables and graph below show the Biology laboratory report writing pre- and post-intervention results of 2009 Class 1 and Class 2.

Group Statistics

	Time of Assessment	N	Mean	Std. Deviation	Std. Error Mean
Marks scored	Pre Intervention	65	69.68	12.549	1.556
	Post Intervention	61	86.43	9.124	1.168

Table 27: Pre- and post-intervention 2009 Biology laboratory report mean scores

These calculations were performed to determine the pre- and post-intervention mean scores based on the laboratory report writing skills of 2009 students. The students' performance increased from 69.68% to 86.43%. It was found that there was a difference of 16.75 % in the mean scores as recorded before and after the intervention. This is an indication of the effectiveness of the process genre approach to improve students' laboratory report writing performances. It was further tested to assess if this difference is statistically significant and the results are shown in Table 28 below.

Independent Samples t-test

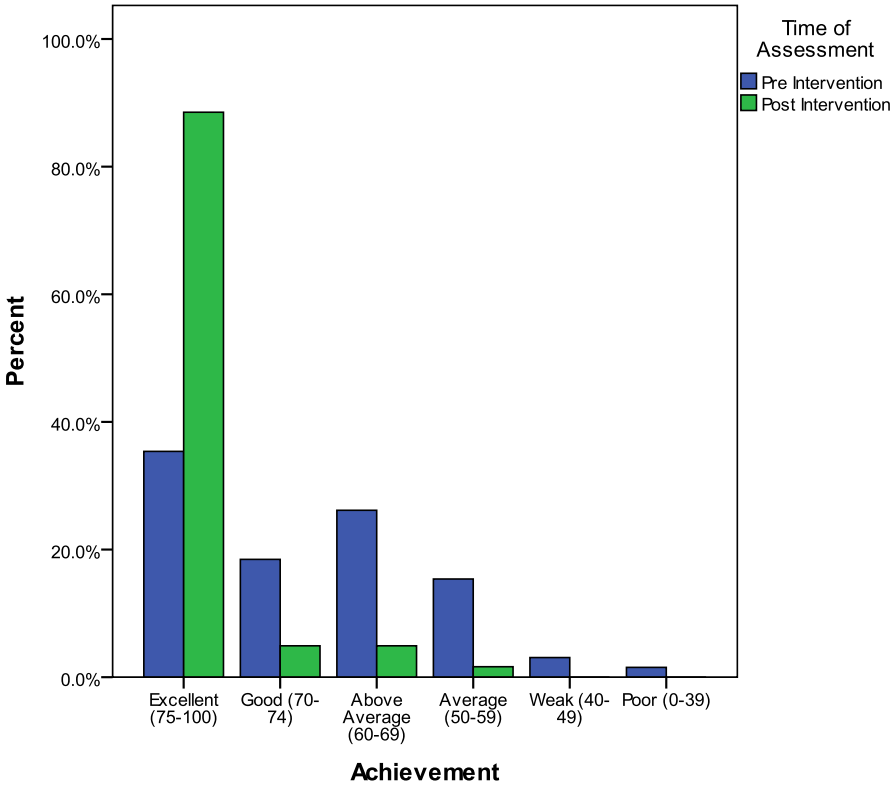
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Marks scored	Equal variances assumed	6.258	.014	-8.522	124	.000	-16.749	1.965	-20.639	-12.859
	Equal variances not assumed			-8.607	116.859	.000	-16.749	1.946	-20.604	-12.895

Table 28: Independent Samples t-test for significant difference in 2009 Biology laboratory report mean scores

The two-tailed Independent Samples t-test was used to determine the significance of the difference in mean scores as indicated in Table 28 above. The p-value was found to be 0.00

which is less than the level of significance (0.05). This made the researcher reject the null hypothesis, which states that the performance before and after the intervention was the same. It was therefore concluded at the 5% significance level that the 2009 process genre intervention was effective in improving the Biology laboratory report writing performance of the students. In the graph below the data indicates the level of performance before and after the intervention in Biology laboratory report results.

Figure 15: Bar graph: Pre-and post-intervention 2009 Biology laboratory report results



A fairly high percentage of pre-intervention Excellent result has been recorded (37% which is 23 out of 65 students), with the other results ranging from 28% or 17 students receiving Above Average to 2% (1 student) Poor. The Excellent result was also the highest post-intervention result with 88% or 54 students. All the other post-intervention results are below 10%. A conclusion can be made that the process genre approach has contributed to improved 2009 Biology laboratory report writing skills.

4.6.4.4 Comparison of approaches: Biology

The process genre approach registered the greatest post-intervention Excellent results at 88%. 82% of students doing the modeling approach managed to score post-intervention Excellent with the process approach lagging behind at 67%. However, the spread from Excellent to

Above Average in all three approaches indicates that the three approaches were very close in achievements: process approach: 93%; modeling: 90%; and process genre at 95%. The differences in mean scores indicate that the process genre approach was the best approach to improve Biology laboratory report writing skills of students: process genre approach: 16.75%, process approach: 11.7% and modeling approach: 11.53.

4.6.4.5 Conclusion: Essay and lab-report results

The following table is a summary of all the pre- and post-intervention mean scores and individual differences in pre- and post-intervention mean scores of the essays and laboratory reports grouped in the three writing approaches. This information also indicates the overall difference in mean scores for each approach.

MEAN SCORE DIFFERENCE TABLES:

PROCESS APPROACH:

SUBJECT	**PRE-INTERV MEAN %**	**POST-INTERV MEAN %**	**DIFFERENCE %**
ENGLISH ESSAY	49.35	59.75	10.4
PHYSICS	71.25	77.17	5.92
CHEMISTRY	64.79	73.27	**8.48**
BIOLOGY	61.13	72.83	11.7
TOTAL	**246.52**	**283.02**	**36.5**
÷ 4	÷ 4	÷ 4	÷ 4
ANSWER	**61.63**	**70.75**	**9.12**

Table 29: Mean score differences of process approach results

The table indicates that the cumulative difference in pre- and post-intervention mean scores for essays and laboratory reports of Class 1 is 9.12%.

MODELING APPROACH:

SUBJECT	PRE-INTERV MEAN %	POST-INTERV MEAN %	DIFFERENCE %
ENGLISH ESSAY	53.18	61.67	8.49
PHYSICS	51.58	80.77	**29.19**
CHEMISTRY	65.68	69.48	3.8
BIOLOGY	67.17	78.70	11.53
TOTAL	**237.61**	**290.62**	**53.01**
÷ 4	÷ 4	÷ 4	÷ 4
ANSWER	**59.40**	**72.65**	**13.25**

Table 30: mean score differences of modeling approach results

The table indicates that the cumulative difference in pre- and post-intervention mean scores for essays and laboratory reports of Class 2 is 13.25%.

PROCESS GENRE APPROACH:

SUBJECT	PRE-INTERV MEAN %	POST-INTERV MEAN %	DIFFERENCE %
ENGLISH ESSAY	42.60	53.94	**11.34**
PHYSICS	60.00	71.11	11.11
CHEMISTRY	67.94	72.57	4.63
BIOLOGY	69.68	86.43	**16.75**
TOTAL	**240.22**	**284.05**	**43.83**
÷ 4	÷ 4	÷ 4	÷ 4
ANSWER	**60.05**	**71.01**	**10.96**

Table 31: Mean score differences of process genre approach results

The table indicates that the cumulative difference in pre- and post-intervention mean scores for essays and laboratory reports of Class 1 and 2 (2209) is 10.96%.

In conclusion, the statistically significant improvement levels are an endorsement of both the writing intervention materials and my teaching practice. Based on these results it is quite clear that each approach has features that were effective in improving essay- and laboratory report writing skills of students. The process genre approach had the highest difference in

mean scores in the categories for academic essay results (11.34%) as well as Biology laboratory reports (16.75%). In Physics the results of the students doing the modeling approach indicated the highest difference in mean scores (29.19%), whereas the process approach had the highest mean score difference in the Chemistry laboratory report writing performance (8.48%). Even though the application of the process genre approach resulted in two top positions with regard to differences in mean scores, the other two approaches also indicated improvement in students' academic writing performances. In fact, if the highest difference in the collective mean scores is taken into consideration, then the modeling approach (13.25%) was the most effective approach, with the process genre approach (10.96%) in second position and lastly the process approach (9.12%).

The assumption after the 2008 reviews was that a more eclectic approach like the process genre approach would have more potential to improve the academic writing abilities of students. These results are indicative of the importance of careful eclecticism when deciding on an effective writing approach to improve writing skills of students. Nevertheless, these results also indicate that the process genre and the modeling approaches had the greatest influence on students' academic writing experiences.

4.7 CLOSED-QUESTION QUESTIONNIARE RESULTS

These questionnaires were employed to find answers to students' attitudes towards and habits of writing in 2008 and 2009. They were also used to determine whether one, two or all three approaches applied in the intervention succeeded in changing students' attitudes and writing behaviours, provided that any change was necessary. After reflection towards the end of 2008, I decided to add two sections to the 2009 questionnaire: Materials and Pedagogical Purposes to writing. This data is presented lastly as the comparison does not include the 2008 results.

Only the most significant findings are presented here. The first section deals with the data regarding Attitudes and Writing Habits of 2008 and 2009. The second section presents data about the Materials and Pedagogical Purposes which was only tested in 2009 (process genre approach).

The following research questions are answered:

a) What background knowledge do FP students have of ESL academic writing and laboratory report writing?

b) To what extent were they exposed to academic writing skills at secondary school? Did they do any activities that would introduce them to academic writing skills? Did they do any pertinent academic writing activities?

d) How have students' experiences of and attitudes towards academic writing changed during and as a result of the writing intervention?

e) To what extent do the students believe they have benefited from the writing intervention programme?

4.7.1 Comparison of the pre- and post-intervention closed-question questionnaire results: 2008: Class 1 (process approach), Class 2(modeling approach), 2009: (process genre approach)

The following 4 tables (32-35) indicate the results of the closed-question questionnaires. Only the Strongly Agree and Agree constructs have been used to show any difference in the attitude and habits among students after the intervention. The questionnaires were administered before the interventions in 2008 and 2009, and again after the interventions. The results of the Agree and Strongly Agree categories were combined and the percentages calculated. The percentage results of the pre-questionnaire were compared with the results of the post-questionnaire of the three respective approaches to determine a positive (+) or negative (-) change in attitudes and habits, (2008 + 2009), writing materials and pedagogical value (2009).

A. <u>ATTITUDE TOWARDS WRITING: 2008 + 2009:</u>

This table indicates the results of the first section of the closed-question questionnaires.

The percentage results of the pre-questionnaire were compared with the results of the post-questionnaire of the three respective approaches to determine a positive (+) or negative (-) change in attitudes. These results were all recorded in percentages.

#	STATEMENTS	PROCESS %	MODEL %	PROCESS GENRE %
1	I like writing.	+ 7.5	+2.89	-0.69
2	I liked the writing lessons in school/FP.	+ 10	+28.88	+1
3	I think writing is interesting.	-11.67	+25.77	+15.02
4	I think it is easy to write in English.	+2.5	+.44	+7.44
5	I have confidence in writing in English.	-1.66	+18.44	-4.26
6	I like to be given a lot of guidance.	-11.67	-10.23	+0.45
7	I like to work with classmates.	+1.67	-18.9	-19.34
8	Grammar is more important than content.	-16.66	-45.12	+8.6

Table 32: Closed-question questionnaire responses: attitude

The results of Class 1 who did the process approach illustrate a slight change in attitude. The only two remarkable changes are observed in statement 2 (I liked the writing lessons in FP) with an increase of 10%, and statement 8 (Grammar is more important than content) with a decrease of 16.66%. The result of statement 8 is noteworthy as one feature of the process approach is that content is more important to focus on initially than grammar when writing essays.

However, the results of Class 2, who did the modeling/imitation approach, are mostly positive with statements 2, 3, 5, and 8 showing the biggest change in attitude. Based on these results it can be said that more students of Class 2 liked the writing lessons on FP (+28.88%), found the FP English lessons interesting (+25.77%), had more confidence (+18.44%) and thought that content was more important than grammar (-45.12).

Students doing the process genre approach show smaller differences in their attitude, which means these did not change much. The most significant change is in statement 3, with an increase of 15.02% and statement 7 with a decrease of 19.34%. This means that more students seemed to think writing on FP was interesting, but they did not like to work with classmates.

The fact that more students of two classes indicated their dislike in working with classmates might be an indicator of a higher level of independence among students in Class 2, 2008 and both classes in 2009. Even though two groups (Class 1, 2008 and the 2009 classes) showed that they had less confidence in writing they might have still felt that they wanted to write on

their own without the help of others. Alternatively, it might mean that they were hesitant to share their work with classmates as they were scared of being exposed as weak writers.

From these results it can be deduced that the three writing approaches contributed to a slight change in attitude towards writing. Tessema's study tested more or less the same constructs with focus on motivation and confidence to write, independence, and helping each other. He found that his intervention had a positive impact on his students' writing attitudes. Ho's study (2006) on the effect of the implementation of the process approach indicated a similar trend as the current study with regard to attitudes towards writing. Two of her six classes were positive in their attitudes. However, in the other classes there were post-questionnaire decreases in the percentages of students who liked writing and who thought writing was interesting. One class also indicated a decrease in confidence after the intervention similarly to Class 1 and the 2009 classes of the current study.

Interestingly, Class 2 who did the modeling approach and stated liking the writing lessons on the FP, finding writing interesting and having more confidence also showed the highest improvement in the Excellent and Good categories of the essay results as indicated in Figure 5. One might think there is a correlation between a positive attitude and better writing abilities, or did the modeling approach have an influence on attitude as well as improvement in essay writing abilities of students? Further research regarding a possible relationship between attitude and writing abilities would be necessary.

B. WRITING HABITS: 2008 + 2009:

This table indicates the results of the second section of the closed-question questionnaires.

The percentage results of the pre-questionnaire were compared with the results of the post-questionnaire of the three respective approaches to determine a positive (+) or negative (-) change in habits.

#	STATEMENTS	PROCESS %	MODEL %	PROCESS GENRE %
1	A lot of guidance on FP.	+26.67	+71.99	+38.05
2	It is easy to get ideas.	+0.83	-6.67	+0.84
3	I often plan before writing.	-0.83	-18.9	-1.06
4	It is easy to organize ideas.	-18.33	+10.21	+13.08
5	I often write drafts.	-7.5	-14.01	+11.89
6	I often edit the drafts.	-31.67	+3.55	+20.18
7	I know how to get ideas.	+5.83	+13.33	+17.61
8	I know how to plan before writing.	-4.16	+11.55	+18.80
9	I know how to organize ideas.	-5.00	+20.44	+19.40
10	I know how to draft.	-5.84	+26.66	+31.56
11	I know how to write Eng stories/academic essays.	-21.66	+21.1	+16.29
12	I know how to free-write.	+22.49	+26.65	+22.06
13	I know the strategies to write.	+38.34	+51.32	+32.69

Table 33: Closed-question questionnaire responses: writing habits

These results indicate that the modeling and the process genre approaches had the biggest effect on changing students' writing habits.

The writing habits of students who did the process approach did not change significantly. There are only three statements which received strong positive responses, compared to the mostly positive responses of the students doing the modeling- and the process genre approaches. This translates into a change in habits for students of mainly the modeling- and the process genre approach. The highest increase in percentage for the modeling approach was statement 1 (A lot of guidance in FP) with 71.99%, whereas the process approach students had an increase of 26.67%, and process genre 38.05%.

Another big difference is in the section about knowing how to get ideas, plan, organize, draft, and write (statements 7-11). Ironically, the process approach results mostly indicate decreases, whereas the modeling- and process genre approach results show increases in percentages. In the application of the process approach the constructs of getting ideas, planning, organizing and drafting are key issues. This is interesting because in the modeling and the process genre approach all these skills are modeled to students. This could mean that modeling the strategies and reading and analysing examples of genre-based texts to show

how they can be applied resulted in a higher level of understanding among students. The results of questionnaire statements 7-12 of the modeling and the process genre approach correlate positively with the last statement: I know the strategies to write (modeling: 51.32%, and process genre: 32.69%). The link is clear: if students answered positively to all the mentioned statements then they know the strategies. However, the process approach results seem contradictory: to get ideas, to plan, to organize ideas, to draft and to be able to write academic essays are all strategies which Class 1 responded negatively to, but then more students of Class 1 reported to know the strategies (increase with 38.34%). Class 1 students seem to indicate that they know the strategies but fail to use them effectively.

Interesting to see is that in all three results, there was a decrease in post-intervention planning before writing, with the process showing a decrease of 0.83%, the modeling results had a decrease of 18.9% and the process genre results had a 1.06% decrease. Similarly, statement 5 (I often write drafts) also received decreased results for the process- and modeling approaches, whereas the process genre approach had an increase of 11.89%. This translates to two simple facts: more students did not plan and did not write drafts, despite the emphasis in especially two interventions (process and process genre approach) on planning and drafting, even writing multiple drafts as recommended by the process approach. Pianko's (1979) study indicated a similar trend. In her study with college freshmen she found that students did not spend much time on planning and only wrote one draft. It seemed that the most planning occurred mentally while students were writing. The fact that the students doing the modeling/imitation approach did not plan extensively or write multiple drafts can be justified to a certain extent. Class 2 students of 2008 were not encouraged to write drafts, but neither were they prohibited. And remarkably, the modeling approach students recorded the highest Excellent results for writing essays (see Figure 5). Further studies would be useful to determine whether there is a correlation between the application of the modeling/imitation approach and a lower level of need or inclination to plan and/or draft, but achieving relatively good essay writing marks.

Another comparison can be drawn to a study by Foo (2007) who investigated the effectiveness of the process-genre approach in a Malaysian secondary school. The process genre approach was applied to improve students' ability to develop strategies to write more effective essays. A comparison was drawn between the experimental group and a control group who received product-centred writing instruction. The results of a pre-test and two posIndependent Samples t-test indicated that there was improvement in the experimental

groups' ability to communicate their ideas, and to develop more relevant ideas compared to the control group. However, the researcher found no improvement in the organization of ideas or in the control of language. The students of the experimental group commented that they had a better understanding of "conceptual writing strategies" (Foo 2007: 16) and that they would be willing to apply practical strategies when writing essays. In the case of the current study it seems that even though 2008 students knew how to plan, to generate and organize ideas, and to draft, they did not necessarily apply those strategies when writing. Students receiving the process genre approach (2009) instruction also showed increases in all those cases (except planning), knowing how to use the strategies as well as actually applying them, but their actual results reflect that they still struggled post-intervention.

The closed-question questionnaire was successful in determining an answer to research question (e) To what extent do the students believe they have benefited from the writing intervention programme? But it failed to provide much data for research questions: (a) What background knowledge do FP students have of ESL academic writing and laboratory report writing? And (b) To which extent were they exposed to academic writing skills at secondary school? Did they do any activities that would introduce them to academic writing skills? Or did they do any pertinent academic writing activities?

The section on writing habits provides some information on the strategies used when writing academic essays. The post-intervention results show that more students knew about the strategies as opposed to pre-intervention which indicates that some students did not know about the different strategies before coming onto the FP, but it doesn't show how much knowledge or experience they had of academic writing and laboratory report writing per se.

C. MATERIALS: 2009

This section was added to the 2009 closed-question questionnaires to determine the usefulness of the materials used at school compared to the FP materials.

#	STATEMENTS	PROCESS GENRE %
1	There were useful materials relating to writing activities on FP.	+13.50
2	The writing materials helped you to understand how to write different types of texts/paragraphs.	+22.06
3	The writing materials had examples which showed how a specific text/paragraph should look.	+34.84
4	The writing materials illustrated different steps (plan, generate, ideas, draft, edit).	+48.76
5	The writing materials helped you to write well-structured essays.	+38.13
6	The writing materials were interesting in content.	+24.85
7	The writing materials showed the link between effective grammar usage and effective writing.	+39.68
8	The writing materials helped you to use an effective style and vocabulary in your own paragraph writing.	+39.14
9	You were expected to write laboratory reports in your Biology and Physical Science lessons/FP Science lessons.	+77.33

Table 34: Closed-question questionnaire 2009 responses: materials

These results show that there was a considerable difference in the type of materials used at secondary school compared to the FP materials, with an increase for all post-intervention results. Statement 9 refers to students' background knowledge with regard to laboratory report writing, with a 77.33 post-intervention increase and from these results it can be inferred that most students did not do laboratory report writing at school. The statement with regard to materials illustrating different steps also produced significant results with a post-intervention increase of 48.76%. The considerable increases of statements 5 (38.13%), 6 (24.85), 7 (39.68%), and 8 (39.14%) show that the process genre writing materials were useful in improving students' academic writing abilities in 2009. These results are a good indication of the level of thought that is required regarding useful materials to help students write better. Since the writing process is a complex activity as alluded to by Liebman-Kleine

(1986) the writing materials should be of such a nature that they reflect the features that would 'uncomplicate' the process and make it easier for students to write effectively and consequently get better marks. Based on these results it seems that the majority of students feel they benefited from the process genre approach writing materials.

D. VALUES AND PEDAGOGICAL PURPOSES OF WRITING:

#	STATEMENTS	PROCESS GENRE %
1	Teachers explained the importance of writing.	+34.30
2	The writing activities were linked to study skills (summarize, take notes, concept/mind maps	+14.38
3	The English teacher did cross-curricular teaching to encourage writing for different purposes.	+57.60

Table 35: 2009 closed-question questionnaire responses: values and purposes of writing

The positive responses from students regarding the pedagogical purposes of writing are evidence that the 2009 writing materials and teaching practice were effective in emphasizing the importance of writing, linking writing to study skills and doing cross-curricular teaching. It also shows that the 2009 FP students appreciated that they were told about the value of writing and why certain writing activities had to be done.

The quantitative data collection tools managed in their intended goal, and provided useful information into whether students have improved their academic writing skills and to what extent. It was also possible to infer which writing approach produced the best results. Interesting information was provided in the closed-question questionnaire. I had not anticipated, for instance, that students did not often make use of the planning and drafting techniques.

4.8 OPEN-QUESTION QUESTIONNAIRE RESULTS

The results presented here focus on the most significant factors regarding the open-question questionnaires. The important factors are based on the research questions:

(e) To what extent do the students believe they have benefited from the writing intervention programme?

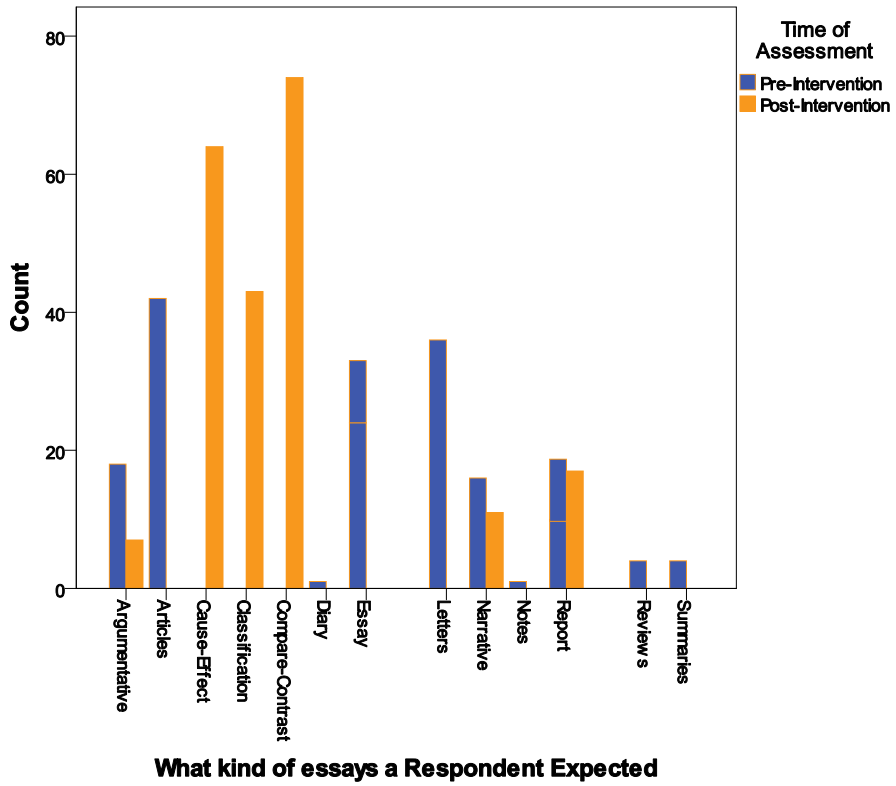
Some results are provided in the form of frequency count graphs, whereas other results are explanations based on the difference in pre-intervention and post-intervention percentage results. Selected verbatim student answers are provided to indicate the students' opinions.

All the graphs presented below compare pre-intervention results with post-intervention results. The vertical axis gives the numbers of students responding to the constructs on the horizontal axis.

4.8.1 Types of essays at school versus FP

This graph indicates what types of essays students were expected to write at secondary school level (pre-intervention), compared to the essays written on FP (post-intervention). This is a combination of results from both years (2008 and 2009) and all three approaches.

Figure 16: Bar graph: Types of essays written at school compared to FP



This graph refers to students' writing experience in terms of what essays and reports they were expected to write at school compared to their experience of what essays and reports they were introduced to on the FP. The graph indicates that students were mostly expected to

write articles, essays (type not specified), letters, narratives and reports (genre not specified) at secondary school level. If this information is compared to the actual syllabi used at secondary schools, it can be seen that students gave accurate responses with regard to their secondary school writing experiences. The Grade 12 writing component of the Namibia Senior Secondary Certificate (NSSC) English as a Second Language syllabus (2010) has the following as prescribed writing tasks: carry out simple writing tasks, like write a paragraph to describe a particular idea, use complete sentences, use introductory, developmental and concluding paragraphs, link and develop ideas. The NSSC Ordinary level syllabus indicates that students write the following: formal/informal letters; newspaper articles; reports on accidents, sport, crime, social activities; essays: narrative, descriptive, argumentative, discursive, imaginary; summaries; speeches and reviews (The National Institute for Educational Development 2009: NSSC Syllabus Grades 11-12, 2010: 8).

These types of writing activities would normally not be classified as academic writing (Harwood & Hadley 2004: 360). According to Weideman (2003: 61) "understanding information, paraphrasing, summarizing, describing, arguing, classifying, categorizing, comparing, contrasting …" are academic literacy tasks. The data in Figure 16 show that these were not done at secondary school level. However, according to the student responses, on the FP, they wrote argumentative-, cause and effect -, classification–, compare and contrast essays and reports (which in the case of FP means laboratory reports), which all involve the academic tasks mentioned by Weideman (2006) and which is closer to what he would regard as academic writing.

Given this information, the implication is that students are not appropriately prepared for academic writing tasks at tertiary level.

4.8.2 How did you go about the writing of essays?

This question aimed to find out what strategies (plan, draft, edit, re-write, etc.) students used pre-and post-intervention in the composing process. The data is presented based on the percentages of the answers that students gave in the pre- and post-questionnaires.

Pre-intervention Class 1 students of 2008 doing the process approach: 50% stated that they write an introduction, body and conclusion. One student gave the gist of what most of the students in that group did: "You first have to write the date, secondly topic, then introductory paragraph, followed by the body or content into several paragraphs and lastly, but not the

least is conclusion". 25% said that they think about the topic, understand it and then write, and 16.66% said they just write.

The post-intervention comments of the same class changed considerably with 28.57% stating that they free write, find the main points, write a title, organize and structure the ideas and then write: "First I write down the planning in bullet form and then I write a draft and edit it. Then I make sure that my essay have a good introduction, body and conclusion. Then I re-write it in a clean paper". A small percentage (14.28%) of students reported that they write an introduction with main points, then proceed with the content in paragraphs making sure that they have topic and supporting sentences and write a conclusion which gives a summary of the main points. Another 14.28% stated that they free write, make a mind map or spider diagram, write and edit: "I write a free writing, mind map, edit the free writing. Firstly I write an introduction and conclusion roughly followed by the other paragraphs".

Pre-intervention Class 2 students of 2008 doing the modeling/imitation approach: There is some evidence that students do some rudimentary planning before they write the actual essay: 20% said that they think about the topic and write the essay, another 20% stated that they write a draft and then re-write it. 12% reported that they make a spider diagram before writing the essay.

Post-intervention comments of Class 2, 2008: A general shift to more intensive planning was reported by students: 72.22% stated that they plan, draft, write the introduction including a 'hook', have paragraphs with main ideas and supporting sentences and end with a conclusion. A small percentage of students also mentioned using spider diagrams, analyzing topics and free writing in their planning.

Pre-intervention comments of Class 1 and 2, 2009, doing the process genre approach: the majority said they plan and write (58.92%), with 28.57% stating that they write first and second drafts. One student commented: "I can't remember, but I know my writing was horrible".

Post-intervention results of the same classes indicate a bigger range in the usage of techniques and steps followed: 25% stated that they understand the topic, generate ideas, write a draft, and then a final draft; 21.81% said that they generate ideas, draft, edit, write, get someone else to edit and re-write.

These results indicate that the interventions had an impact on how the students go about writing their essays, what steps they followed. It seems that students used more steps/techniques post-intervention and selected those steps and/or techniques that they found suitable. There are many individual differences which are not all reported in these findings. However, more students seemed to be aware of the specific structure of essays and that paragraphs have topic and supporting sentences. Similarly, more students used different techniques to generate ideas, like free writing, spider diagrams and mind maps. In addition, organizing of ideas and editing was never mentioned pre-intervention, but often post-intervention. There are not many differences among the techniques used based on the three different approaches. The wide range of strategies and techniques with regard to planning, generating ideas, recording and organizing ideas provided in the FP English lessons seem to have had a partial benefit on the students' writing skills.

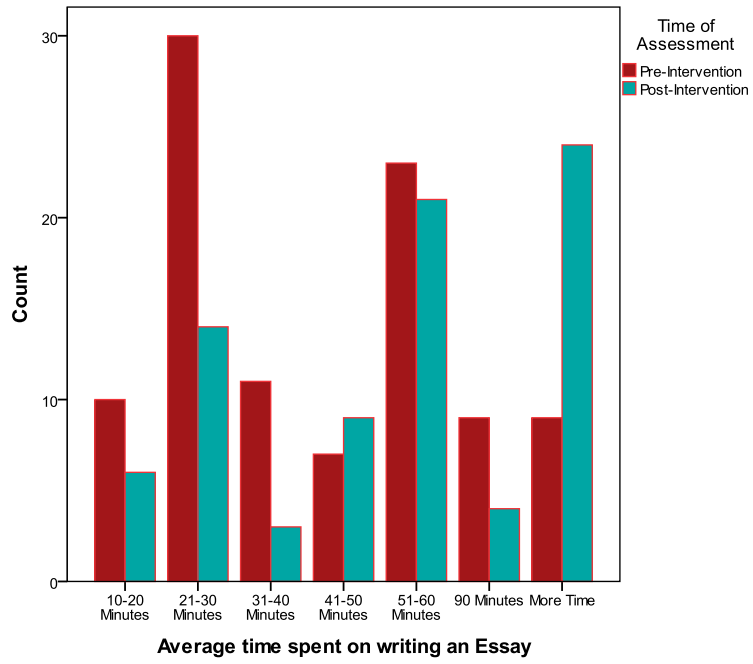
However, if these results are compared to the closed-question questionnaire results there seems to be a discrepancy with regard to the planning before writing. In the closed-question questionnaire, results indicate that students do very little or no planning before writing, and they seldom write drafts. In the open-questionnaire the majority of students attest to some form of planning before the actual composing process. In fact, a big number of students (92.22%: modeling; 75.38%: process genre) claims to draft as illustrated: No mention of drafting was made among the 2008, Class 1 (process approach) students, pre- or post-intervention; in Class 2 (modeling/imitation) pre-intervention 20% said they drafted and post-intervention it was 72.22%; the two classes in 2009 had 28.57 % for pre-intervention drafting and 46.81% post-intervention. The two opposing responses from the two questionnaires make interpretation difficult as it is not clear: did students plan and draft or not? Were they totally honest in their responses? Another possible reason for the discrepant results is that in the open-question questionnaire students gave the answers that they thought I wanted. Pianko's study (1979) revealed that although students knew how to draft, they did not draft in the study, citing having to write the essay in class time acted as barrier against their creative thinking skills. This might have been a reason for the FP students too, but all essays, except test- and examination essays, were written in class and at home over a period of a few days. FP students were never expected to hand in the essays on the same day of starting the writing. However, the next issue with regard to time spent on writing could be linked to the responses of this question. If students planned extensively and wrote multiple drafts, their time spent on the actual composing process would reflect that. The general assumption is, the more time

they reported to have spent, the more planning and drafting they would have been able to do. And as can be seen from the next figure, a very low percentage of students (24%) claimed to have used more than 90 minutes on the composing process.

4.8.3 Average time spent on writing essays

The graph below indicates how long students spent on average on writing essays, pre-intervention and post-intervention. The graph is a combination of all the classes, 2008 and 2009, with no distinction between approaches.

Figure 17: Bar graph: Different amounts of time spent on writing essays: pre-intervention compared to post-intervention



The graph indicates that the majority of students spent between ten minutes to one hour pre-intervention, with the biggest group having used between 21 to 30 minutes to write an essay (of about 200 words). There was a shift post-intervention to one hour and more time, which can range from 4 hours to two days, for an essay of the same number of words. Some comments from students were: "it depends on the topic"; "it depends on the writing situation, whether it is a test situation or not". One pre-intervention comment was: "I just write to please the teacher, so I do not spend much time on writing". The times recorded for the three different writing approaches did not vary considerably. For all three approaches pre- and post-intervention, the range for time spent on writing started at approximately 20 minutes and reached 4 hours. However, based on individual analyses, in 2009, 36.36% of the students stated that they used 1 day, 36.36% was recorded for 3 days and 72.72% claimed to use 2

days. When students say that they spent 1, 2, or 3 days on completing an essay, it does not mean that they actually sat for three days writing the essay. It rather means that they spent a few hours per day working on their essays in various ways, and if not finished would continue on the next day. Important to note here is, that these times do not reflect the time that students got when they wrote the formal pre- and post-intervention essay of which the marks were recorded for the analysis. For those essays, students only had one hour to write. It is also impossible to quantify time spent in planning mentally.

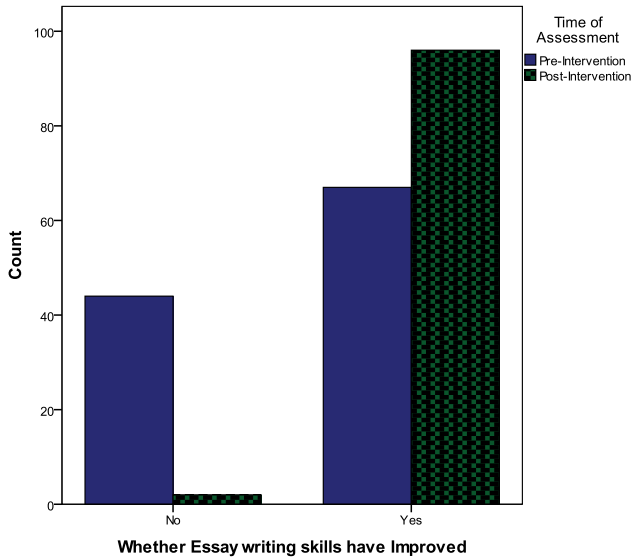
The graph indicates that 23% of students spent 'More time' on their actual writing. That is still a comparatively low number of students out of the whole group. This means most students only spent between ten minutes and one hour on writing, which in my view is still quite short. If this information is compared with Pianko's study, the same occurrence was reported: her subjects spent very little time on pre-writing activities (Pianko 1979: 7), and their actual composing time was 41.61 minutes for males and 35.75 minutes for females. In both studies it became clear that no matter how much time was made available to students to compose, the biggest group did not make use of the maximum time limit. Similarly, the feature of the process- and the process genre approach regarding enough time does not seem to hold water in the current study. Even though students are encouraged to spend more time on their writing activities in order to get a better mark, they do not seem to be committed or willing to do that. Perhaps one hour is all they will use, whether it is exam time or not. Interestingly, although the improvements were not extra-ordinary, students did manage to show an improvement in their essay writing marks that were recorded this study. The essays were written in examination conditions and students had only one hour, and their post-intervention marks reflect an overall improvement. This means what they learnt in the three different interventions was beneficial for them to be able to write better essays in the limited time of one hour. Therefore, while more time is recommended by proponents of the process- and the process genre approach for more effective essays, it has not been applied to a full extent by the all FP students. This could also reflect students' willingness and ability, or lack of both, to apply the techniques in a recursive manner. My concern is that if students spent so little time on the composing, did they find time to move back and forth among steps? I am not fully convinced that enough time and the recursive nature of the writing process can be reported to have been effective in improving students' academic writing skills in this study. I believe the exposure to the strategies and spending time on illustrating or actually using the strategies and techniques have been beneficial, but not necessarily to convince students to

always take their maximum time and to always use as many strategies as possible and preferably also to remember about the recursive nature of the composing process when they are composing independently.

4.8.4 Results of pre- and post-intervention responses: have skills improved?

This graph indicates the results of the pre- and post-intervention responses of all students in 2008 and 2009 based on the question whether their writing skills have improved.

Figure 18: Bar graph: Pre- and post-intervention responses: have skills improved?



Students' pre-intervention responses indicate that 42 did not believe that they had improved their writing skills at school level, whereas 4 stated that they have not improved on the FP. One student reported pre-intervention that he did not improve "because our teacher don't give us many work to do". Another student blamed himself for failing to improve: "I didn't make the effort of improving". On the other hand, one student said: "Yes, because in the past two years I was having a teacher that taught well about how to write an essay". 63 out of 115 students indicated that they did improve at secondary school level compared to the 98 responses about improvement on FP in 2008 and 2009. Based on these results the assumption can be made that the students believed the interventions were effective to improve writing skills of students. Some pre-intervention comments of students about this issue are: "I did not improve much, because we did not get much practice"; "We improved, because we read and wrote a lot"; "I did not improve much. It feels we were not taught". In contrast, the post-intervention responses mostly stated improvement, for instance: "Yes, because at first I didn't know how to write an introduction and the conclusion, but now I

know. Also at first I used to write long sentences, in other words my sentence length has also improved. I know also how to use correct tenses". However, some students realized that even though there was improvement, they still needed more practice: "I improve but not suffice, because of lack of understanding as from previous school where I attended Grade 12".

4.8.5 Results of pre- and post-intervention responses: have skills improved?

This table gives specific percentages of the students' responses regarding the improvement of their essay writing skills based on each writing approach respectively.

Percentages of student responses: did your essay writing skills improve?				
Open-question questionnaire	Pre-intervention		Post-intervention	
	yes	no	yes	no
Process	75%	25%	92.86%	7.14%
Modeling/	76%	24%	94.4%	5.5%
Process genre	80.3%	19.6%	96.4%	3.64%

Table 36: Open-question questionnaire responses: have skills improved?

This table indicates that students came onto the FP with the perception that their writing skills have improved considerably in their senior secondary school phase: no result in the pre-intervention 'yes' category was below 75%. However, a further improvement has been recorded for the post-intervention results. Also, the results of the three different writing approaches are very similar, ranging from 92.86% to 96.4%. It is difficult to determine from the students' point of view which writing approach was responsible for the greatest improvement.

The post-intervention percentage results show the following:

Class 1 (process approach): 92.86% of students said that they improved, because they did not repeat the same errors, even though they still struggled with grammar; They knew how to plan, write introductions and link sentences and write topic and supporting sentences.

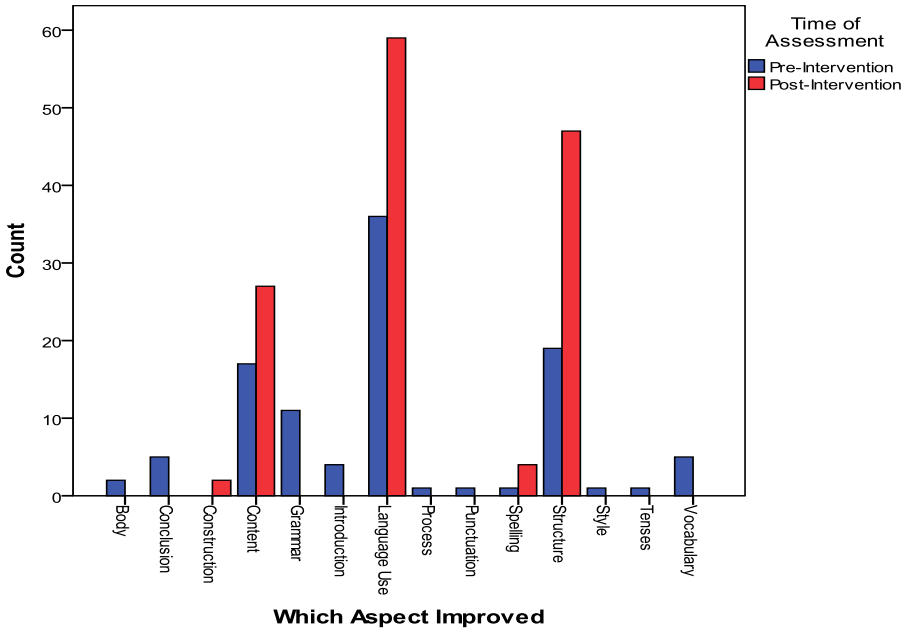
In Class 2 (modeling/imitation) 94.4% confirmed to have improved: Some responses: "Definitely, if you compare my previous essays with the current ones, there is a big difference"; "Not quite sure (sometimes I get good marks, at other times I don't)".

Ninety six percent of the 2009 post-intervention group using the process genre approach has also attested to improving: A few comments illustrate their opinion: "Yes, there is enough time to deal with the topics, I really feel I know what I am doing now"; "We did many writing activities, got attention from the lecturer, explanations helped with corrections and we had access to the library and computers".

4.8.6 If there was improvement, which aspect of your writing improved most?

This graph shows the specific aspects that students felt improved during their secondary school essay lessons compared to FP lessons in 2008 and 2009. The responses of all three approaches were added together to get a pre- and post-intervention result. Students were allowed to choose more than one aspect.

Figure 19: Bar graph: Pre- and post-intervention comparison: which aspects improved most?



A comparison between the pre- and post-intervention answers clearly showed two issues: the pre-intervention responses were either very brief, or often absent, whereas all students responded post-intervention and managed to explain what aspects improved. It is interesting to see that the aspects that improved most at secondary school level also improved most at FP level. These aspects are: content, language usage and structure. 17 students believed their content has improved at secondary school compared to the 27 on FP. 23 more post-intervention responses were recorded for language usage and 30 more for structure. It seems that the interventions have resulted in improving some aspects to a certain extent.

Below is a table that indicates the specific, individual pre- and post-intervention percentages of student improvement in content, language usage and structure based on the three approaches.

	Content		Language usage		Structure	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Process	12.5%	42.85%	25%	35.71%	33.33%	71.42%
Modeling	Nothing mentioned	55.55%	32%	66.66%	16%	83.33%
Process genre	25%	20%	64%	76.36%	28.57%	43.63%

Table 37: Open-question questionnaire responses: what skills improved?

In this table, we can see that except for the post-intervention content section of the process genre approach all other percentages have increased considerably post-intervention. The highest increase is in the structure section of the modeling approach which indicates a difference of 67.33%. This result indicates that the modeling approach has been highly effective in assisting FP students to improve the structure of their essays. Examples of genre essays were provided to the modeling students who then analysed the structure and imitated the structure when they wrote their own essays. The overall increased results allow a safe assumption that the 2008 and 2009 students believed the interventions had a positive impact on their writing abilities on at least some of their aspects.

4.9 INTERVIEW RESULTS: 2009

Interview interpretation: Interviews 2009 (pre-and post): Process genre approach:

The interviews were added as a qualitative data collection tool to give more depth and richness to the data. This decision was taken after the critical reflections in 2008 and implemented in 2009.

The interviews were conducted in 2009, which means these findings only have a direct bearing on the laboratory report writing skills of the students who did the process genre approach, but could be regarded relevant for 2008 students as well by association with respect to aspects such as the schools that students had attended and the general educational background. The results of the 2009 pre- and post-intervention interviews are presented

qualitatively. The discussion includes verbatim quotes from the actual interviews. In some instances graphs are provided to further illustrate the findings. The findings are presented in such a manner that they give answers to the research questions.

Research Questions:

a) What background knowledge do FP students have of ESL academic writing and laboratory report writing?

The interviews held with four science lecturers in 2009 before and after the intervention provided some useful information regarding students' laboratory report writing background. All four interviewees stated that laboratory report writing was not done at secondary school. On the contrary, the respondents who were all secondary school science teachers before joining the FP at UNAM, said that learners were mostly prepared to pass the Grade 12 exam and that they never did laboratory report writing with the learners at school. Learners did not even do practicals themselves. The teachers demonstrated the experiments and then learners sometimes just answered a few short questions based on the demonstrated experiment. Besides that, when considering the quality of FP students' first laboratory reports, it seemed that laboratory report writing was a new concept to students as reported by one lecturer: "They had no idea of what to write in that laboratory report. That is why the first laboratory report I did not even record it. They were just getting 2 or 3 out of 15. So, it was terrible, the first one."[9] Interestingly, interviewees reported pre-intervention that most students were able to draw clear, meaningful tables and graphs based on the results of the experiments, but found it very difficult to explain the non-verbal data. When asked about the reason for students' ability to draw good graphs and tables, the interviewed lecturers all said students could compare data in that way because that was a topic also covered in Mathematics at secondary school level.

When asked about the use of discourse markers (then, next, as a result, etc.), hedging phrases (it seems that, the experiment indicates that, this might have led to) and action words (to determine, to illustrate, to find out, etc) in the pre-intervention interview all four interviewees commented that students did not use these academic words in their laboratory reports. No mention is made of discourse markers or linking words in the NSSC 2006 or 2010 syllabi. This indicates that at secondary school level FP students were probably not introduced to the

[9] The verbatim answers of the Science lecturers were not grammatically adjusted by the researcher.

application of these words and phrases and could therefore not use them effectively in laboratory report writing as a genre of academic writing.

The interviewees felt that those academic writing conventions should be taught in the English lessons to be applied in the students' laboratory report writing so that the coherence and the general flow of students' laboratory reports would improve. They also alluded to the issue of copying in this instance. That means if these words were used in the aim section of the instructions in the lab manual, then students would use the words. In fact, copying directly from the lab manual was indicated by all science lecturers as being a problem pre-intervention: "They always just copy the aim", and "The problem is they are copying from the lab manuals. They don't add something new." The reason stated for copying was that students indicated a fear of doing the laboratory reports wrongly because they did not know how. In fact, on the question of students' background knowledge of laboratory report writing one lecturer stated emphatically: "Not at all. I don't think they have experienced anything like that. The first time I asked them what they think we should include in the report: Nothing! They don't know anything. At secondary school they were never exposed to writing laboratory reports."

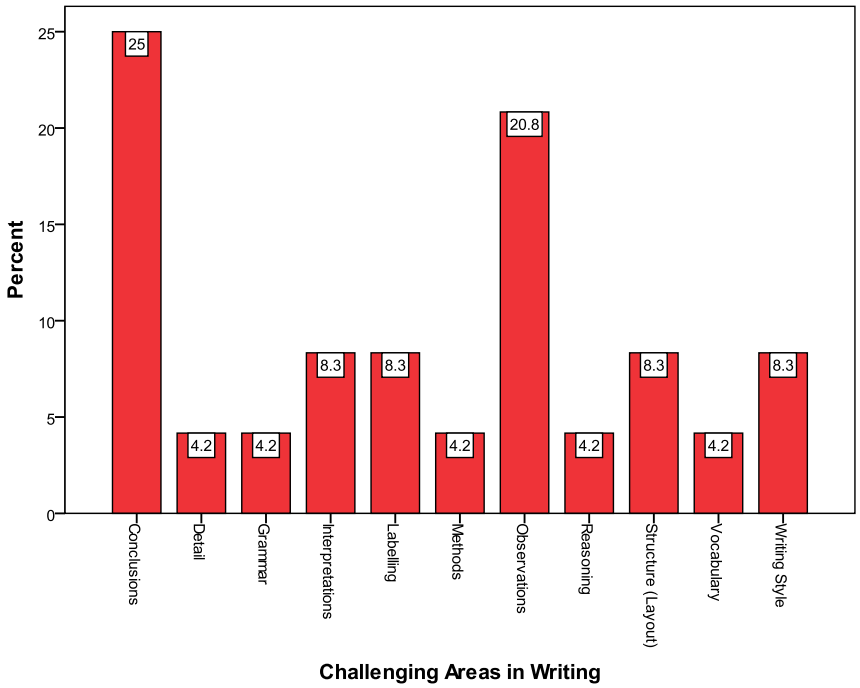
This data illustrates that laboratory report writing was not done at secondary school level and therefore FP students had very little background knowledge of laboratory report writing. The tendency to copy available information (introduction, aim, apparatus and sometimes even procedures) from the lab manuals indicates students' level of insecurity of writing in a new genre. In my view, as well as Quintillian, Aristotle, Bender (1993), Flanigan (1980) and Watson (1982) the act of copying (as opposed to plagiarism) is typical of human behavior, and should not necessarily be regarded as a bad practice. On the contrary, copying can be used as a tool to improve writing. Interestingly, without being told to do so, students used copying as tool to cope with writing their laboratory reports, even though it was perceived as a weakness by the interviewees. This tendency was also highlighted by Charney and Carlson (1995: 111). The difference is that Charney and Carlson introduced models specifically to help students improve their writing, and they found that using models helped students to remember and write about concepts that they would otherwise have omitted. Jones and Freeman's study at Macquarie University in Australia in 2000 and 2001 also provided information on students' tendency to copy when exposed to a new genre, which was also laboratory report writing. In their study students also copied verbatim from the lab manuals even though lecturers told them not to do so. They found that students had a distinct lack of

understanding the grammar and lexis of laboratory report writing register, they displayed a deficiency in the level of complexity and experience in the procedural expressions found in academic and laboratory report writing. This was also given as a specific reason for the weaker Chemistry report writing results compared to the Biology and Physics results of 2009 FP students. The Chemistry lecturer noted that the complexity of Chemistry as a subject and the complex experiments resulted in students producing laboratory reports that were weaker than the Biology and Physics reports. I believe, in order to make up for the lack of background knowledge and experience in writing laboratory reports, students used copying to help them write better reports.

b) To which extent were students exposed to academic writing skills at secondary school? Did they do any activities that would introduce them to academic writing skills? Did they do any pertinent academic writing activities?

The information of the interviews allows an inference based on some aspects of academic writing skills. If we consider criteria for academic writing, then it seems that the FP students had very little exposure pre-FP to academic writing conventions. The interviewees mentioned that initially students had problems with the format of the laboratory report, the structuring of information under the sub-headings, writing observations and conclusions and observing grammar conventions like third person and past tense passive voice. They also had spelling and punctuation problems. The following graph visually illustrates the pre-intervention opinion of science lecturers based on challenges that students faced in their laboratory report writing. The graph is a frequency count graph, which means every time a specific concept, phrase, or word is mentioned it is counted. There were four respondents, which means all the constructs listed on the horizontal line were mentioned at least four times and ‘Conclusions’ and ‘Observations’ were mentioned 25 times and 20.8 times respectively as being a problem for students’ pre-intervention laboratory report writing skills.

Figure 20: Bar graph: Challenging areas in writing



This pre-intervention graph indicates that students struggled with writing the conclusion most, followed by writing the observation. Various reasons have been given for that occurrence, for instance one lecturer commented: "Well, they do give a little bit of detail although the problem is that they just say the experiment was successful because it was meant to measure the Hooke's Law and we managed to do it in the lab. They are not using the data at hand to support their conclusion." 'Interpretations' in the graph refer to interpreting the results. According to the interviewees, students generally succeeded in presenting the data in tables or graphs but failed to explain it in detail. In addition, students did not offer titles or headings for the graphs ('labeling' in the graph above).

Even though this graph indicates the challenges of the 2009 laboratory report writing skills, some parts of this information can be related to general academic writing skills, for instance grammar. All four interviewees complained about students' weak grammar skills. The complaints included the incorrect use of tenses. Some examples of this issue are provided by lecturers: "…so the apparatus was setted up", or "I measuring the spring". Spelling also contributed to low marks, "…they cannot spell properly…so the language is affecting their performance in Biology" as well as subject-verb agreement: "…they don't know the difference between 'were' and 'was'. So you find someone who is saying 'the solution were added'". The interviewees felt that this occurred mainly because of the students' weak

English background: "… they are not used to reading and speaking English, where they came from…" and "I think they are afraid of expressing themselves in the language,…they can get the correct information from the books,…which you can regard as the correct answer for those questions, but then I think most of it is language problems, tenses especially,…spelling, and such things." Even very basic issues like starting sentences with capitals seemed to be an issue as one lecturer stated: "…,some of them are starting sentences with small letters, some are writing the name of a person in lower case. I think it is where they came from they were never used to strict writing."

Therefore, whereas this information does not give an exact answer to the question of the extent of exposure to academic writing skills at school, it suggests that students were probably not exposed sufficiently to academic writing skills to cope at tertiary level. This notion has also been regarded by Jackson, Meyer and Parkinson (2006) as a reason for a lack of writing proficiency at tertiary level in South African Universities. Phillips (2004) and Heffernan have also reported on the fact that students are not well-equipped to cope with their writing activities at tertiary level. In Namibia Tötemeyer (2009: 3) expressed his frustration with first year students' poor English writing proficiency.

f) How effective have the interventions been to improve students' writing results in academic essays and laboratory reports?

The data from the interviews indicate that the interventions had a positive effect on the laboratory report writing skills of students. There was general consensus among the interviewees that the overall quality of the students' laboratory reports has improved: "…the quality of the last reports were quite good, and I must say the intervention helped quite a lot because I think they even paid more attention to how they wrote". The biggest improvement seemed to be in the lay out, the structure and the content of the students' reports: "I can see there is an improvement in structuring the format. They know what to write, like the aims, what comes first, the aim, the summaries, the procedures". Whereas pre-intervention students tended to confuse the observation, discussion and conclusion section, a post-intervention comment shows improvement among students' writing abilities in those sections: "…at least now they can tell the difference between writing their observation, how they write their method, and how to discuss their results,…". Another progress has been made in the content of the students' laboratory reports: "…their ideas now flow more logically and also their reports are now more meaningful. It has improved quite a lot whereas

in the first one they were trying to…to…write a report as if they… the same way they answer questions for example in a test". According to the lecturers, students' grammar has also improved to a certain extent: "… they pay attention to how they write, for example how they spell …". All four interviewees commented positively on especially the use of third person and/or the use of past tense passive voice specifically in the procedure and the observation section: "There is an improvement in writing the procedures in passive voice. They know how to use the passive voice now. Previously they did not know, so they used the present tense. Now they know how to write the procedure in passive voice."

The post-intervention responses on the matter of discourse markers, hedging words and action words indicate a measure of success. Two lecturers responded positively, a third one stated: "I would say that they aren't good at that. I mean, they just write straight" and one lecturer said that some students used those words but there were still students who copied directly and verbatim from the manual. In this case it means students plagiarized. This is opposed to imitation and not encouraged in education, in fact at UNAM it is punishable. Imitation is a learning strategy where students imitate the type of content, structure and language usage, but do not copy verbatim. The copying issue was also confirmed by the other lecturers, even though there seemed to be less reliance on the manuals post-intervention. One lecturer commented on this issue by saying that he thought those academic words "…would…be a little bit frightening to them", especially because of the tense issue. Students are required to use the past tense when reporting in the Observation and the Conclusion section, and then using these words in the present tense might confuse them, and they would be scared of losing marks.

However, not all students managed to score A symbols after the intervention and the interviewees attested to persistent challenges even after the writing intervention. Some students were still struggling with interpretation of results, the actual grammatical expression of the findings, and other grammatical issues like spelling and the effective use of tenses and subject-verb agreement. Past tense passive voice was also mentioned by one lecturer as still being a challenge for students. Another issue that posed to be a problem pre-intervention was copying directly from the lab manual. According to the lecturers this reduced to a certain extent post-intervention: "… you see that a person has been doing some research on the topic of the experiment, but there are some that are still copying directly from the manual". In addition, lecturers mentioned that some students did not give enough detail under all the sub-headings and sometimes "the little information is not correct, for example in

the conclusion". In fact, interviewees all mentioned that writing conclusions still seemed to be difficult for students even after the intervention. It can be concluded that despite the reported improvements, students still lack some skills in laboratory report writing. No short course can compensate for the many years of deficiency as in the case of the FP students.

These results are comparable to the study on the effect of the process genre approach on Engineering students' writing skills by Nordin, Halib, and Ghazali, (2010: 46). The study found that the majority of the students (79.6%) in the experimental group scored better marks post intervention. Foo (2007) also found an improvement in the writing ability of the experimental group students after introducing the process genre approach, especially in the areas of communicating ideas, and developing relevant ideas. Similar to the situation in the current study, the data of Foo's study indicated that organization of ideas and the control of language still seemed to be problematic post-intervention.

All in all, the science lecturers responded positively with regard to the effectiveness of the intervention to improve students' laboratory report writing skills. They showed their understanding that writing is important to create and show awareness of understanding as well as manipulating texts.

The value of the qualitative data confirmed my assumptions about students' academic writing and laboratory report writing backgrounds: I suspected that students did not get sufficient instructions in various issues, such as how to write essays, how to use language effectively for written communication and how to write laboratory reports. Thus, the qualitative data corroborated my suspicions, which then resulted in more confidence that the writing interventions would lead to a transformation in students' academic writing skills. In addition, the qualitative data also aided my reflection process: student responses illustrated the strengths and weaknesses of the intervention materials. The data obtained from the open-question questionnaires and the interviews enhanced the quantitative data of the closed-question questionnaires, like the statements about knowing how to use the techniques and strategies to write academic essays. The data also offer different perspectives on various issues, such as that students use many different methods and techniques to write essays, and that they do not consistently use the time and techniques provided to them to improve their writing. This is an especially valuable position, since it is not only my perspective provided in the study, but also the perspectives of students. It is a good representation of human

nature in a very specific context, something which would have been lost without qualitative data in this study.

4.10. CONCLUSION

In this Chapter the data were presented based on the two-year study. The research questions guided the presentation and the interpretation of the data. The main conclusion is that all three writing interventions had a positive impact on the academic writing abilities of the majority of students. This conclusion was arrived at using three different perspectives: the statistically significant findings based on the essay and laboratory report mean score results, the students' responses in the two questionnaires, and the Science lecturers' opinions regarding 2009 students' laboratory report writing skills. The essay and laboratory report results provided discerning information regarding the effectiveness of the three approaches. The pre- and post-intervention mean score differences indicate that the students using the process genre approach (2009) to improve their academic writing abilities had a higher level of improvement in their English essays and Biology laboratory reports than students using the other two approaches. The pre- and post-intervention mean score differences of the Class 2 (2008) students using the modeling approach show that their greatest improvement was in Physics laboratory report writing. In addition, the modeling approach also had the greatest difference in the overall pre- and post-intervention mean scores. The process approach was accountable for improving the Class 1 (2008) students' Chemistry laboratory report post-intervention results most effectively. Furthermore, the responses on the closed-question questionnaire illustrate that there was a higher level of change among the process genre approach students' writing habits. The students doing the modeling approach managed to change their attitude towards writing to a higher degree than the other two approaches. Noteworthy data from the open-question questionnaire is the perception of students regarding their level of improvement: 96.4% of the 2009 students doing the process genre approach believed that their academic writing skills have improved compared to the 94.4% of the modeling approach and the 92.86% of the process approach. Science lecturers' responses to the post-intervention interview questions also provided insightful positive data regarding the effectiveness of the process genre approach, but because the interviews were not done in 2008, I am not able to compare these results.

I feel that my teaching practice has improved with the implementation of the three approaches. I realized that breaking the writing process down into small, manageable chunks is helpful for students and that model essays are also useful in many respects. My involvement in the students' writing attempts has also increased. Having modeled the different idea-generating techniques, organization, paragraph writing, drafting and editing gave students more confidence to do it more effectively themselves. Even though there is criticism against the process genre approach, I still believe that the approach is effective in helping students with academic writing. The next Chapter will provide a summary of findings, conclusions and suggestions for further research.

CHAPTER 5: CONCLUSION

In the previous chapter the findings and sub-conclusions of the study were presented. The last chapter of this study presents the summary of the findings, the conclusions, problems encountered during the study, and recommendations for future research. All these will be done with the aim of the study and research questions in mind.

5.1 SUMMARY OF FINDINGS

A hybrid research design was used to carry out an action research to find out whether students' academic writing skills would improve if exposed to three different writing approaches: process approach, modeling approach, and process genre approach. The findings indicate the following:

The study provides supporting data that all three interventions managed to improve the academic writing skills of students. The hypotheses (Chapter 1, p 22, 23) have been confirmed:

- The application of the process approach results in an improvement in academic writing skills of FP students.
- The application of the modeling approach results in an improvement in academic writing skills of FP students.
- The application of the process genre approach results in an improvement in academic writing skills of FP students.

The individual findings of the essays and laboratory reports in the form of statistically significant differences in pre- and post-intervention mean scores indicate that students using the process genre approach showed the best academic writing improvement in English essays and Biology laboratory reports. The results of the students doing the modeling approach showed the highest statistically significant difference in pre- and post-intervention mean scores in Physics laboratory report writing. The process approach produced the highest statistically significant difference in the mean score results in Chemistry laboratory report writing skills of students (see p. 161). Even though the process genre approach showed the highest increase with regard to the pre- and post-intervention mean score of English essays and Biology Laboratory reports (see p. 162), the small differences in percentages for all three approaches suggest that all approaches were beneficial in improving students' academic

writing skills. In fact, the modeling approach also had the highest difference in overall mean scores (for essays and all laboratory reports: see p. 162), which makes it a good contender for the most effective approach to improve academic writing skills of students. In addition, the modeling and process approaches had good post-intervention results with regard to the three categories: Excellent, Good and Above Average. An interesting fact mentioned above is, that the process genre approach was most beneficial for the English essays and Biology laboratory reports. These two subjects are regarded as less technical than Physics and Chemistry and are reliant on more elaborate explanations and descriptions, rather than calculations and formulas used in Physics and Chemistry laboratory report writing. There might be similarities in the writing of Biology laboratory reports and English essays, in terms of content and style. The assumption might be made that the process genre approach is effective when more descriptive expository writing is required, whereas the other two approaches are more effective with regard to technical writing.

The closed-question questionnaires focusing on writing attitudes, writing habits, materials, pedagogical purposes and values indicated that the modeling- and process genre approaches managed to change the attitudes of students more than the process approach did. Students' responses about writing habits illustrated that they learnt new habits, but did not necessarily apply these when writing. Students doing the modeling- and the process genre approach responded positively to more statements than students from the process approach. The results for the two statements about planning and drafting indicated that many students did not plan and draft their essays, which suggest that mental planning took place while they wrote only one draft. The 2009 students' responses on the writing materials indicated a substantial difference in materials used at secondary school compared to those on the FP. Post-intervention results have shown that cross-curricular teaching, linking writing to study skills and receiving an explanation for the importance of writing received significantly positive responses from students.

The open-question questionnaires indicated that the types of writing activities that students received at school did not necessarily focus on academic writing and were totally different from those done on the FP. Post-intervention results suggest that students learnt about new skills and techniques and applied them when composing, yet they did not necessarily make use of the maximum time given to write more effectively. Most students attested to having improved and the biggest areas of improvement were mentioned to be in structure, language usage and content of essays.

The 2009 interviews held pre- and post-intervention with the four FP science lecturers indicated that students had no experience or background knowledge of laboratory report writing, but the intervention (process genre approach) contributed to improving students' laboratory report writing skills with regard to structure, language usage and to a certain extent, content. Specific benefits with regard to students' use of past tense passive voice and the coherence of laboratory reports were mentioned. The interviews were extremely valuable with regard to the richness of the data. The responses of the Science lecturers brought a clearer perspective to my assumptions with regard to students' background knowledge about academic and laboratory report writing. The answers also contributed to the nature of the teaching materials and my teaching practice: when the lecturers highlighted the challenges and the strengths I could align my materials and teaching practice accordingly. The interview data adds authenticity and reliability to the study in a qualitative form. The data obtained from the interviews also serve as a form of triangulation to complement the quantitative findings.

The 2008 reviews illustrated the strengths and weaknesses of the two writing approach implementations and my teaching practice. The materials of the process- and the modeling-approaches had positive effects on the students' academic writing abilities, but certain areas (subject-verb agreement, and tenses) required more attention or a different teaching strategy. The main observation was that students came from a writing background where guidance and teacher input was rarely found. Students appreciated the clear instructions, the amount of guidance and time that were applied when writing essays in FP lessons. The more focused attention to writing was beneficial in improving students' academic writing abilities especially with regard to structure and content, but a number of issues still remained challenging, particularly in the area of language usage.

The review of the process approach predominantly showed that breaking the writing of an essay into smaller, more manageable steps was useful for students. The principal feature of the modeling approach (to use examples as input and encourage imitation of the input) also showed benefits. Therefore, the third writing approach – the process genre approach – was chosen to determine the value of an eclectic writing approach with regard to academic writing. The benefits of the main features of the process- and modeling approaches were evident in the improvement of the academic writing skills of 2009 students, but not to the extent as I had initially anticipated.

Part of the final overall review was to look at the statistics of the essay and laboratory report results. I found that the process genre approach as an "assumed improved" approach has certainly managed to impact positively on the academic writing skills of students. If the pre-intervention essay percentages of the 2009 group are compared to the post-intervention essay percentages, there is an 11.34% improvement in the mean score. This is considerably higher than the 8.49% and 10.4% of the modeling and process approaches respectively. The Biology laboratory report writing results of the 2009 students doing the process genre approach also reflected a higher mean score average than the other two approaches. I cannot with certainty provide a reason for this occurrence but it could be read as an endorsement of the value of the critical thinking phase that preceded the implementation in 2009. In fact, I had anticipated (had hoped) that the process genre approach would produce better results than the modeling and process approaches in isolation, since that was the whole purpose of the second cycle of the AR. Possible reasons for this might be: the features and application of the process genre approach might indeed have resulted in the improved academic essay results of students: the focus on smaller steps when writing essays, the use of examples in various ways in the lessons, and my continuous input and guidance might have contributed to a more effective improvement in students' academic writing performances. On the other hand, it would have been good if the process genre approach could have been accountable for the best results overall, meaning also in Physics and Chemistry laboratory report writing skills of students as well.

Finally, the reviews have helped me to reach the conclusion that all three interventions had a positive impact on most FP students' academic writing ability.

5.2 CONCLUSIONS

The conclusions will be represented as answers to the research questions.

a) What background knowledge do FP students have of ESL academic writing and laboratory report writing?

The data of this study confirmed that FP students had limited background knowledge of academic writing and no experience of laboratory report writing. This finding underscores the general assumption that students enter the university with ineffective academic writing skills (Benjamin 2004: 7; Nyathi 2001: 9; Tötemeyer 2009: 3; Willemse 2005: 1; and Wolfaardt 2005: 2360). The weak educational backgrounds and little exposure to English outside school of FP students were contributing factors to their ineffective academic writing

skills, given their weak pre-intervention essay results. The findings also boost the view that students need to be more intensively acquainted with academic writing skills before they enter tertiary level.

b) To what extent were they exposed to academic writing skills at secondary school? Did they do any activities that would introduce them to academic writing skills? Did they do any pertinent academic writing activities?

The results of the pre-intervention open-question questionnaire, essays and laboratory reports indicate that FP students were mostly not exposed to academic writing skills at secondary school level. The materials and/or teaching and learning methods used at school were not effective to introduce FP students to the type of discourse used at university level. Even though the NSSC syllabus explains certain competencies which are related to academic writing conventions to be attained by learners at Grade 12 level, it is not reflected in the marks that students got for their pre-intervention essays, and their responses to the relevant questions in the questionnaire. The criteria that were used for marking the essays focus on the features of academic essays and these are mostly covered by the current NSSC syllabus: writing paragraphs, using introductory, developmental and concluding paragraphs, linking ideas, planning, structuring, drafting, editing, using appropriate style, format, layout, vocabulary, grammatical structures, focusing on interpretation of the topic, giving factual information, and defending ideas and opinions. The comments obtained from five Namibian teachers at different schools of different regions in Namibia also indicate that the competencies stated in the syllabus are not prioritized and mostly not dealt with in writing classes. The conclusion then follows that these competencies were not attained by FP students before entering the university.

c) How can the interventions be described?

This question does not need an answer that gives a conclusion. The interventions are described theoretically in Chapter 2 and in application in the materials development in Chapter 4.

d) How have students' experiences of and attitudes towards academic writing changed during and as a result of the writing intervention?

The closed-question questionnaires provided an answer to this question. FP students' experiences changed considerably as a result of the interventions. The application of the

writing materials resulted in students' learning about strategies and techniques that were mostly not dealt with at school level. Students' mostly positive post-intervention responses with regard to knowing about writing strategies indicate that the interventions succeeded in exposing students to the academic writing conventions. Their experience with regard to applying these strategies, however, indicates that even if they knew about the strategies they did not consistently apply these when composing. This probably relates to their level of commitment and/or interest in using the strategies to improve their writing. Nevertheless, the findings about the attitudes and habits indicate that the modeling approach and the process genre approach received more positive responses from students than the process approach. The conclusion can be made that the modeling- and process genre approaches were more successful in changing habits and attitudes, resulting in more positive experiences for students. The two common factors of the modeling- and process genre approaches are the use of examples to illustrate what an effective essay or laboratory report should look like and a demonstration of the techniques used in the composing process. It could therefore be deduced that this was the factor contributing to the more positive responses from students, and hence a more positive writing experience and attitude towards writing. The positive experiences and attitudes could have a favorable effect on the students' level of confidence in writing.

e) To what extent do the students believe they have benefited from the writing intervention programme?

The responses to the question in the open-question questionnaire provided positive feedback on the extent of the benefit as experienced by students. 95% of the FP students attested to having benefited of the writing interventions. The responses of the students doing the process genre approach were the most positive (96.4%) followed by the modeling approach (94.4%) and lastly the process approach (92.86%). Some individual answers were also encouraging with regard to the benefits received from the application of the interventions. Students reported that they learnt about new writing techniques like, planning, generating ideas, drafting and editing, and that that has contributed to a positive change in their writing skills, even though they did not apply these techniques consistently. Therefore the outcome can be described as generally good, as one students' response summarizes the opinion of most FP students: "Yes! Because we wrote a lot of essays and I also started to know how to

start writing a good introduction, how the content and grammar is supposed to be and when to use punctuation." [10]

In general, the information from the students' point of view shows that they improved most with regard to structuring their essays more logically, followed by language usage and lastly content. The conclusion is therefore that it was easier to improve the mechanical issues in students' writing like structure and grammar.

Even though relevant and meaningful content is important in writing, it is a more difficult sector to improve. Content refers to students' general knowledge, their critical and analytical thinking skills, and their ability to synthesise relevant information. These are highly metacognitive issues which in my view are challenging to 'teach'. The students' weak pre-intervention essay marks indicate that they failed to display their level of thinking through writing. This was also a factor in their post-intervention marks. The essay results have not improved as much as the laboratory report writing results. There are two reasons for that: students had only one hour to write the essay which was used for the results of this study, whereas they had a week to complete their laboratory reports. This means they could only use their general knowledge for the essays, but with the laboratory reports they had the lab manuals and other sources to consult, which explains the better marks. In addition, science lecturers complained about students' dependence on the laboratory reports for most of the sections. Only the Results, Observation, Discussion, and Conclusion sections were not provided and students struggled with the last three, even post-intervention. These sections rely on students' metacognitive abilities or at least their skills to write what they are thinking, similar to having to write an essay without any resources except their background knowledge. It is difficult to determine what they know and think if they do not write what they know and think. Their laboratory reports lacked depth with regard to the Discussions and Conclusions, as was the case with students' essays. A student can be encouraged and shown how to explore topics in detail and to explain concepts, issues and opinions extensively, but in my opinion, this is a more challenging area and comes with much more practice than a few essays.

It is easier to improve structure as there are certain guidelines and techniques that can be used to produce more effective essays with well-organized paragraphs, topic- and supporting

[10] Verbatim response: no changes were made to grammar

sentences, discourse markers and linking words. Grammar can also be improved to a certain extent as there are grammatical rules that have to be learnt and applied. All three writing interventions resulted in a more effective use of structure but grammar was also a contentious issue, as explained by students themselves, the science lecturers and my reviews. Even though there were some positive results with regard to the effective use of grammar, three issues still seemed to be a problem post-intervention: spelling, subject-verb agreement, and tenses. These results mean that not even the models and examples used in the modeling- and process-genre approaches have had a significant effect on how to use grammar efficiently, a developmental and incremental skill with no quick-fix solution. The proponents of these two approaches believe that meaningful input can lead to more effective essays with regard to the use of correct linguistic structures. The results of the open-question questionnaire indicate that students believe they have improved their grammar aspect in their essays. However, the post-intervention essay results tell a different story. If students' grammar had improved as dramatically as indicated by them, the marks should have been better. The findings show that discrete teaching of grammatical features did not carry through to later writing. In conclusion, more thinking has to be done on how to get the majority of students to understand and apply these grammar concepts more successfully in their academic writing and secondly, more attention has to be given to either students' development or their actual illustration of their meta-cognitive skills (or both) through academic writing.

f) How effective have the interventions been to improve students' writing results in academic essays and laboratory reports?

The post-intervention results of the essays show an improvement for the majority of students with a movement away from the high pre-intervention Poor and Weak results. In all three classes the Weak results (process: 30%; modeling: 36% and process genre 46%) were the highest pre-intervention but decreased dramatically post-intervention (process: 10%; modeling: 7%; process genre: 17%). In the post-intervention results there were no Poor results, except for a small percentage (5%) in the 2009 class. These results are encouraging even though not all students received above average results, which I had hoped for. The overall statistically significant differences in mean scores indicate that all the writing approaches had a positive effect on the academic writing skills of students' essays. The pre-intervention mean score of 46.60% was 10.48% lower than the post-intervention mean score of 57.08% and therefore the hypothesis that the interventions would result in improvement in students' academic writing skills was confirmed after doing a t-test. The individual

Independent Samples t-test for statistically significant differences for the three approaches respectively indicated that the process approach and the process genre approach managed to produce statistically significant differences in pre- and post-intervention mean scores, but not the modeling approach.

The results of the laboratory reports show a greater improvement than the essays, but that can be ascribed to the fact that students had more time to write their laboratory reports and they could consult sources. In Physics, 73% of Class 1 students managed to get Excellent for their post-intervention reports and there were no post-intervention results for Average, Weak, or Poor. 77% of the students doing the modeling approach (Class 2) had Excellent, and there were no post-intervention results for Average, Weak, or Poor. In the process genre approach 35% achieved Excellent, 42% received Good and 17% got Above Average. The Independent Samples Independent Samples t-test to determine the statistically significant differences indicate that all three approaches were effective in improving the laboratory report writing skills of students except in Chemistry. The differences in the Class 2 (modeling approach) Chemistry mean scores did not result in a statistically significant difference, and therefore the null hypothesis could not be rejected. However, the overwhelming positive outcome of all the other Independent Samples t-test are confirmation of the effectiveness of the writing materials and teaching practice to improve academic writing skills of 2008 and 2009 FP students.

Data based on the differences in overall mean scores (English essays and all laboratory reports) illustrate that students using the modeling approach (13.25%) have managed to improve their results more than students of the process- (9.12%) and process genre approaches (10.96%). However, the process genre approach was most effective in improving students' English essays and Biology laboratory reports with the highest differences in pre- and post-intervention mean scores: Essays: 11.34%, Biology: 16.75%. The conclusion that can be deduced from this is that examples played an important role in improving FP students' academic writing ability. An overall conclusion can be made in favour of the interventions to improve the academic writing skills of students, with the modeling approach as the most effective.

5.3 DISCUSSION OF PROBLEMS

The main problem of this study for me was the length of the actual study, which was to be expected as I used the AR method to conduct my study: It took more than two years to

prepare, apply and evaluate the interventions. I could not be flexible in my teaching situation and had to remain true to the plan at all times in order to ensure reliability of the results. My curiosity to find out which approach would lead to the best results and teaching practice, my commitment and determination to finish this study compelled me not to divert from the proposed interventions and the data collection. On the other hand, the time issue was in my favour in terms of reviewing and evaluating the first cycle of the AR and then planning the second AR cycle. The richness of the qualitative data and the statistically significant improvement levels achieved by all three interventions provide convincing evidence that the materials were sound and the time I took working on the research project was justified.

The second problem was not having a control group which could be used as a comparative measurement and would increase the validity of my research. The use of a control group was not possible for ethical reasons. Students relied on getting the best possible instruction and it would have been totally unfair to exclude one group from the interventions. The study was not an entirely quantitative study and the findings still give valuable data in terms of the effectiveness of the three different approaches. I managed to achieve statistically significant results with regard to the effectiveness of the approaches to improve the academic writing skills of FP students.

Another problem was the content of the questionnaires. Some questions were not direct enough in eliciting specific information with regard to academic writing skills and materials before and after the interventions. The consequence is that I could not give very specific information in the findings with regard to exactly which academic writing conventions were dealt with at school and on the FP. Therefore, when I discussed the findings I would speak about academic writing conventions in general, with the exception of a few issues like the use of tenses, structure, discourse markers, hedging words and action words. However, it was possible to deduce the approximate level of students' academic writing skills based on some responses in the questionnaires, their essay- and laboratory report results and interview answers.

Lastly, I should have done interviews in 2008 as well. Even though I suspect lecturers would have given more or less the same answers to the interview questions it would have been good to be able to compare the results of the 2008 interviews with those of 2009. However, by means of association of the students' educational background (they all come from educationally disadvantaged schools in the same regions in Namibia) and my comprehensive

background knowledge about where students come from, I am quite confident that the 2009 interview results can be applied to the 2008 findings as well. However, the decision to do the 2009 interviews resulted from the critical thinking phase at the end of 2008 and thus this development is a direct result of the action research cycle that I could not have predicted at the start of 2008.

5.4 CONTRIBUTIONS OF THE STUDY

Academic writing abilities of students have been presented as a problem at the University of Namibia for at least ten years. The University has developed bridging courses to introduce students to the conventions of academic discourse. Currently there are two courses where this issue is addressed, the Foundation Programme and the Access Course. This would be unnecessary if more attention is focused on academic writing skills at senior secondary level. However, at this stage in the Namibian education system, this is still a pipe dream. Students' own insecurities about their writing ability and the teachers' lack of commitment or understanding to apply the prescribed competencies in the syllabus are compounding factors that lead to the ineffective academic writing skills of students. It is difficult to change the attitude of learners and teachers with regard to writing approaches and the amount of time and effort that goes into teaching writing effectively. Suggestions regarding more practical approaches to teach writing have been made but not implemented.

This study shows that it is possible to have students who write more effective essays than those essays that are produced without any help and guidance from teachers or lecturers. Positive writing experiences can be provided by teachers and lecturers when the writing materials are presented in a way that allows students to understand the complexity of the writing process, but write well when examples are given and/or steps and techniques are provided. It is also possible to structure the materials in such a way that all four skills are involved in the steps leading up to the actual writing of an essay. The active engagement of both lecturer and students and interesting, relevant materials contribute to a more positive writing experience for students.

The realization that writing must be taught was important in my decision to determine how the interventions should be applied and which writing approaches should be used. The contribution of this study relates to the fact that writing is not an innate ability or talent that a student can either automatically do or not do, but it is a skill that can be taught. Writing is a compulsory activity at school and at university and therefore it needs to be taught effectively.

It is not good practice to simply give students a topic and then expect them to write effective essays if they have never been told how or shown examples or both.

The results indicate that attention to mechanical factors of writing can contribute to a more effective essay. Writing should not be done isolated from grammar instruction and focus on form. On the contrary, grammar instruction should be aligned to the criteria of effective essays in the respective genres. For instance, students can be taught to use the present tense effectively before writing a factual compare and contrast essay. Alternatively, past tense passive voice can be taught when they write reports. With regard to structure, there are some principles that guide most essays in general, such as paragraphs, topic and supporting sentences and discourse markers. These can all be taught effectively when students prepare to write an essay.

This study also indicates that teachers do not have to re-invent the wheel when they teach academic writing conventions. Texts from Biology or Physical Science text books can be extracted to use as examples for students, this would encourage cross-curricular teaching. It does not necessarily have to be science texts. History textbooks are useful in teaching the past tense and writing an essay which involves using the past tense. The possibilities are endless when texts of other subjects are used for teaching academic writing at any level. Newspapers can also effectively be used to provide examples of texts, they are cheap and readily available. If internet is available, teachers can also use the internet to extract and adapt texts suit the level of the class and the purpose of the activities. The Enchanted Learning website has valuable diagrams and illustrations which can be specifically used for idea generation or recording information in pre-writing activities. There are also countless websites which provide English language usage worksheets which can be used as they are or adapted if necessary.

Another contribution of this study regards the role of the teacher. Students or secondary school learners need extensive guidance, monitoring, feedback and evaluation when they write. This is possible if teachers are available for input during the whole composing process, from analyzing the topic, generating ideas to editing the draft. Lecturers have to be visible, supportive and active in the class when students write. The motivation and encouragement that students get when their lecturers show a genuine interest in the writing of students has a positive effect. It is not difficult to fulfill this task, even though it becomes challenging with large classes.

A last but equally valuable contribution of this study is the value of criteria. I felt that when students knew what was expected of them they had a clear goal. They could use the criteria for their own editing and they had tangible points to try and achieve in their writing. Even though examples were useful in helping students to write better, criteria served as a summary and marking grid for students.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

In the light of the findings of this study it would be useful if a similar study were conducted in a different teaching situation in Namibia. The findings of this study are related to the educational backgrounds of students from areas where schools are educationally disadvantaged. If an adapted model of this study were conducted in Windhoek, for instance, where most schools are not classified as educationally disadvantaged, it would provide information on whether ineffective academic writing skills are indeed a national problem and whether one of the writing approaches proposed in this study would also prove to be effective in improving students' writing skills.

A researcher wanting to use this model should try to have a control group to ensure greater validity of results.

A study which determines whether students who received academic writing instruction before they entered university actually coped better with academic writing activities than students who are exposed to academic writing discourse only in their first year level at university.

5.6 CONCLUDING STATEMENT

At the end of this arduous journey, my impression is that the extensive work that went into preparing and implementing the writing materials was worthwhile and valuable. My persistence and consistency in the writing lessons resulted in useful, authentic results. The hybrid data collection, analysis and reporting techniques in this action research were effective to provide findings that gave conclusive answers to the research questions and hypotheses. I can say without doubt that intensive input, support, guidance and effective materials led to improved academic writing skills of FP students.

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APPENDICES

Appendix 1:

TABLES AND GRAPHS INDICATING THE SPREAD OF SYMBOLS: 2008:

The information was extracted from the documents from the Ministry of Education: Namibia. The researcher tabulated the information and designed the graphs to indicate the spread of symbols. Although the table and the graphs only indicate the information for 2008, a similar trend has been observed since 2005. The main aim for including this information is to show that Gr. 12 learners from the four O-regions (Omusati, Oshana, Ohangwena and Oshikoto: in the far north of Namibia) achieve distinctively lower marks than the overall learner-body of Namibia and the Khomas region (Windhoek and surrounding area).

2008: Spread of symbols for Namibia, Khomas and 4 O-regions:

The table gives information about the symbols of students obtained during the final 2008 NSSC examinations. The white rows show the number of students who obtained the symbol indicated in the top row, while the green rows indicate the number in percentage. The top row indicates the symbols that can be obtained by students, while the first column shows the names of the compared regions in Namibia. The last column indicates the total number of students for Namibia and the regions that were used in this analysis.

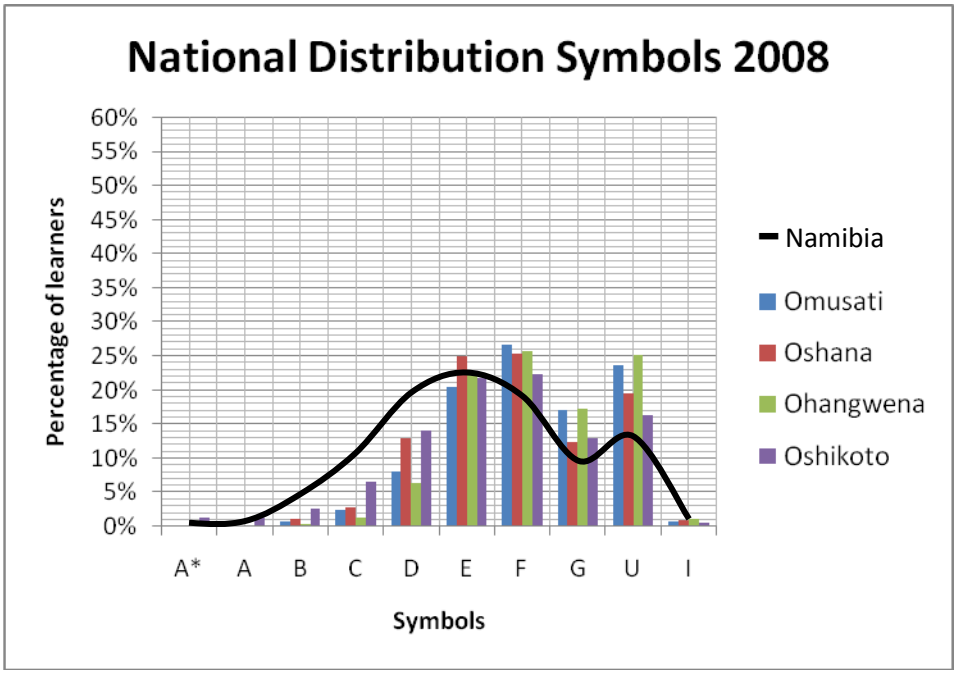
Regions	A*	A	B	C	D	E	F	G	U	I	Total number of students
Namibia	50	137	649	1568	2914	3338	2835	1414	1947	138	14990
	0.3%	0.9%	4.3%	10.5%	19.4%	22.3%	18.9%	9.4%	13.0%	0.9%	
Khomas	11	46	263	533	783	354	144	51	50	24	2259
	0.5%	2.0%	11.6%	23.6%	34.7%	15.7%	6.4%	2.3%	2.2%	1.1%	
Omusati	2	2	17	55	179	458	598	381	527	18	2237
	0.1%	0.1%	0.8%	2.5%	8.0%	20.5%	26.7%	17.0%	23.6%	0.8%	
Oshana	0	3	23	62	283	543	551	268	423	20	2176
	0.0%	0.1%	1.1%	2.8%	13.0%	25.0%	25.3%	12.3%	19.4%	0.9%	
Ohangwena	0	2	5	21	99	349	396	265	389	16	1542
	0.0%	0.1%	0.3%	1.4%	6.4%	22.6%	25.7%	17.2%	25.2%	1.0%	
Oshikoto	20	23	45	110	237	366	376	216	275	9	1677
	1.2%	1.4%	2.7%	6.6%	14.1%	21.8%	22.4%	12.9%	16.4%	0.5%	

2008: Symbols of the four O-regions compared to Namibia:

This diagramme graphically displays the information from the table.

On the y-axis the percentage of learners (out of the whole learner body in Namibia) is indicated, while the x-axis represents the symbols ranging from A* to I. A* is the highest symbol obtainable in a Grade 12 paper, while Ungraded means the mark obtained by a student is below 30% for that paper. ' I' means the learner registered for the paper but failed to write it, due to illness or death in the family or other unforeseen situations.

The bars represent the Grade 12 NSSC symbols in English of the four O-regions (Omusati, Oshana, Ohangwena and Oshikoto), whereas the solid line represents the spread of symbols in English for the whole of Namibia. This graph indicates that the four O-regions have much weaker symbols compared to the rest of Namibia. Note the peak at the F-symbol for the four O-regions, this means nearly half of the student population from the four O-regions obtained an F-symbol. Note also, the low number of A – C symbols for the four O-regions, which means a very small percentage of students from these regions can be admitted at UNAM, which require a C symbol for admission.



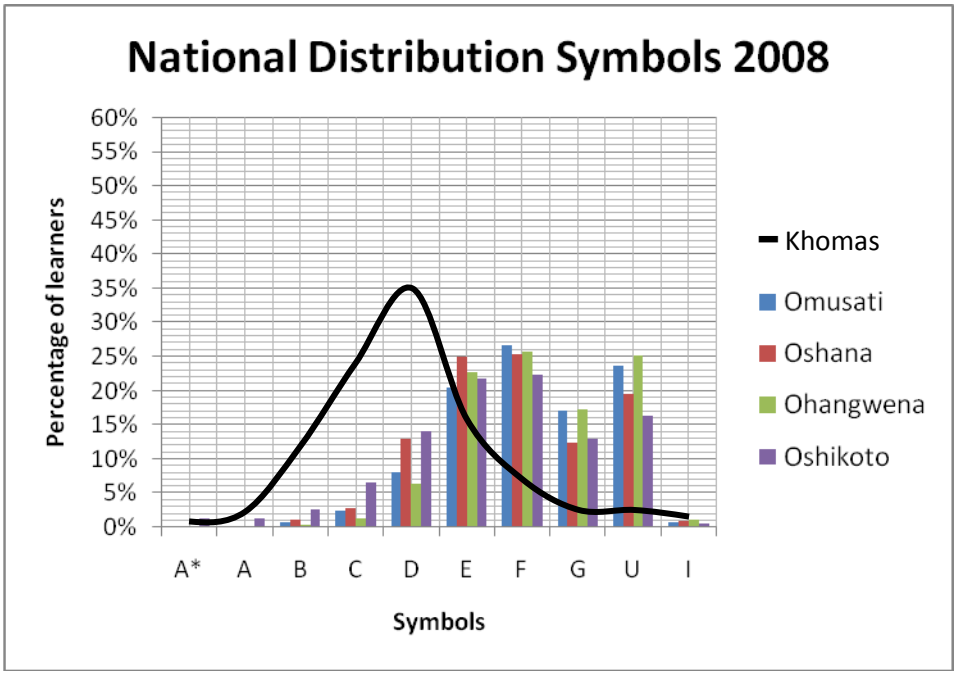
In this graph the peak for the four O-regions is still on the symbol F. But the percentage of students getting Ungraded (U) is nearly as high as the percentage of students getting an F. Namibia peaks at E-symbol with a lower number of students getting between A* and E than between E and I. The same trend can be seen in the spread of symbols of the four O-regions.

2008: Symbols of the four O-regions compared to Khomas: 2008: Symbols of the four O-regions compared to Khomas:

In this graph the bars represent the spread of symbols for the four O-regions, while the solid line represents the Khomas region (the region where we find the capital, Windhoek). Note that the peak for the Khomas region is at the D-symbol compared to the peak of the four O-regions at F. This means that the Khomas region symbols are on average at least two symbols better than the symbols of the four O-regions. Also take note of the low percentage of C in the four O-regions compared to about 20% of Cs for the Khomas region, which is actually also relatively low but at least twice as high as that of the four O-regions.

What also becomes clear from this graph is the difference in the percentages of students getting from E to I in the areas compared. The Khomas region has only about 15% getting an E while the four O-regions average at about 23%. The biggest difference is at the F-symbol with the four O-regions peaking at about 25% of the students and between 5% and 10% of the students in the Khomas region. The percentages in symbols G and U also show the big discrepancy in marks obtained by students in the compared regions. It is clear that the Khomas region has a low

percentage in the G – I symbols, while the percentages of the four O-regions range between 25% to 12% for the said symbols.



Appendix 2:

GRADING CRITERIA FOR ESSAYS: (Murray & Johanson 1990: 22)

Percentage	**Content**	**Form**	**Language and vocabulary**	**Style**
75 and above	Excellent critical & conceptual analysis. Subject matter comprehensively & accurately presented. Well argued.	Excellently organized & presented. Argument concisely & systematically developed with a well-thought out introduction & conclusion.	Standards of spelling, punctuation, vocabulary use & grammar are extremely high. Mistakes rare. Handwriting is easily legible.	Use of language is entirely appropriate to context, function & intention.
70 - 74	Good critical and conceptual analysis. Subject matter effectively covered & accurately presented. Well argued.	Well organized & presented. Argument concisely & systematically developed with a well-thought out introduction & conclusion.	Standards of spelling, punctuation, vocabulary use & grammar are good. Few errors occur. Handwriting is legible.	Use of language is appropriate to context, function & intention.
60 - 69	Rather more descriptive than critical & conceptual. Although the analysis may lack clarity in parts, the student understands the subject fairly well.	Fairly well organized & presented. The writing is coherent 7 ideas are developed, but not always concisely or systematically. The essay has an introduction & a conclusion but they may not be well-integrated with the body of the essay.	Standards of spelling, punctuation, vocabulary use & grammar are reasonably accurate. Errors do occur but generally they do not interfere with communication. Handwriting is legible.	Slight limitation of style & mastery of appropriate idiom.
50 - 59	Perfunctory. Largely descriptive. Understanding of subject matter is incomplete	Organisation & presentation acceptable. An attempt has been made to develop an argument but it is rather unsystematic & sometimes contains redundant &/or irrelevant material. An attempt has	The essay is intelligible but contains a fair number of errors in spelling, punctuation, vocabulary use & grammar. Handwriting is legible.	Use of style & conveyance of tone is present but not consistent.

		been made to write an introduction & conclusion but they may bear little relation to the body of the essay.		
40 - 49	Perfunctory. Almost entirely descriptive. Narrow in conception Contains inaccuracy. May have misinterpreted the question	Organisation & presentation poor. Little attempt has been made to develop an argument. There is redundant &/or irrelevant material. The introduction & conclusion, if they exist at all, are weak.	The essay is not always intelligible. There are frequent errors of spelling, punctuation, vocabulary use & grammar. Handwriting may be difficult to read.	Stylistically poor & frequently inappropriate.
39 & belo w	Very little evidence of understanding. Contains serious inaccuracies. May have misinterpreted the question.	Organisation & presentation very poor. No attempt has been made to develop an argument. Much redundant & irrelevant material. Often no introduction & conclusion.	The essay is frequently unintelligible. There are many errors of spelling, punctuation, vocabulary use & grammar. Handwriting may be difficult to read.	Stylistically poor & frequently inappropriate.

Murray, S & Johansen, L. 1990. Write to learn. A Course in Writing for Academic Purposes. Randburg. Hodder & Stoughton.

Appendix 3:

Marking Grids: Used at UNAM main campus for grading essays on the English course for Academic Purposes:

The test essays and Semester assignment essays are marked according to the same marking grid with the same descriptors for the criteria but different mark allocations for some criteria. The semester test essay counts 25 marks with only 3 marks for referencing and 2 for Language and Vocabulary. The Semester assignment essay has a greater focus on referencing techniques and 10 marks are allocated for this section, whereas only 5 marks are allocated for Content. The Total is still 30 marks.

ACADEMIC ESSAY: Examination

Criteria	**Max Marks**	**Abbreviations**	Description
REFERENCING	5	R	NO referencing or citation: NO MARKS! 3 points: correct in-text citations 2 points: correct APA Reference List
ACADEMIC REGISTER	5	A	Paragraphs: Topical, supporting, concluding sentences (2) Formality (1) Tentativeness (1) and Objectivity (1)
CONTENT	10	C	Logical arguments (2) Own Insight (2) and Reasoned Conclusions (2) Relevance (2) Task Fulfilment (2)
COHERENCE	5	C	Title (1) Introduction (1) Conclusion (1) Linking words (2)
LANGUAGE and VOCABULARY	5	L	Grammar,(1) Punctuation (1), Spelling(1) Sentence Structure (1) Planning Style/Neatness (1)
TOTAL	30		

Appendix 4:

Criteria for marking the laboratory reports

1. Aim and apparatus: [10%]

Students are expected to:

- Clearly identify the purpose of the experiment.
- List the equipment used in when carrying out the experiment not as indicated in the manual.
- Write down the title and the date for the experiment.

2. Procedure: [20%]

Students are expected to:

- Indicate all steps as done in the laboratory (NOT as per manual).
- Write in the past tense, using a passive voice.
- Give an adequate summary of the experiment and a true reflection of what happened in the laboratory.
- Provide diagrams if the experiment involves any e.g. circuits to show how the apparatuses were assembled.

3. Results [30%]

Students are expected to:

- Use various Methods of presenting the information: such as tables or graphs,
- Explain what the data collected means.
- Give units of measurement (where applicable) on each set of the results.
- Give results that are correctly recorded and are accurate.
- Present results in such a way that they address the purpose of the experiment (there should be a link between the purpose of the experiment and the results).

4. Observations [20%]

Students are expected to:

- Identify the shortcomings e.g. the possible sources of errors in the experiments.
- Make provisions on how to deal with the shortcomings to deal with such shortcomings to the experiment.
- Link observations to the aims.

5. Conclusions [10%]

Students are expected to:

- Use the results at hand to draw sensible conclusions.
- Link conclusions to the aims.

6. General (applicable to all sections)

- Check for correct spelling (especially for the key words)
- Use sentences that are clear and are of a reasonable length.
- The structure and the contents should be aligned in an essay form.
- Good, structured and neat layout.

Appendix 5:

Interview questions for FP science lecturers:

BIOLOGY/PHYSICS/CHEMISTRY: The questions were set up by the researcher.

UNAM FP experience:

1. How long have you been teaching at UNAM?
2. What writing activities do they do in Biology/Physics/Chemistry on FP?
3. Which writing activities are students good in, which weak?
4. Why do you think are they weak in that/those specific activity(ies)?
5. How can the weaknesses be addressed to improve their writing?
6. What is your general opinion about students' laboratory report writing skills?
7. In your opinion, do FP students have any past experience in writing laboratory reports?
8. Why do you say so?
9. At which time of the year are FP students required to write laboratory reports?
10. How many reports are the students required to write in the year on FP?
11. How do you prepare the students for writing effective reports?
12. What effect has your preparation had on the quality of the students' reports?
13. Have the students written their first report for 2009?
14. What aspects of laboratory report writing are the students doing effectively?
15. Why do you think students can do well in that aspect or section?
16. Which aspects are they struggling with?
17. Why do you think so?
18. Which input would you like from the English lecturers regarding the writing of laboratory reports?
19. When, ideally, should English lecturers teach the unit on laboratory report writing skills?
20. What comments can you give on the layout and structure of students' first laboratory reports for 2009?
21. Are students effectively making use of discourse markers (then, therefore, next, as a result) to enhance the cohesion of the report?
22. Are they using words like 'to determine', 'to test', 'to examine', 'to illustrate', 'to find out', 'to identify', 'to categorize', etc in the aim section?

23. Do students use words like: ‘it seems that … ‘, ‘this might have led to … ‘, ‘the experiment indicates that … , ‘in the discussion of the results?
24. What comments can you give on the content of students’ first laboratory reports for 2009?
25. Are students giving enough detail in the introduction, results, observation, and conclusion sections? Why/why not?
26. Do students observe grammatical rules, for instance subject-verb-agreement, tenses, passive voice, spelling, punctuation?

Appendix 6:

QUESTIONNAIRE 1: CLOSED-QUESTION QUESTIONNAIRE:

QUESTIONNAIRE ON PAST AND PRESENT WRITING EXPERIENCES AND ATTITUDES: questionnaire given before and after the intervention.

This questionnaire has been extracted from Perspectives: Working papers in English and communication, 17(1) Spring. The questions have been adapted to suit the study.

INSTRUCTION:

Please complete the following questionnaire which will provide data for a study. Your answers should be your honest response. There is no right and wrong answer as the questionnaire attempts to determine your experience about and your attitude towards writing. Do not write what you think I would like to read, be extremely honest.

This information will be treated confidentially and your name will not be revealed. The information will mainly be used for statistical interpretation, although some answers will be used to describe a general trend.

Class: _____

This questionnaire is designed to determine your attitude towards writing in English and your writing habits. Please answer all the questions. Your answers will be kept confidential. Thank you.

A. Attitude towards Writing: 2008 + 2009

Please read the following statements very carefully. Then put a (x) in the appropriate column which indicates the extent to which you agree with the statement.

DESCRIPTOR	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
	5	4	3	2	1
1. I like writing.					
2. I like the writing lessons on FP.					

3. I think writing is interesting.					
4. I think it is easy to write in English.					
5. I have confidence in writing in English.					
6. I like to be given a lot of guidance from the lecturer.					
7. I like to work with classmates.					
8. I think grammar is more important than content.					

B. Writing Habits: 2008 + 2009

DESCRIPTOR	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
	5	4	3	2	1
1. There is a lot of guidance given in writing on FP.					
2. It is easy to get ideas.					
3. I often plan before writing.					
4. It is easy to organize ideas.					
5. I often write drafts.					
6. I often edit the drafts.					
7. I know how to get ideas.					
8. I know how to plan before					

writing.					
9. I know how to organize ideas.					
10. I know how to draft.					
11. I know how to write academic essays in English.					
12. I know how to do free writing.					
13. I know the strategies to write a complete piece of writing by myself.					

C. Materials: 2009

DESCRIPTOR	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
	5	4	3	2	1
1. There were useful materials relating to writing activities in school.					
2. The writing materials helped you to understand how to write different types of texts/paragraphs.					
3. The writing materials had examples which showed how a specific text/paragraph should look.					
4. The writing materials illustrated different steps (plan, generate ideas, draft, edit).					

5. The writing materials helped you to write well-structured essays.					
6. The writing materials were interesting in content.					
7. The writing materials showed the link between effective grammar usage and effective writing.					
8. The writing materials helped you to use an effective style and vocabulary in your own writing paragraphs.					
9. You were expected to write laboratory reports in your secondary school Biology and Physical Science lessons.					

D. Pedagogical purposes of writing: 2009

DESCRIPTOR	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
	5	4	3	2	1
1. The lecturer explained the importance of writing.					
2. The writing activities were linked to study skills (summarize, take notes, concept/mind maps).					
3. The English lecturer did cross-curricular teaching to encourage writing for different purposes.					

Appendix 7:

QUESTIONNAIRE 2: OPEN-QUESTION QUESTIONNARE:

2008 + 2009: Questionnaire given before and after the intervention.

INSTRUCTIONS: Read the following questions and answer them as fully as possible on the lines provided. The questionnaire was designed by the researcher.

Experience based on the intervention:

1. How did you feel when your teacher/lecturer instructed you to write an essay?
2. What kind of essays were you expected to write?
3. What type of guidance did you get from your teacher/lecturer regarding essay writing?
4. Which materials did your teacher/lecturer give you that helped you write effective essays?
5. Did your teacher/lecturer illustrate the value of writing activities? If so, how did the teacher/lecturer do that?
6. How did you go about the writing of essays? Explain the steps that you actually followed when instructed to write an essay. What did you actually do?
7. How much time did you spend on average on writing an essay of about 200 words?
8. What kind of feedback did you get: orally, written comments, written corrections, error correction lessons, all of the above?
9. How did you feel about that kind of feedback?
10. In your opinion, did your essay writing skills improve since you attended the FP? Why or why not?
11. If there was improvement, which aspect of your essay writing improved most? Choose from the following and elaborate why: Structure; Content; Language usage

Present experience:

12. What are your weaknesses in writing?
13. What are your strengths in writing?
14. Which aspects of writing do you think are important (grammar, content, structure, style)? Why?

15. What kind of writing do you expect to get in your first year at UNAM Main Campus?
16. What kind of feedback did you get/do you expect? Tick the relevant statements.

- Teacher/Lecturer uses red pen
- Teacher/Lecturer uses pencil
- Teacher/Lecturer marks every error
- Teacher/Lecturer marks only kinds of errors (e.g. content, grammar: only certain aspects, structure) that are agreed upon before the essay is written
- Teacher/Lecturer writes comments at the end of essay
- Teacher/Lecturer gives oral feedback
- Teacher/Lecturer writes in the correct version of wrong spelling, word choice, punctuation, etc.
- Teacher/Lecturer marks the whole essay
- Teacher/Lecturer marks only one or two paragraphs for grammar.

Future use:

How do you hope to use what you learn on the FP English course in general in your future studies? How do you expect to use FP English in future?

ADDENDUM:

4.1 The interventions:

In this section I present information on the three writing approaches that were used in the study. The process approach will be presented first, followed by the modeling approach and lastly the process genre approach. I only present an extract from each of the approaches. I start off with the introduction to the approach (a simple explanation for students) and then present only one unit of the self-generated materials, except in the process approach where I also added the unit on laboratory report writing. The extracts presented here are taken directly from the workbooks that students used in the three different approaches and provide firstly, authentic data and secondly, information on how the skills, techniques, and activities to practice the skills and techniques were structured. Each Unit has a certain sequence that follows from general information to more specific and more challenging activities to reach the aim of more effective essay writing skills among students.

NOTE: I included the track changes on the right to illustrate the meta-analysis which indicates how the theory and activities relate to the features and the steps of the three different writing approaches as explained in Chapter 2. This critical thinking is an integral part of AR, and for this reason the meta-commentary has been included.

4.1.1 The process approach

CURRICULUM: THE PROCESS APPROACH:

This approach can contribute to the skills students need to write effectively. The curriculum will be based on the stages of the lab report. The stages of a lab report also constitute many elements that go into academic writing, and therefore lend themselves well for the purpose of improving overall academic writing. These stages are linked to the skills that students need to complete the stages effectively. Reading texts are often used as input to practice the skills. Students will write short pieces regularly and peer-editing forms an important part of the process.

A writing skills list will be used as guide for the curriculum. To explain the Process Approach and to help students form a picture of what they are going to do, a text based on the Process Approach will be read and students will receive a worksheet which they have to complete. The worksheet is based on the text and a representation of the Process Approach broken down into smaller steps: techniques and strategies to form 'a whole' in the end. Some of the steps and techniques are taught via gap-fill exercises, while others have to be completed by the students. After the activity, students

will do peer-editing to compare their answers. This constitutes the basic curriculum for the first semester. Students need to understand that a collection of these steps will help them in writing better essays. Therefore it is vital to show them how 'the whole' is broken into smaller pieces to make it more manageable, but that 'a whole' is expected of them again in the end.

INTRODUCTION: THE WRITING PROCESS APPROACH:

The Writing Process Approach is like building a house: extensive planning has to go into the project before the actual building starts and then equipment and materials need to be obtained, the building takes place in small steps with lots of planning, 'looking back' and reviewing, in order to continue more effectively. Finally, when the house is finished, an inspector has to come and check it again before people move in. The 'whole house' has been produced by initially visualising it as 'a whole' and then building it up from small parts and pieces slowly and step-by-step until 'the whole house' is a reality.

The above mentioned is elicited from students. The lecturer asks questions about how a house is built. Students have to discuss this issue with each other. They also think of different kinds of houses and the reasons for having different kinds of houses and the implications it has on the kind of planning, materials, etc. Students are divided into groups. Each group gets a large blank poster and coloured marker pens. Each group gets a different assignment with regard to different types of buildings: police station, soccer stadium, hospital, school, conventional brick house, traditional house in the village, grocery shop, petrol station, etc. Students then have to think of how to construct the building they chose, what materials are needed, who the client is, how the building process develops and what rules and regulations need to be adhered to. They have to write their thinking about these issues down, and finally draw a picture of the building. Then two group members report to the class who give their feedback. As inspiration and motivation, the lecturer could bring pictures of houses to show students that some issues are fundamental principles and present in all types of houses, whereas other aspects depend on the purpose of the house, the taste of the owner, the skill of the architect and builder, etc. The lecturer explains to students the relationship between building a house and constructing an essay.

The Writing Process (WP) is so called because writing is not a once-off activity. It takes time to write a good essay and requires many skills. The word 'PROCESS' in the title can be compared to processes of Biology, Physics, Chemistry and Mathematics topics. In Biology you learn about photosynthesis – a process, in Physics you conduct experiments – a process, in Maths you have to go through a number of steps and calculations before you get the correct answer – each is a process.

Comment [MSOffice1]: Analogy to illustrate the importance of process.

Comment [MSOffice2]: Group work

Comment [MSOffice3]: Purpose: analogy related to different purposes for different texts.

Comment [MSOffice4]: Group-work initiates collaboration.

Comment [MSOffice5]: Practical application illustrate the thinking process and to show how students can help each other.

Comment [MSOffice6]: Show the link to me cognitive activity: mental planning.

Comment [MSOffice7]: Visual re-inforcemer of concept.

Comment [MSOffice8]: Practical analogy activity has a functional purpose but must be explained to students so that they can understan the concept and the importance of the principles the process approach, which are further delibera on later.

Comment [MSOffice9]: Feature of process approach (PA): Importance of steps explained an compared.

There is a distinct relationship between writing in English and other subjects (Biology, Physics, Chemistry and a lesser extent Maths). Cross-curricular teaching and learning is encouraged and very often Science and Technology texts from journals or magazines or even texts from the Biology or Physics textbooks are used in the English lesson as input. Mathematics- and Chemistry texts are 'under-represented' at this stage. Usually only texts which describe the biographies of famous people or the history in those fields are used.

The stages of the WP require a number of thinking, reading and writing skills. These skills will be used in an interactive, communicative way to deal with the writing of essays and assignments and not always in the same order. The process approach advocates a number of steps, but these steps do not ALL have to be followed slavishly and not all in the same order. The steps are presented in a specific order in this workbook and once you have been acquainted to all the steps you can choose which steps are suitable for your individual writing preferences.

Comment [MSOffice10]: Feature of PA: recursive encouraged

For the student/you:

Firstly, when you read the topic of the essay/assignment, you have to think about/analyse the topic. An effective way to analyse the topic is to divide it into three parts which are called the General Focus, Specific Focus and Comment. After the analysis of the topic you will already have looked at two issues critically, which will help you in generating ideas.

Comment [MSOffice11]: First step of PA

The next step then is to generate ideas. You do that in many different ways. Firstly, you can use your own background knowledge of the topic. You have to record your ideas and this can also be done in a number of ways, for instance:

Comment [MSOffice12]: Next step: Techniques to generate ideas.

a) free-writing
b) notes
c) spider diagram/mind map.

Once you have recorded your own background knowledge, you may want to add information, which you can gather from texts. There are different sources of texts: textbooks, internet, magazines, journals, newspapers. After you located your information, you would want to record it. There are different ways of doing that. Usually the reading skill is involved, as well as different strategies to show your understanding of the text, e.g. notes, summaries, paraphrases. In this case the information used must be referenced and you will have to write a bibliography (in an academic acceptable way, at the end of your essay).

Comment [MSOffice13]: How and where to find ideas

Comment [MSOffice14]: How to record idea

Comment [MSOffice15]: Referencing skills

The next step is to make sure that you know the audience you are writing for as well as the purpose of your writing, e.g. who is reading the text and why are you writing this text? Do you want to inform the students about something, explain a new concept to your colleagues, argue a point of view? All these factors determine the kind of information and the style you use, it will also have an impact on the organization of your ideas.

Then you have to write a paragraph plan or organize your ideas. That means you have to synthesize or put together your background knowledge and the information you found in text(s) in a systematic way. In this part, you should also try to formulate a preliminary topic sentence and just jot down your supporting ideas for each topic sentence. You could show your plan to your friend or lecturer to check the relevance and the organization of ideas.

Now you should be ready to write your first draft. You usually use your topic sentences as first sentences of different paragraphs. Add your supporting sentences which give you more information about the idea in the topic sentence. Use the criteria provided by the lecturer to guide your writing.

Once you have finished writing your first draft, you read your essay/assignment again and ask yourself questions about your essay. These questions will focus you on your topic, content, structure, the style, the purpose, audience and linguistic aspects. You make the necessary amendments and then give your essay to a friend to read. Your friend will have the same criteria as you had when you checked your essay yourself. Your lecturer might also help with some editing and revising. You might want to add cohesion words (and, but, however, therefore, in addition…) and reference pronouns (it, she, he, they…) to make the flow of your essay more effective.

The second-last step is to write the final draft. After writing the final draft, check your essay again for clarity in meaning, good structure, useful vocabulary, sentence length, punctuation, etc. Correct any errors. Once you are satisfied that you gave your best and the essay is your ultimate attempt, you can hand it in.

WORKSHEET BASED ON THE WRITING PROCESS APPROACH INFORMATION:

The Writing Process (WP) consists of a number of _____ .

Many English writing, reading and oral _____ are required to do the WP effectively.

The first step is to analyse the _____.

Secondly, you have to _____ ideas. This can be done in several ways:

Background _____ : spider diagram

Comment [MSOffice16]: Issues to consider: audience

Comment [MSOffice17]: Purpose of text

Comment [MSOffice18]: Organization of ide

Comment [MSOffice19]: Involvement and interaction: roles of lecturer and students

Comment [MSOffice20]: First draft

Comment [MSOffice21]: Topic sentences

Comment [MSOffice22]: Supporting senten

Comment [MSOffice23]: Questioning conte structure and other relevant issues

Comment [MSOffice24]: Editing and revisin

Comment [MSOffice25]: Final draft

Comment [MSOffice26]: Re-inforce understanding of key concepts

	_____
	Free-writing
Texts:	_____
	Notes
	Paraphrase
	_____
Consider:	_____ (why)
	Audience (who)

Thirdly, combine background knowledge and information from _____ in a paragraph plan.

Determine the _____ .

Also note down supporting ideas.

Write your first _____ with introduction; paragraphs, which contain topic and

_____ sentences; and a conclusion at the end.

Re-read and edit your essay. Change and correct what is necessary. Give to a

_____

to check and edit. Make more changes if necessary.

Final draft: re-write the first/second draft, _____again and hand in!

PROCESS APPROACH: UNIT 3: CLASSIFICATION:

This unit was chosen as a representation of how the process approach was applied, as students were required to write their first essay. The first two units dealt with topic analysis and techniques to generate ideas, such as free writing, taking notes, using diagrammes, asking questions about the topic, and using sources. No essays were written yet in Unit 1 and 2.

What is classification and the importance of classification:

Comment [MSOffice27]: Background information on classification in academic writing

Classification is to divide certain items into groups or categories based on their characteristics or functions or purposes. There are many different reasons for classification or categorizing. Think for instance about different types of plants. How can they be categorized? Why would such a classification be suitable? What about transport? How can we classify the education system in Namibia? Think about different ways of communication, what categories could we have there?

Think about reasons why humans have the need to categorize objects or systems.

Purpose:

The purposes of this unit are:

- To become acquainted with vocabulary regarding whales and whaling;
- To answer comprehension questions;
- To make a table;
- To write a classification essay.

Background knowledge:

Comment [MSOffice28]: Pre-reading activit all 4 skills are present in each unit for contextual purposes.

Before you read the text, discuss in pairs what you know about whales. Use the following questions as guidelines for your discussion and make notes of your answers.

- What is a whale? Use a dictionary if you do not know.
- What animal class does a whale belong to?
- Why is it so strange that a whale belongs to that class, yet lives in the sea?
- Look in the dictionary to find the meaning of the word whaling.
- What is your opinion about hunting whales? Support your opinion by giving examples, if possible, or reasons why you support whaling or not.

Comment [MSOffice29]: Importance of evaluating issues and giving valid opinions

Reading text:

Comment [MSOffice30]: Actual reading activity: current, controversial issue

"Round 2 for Whalers and Activists"

Comment [MSOffice31]: Topic link to Biolog cross curricular approach

Japan's whaling fleet Friday prepared to resume hunting in Antarctic waters after two activists who stormed a harpoon ship were removed. Conservationists vowed to do almost anything to stop them.

Both sides returned to their fighting corners Friday after the latest round in their annual skirmish ended safely when Australian customs officials stepped in to defuse a standoff.

The dispute underscored the high-stakes nature of the contest fought each year in the remote and dangerous seas at the far south of the world, thousands of kilometres from the possibility of regular emergency or rescue services.

"The Sea Shepherd attacked our ship, then the two forcibly came on board. Our crew was terrified," he [Gabriel Gomez, spokesman for the Institute of the Cetacean Research that organizes Japan's hunts] said. "They were carrying backpacks and who knows, they could have been bombs".

Search revealed the backpacks contained a change of clothes, toothbrushes and a flask of rum, Gomez said, adding, "obviously, they intended to stay on board".

At issue is Japan's program that allows the killing of whales for scientific research, despite an international ban on commercial whaling. Opponents say Japan used the loophole to kill nearly 10 000 whales over the past two decades and sell their meat on the commercial market.

Gomez said whaling was expected to resume within days, and that the fleet had completed about one-third of its mission already.

Japanese harpoon ships usually move in a cluster, killing whales and dragging them back to the larger, slower ships for processing. --Nampa/AP

"Which Whales are Most Endangered?"

Japan plans to hunt almost 1 000 minke and fin whales for what it says are scientific purposes this year, continuing a hunting tradition that dates from the 12th century.

Minkes, numbering about 200 000 northern minke, [hunted by Japan], and more than 700 000 southern minke, are said by the World Conservation Union (IUCN) to be at low risk for extinction. Fin whales, numbering more than 40 000, are classified as endangered.

Here is a ranking of the world's smallest whale populations and some facts about the impact of whaling upon them:

1. **North Atlantic Right Whale**
   Population: Approximately 350. Endangered*
   Found off the U.S. East Coast and Canada, the slow swimmers were targeted for centuries for their abundant oil. In 1935 it became the first whale protected from commercial hunting.
2. **Blue Whale**
   Population: About 5 000. Endangered.
   The world's largest animal, weighing up to 100 tonnes and growing to 30 metres. Distributed throughout the world's oceans. Hunted to near extinction, numbers shrank from 250 000 to around 1 000 by 1950s. No rebounding since 1960s whaling ban.
3. **Bowhead Whale**
   Population: About 8 000. Low extinction risk.
   Found in the Arctic, where its 70 cm thick blubber helps it survive icy waters. Hunted for its oil and baleen, or "whale bone", from the 17th century to the early 1900s; protected since 1946.
4. **Humpback Whale**
   Population: Between 10 000 and 20 000. Vulnerable.
   Humpbacks live in all the world's oceans. Known for their agility and acrobatics, they also "sing" for up to 30 minutes. Japan dropped plans to hunt 50 humpbacks this year after strong international protests.
5. **Gray Whale**
   Population: 25 000. Low extinction risk.
   Found mainly in the northeast Pacific. Gray whales are already extinct in the North Atlantic. The 100 or so Western Pacific gray whales are classed as critically endangered. Decimated by hunters in the 1850s. International Whaling Commission protection has seen numbers rebound since the 1940s.

*Conservation status classified according to the IUCN.

For more info, see: World Wildlife Fund (http://www.worldwildlife.org), World Conservation Union (http://www.iucnredlist.org), International Whaling Commission (http://www.iwcoffice.org/index.htm). --Nampa/Reuters

ACTIVITIES BASED ON TEXT:

Comment [MSOffice32]: Activities to enhan understanding of text, practicing different readin skills and illustrating how to find key information

Vocabulary and dictionary work:

Read the text and underline the words that you find difficult. Try to determine the meaning of the word by looking at the context in which the word appears. If you still have difficulty finding the meaning of the word, look it up in the dictionary, but remember to find the meaning that relates to the context in which the word is used.

Comment [MSOffice33]: Vocabulary: emphasise the importance of using words that ar relevant and specific to topic.

Examples:

whaling	resume	blubber
activists	harpoon	baleen
conservationist	vow(ed)	vulnerable
annual	skirmish	agility
defuse	dispute	decimated
underscored	forcibly	abundant
ban	loophole	rebound
decade	cluster	fin whale
mink	acrobatics	

Survey:

1. Skim (explain 'skim': look it up in the dictionary) the text to get a general idea of its contents.
2. Scan the text to find answers to the following questions:
    - How many activists attempted to storm the harpoon ship?
    - In which part of the world died this 'storming'-event take place?
    - What items were contained in the backpacks of the activists?
    - For how long has the tradition of hunting whales been going on?
    - Which is the world's largest animal?

Comment [MSOffice34]: Important reading skill for using sources when generating ideas to g a general idea.

Comment [MSOffice35]: Important reading skill to find specific information, link to writing specific, often factual information in academic essays.

Comprehension:

1. Why was the Japanese whaling ship under attack and by whom?
2. Why was there real concern over the backpacks carried by the activists?
3. What is the reason given by Japanese whalers, for their activities in the Southern Seas?
4. How do the harpoon ships go about their attacks?

Comment [MSOffice36]: Link to importance relevant content which explores an issue in a detailed manner. Show that 'what, when, why, how, who' questions are important when generating ideas and constructing an essay.

5. What does the second section of the passage which begins at the bottom of page 1, set out to do?
6. Why do you think the article is entitled 'Round 2 for Whalers and Activists'?

Layout, structure, audience:

1. From which kind of text was this passage extracted? How do you know?
2. Who, do you think, is the author of this text? Why do you think so?
3. Who would read this text? Why?
4. How many paragraphs are there? Why?

Transfer of information:

1. Use the information in the section entitled 'Which whales are most endangered?' to create and design your own classification table.

Summary:

1. Check the meaning of the word 'summary' in the dictionary.
2. Write in your own words to explain what a summary is and what the purpose of a summary is.
3. In groups, discuss the steps used when writing an effective summary.
4. Confirm with the lecturer whether your steps are suitable to write an effective summary.
5. Write the summary without referring too much to the text.
6. Read your summary again to check for comprehension and edit language errors.
7. Write, in your own words, a summary of the article 'Round 2 for Whalers and Activists', clearly setting out the arguments for and against the issue.
8. Use this summary to write a paragraph to state your opinion about whaling.

Writing:

Pre-writing:

1. Which part of the text shows any characteristics of classification?
2. How is the classification done? What is the writer classifying?
3. Why is the structure of that part of the essay different from the rest of the text?
4. Which method is more useful? A table or the way it is structured in the text? Why?

Topics:

Choose any one of the following topics.

Comment [MSOffice37]: A brief focus on th form of an essay is necessary since FP students n guidance on paragraphing.

Comment [MSOffice38]: A technique to rec information that students can use when they coll information from sources.

Comment [MSOffice39]: Summarizing techniques which students need when synthesizi information from sources.

Comment [MSOffice40]: To check if studen understand the actual meaning of summarising.

Comment [MSOffice41]: Group work foste collaborative learning.

Comment [MSOffice42]: To check if studen understand how to summarize texts.

Comment [MSOffice43]: Input and guidanc from the lecturer to ensure conceptual understanding

Comment [MSOffice44]: Re-reading and editing: features of the PA.

Comment [MSOffice45]: Autonomous, independent learning: an aim of PA.

Comment [MSOffice46]: Importance of finding own voice with regard to issues and how t write it.

Comment [MSOffice47]: Introducing the writing activities.

Comment [MSOffice48]: PA step: Choosing and analyzing topics.

a. Write a brief essay about three or four different farming activities at the communal farms in the north-central region of Namibia to show how these activities can be categorized.
b. Write an essay to show different categories of sport practiced in Namibia.
c. Write an essay to explain different music genres Namibians favour.
d. Write an essay to show a classification of the most popular careers in Namibia.
e. If none of these topics appeal to you, choose your own but consult with your lecturer before starting the planning process.

Planning:

a. Write a draft of the possible topic for your essay.
b. Use any technique practiced in Unit 2 (free writing, diagrams, questions, notes, sources) to generate ideas.
c. Discuss your ideas with somebody who has chosen the same topic and add ideas if necessary.
d. Organize your ideas into suitable categories.
e. Consult with your lecturer about the categories.

First draft:

a. Write draft topic sentences based on the categories.
b. Consult with your lecturer.
c. Add supporting sentences.
d. Class activity: introduction: discuss one kind of introduction (lead-in statement: general; thesis statement: what is discussed in essay).
e. Write a draft introduction.
f. Class activity: conclusion: discuss one kind of conclusion (link with general lead-in statement and brief summary of contents of essay).
g. Write a draft conclusion.
h. Combine all your writing to write a brief classification essay (150 words) based on the topic you chose.
i. Peer-edit: give your essay to your friend to edit based on the criteria provided to you.
j. Re-write if necessary.
k. Hand in to your lecturer.

Comment [MSOffice49]: PA step: Pre-writin activities:

Comment [MSOffice50]: Determining key points in a topic to focus writers on issues to be dealt with in essay.

Comment [MSOffice51]: Idea generating: a feature of the PA.

Comment [MSOffice52]: Collaborative learning: adding ideas: feature of PA

Comment [MSOffice53]: Text organization follows from nature of content: feature of PA.

Comment [MSOffice54]: Input from lecture feature of PA.

Comment [MSOffice55]: PA step: Actual composing

Comment [MSOffice56]: Structuring main ideas to organize content.

Comment [MSOffice57]: Guidance from lecturer: feature of PA.

Comment [MSOffice58]: First draft: feature PA.

Comment [MSOffice59]: Peer-edit as important step and feature of PA

Comment [MSOffice60]: Revising and re-writing as important feature and step of PA

Criteria:

Comment [MSOffice61]: Criteria are used in the composing process, self-editing and peer-edit .

Content:

- The essay shows that certain items are categorized.
- The information is relevant to the topic.
- The information is meaningful and realistic.
- The topic sentences state clearly what the paragraph will be about.
- The topic sentences are supported with meaningful examples or explanations.

Structure:

- The essay has a clear structure with paragraphs.
- The introduction clearly shows the reader what the essay will be about.
- The body is divided into meaningful paragraphs, with one idea per paragraph.
- Each paragraph has a clear topic sentence and supporting sentences that give more detailed information about the idea in the topic sentence.
- The conclusion shows a creative re-statement of the thesis statement.

Language:

- Correct spelling is observed.
- Suitable punctuation is present.
- Sentences are of a suitable length.
- A suitable tense is used based on the topic.
- Subjects agree with verbs in terms of singular and plural.

PROCESS APPROACH WORKSHEET ON LABORATORY REPORT WRITING 2008

AIMS:

Comment [MSOffice62]: Inform students what is expected of them.

The comprehensive aim of this section is to develop students' ability to write effective laboratory reports, by using a holistic approach. Before students write laboratory reports, they will be required to do some simple Biology or Physics experiments in class which leads to the aim of being accurate and precise when setting up the experiment as well as recording data. Students also need to show a concern for objectivity and enquiry. They need to illustrate their understanding of the underlying Biology or Physics concepts and principles or theories. Students will be encouraged to develop the necessary skills to plan, write, edit and re-write a competent laboratory report in terms of structure, content and language usage. Materials will be structured in such a way that activities are scaffolded from simple and small steps to more challenging steps which in the end make up a whole report. And after two weeks of intensive training students should have the whole picture of laboratory report writing.

The aims are to:

- Enable students to write meaningful, accurate laboratory reports.
- Enable students to transfer their skills to other areas of their academic endeavours.

ASSESSMENT AIM:

Using experiments as stimulus, students should be able to:

Write laboratory reports which are accurate and meaningful in content, structure and language.

ASSESSMENT OBJECTIVES:

Comment [MSOffice63]: Breaking the aims down into smaller objectives helps students to se that small steps are needed and that the ultimate aim is attainable by following the small scaffolded steps.

Students should be able to:

- Organize the laboratory report information in logical sections: title, aim, materials, procedure, observation, results, discussion and conclusion.
- Present the results in an appropriate form, like tables, graphs, or diagrams.
- Present the laboratory report in a neat and uncluttered format.
- Demonstrate a sound grasp of the content of the experiment by giving a detailed but concise description of the relevant sections.
- Write meaningfully and informative.
- Show the relationship between the aim and the conclusion of the experiment.
- State difficulties encountered during the experiment and offer alternative solutions to the problems.
- Indicate laws, rules or principles underpinning the experiment.
- Write according to academic conventions: observe spelling and punctuation rules; use appropriate vocabulary; write simple accurate sentences; use the Past Tense Passive Voice in the following Sections: Procedure, Observation, Discussion and Conclusion; use the Present Tense in some instances in the Aim Section; use an effective combination of the Present and Past tense in the Introduction, Discussion and Conclusion.

ASSESSMENT CRITERIA:

Comment [MSOffice64]: Criteria link with objectives and give guidance to students to write effective reports.

Criteria for marking the laboratory reports: Appendix 4.

LABORATORY REPORT WRITING WORKSHEET: PROCESS APPROACH:

1. Write reasons for conducting experiments in laboratories.

2. Write steps in conducting experiments and writing laboratory reports.

3. Draw a table to show what skills are needed to complete each step effectively.

Number	Step:	Skill:
e.g.	Fetch apparatus	Listening and/or reading

4. What is the relationship between **following steps accurately** and writing an **effective laboratory report**?

5. Write down the **sub-headings** of laboratory reports.

6. Provide a brief **description for each sub-heading** to show you understand what to do under the headings.

7. Read the hand-out with detailed descriptions of each section of a laboratory report.

8. Read the following description of an experiment, then plan for the experiment by writing down the apparatus needed, possible procedure, predict the result, what is the principle/law/formula involved, a title.

Comment [MSOffice65]: Give students relevant, problem-solving activities: learner-centr and cross-curricular.

Experiment 1:

Find three irregularly shaped objects (a stone, a shell and ….). Estimate the volume and mass of each object and record your estimation in a data table. Then use a balance to measure the mass of each object and record that in the table. Take a graduated glass container, fill it half way with water and record its volume. Place the first object into the water and record the volume of water. Remove the first object and repeat the process with the other two objects. Subtract the initial volume of water from the 3 separate volume readings and then record the differences as the objects' volume. To determine the 3 objects' density, divide their actual mass with their actual volume. Record each density in the table.

Title:

Apparatus:

Possible procedure:

Predicted results:

Law/principle/formula:

9. Explain the relationship between the title and the principle/law or formula of experiments and laboratory reports. Compare your writing with the instructions of experiment 1.

Comment [MSOffice66]: Lead students to think meta-cognitively about experiments.

10. Conduct experiment 1: Follow the instructions for experiment 1 and take notes while you are conducting the experiment:

Comment [MSOffice67]: Practical applicati gives students sense of independence and makes the whole learning process more interesting and relevant.

Title: Volume of ……

Introduction: vocabulary: matter, chemical, physical, density, displace

Aim: to determine the …….

Apparatus:

A stone,

A shell,

A ……

……..

Balance…

Procedure/Method:

1. Obtain 3 irregularly shaped objects: a stone, a shell, a ……..
2. Estimate the volume of each object and record it in the table.
3. Estimate the mass of each object and record it in the table
4. Use an electronic balance to measure the mass of each object, record each mass.
5. Fill a graduated cylinder half way with water and record the initial volume.
6. Place the stone into the water in the cylinder and record the volume.
7. Remove the object and repeat the process with the other two objects.
8. Subtract the initial volume of water from the three final volumes recorded after each object was inserted. Record each answer as the volume for each object.
9. Determine the density of each object by dividing the mass by their volume. Record each density in the table.
   Observation: it was observed that….

Results:

Discussion:

Conclusion:

11. Report: Use a separate sheet to write your report. Do not write the whole report in one go, only do the activities specified by the lecturer.
12. Write a suitable title for the report.
13. Discuss what goes into an introduction and write an introduction based on the activity that was done in class (definitions of volume, mass, density, relationship).
14. Peer-edit your introduction on the volume experiment.
15. Do corrections, if necessary.
16. Homework: Use your hand-out as guide to write the aim of the experiment.

    Peer-edit and check with lecturer.
17. Use your hand-out to write the 'apparatus' section, check with your friends. Make sure you get the spelling of all the materials correct, use a dictionary if necessary.
18. Read in the hand-out about how to write an effective 'Procedure/Method': also do the activities in the hand-out which allow you to practice using the past tense passive voice.

Comment [MSOffice68]: Application: write report, but in small scaffolded steps: feature of P albeit not recursive.

Comment [MSOffice69]: Feature of PA

Comment [MSOffice70]: Feature of PA

Comment [MSOffice71]: Feature of PA

Comment [MSOffice72]: The activities bel are all meant to help students construct a laboratory report, but in small steps as proposed the PA

19. Do the 'back-to-back' activity: Pair work: Student A: read the instructions for experiment one slowly; student B: write the instructions in past tense passive voice. When all instructions have been read, sit together and check whether the report style has been achieved, ask your lecturer for advice if you are struggling. Then write the Procedure on your report paper.

20. Results: use your hand-out to determine which format would be best to illustrate your results. You can also consult the internet or reference books in the library to find more information about different methods to record your results.

21 What important factors need to be considered when writing up the results?

22. Write the results of experiment 1 on your report paper.

23. Discussion: points that go into the discussion: use hand-out:

    Which tense is used when?

    Make a list of useful vocabulary to use when writing the discussion of an experiment:

    Subject-verb agreement: how can the rule be applied in this section? Give examples and say why.

    Write the 'Discussion' for experiment 1.

24. Conclusion: What aspects are put into the conclusion of a report?

    Language: What language factors should be considered in the 'conclusion'?

    Write the 'Conclusion' for experiment 1. Re-read and revise your report.

    Peer-edit and hand in to lecturer for evaluation (not assessment).

Experiment 2:

Use the internet or reference books to read about 'Osmosis and the plant cell'. Write suitable vocabulary that you think would be used in describing the experiment.

25. Read the description of experiment 2 and do the experiment in the class room.

    Apparatus:

    Potato

    Knife or scalpel

    Peeler

    Water

    Salt

    Graduated beaker

    Pin

Comment [MSOffice73]: Exposure to vario academic experiences: making learning new concepts less threatening.

Comment [MSOffice74]: Generating ideas using different techniques: feature of PA.

Comment [MSOffice75]: Meta-cognitive thinking: finding relationships between concepts.

Comment [MSOffice76]: Complexity of composing: various issues need consideration.

Comment [MSOffice77]: The same as abov

Comment [MSOffice78]: The same as abov

Comment [MSOffice79]: Feature of PA

Comment [MSOffice80]: Feature of PA.

Comment [MSOffice81]: Re-inforcement: th experiment and the activities will help students t become gradually more independent writers: feature of PA

Method:

1. Peel a potato and cut it into two pieces/halves.
2. With a knife/scalpel, make a cup-shaped cavity in one half of the potato.
3. Half-fill the cavity with salt.
4. Half-fill the beaker with water and measure the level. Record the initial water level.
5. Stand the potato-cup in the beaker of water.
6. Mark the salt level by sticking a pin in the inside of the potato.
7. Wait for about 5 to 10 minutes.
8. While waiting, complete the following cloze exercise based on the process of osmosis: Salt 1. …… are much bigger than water molecules. Potato is a partially 2. p…… membrane. This means it has 3. h…….. in it which will let water molecules 4. ……, but the holes are 5. …… small to let salt molecules through. In the salt solution, water and salt molecules 6…….. bumping around randomly. In the beaker, water molecules 7. …… bumping around randomly.
9. Now measure the water level in the beaker again.
10. Subtract the final water level from the initial level. This number is your water uptake.

26. Write the report (on a separate sheet of paper) based on your activities and observation.

    Title:

    Introduction: General facts about osmosis/diffusion; definition of osmosis; concentrated solutions; diluted solutions. What tense? Subject-verb agreement.

    Aim: What is the aim of the experiment? What are we trying to find out?

    Write the apparatus.

27. On another piece of paper: With a partner use the instructions to write the procedure. Remember: past tense passive voice, punctuation, spelling. Same pairs as in experiment 1: Student B reads the instructions, while student A writes the report. After reading, peer-edit. After corrections, write the procedure on your report paper.

28. Continue with the results, how can they best be illustrated?

29. Observation:

30. Discussion:

31. Conclusion:

32. Hand report in.

Experiment 3: Electricity: Ohm's Law:

Comment [MSOffice82]: Consolidation and re-inforcement:

33. Do the practical on Ohm's Law (Physics lesson) and take notes during the process, record results. Compare and edit your notes with your group members.

34. Group/class activity: discuss and write the title, introduction and aim of the experiment.

35. Swap papers with other groups, edit and return. Do corrections if necessary.

36. Write the Apparatus used. Check spelling.

37. Write the method. Help each other with the past tense passive voice. Use the lecturer's key words to write complete sentences.

Key words: set up, use, vary, measure, pass, change, plot, repeat, increase, decrease, current, rheostat, resistance, wire, direction, battery, ammeter, voltmeter, lamp, graph, values.

38. In pairs discuss how to best present the results. Write the results on the report paper. Peer-edit and correct if necessary.

39. Determine the key points to go into the observation and discussion section, work with a partner.

    Write the observation, discussion and conclusion.

40. Hand in the report for marking.

41. Experiment 4 (The correlation between the height of a slope and distance travelled by a ball): Conduct the experiment in class and take notes during the process, also record relevant data.

42. Use your notes and the criteria for lab-report writing to write your complete report. Peer-edit, do corrections if necessary and re-write.

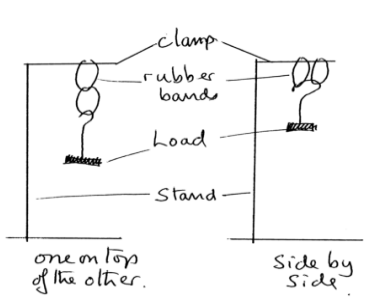
43. Hand in the report for marking.

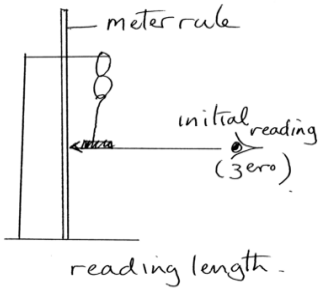
44. WRITING A LABORATORY/SCIENCE REPORT.

Comment [MSOffice83]: Independent writi with very little input from lecturer. Students sho be confident to write own report.

Rubber bands.

Does a rubber band obey Hooke's Law?





Experiment 2 Experiment 3 Experiment 1

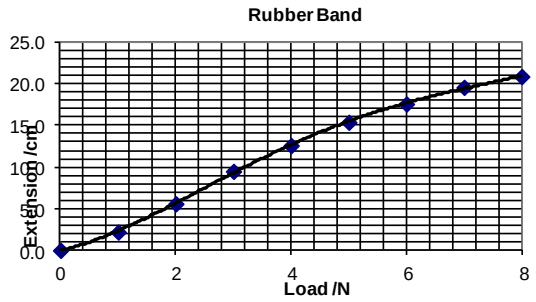
If you load a rubber band with weights it stretches.

(It does not obey Hooke's Law as rubber is not perfectly elastic.)

1. In table groups: DISCUSSION to explain what is Hooke's Law.
2. Further DISCUSSION to plan an experiment to show how you can prove the hypothesis.
3. Students make brief notes.
4. Follow this with a demonstration as shown above in diagram.

5. Give students some data in form of graph to interpret by DISCUSSION
6. Then give table chart for further DISCUSSION.
7. Students add information in note form.
8. Students write laboratory report.
9. Students peer-edit.
10. Hand in for assessment.

The data for the first experiment, which is shown below, was obtained in a class practical last year.



Weight /N	Length /cm	Extension /cm
0	63.8	0.0
1	66.0	2.2
2	69.4	5.6
3	73.3	9.5
4	76.4	12.6
5	79.2	15.4
6	81.4	17.6
7	83.4	19.6
8	84.7	20.9

Using the data and graph explain what you would have expected the results to be if the rubber band had been replaced by a spring which obeyed Hooke's Law.

4.1.2 The modeling/imitation approach

THE MODELING APPROACH: explain what is the modeling/imitation approach:

1. Play 'Simon says…'
2. Discuss what is the relationship between 'Simon says..' and modeling and imitation.

Imitating:

1. Find synonyms/other words in the dictionary.
2. Explain imitating to each other with examples, or role play.
3. In groups, discuss where in the real world imitation is used (animals, humans, architecture, transport, medical world, education, etc.), make a list.
4. Write down advantages and disadvantages of learning through imitation, think of instances where imitation can be used to improve writing.

Modeling:

1. Find the meaning in the dictionary.
2. Explain how this approach can help to improve writing skills.
3. Link imitation and modeling strategies to be dealt with in English with other subjects on FP and further studies.

MODELING APPROACH: UNIT 1: Classification essay:

Introduction:

Activity:

1. Read essay A. (see p. 23)Look specifically at the Introduction.
2. Background knowledge: Who was Cinderella?
3. What did she do?
4. What do you know about her?
5. Why does the author use her in the introduction of this essay?

Analysis of introduction: What makes this introduction effective?

This can be broken down into two sections, content and language.

Content:

Comment [MSOffice84]: Familiar introducti moving from the known to the unknown.

Comment [MSOffice85]: Illustrate that imitation is a familiar concept used for different purposes in reality.

Comment [MSOffice86]: Narrow the imitati concept to educational purposes especially writin

Comment [MSOffice87]: Example essay as input: resource, support, stimulus, guidance: positive link between reading and writing

Comment [MSOffice88]: The two essays use in this unit are given at the end of this unit.

Comment [MSOffice89]: Analysing features and characteristics of introduction exposes stude to content, structure and language usage.

Comment [MSOffice90]: Analysing content helps students to become analytic readers and de with the key concepts in a text.

1. What is the main point/thesis statement in the introduction?
2. What interesting idea leads the introduction?
3. What is the link between these two ideas?
4. What ideas will be developed further?
5. Who do you think wrote this introduction: a learner? A student? A newspaper reader?
6. Why was this essay written? An article in a magazine? Instructions from a teacher to a learner/student?
7. Who, do you think, will read this essay? Why? A teacher? A newspaper reader? Another student?
8. Approximately how old could a reader of this text be? Why? Child? Teenager? Student? Adult?

Language:

Comment on the following:

1. Spelling: any errors?
2. Punctuation and sentence length:
    - Are the sentences very long and complicated?
    - Can you understand the meaning of every sentence? Why or why not?
    - Are capitals used suitably? Why?
    - What are the names of all the punctuation marks? What are their functions?
3. Vocabulary:
    - Is the vocabulary suitable for the purpose of the text? Why?
    - Is it suitable for the audience of the text? Why?
4. Tense:
    - Identify the verbs and determine what tense is used? Why?
    - Is there more than on tense in the paragraph? Why?
5. Concord/subject-verb-agreement:

    Do all the verbs correspond with the nouns/pronouns in number, ie. If the noun/pronoun is singular, is the verb singular too? How do you know? If the noun/pronoun is plural, is the verb plural too? How do you know?

Comment [MSOffice91]: First key concept i introduction.

Comment [MSOffice92]: Hook: Second key concept in introduction

Comment [MSOffice93]: Point of view

Comment [MSOffice94]: Purpose

Comment [MSOffice95]: Audience

Comment [MSOffice96]: Importance of effective language usage as feature for effective essay is illustrated

Criteria based on features:

1. Write the criteria for an effective introduction for an essay of this kind based on the analysis, for instance:

   Content:

   An introduction must contain a main idea/thesis statement.

2. Now read essay B (see p. 24), identify the introduction and use these criteria to determine the effectiveness of the introduction of the essay.

3. Then correct the introduction of essay B based on the criteria. This means you have to write an effective introduction for essay B.

Evaluation activity:

Write an introduction based on the following topic: Write an essay to explain 3 to 4 different farming activities at the communal farms in the north-central region of Namibia.

Body/Development of essay:

Read the next three paragraphs of essay A carefully, and then follow the instructions or answer the following questions:

Content and structure:

1. What do we call these separate sections in the essay?
2. How do we know these sections are separate?
3. Why is it important to have different sections? What is the purpose of having these sections?
4. What common feature do these sections have in terms of meaning of a whole essay? What are all these sections relating to? What is the relationship between the sections and the topic of the essay?
5. Find the main idea in each of these sections and write it down.
6. Where did you get that main idea? In which sentence?
7. What do you think is the name of that specific sentence? Why is the sentence called that way/what is the purpose of that sentence?
8. What do the sentences following the previously mentioned one do/what is their purpose? Could there be other purposes for those sentences? List a few purposes.

Comment [MSOffice97]: Students write criteria: active involvement; show understanding they can write criteria.

Comment [MSOffice98]: Weak example to illustrate the difference and do error correction o common errors.

Comment [MSOffice99]: Practice writing effectively with input materials.

Comment [MSOffice100]: Imitating an effective introduction in parallel essay.

Comment [MSOffice101]: Determining the relationship between form and content.

Comment [MSOffice102]: Focus on organiz ideas in coherent paragraphs

Comment [MSOffice103]: Focus on the holistic view of an essay.

Comment [MSOffice104]: Looking at the lir between meaning and topic sentences.

Comment [MSOffice105]: Looking at supporting sentences and their functions: examp more detail, description, explanations.

9. What do we call those sentences? Why are they called like that?
10. For each main idea, write key points of the supporting ideas in a list form or spider diagram,

    e.g. main idea. = ironing clothes;

    supporting ideas = not quick, not thoughtless; takes long; ironing = smoothing, seams, creases, hanger; not favourite, attention

11. What do we call words like 'another', 'of course', 'in addition'?
12. Find some more of these words or phrases, write them all down and determine the function of these words.
13. What do they do in an essay?
14. Why are these words used?
15. Can they be classified into groups? Into which categories can they be organized?
16. Find more examples for each category and draw a table with each category and some examples.
17. Based on the content, structure and language, write the criteria for an effective body or development paragraphs of a classification essay.

Revising and editing activity:

18. Now read the body of essay B.
19. Analyse the body in terms of the criteria you have identified for the body of an effective paragraph, i. e. are there paragraphs? Why/why not?
20. Rewrite the body of Essay B correctly based on the criteria of an effective body for the classification essay.

Evaluation activity:

21. Write an essay to explain 3/4 different farming activities at the communal farms in the north-central region of Namibia.

Conclusion:

22. Read the conclusion of Essay A.
23. What similarity does the conclusion have with the introduction? Or what idea is mentioned in the conclusion that was also mentioned in the introduction? Why is that so? Is that an effective way of ending an essay or not? Why do you think so?
24. Which word clearly indicates that the essay is ending?
25. Give more examples of useful phrases to indicate the end of a piece of writing.

Comment [MSOffice106]: Different techniques to generate ideas.

Comment [MSOffice107]: Focus on discour markers for achieving coherence.

Comment [MSOffice108]: Determining the function of discourse markers.

Comment [MSOffice109]: Determining the purpose of discourse markers.

Comment [MSOffice110]: Eliciting more discourse markers.

Comment [MSOffice111]: LLearning to be critical and evaluative.

Comment [MSOffice112]: Learning how to edit and re-write.

Comment [MSOffice113]: Actual editing activity with self-developed criteria: independent learning is encouraged.

Comment [MSOffice114]: Error correction looking at the effect of re-writing: does the essay improve if errors are corrected?

Comment [MSOffice115]: Consolidation an re-inforcement to determine understanding whic should have been brought about by analysis and editing activities.

Comment [MSOffice116]: Analysing the conclusion

Comment [MSOffice117]: Find relationship between introduction and conclusion

Comment [MSOffice118]: Finding discourse marker.

Comment [MSOffice119]: Finding more examples of discourse markers to be used in a conclusion.

26. Use the following list to determine what strategy was used to end this piece of writing (Essay A)

    Suggestion,

    Opinion,

    Prediction,

    Summary.

27. Write the criteria for an effective conclusion based on the conclusion of Essay A.
28. Use these criteria to analyse the conclusion of Essay B.
29. Use the criteria to correct and rewrite the conclusion of Essay B.
30. Now write your conclusion for the essay that explains the different farming activities at the communal farms in the north-central region of Namibia.

Comment [MSOffice120]: Looking at differe techniques to be used in conclusions.

Comment [MSOffice121]: Independent learning: determining own criteria, being critical a evaluative.

Comment [MSOffice122]: Showing how to the criteria.

Comment [MSOffice123]: Application of features determined in effective conclusion and editing of weak conclusion.

ESSAY A:

Cinderella and Her Odious Household Chores. A classification essay about household chores.

(extracted from GREAT ESSAYS by Folse, K; Muchmore-Vokun, A and Solomon, E.V., 2004, Houghton Mifflin Company, Boston.)

1. Everyone knows how the story of Cinderella ends, but did you ever really think about how she spent her days before she met the prince? Her daily routine was not glamorous. She did everything from sweeping the floor to cooking the meals. If someone had asked Cinderella, "Are there any household chores you particularly hate?" she probably would have answered, "Why, none, of course. Housework is my duty!" In the real world, however, most people have definite dislikes for certain household chores. The top three of these tasks include ironing clothes, washing dishes, and cleaning the bathroom.

2. One of the most hated chores for many people is ironing clothes because it is not a task that can be completed quickly or thoughtlessly. Each piece of clothing must be handled individually, so ironing a basket full of clothes can take hours! After ironing a piece of clothing meticulously, which entails smoothing out the fabric, following the seams, and getting the creases "just right", it needs to be put on a hanger as soon as possible. If not, this item might become wrinkled and needs to be ironed again. Perhaps that is why ironing is not a favourite chore. It requires extreme attention to detail from beginning to end.

3. Another household chore that many people dislike is washing dishes. Of course, some people claim that this chore is no longer a problem because dishwashers are available now! However, no one would argue that dishes, silverware, and especially pots and pans washed in a dishwasher come out as clean as they do when washed by hand. For this reason, many people continue to wash their dishes by hand, but they are not necessarily happy doing it. Washing dishes is a dirty job that requires not only elbow grease to scrape food off the dishes but also the patience to rinse and dry them. In addition, unlike ironing clothes, washing dishes is a chore that usually must be done every day. Regardless of how Cinderella felt about this particular chore, it is obvious that most people do not enjoy doing it.

4. Though ironing clothes and washing dishes are not the most pleasant household chores, perhaps the most dreaded one is cleaning the bathroom. This involves tackling three main areas: the bathtub, sink, and the toilet. Because the bathroom is full of germs, a quick wiping of the surfaces is not enough. As a result, strong bathroom cleansers are necessary to clean and disinfect this room. The task of cleaning the bathroom is so unpleasant that people wear rubber gloves when they attempt it. The only positive point about cleaning the bathroom is that it does not have to be done on a daily basis.

5. To summarize, maintaining a house means doing a wide variety of unpleasant chores. Cinderella knew this, and so do we. Many of us do not have the luxury of hiring an outside person to do our housework, so we must make do with our responsibilities. If we can take pride in the results of our hard work, maybe we can get through the unpleasantness of these typical household chores.

ESSAY B:

Comment [MSOffice124]: This essay was deliberately written with a collection of the error that students often make. The errors are somew exaggerated.

Weak essay: classification essay about household chores.

Most of the people are not like cleaning the house. They do not likes to sweeping the floor, washing the dishes neither to cooking the foods for the families. Again they do not likes to iron the clothes every day. People are lazy to cleaning the house, they like to siting at the shebeen and talking to their friend and then the childrens are without food and dirty and the house is dirty and the clothes are not being washed then the childrens go to school hungry and dirty and can no more concentrate in class then the teacher getting angry and frustrated because the childrens are not paying the attention in the lessons. So it show that if parents are not working at the home then the childrens will be affected negatively and and again their education will be lacking, if that happening then the economic of the country will going down becouse the childrens are the leaders of tomorrow but if they cannot do the good education then who will be the leaders of the future of Namibia? So, it importance to tell the parents to cleaning the house every day and cooking foods to look after the children so that we can have better leaders in the future. Let's stand togethers and do the cleaning at the houses so that the childrens can become better leaders. Again if the houses are not clean insects, like cockoroache, will come to the house and everywhere you look just finding cocoraoches which is not health. So people must sweep the floors everyday and washing floors regularly, but they don't like doing that.

Again they don't like washing the clothes but what if the clothes are dirty and the children will works with dirty clothes to schools and shops and people will complaining about dirty clothes of the child, mothers they must wash the clothes always, evenif it is a hard job to do every day. Again sometime mothers they don't like to wash the dishes and when it comes to cooking then no clean dishes and pots for cooking then again they use the dirty dishes and the childrens they will becomes sick of using the dirty dishes and they may end up in hospitals or clinics.

In my conclusion i want to say that people must clean their houses and washing the clothes every day for the health and safety of the childrens.

REFLECTION:

WHAT HAVE YOU LEARNED IN THIS UNIT?

HOW CAN YOU APPLY THIS TO YOUR OTHER SUBJECTS ON THE FOUNDATION PROGRAMME?

4.1.3 The process genre approach (2009):

CURRICULUM: THE PROCESS GENRE APPROACH

The English curriculum for the Foundation Programme (FP) addresses the skills, techniques and strategies necessary for coping with the academic tasks of higher institutions.

The curriculum will be covered in two semesters, starting from basic skills and concluding with more challenging skills. The four skills (reading, writing, listening and speaking) will feature in every unit. In addition, various grammar aspects, reading techniques and study skills will be dealt with on a continuous basis. All these skills, techniques and strategies will be grounded in ONE writing approach called the process genre approach. This will be explained in a practical way in the next section. The process genreaApproach is a combination of two approaches, the process approach and the genre approach. These will be dealt with in the next section to show what they mean and how they can help students in improving their writing skills.

CURRICULUM: THE PROCESS APPROACH:

The Process Approach focuses on writing skills. Throughout this year on the Foundation Programme students will be exposed to the various issues relating to effective writing skills and the Process Approach will be used to enhance the writing skills of students.

This approach can contribute to the skills students need to write effectively. The curriculum will be based on the stages and techniques of the Process approach. As students will also be required to write laboratory reports, this genre in writing will also feature in the curriculum. The stages of a lab report also constitute many elements that go into academic writing, and therefore lend themselves well for the purpose of improving overall academic writing. These stages are linked to the skills that students need to complete the stages effectively. Reading texts are often used as input to practice the skills. Students will write short pieces regularly and peer-editing forms an important part of the process.

To explain the Process Approach and to help students form a picture of what they are going to do, 2 activities will be done. The first is a practical activity and the second is a more theory-based activity. Of importance here is that students understand that a collection of recursive steps will help them in writing better essays. Also essential is that students are exposed to "the whole" which is then broken into smaller pieces to make it more manageable, but that 'a whole' is expected of them again in the end. This relates to a combination of the Process Approach and the Modeling/Imitation Approach which will be explained after the activities about the Process Approach.

Comment [MSOffice125]: Focus on two features of the process approach: steps and recursive.

Comment [MSOffice126]: Scaffolding

OBJECTIVE: To realize and understand that writing is a process involving a number of issues and steps.

ACTIVITY:

1. Use the materials (carton, cereal cardboard boxes, egg boxes, sticks, grass, glue, scissors, milk cartons,etc.) presented to each group to construct a building (traditional house, brick

Comment [MSOffice127]: Practical applicat to illustrate the steps and the thinking process.

house, hospital, police station, shop, class room, office block, community hall, filling station). Each group has to construct one building using the materials.

2. One group member observes and writes down the steps that are followed.
3. The observer reports to the class the steps that were followed by the group members to construct their building and also relates the difficulties and the highlights the group had while constructing the building.
4. The general steps followed to build the building are written down on the board/flipchart.
5. The link is made between constructing a building and writing an essay.

The Process Genre Approach is like constructing a specific building for a specific purpose: a lot of planning has to go into the project before the actual building starts and then equipment and materials need to be obtained, the building takes place in small steps with lots of planning, 'looking back' and reviewing, in order to continue more effectively. Finally, when the house is finished, an inspector has to come and check it again before people move in. The 'whole house' has been produced by initially seeing it as 'a whole' and then building it up from small parts and pieces slowly and step-by-step until 'the whole house' is a reality.

6. Follow-up questions and information: Students also think of different kinds of houses and the reasons for having different kinds of houses and the implications it has on the kind of planning, materials, etc. The lecturer could bring pictures of houses to show students that some issues are fundamental principles and present in all types of houses, whereas other aspects depend on the purpose of the house, the taste of the owner, the skill of the architect and builder, etc. This is then linked to the writing process.
7. Next, the theoretical basis is given to students by the teacher who reads the following information about the writing process to the students. They have to fill in the cloze exercise with suitable answers based on the reading of the teacher.

THE WRITING PROCESS:

The Writing Process (WP): the same information is provided as the Process approach on p. 2.

The same worksheet is provided as on p. 3.

THE GENRE APPROACH:

The genre approach provides students with, firstly, examples of effective pieces of academic writing or laboratory reports and secondly, it helps students to emulate the stages that are involved in the

Comment [MSOffice128]: Group interactio

Comment [MSOffice129]: Different responsibilities.

Comment [MSOffice130]: Analogy explaine between 'constructing a building' and writing an essay.

Comment [MSOffice131]: Analogy betwee specific buildings for various purposes and differe texts with specific purposes.

Comment [MSOffice132]: Continuous revie to evaluate progress and move forward.

Comment [MSOffice133]: Analogy: looking essay holistically and realizing that a collection of steps is needed to form an effective whole.

Comment [MSOffice134]: Visual representation helps with the explanation of the differences and similarities in construction: a hou or an essay.

Comment [MSOffice135]: Analogy to some general academic writing conventions.

Comment [MSOffice136]: Analogy to audie and purpose of essay/text.

Comment [MSOffice137]: Feature of genre approach: examples/models as input.

writing process (emulate = “copy”, imitate, to try and do something as well or better than somebody else). Another concept found in the genre approach is modeling. Modeling means showing by examples, it involves a form of emulation and imitating. The lecturer will give examples of the types of texts that students have to write and shows how the writer has possibly written the text by looking at the pre-writing, during writing and after-the-first-draft stages.

Students are also required to read and analyse effective pieces of writing in terms of content, structure and language usage and then imitate what s/he determines as useful in improving writing skills. The principle of imitation in writing is that writing students can use an example to create their own product and become transformed and/or create a transformed product.

Students create their own criteria based on the analysis of effective pieces. In addition, they also read weak essays, and they determine the reasons why the essays are weak. They can be requested to compare effective and weak essays and laboratory reports and identify the characteristics of an effective essay. Students could also be requested to re-write the weak essays based on the criteria and the examples of effective essays.

Modeling also means showing how to ‘behave’ in the writing process. It means to show students how to collect ideas (different techniques), how to organize (different techniques: making numbered lists, spider diagrams, draft and then rearrange), how to draft, how to revise the essay; then students edit each other’s papers, and they are shown how to write the final draft. Essentially modeling is not just telling or giving instructions, it means using an example essay to show all the steps in the writing process.

To explain the Genre Approach and to help students form a picture of what they are going to do, 3 activities will be done. The first two are practical activities and the third is a more theory-based activity.

TASK:

OBJECTIVE: To realize and understand that existing pieces of writing can be used as examples and that effective writing skills can be imitated in order to improve one’s own writing skills.

ACTIVITY:

PRACTICAL ACTIVITIES:

1. Play ‘Simon says….’.
2. Discuss the relationship between ‘Simon says…’ and modeling and imitation.

Comment [MSOffice138]: Feature of the modeling and genre approaches: show how a tex written.

Comment [MSOffice139]: Feature of the process approach: different steps.

Comment [MSOffice140]: Feature of the modeling and genre approaches.

Comment [MSOffice141]: Feature of mode and genre approaches: examples help students to become independent writers.

Comment [MSOffice142]: Learner autonom independence, evaluation skills are emphasized.

Comment [MSOffice143]: Feature of modeling: showing how to go about writing proce instead of just telling them to write an essay.

Comment [MSOffice144]: Familiar introduction moving from the known to the unknown.

3. Play the sculpting game where student A uses student B to form a sculpture (the model) and the class must imitate the sculpture (imitating).
4. Elicit from students the relevance between 'Simon says..', the sculpting game and writing. Write the responses on a flipchart.

ACTIVITIES BASED ON THEORY:

Imitating:

4 Find synonyms/other words in the dictionary.

5 Explain imitating to each other with examples, role play?

6 In groups, discuss where in the real world imitation is used (animals, humans, architecture, transport, medical world, education, etc.), make a list.

7 Write down advantages and disadvantages of learning through imitation, think of instances where imitation can be used to improve writing.

Modeling:

4. Find the meaning in the dictionary.
5. Explain how this approach can help to improve writing skills.
6. Link imitation and modeling strategies to be dealt with in English with other subjects on FP and further studies.

Genre:

1. Find the meaning in the dictionary.
2. Explain how this approach can help to improve writing skills.
3. Think of different genres dealt with at secondary school. Predict which genres might be done on FP English and other subjects on FP and further studies.

UNIT 3: COMPARE AND CONTRAST

OBJECTIVES:

By the end of this unit students should be able to do the following:

- Write meaningful and informative COMPARE AND CONTRAST ESSAYS:

a. Plan (generate ideas, write ideas in note-from/spider diagram….;organize ideas; write first draft; edit; write second draft)

b. Show the relationship between the SIMILARITIES AND DIFFERENCES.

c. Structure: introduction, body, conclusion.

Comment [MSOffice145]: Practical illustrat of modeling.

Comment [MSOffice146]: Practical applicat of imitation.

Comment [MSOffice147]: Illustrate that imitating is a familiar concept used for different purposes in reality.

d. Paragraphs: topic and supporting sentences
e. Write according to academic conventions: observe spelling and punctuation rules; use appropriate vocabulary; write simple accurate sentences; use appropriate tenses.

PRE-ACTIVITY:

a. Group work: Examine the two different objects provided by your lecturer to focus on and explore the meaning of COMPARE AND CONTRAST (e.g. milk and yoghurt; or apples and beetroots).
b. Also discuss whether ridiculous pairs of items: e.g. apple and dice; or chalk and a shoe, can be compared and contrasted. Why/why not?
c. Draw two columns on a paper flipchart and brainstorm the characteristics of the first item and then of the second item listed in (a). Look for similarities and differences.
d. Now explain the concepts: COMPARE and CONTRAST.

Comment [MSOffice148]: Practice idea generation techniques suitable for comparing and contrasting.

THEORY:

a. Look in the Dictionary to find the meaning of COMPARE and CONTRAST.
b. Think of examples where concepts, ideas, systems, or processes can be compared and/or contrasted.

Much of the information in this worksheet is taken from: Great Essays 2nd edition, 2004 (Keith Folse, April Muchmore-Vokoun, Elena Vestri Solomon), Houghton Mifflin Company, Boston.

When you write a 'Compare and Contrast' essay, you should consider the following:

A. <u>Choosing a topic and collecting ideas: tigers and lions:</u>

a. The topics should have something in **<u>common</u>** (to compare), e.g. Tigers and lions are both from the cat family as their Latin names suggest their relationship in the animal kingdom: lion: *Panthera leo krugeri*; tiger: *Panthera tigris* . They are both carnivores and predators with good hunting skills.
b. The two subjects must also have some **<u>differences</u>** (to contrast): e.g. The most obvious differences between tigers and lions are that tigers live in Asia and lions in Africa. Also tigers have stripes on their coats and lions have a yellowish-brown coat. You need to have **<u>enough information</u>** on both subjects to make valid and realistic comparisons.
c. A good way to choose a relevant topic is to **<u>make a list of the similarities and differences</u>** between the two subjects in your topic.

Comment [MSOffice149]: Model how ideas can be generated and recorded.

E.g.

<u>Similarities:</u>

Tigers:	Lions:
Same kingdom, phylum, class, order and genus	⇒
Carnivore	⇒
Predator	⇒
Gestation: 100-120 days	⇒
Man is its predator	⇒
Differences:	
In Asia in jungles and forests	In Africa, savannahs, grassy plains, semi deserts
Colour of coat/skin: yellow & black	yellowish when young → older: darkish brown
Big and heavy: male 260 kg, female: 160 kg	weight: male 200 kg; female: 130 kg
----------	Male: mane: first yellowish, later dark
Solitary	live in a pride and social
Hunt alone, eat alone	hunt in pride, share food
Swim	dislike going in water
Males & females hunt	females do most of the hunting

You will notice that there are a few similarities and more differences. These similarities can be used as links between the two subjects. A writer can use the links to highlight the similarities between the two subjects or to lead into a discussion of the differences between them, e.g. Although both tigers and lions are from the cat family they have many features which distinguish them clearly from each other.

You can also use a **Venn diagram** to brainstorm similarities and differences.

Comment [MSOffice150]: Illustrating anoth technique to record ideas.

Activity: Use above information to draw a Venn diagram which illustrates the differences and similarities between tigers and lions.

You could also do a free writing paragraph to write up your ideas.

B. Writing the first draft:

ACTIVITY: WRITE AN ESSAY TOGETHER AS CLASS ACTIVITY ON TIGERS AND LIONS.

Comment [MSOffice151]: Consolidation to show how the essay is written.

Your lecturer will elicit the information from you (which you will get in the list of similarities and differences) and write the essay on the board which you can copy in the template below.

a. First, concentrate on the content of the essay.

b. Then, look specifically at paragraphs, topic and supporting sentences, and add discourse markers.

c. Later, focus on spelling, sentence structure and punctuation, tense, and subject-verb agreement.

The following structure should help you write an effective compare and contrast essay: Draw your own template with bigger spaces for each section.

Structure and template of essay:

Comment [MSOffice152]: Linking form to content.

Introduction

Par 2: TIGERS & LIONS: specific similarities

Par 3: LIONS

Par 4: TIGERS

Conclusion:

B. **Another Example essay**:

Comment [MSOffice153]: A second exampl text indicating a second possible structure to use when comparing and contrasting two issues. Mo examples give students more exposure to choices structure.

Read the following essay and do the activities following the essay.

Education in the East and the West (Great essays, 2004. Folse, Muchmore-Vokoun, Solomon)

Americans have often asked me why I came from Taiwan to study in the United States. They expect me to say something like "to learn English". (However/Another), to me, coming here to study involves more than just learning English. It involves an opportunity to experience a completely different educational system. Because I have studied in both countries, I have seen several areas in which education in Taiwan and education in the US are different.

Comment [MSOffice154]: Discourse marke Students have to choose the correct discourse marker based on the context of the sentence: illustrate the purpose and functions of discourse markers.

Students' expectations in the classroom in Taiwan are different from those in the US. Generally speaking, Taiwanese students are quieter and participate less in class. They are not encouraged to express their ideas unless asked. They are taught that asking teachers a question is seen as a challenge to the teacher's authority. There is little emphasis on developing student creativity and thinking skills. Students are expected to memorize everything they are assigned. (In addition/However), in the US the curriculum emphasizes individual thinking, group discussion, and self-expression. (Unlike/Even though) their Taiwanese counterparts, American students are encouraged to ask questions, express their own opinions, and think for themselves.

(However/In addition) there is a great disparity in the educational goals of the Taiwanese and American schools. After twelve years of compulsory education, Taiwanese students have to pass an entrance exam in order to get into a university. The higher students score on this test, the better the university they can enter. Taiwanese culture puts a strong emphasis on university admission because getting into the right university can guarantee future success. As a result, schools often

"teach to the test" instead of providing more moral, social and physical education. (In contrast/Likewise), the goals of the American educational system include teaching students how to learn and helping them reach their maximum potential. American teachers give their students the freedom to think and solve problems on their own; they do not merely prepare students to answer questions for an entrance exam.

The last obvious difference between the two countries' educational systems is the role of extracurricular activities such as sports programs and special interest clubs. (Even though/Compared to) every Taiwanese school claims that it pays equal attention to moral, intellectual, and physical education, the real focus is on passing the university admissions exam. Little emphasis is placed on activities outside the classroom. Teachers can even borrow time from extracurricular activities to give students more practice in the areas where they have weaknesses. (On the other hand/Likewise), American educational institutions consider the development of social and interpersonal skills as important as the development of intellectual skills. It is believed that by participating in these outside activities, students can demonstrate their special talents, level of maturity, and leadership qualities.

Education is vital to everyone's future success. (While/As) it may take ten years to grow a tree, a sound educational system may take twice as long to take root. (However/Although) Taiwan and the United States have different educational systems, both countries have the same ultimate goal: to educate their citizens as well as they can. This goal can be reached only if people take advantage of all the educational opportunities given to them. That is why I came to the United States to study, grow, and become a better person.

Activities:

Structure and content:

The paragraph organization of this essay is different from the paragraph organization of the essay on tigers and lions. What is the difference? Is this technique suitable for writing compare and contrast essays? Justify your answer.

a) Which sentence is the 'hook'?
b) Identify the thesis statement (the statement which says what the essay will be about).
c) Underline the topic sentence in each paragraph.
d) Find the key point in each topic sentence.
e) Number the supporting sentences.
f) Show where the writer switches the discussion to the comparative topic.
g) Choose the correct discourse marker form the options given in brackets, and say why it is more suitable than the alternative.
h) Analyse the conclusion and say what techniques were used to conclude the essay.

Language:

a) What tense is used? Why?

Comment [MSOffice155]: Focus on how content can be used to include all the features of academic essay: hook, thesis statement, topic – a supporting sentences in paragraphs, discourse markers.

Comment [MSOffice156]: FFocus on form helps students to realize which items are expecte in academic writing.

Comment [MSOffice157]: Focus on all the language usage items that help to construct an effective academic essay: tense, subject verb-agreement, active and passive voice, sentence length.

b) Identify and underline the nouns in Paragraph 1 and 2. Are the nouns/pronouns singular or plural?

c) Find the verbs that are linked to the underlined nouns/pronouns. Are the verbs singular or plural? How do you know?

d) Write a similar paragraph (5 sentences) about education in Namibia focusing on subject-verb agreement.

e) Change the plural nouns and verbs to singular. Change the singular nouns and verbs to plural.

f) Determine which sentences are active and which are passive? How do you know?

g) Determine the average length of sentences. Is this suitable or not? Why or why not?

h) Look at the following extract from an essay on Mitosis and Meiosis. Determine which technique is used to do the comparison. Is it the same as the tiger and lion essay? Or is it similar to the American and Taiwanese essay? Is this technique useful for comparing these two biological processes or not? Why? Why not?

Comment [k158]: Another example of a compare and contrast text.

Comment [MSOffice159]: Encourage independent thinking, analysis and evaluation.

Compare and contrast Mitosis and Meiosis (an extract only: not the whole text):

Extracted from: http://www.123helpme.com/preview.asp?id=46660 .

http://www.collegetermpapers.com/TermPapers/Anatomy_&_Physiology/Mitosis_vs_Meiosis.shtml

There are two types of cellular reproduction, mitosis and meiosis. They have different purposes and processes which they go through, but are the same because they both involve replication of genetic information and the division of a cell. Meiosis and mitosis describe the process by which cells divide, either by asexual or sexual reproduction to produce a new organism.

Meiosis is a form of cell division that produces gametes in humans, these are egg cells and sperms, each with reduced or halved number of chromosomes. The number of chromosomes is restored when two gametes fuse together to form a zygote. A cell with two copies of each chromosome is called diploid cell and a cell with one copy of each chromosome is called a haploid cell. Meiosis produces haploid daughter cells that are genetically different from each other and from the parent cell.

However, mitosis is a form of cell division that produces daughter cells identical to the parent during repair or growth. Each cell contains the same genetic code as the parent cell, it is able to do this because it has copied its own chromosomes prior to cell division. Meiosis consists of two divisions whilst mitosis is followed in one division; both these processes involve the stages of interphase, prophase, metaphase, anaphase and telophase.
Meiosis allows cell variation and genetic differences between each cell whereas mitosis is an exact replication of each cell. There are three main ways meiosis produces genetic variation, this is

through independent assortment, crossing over and random fertilization. During the first meiotic division in prophase I, the homologous chromosomes join together to form biv……..

…….

These are the similarities and differences of Mitosis and Meiosis. They both divide cells, but in their own unique way, with their own unique purpose.

PARAGRAPH ORGANIZATION:

Write the names of the essays used in this unit that use the following three techniques to show similarities and differences.

a. Whole-to-whole structure:

b. Similarities-to-differences:

c. Point-by-point structure:

Own essay:

Comment [MSOffice160]: Application: students write parallel essays based on the input received in the materials and activities.

Choose your own topic and write a Compare and Contrast essay. Confirm with your English lecturer the suitability of your topic.

Use any of the planning templates provided on pages 9 – 11 to generate and organize your ideas.

Please consider the following criteria. A useful strategy is to tick off the criteria statements when you edit your essay, then you will know which area needs more work if you cannot tick a specific statement with confidence.

Comment [k161]: Criteria useful as they show students what is expected of them.

Content:

- The essay compares/contrasts two topics/concepts/ideas/subjects/
- The essay shows similarities and differences.
- The information is relevant to the topic.
- The information is meaningful and realistic.
- The topic sentences state clearly what the paragraph will be about.
- The comparisons are supported with meaningful examples or explanations.

Structure:

- The essay has a clear structure with paragraphs.
- The structure shows clearly which comparison technique is used (whole-to-whole/point-by-point/similarities-differences organization).
- The introduction clearly shows the reader what the essay will be about.

- The body is divided into meaningful paragraphs, with one idea per paragraph.
- Each paragraph has a clear topic sentence and supporting sentences that give more detailed information about the idea in the topic sentence.
- The conclusion shows a creative re-statement of the thesis statement.
- The conclusion includes a recommendation/opinion/suggestion.
- Discourse markers are used meaningfully at suitable places to enhance the flow of the essay.

Content:

- Correct spelling is observed.
- Suitable punctuation is present.
- Sentences are of a suitable length.
- A suitable tense is used based on the topic.
- Subjects agree with verbs in terms of singular and plural.

DISCOURSE MARKERS FOR COMPARE AND CONTRAST:

Obtained from: Linking words and phrases:

http://www.dlsweb.rmit.edu.au/lsu/content/4_WritingSkills/writing_tuts/linking_LL/linking3.html

Although some of these words have already been mentioned as sentence connectors, they can also be used to develop coherence within a paragraph, that is linking one idea / argument to another.

Addition

- And
- In addition / additionally / an additional
- Furthermore
- Also
- As well as

Reason

- For
- Because
- Since
- Because of

Example

- For example
- For instance
- That is (ie)
- Such as
- Including

Contrast

- However
- Nevertheless
- Although / even though
- Though
- Yet
- In contrast (to) / in comparison
- While
- Whereas
- On the other hand
- On the contrary

Comparison

- Similarly
- Likewise
- Like
- Similar to
- Compare
- compare(d) to / with