

**An Investigation of Prescribed Managerial
Accounting and Finance Textbooks used by
B.Com Accounting Students at some Universities
in South Africa**

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By

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DECLARATION

This research has not been previously accepted for any degree and is not being currently considered for any other degree at any other university.

I declare that this dissertation contains my own work except where specifically acknowledged

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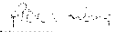
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An Investigation of Prescribed Managerial Accounting and Finance Textbooks used by B.Com Accounting Students at some Universities in South Africa

ABSTRACT

The selection of textbooks used at tertiary institutions in South Africa, in the discipline of Accounting, is an area where there is a lack of published studies. Factors cited by academics for selecting prescribed textbooks are the cost of the textbooks, comprehensive coverage of relevant topics and applicability to the South African context. Other criteria, such as readability, are often not taken into consideration. Students feel that the prescribed textbooks are prescribed for the wrong reasons and find them difficult to read and learn from. The research reviews the Managerial Accounting and Finance (MAF) textbooks used at the University of KwaZulu-Natal (UKZN) and other universities. Observations about the textbooks, from staff and students are considered from interviews.

The research used data collected from third year undergraduate students studying Managerial Accounting and Finance at the University of KwaZulu-Natal. The students completed Cloze passages on chapters randomly selected from four MAF textbooks. The results of these passages were analysed to establish at what level the students were reading the textbooks. The students were interviewed regarding their reflections of the prescribed MAF textbooks. MAF lecturers from UKZN were interviewed and lecturers from other universities completed a questionnaire with regard to their views of MAF textbooks.

The overall conclusion is that the students were reading all four textbooks at the frustration level. The students interviewed felt that the prescribed textbooks could be improved for a number of reasons and most students learnt from their lecture notes and tutorial solutions making the textbooks superfluous to successful completion of the subject. Lecturers provided a number of reasons for selecting a textbook, foremost being adequate coverage of a prescribed syllabus.

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CHAPTER 1 – INTRODUCTION

1.1 Introduction

The selection of textbooks used at tertiary institutions in South Africa, in the discipline of Accounting, is an area where there is a lack of published studies. Factors cited by academics for selecting prescribed textbooks are the cost of the textbooks, comprehensive coverage of relevant topics and applicability to the South African context. Other criteria, such as readability, are often not taken into consideration. However, expository texts that are difficult to read and grasp may cause the student to become frustrated and lose interest in the subject. The loss of interest then affects motivation and poor results may be the consequence as students 'learn to pass' without fully understanding the underlying concepts. Furthermore if students are able to read textbooks independently, lecture time can be freed up to supplement the topic being studied.

Textbooks are considered to be additional learning aids for students thus it is essential that textbooks are selected which suit the subject being lectured. There is a lack of published research on why textbooks are selected and the quality of the reading material itself. The selection of a textbook for a subject could be problematic because the student is often unaware of why the textbook has been selected. Is it because it is the best textbook available? It is the cheapest on the market? Is the student expected to learn from it? Inappropriate texts can also lead to students developing a negative attitude towards the subject because they feel they cannot adequately read the text. This could be a combination of a lack of reading skills, subject knowledge and the way in which the textbook is written.

A number of the problems with regard to Accounting textbooks were voiced in the following letter which was published in 7 October 2005 *FM Campus*. The letter was in response to an earlier article about the shortage of black Chartered Accountants in South Africa:

"Many textbooks are written at an advanced level of English, suitable for first-language English speaking students. English is my first language, but

in my experience, the language of these textbooks is difficult to understand. I'm sure this problem is compounded when English is your second language. This leads to many students feeling frustrated or failing, then deregistering from university. A lot of prescribed textbooks are written by our lecturers therefore we cannot complain". [2005 :3]

Readability of text depends on several factors some of these are related to layout, cognitive characteristics and some to the type of language used. The linguistic aspects of the text can be measured by the readability measures of the Cloze procedure.

The majority of students in this research are studying with the intention of being Chartered Accountants (CA). The South African Institute of Chartered Accountants (SAICA) has expressed the need to increase the number of black and coloured CAs and the economy as a whole is in dire need of CAs. Thus is it imperative that students are provided with the necessary measures to facilitate the students achieving their goal of CA and appropriate textbooks could help in accomplishing this goal.

1.2 Statement of the Problem

The purpose of this research is to compare the different Managerial Accounting and Finance (MAF) textbooks with a view to deciding on optimal textbooks for lecturer and student use. The research may assist towards greater awareness of the readability of textbooks and more transparent systems of choosing textbooks.

1.3 MAF Textbooks used in the Accounting Programme at UKZN

At the time the study was undertaken, the textbooks being used for MAF were Vigario's *Managerial Accounting* (3rd ed) and *Managerial Finance* (2nd ed). These books were used on the Howard College and Pietermaritzburg campuses. The Westville campus had been using Drury's *Management and Cost Accounting* and Correia, Flynn, Uliana and Wormald's *Financial Management* for a number

of years. In 2006 all three campuses used Vigario's textbooks. In 2007 accounting lectures were discontinued on the Howard College campus and the School of Accounting was relocated to the Westville campus. The textbooks were again changed to Drury and Correia et al corresponding to that of other universities.

1.4 Textbook Selection Criteria

The selection of textbooks used at tertiary institutions in South Africa, in the discipline of Accounting, is an area where there is a lack of published studies. A survey of ten SAICA accredited universities indicates that a variety of MAF textbooks are used. Factors cited by academics for selecting prescribed textbooks are the cost of the textbook, comprehensive coverage of relevant topics and applicability to the South African context. Other factors such as readability are not taken into account.

1.5 Limitations and Weaknesses of the Study

At the start of the study, the researcher was not a member of staff in the School of Accounting, but was a staff member at the University of KwaZulu-Natal. The fact that researcher was subsequently a member of the School of Accounting may lead to bias on the part of the researcher in the interpretation of the data.

The students who completed the Cloze procedure were those who attended a tutorial on a certain day at the Howard College campus of the UKZN. It is not possible to gauge the seriousness with which each student completed the Cloze tests as a small number of the passages were returned with a nil score suggesting lack of effort. The researcher could not control for loss of interest in the task. The students completing the Cloze passages were not familiar with the researcher as the researcher was at that stage not a lecturer in the School of Accounting. Additionally, the tutors administered the Cloze passages at the tutorials and the researcher was not present.

Of the 24 randomly selected passages for the Cloze procedure, all of the students would have prior exposure to two of the passages – users of accounting information is covered in Financial Accounting I and II and AC 108 is covered in Financial Accounting II and III. If the student had studied Higher Grade Mathematics at school they would have been exposed to the Cloze passage on Linear Programming. This could have influenced the Cloze scores obtained from these two passages because of the student's prior knowledge of these topics.

For the student interviews, the researcher requested volunteers to be interviewed. However, due to the poor response, six students out of a population of approximately 350 it was necessary to coerce students to participate in the interviews. The researcher is of the view that the opinions expressed by the participants were rational and similar sentiments were expressed by each of the groups interviewed. The views articulated in the interviews were corroborated by those expressed in the Student Evaluation Questionnaires.

The aesthetics of the textbooks were not considered, for example, layout, font size, white spaces. Neither was the suitability of end-of-chapter questions, supplementary materials provided or accuracy of content.

These results are not necessarily representative of other tertiary institutions or students registered in years other than that studied. The study could be criticized on the grounds of insufficient population diversity. There is scope for future study as from 2008, Drury and Corriea et al will be the prescribed textbooks.

Due to different writing styles, multiple authors of one of the textbooks may affect the results obtained. This factor has been excluded from the study as the textbook does not provide a breakdown of what chapters were written by which authors. However, all writing is in the discourse of accounting and written using the same terminology.

1.6 Division of the Dissertation

Chapter 1 identifies the research problem. Chapter 2 reviews the relevant literature. Chapter 3 deals with the research approach and methodology used to conduct the research. Chapter 4 lists the results of the empirical work and analyses the results. Chapter 5 interprets the data and draws conclusions regarding the findings together with discussing recommendations and future areas of study.

CHAPTER 2 - LITERATURE REVIEW

2.1 Learning

Students learn in many different ways and the way they learn affects the manner in which they think and process new information. The learning strategy adopted by a student depends upon the task for which the student is learning. Is it to study for a test or examination or is it to complete an essay or assignment? The way the lecturer teaches and assesses will also influence the way a student learns. Different approaches to learning may be used by the same student for different courses.

Learning has been defined in a number of different ways. Entwistle (1990) held that meaningful learning would occur when:

.. we try to make sense of new information or new concepts by creating links with our existing set of concepts and factual knowledge, or with previous experience [Entwistle 1990 : 36].

Martin and Säljö (1979), as cited in Prosser and Trigwell (2001) in a study of Swedish adult learners stated that learning was seen as:

1. a quantitative increase in knowledge;
2. memorizing;
3. the acquisition, for subsequent utilization, of facts, methods, etc
4. the abstraction of meaning;
5. an interpretative process aimed at understanding reality.

From the students' responses in the study, Martin and Säljö identified two approaches to learning – the deep approach and the surface approach. The deep approach is an active approach to learning characterized by the student interacting and engaging with the content of the topic being studied. This would be done by relating knowledge from different courses, prior knowledge and everyday experiences and organizing this knowledge into a coherent whole thus

fixing it in long-term memory. The student's intention is to understand and high grades are usually a consequence of this deep learning.

The surface approach is a passive approach characterized by rote learning through repetition and rehearsal for short-term recall. The student's intention is to complete the task requirements and not engage with the task. With the surface approach, information is memorized for the demands of assessment, which requires reproducing, memorized knowledge. The task is seen as an external imposition and cut-off from everyday reality. The learnt material is very soon forgotten.

Students could also adopt a strategic approach to learning. This approach is characterized by the intention to obtain the highest possible grades. The student does this by using past examination and test papers to predict the questions. The student also focuses on areas of the question which carry high marks.

Students learn differently for different situations. For example, the way examination questions are set could determine the way a student learns. If the questions require recall without understanding of the concepts involved, the student is more likely to adopt a surface approach to learning. This type of questioning would fall into the lower levels of Bloom's taxonomy, which require recall of knowledge. For example, the answer to the question "Define total risk" would require the student to simply regurgitate the definition of total risk without understanding the concept of risk or how it fits into the section being tested.

Questions set at the higher levels require synthesis and evaluation of concepts taught and are associated the deep approach to learning. Continuing with the above example of total risk, an example of higher level questioning would be: "Describe the process of portfolio diversification and explain how it affects the total risk of a portfolio." Here the student is required to know what total risk is and its association with portfolio diversification.

Svensson (1977) and Entwistle and Ramsden (1983) found that university students who consistently adopted a deep approach to learning were more likely to pass with first and upper second class passes. Students using the deep approach find the material more interesting and easier to understand and are therefore more motivated. Students exhibiting the surface approach tend to procrastinate when studying, find it boring and are dissatisfied, which results in low grades being obtained (Ramsden 56, 57).

Hutcheson and Tse (2004) surveyed 461 students enrolled in a first year introductory economics subject and 245 students in the second year intermediate economics class at the University of Technology, Sydney. The sample surveyed represented 71% of the first year students and 63% of the second year students. Hutcheson and Tse sought to investigate learning difficulties experienced by students studying economics. They also wanted to establish whether the local and overseas students had different learning difficulties.

Of the overseas students, the majority were English second language students. The students had diverse backgrounds in prior education and learning skills. Hutcheson and Tse questioned the students on their learning styles. Forty-one percent of the first year students and 30% of the second year students said that they learnt by memorizing material and reproducing it in the examination. Interestingly, a higher proportion of local students used memorization as a method of studying and only a third of the first year overseas students said that they used memorization.

Approximately 60% of the students said they wanted to do well in their studies. This could contribute to the surface approach to learning as the students feel that in order to do well in examinations they need to reproduce the lecturer's notes and/or textbooks. In the second year of study, students were required to undertake written assignments, which required critical and creative thinking, a deep learning approach and not reproduction and memorisation. Twenty-two

percent of the overseas students and 13% of the local students indicated that they had a serious problem completing these assignments.

The students indicated a preference for multiple-choice tests instead of short answer tests. Multiple-choice tests at times make use of the lower level questioning from Bloom's taxonomy, requiring recall and recognition. Short answer questions may well require higher order thinking skills, as the students must display critical and creative thinking.

Very little research has been conducted on the approaches to learning of accounting students. Ramsden (2003) was involved in a study with Australian accounting teachers who made the following comments about their students' understanding, ways of learning and attitude towards studying:

Many students go from week to week, from topic to topic, without being able to see how anything fits together. Therefore they find the subject difficult, and this reduces their motivation to work at it.

They believe they already know accounting, when all they have learned is rules and techniques dogmatically.

In the final exam, students are weak on conceptual points, such as the matching principle. It is possible to pass without being competent in handling Debit or Credit, or accruals. Students can't write; this may be because they don't understand the concepts. So they concentrate on number crunching in order to pass [Ramsden 2003: 33,34].

Kim and Pak (2002) in their study of 27 first-year students in the Physics Education Department at the Seoul National University reported similar findings to those of Ramsden. The researchers found that the students had problems with many of the well-known conceptual difficulties with basic mechanics despite

the fact that students had solved between 300 and 2 900 problems with the average number of problems being about 1 500 problems.

Kim and Pak found that students could recall the definition of, for example, acceleration, but were unable to use this definition to compare the acceleration of two moving objects. This is consistent with the study by Ramsden, where it was stated that students have learned the rules of accounting but are unable to apply the rules to practical situations.

As lecturers, we can enhance the quality of student learning by designing curricula, using teaching and assessment methods which encourage the students towards deep meaningful learning. Textbooks are an important stimulus to student learning and the way in which students' process texts and their readability becomes important for the analysis of the learning process.

2.2 Measuring Readability

There are many different techniques available, which can be used to measure the readability of text. One of the methods frequently used is the Cloze procedure. The Cloze procedure was developed in 1953 by W Taylor (Rye 1983) as a method of evaluating the readability and comprehension of text. The procedure consists of removing words from the text at set intervals, for example every 5th word. Readers are required to fill in the missing blanks. The higher the number of correct words the more understandable is the text considered to be.

2.3 The Cloze Procedure

Taylor (1953) defined the Cloze procedure as:

...a method of intercepting a message from a transmitter (written or speaker) mutilating its language patterns by deleting parts, and so administering it to receivers (readers or listeners) that their attempts to make patterns whole again potentially yield a considerable number of Cloze units [cited in Adelberg and Razeq 1984 : 111].

A “Cloze unit” is “any single occurrence of a successful attempt to reproduce accurately a part deleted from a ‘message’...by deciding, from the context that remains, what the missing part should be” [cited in Adelberg and Razeq 1984 : 111].

The idea of the Cloze procedure is that the reader completes the passage by filling in the missing words. This concept is based on Gestalt psychology. Taylor (1957) stated the relationship between Cloze and Gestalt psychology as follows:

Cloze Procedure derives its name from the ‘closure’ concept of Gestalt psychology. Just as there is an apparent human tendency to ‘see’ a not-quite-complete circle as a whole circle – by ‘mentally closing the gap’ and making the image conform to a familiar shape – so does it seem that humans try to complete a mutilated sentence by filling in those words that make the finished pattern of language symbols fit the apparent meaning.

In the following sentence the missing words should be apparent to any person who has some management accounting knowledge.

A management accountant is a person who is predominantly involved in setting _____ and evaluating the company or _____ performance resulting from the _____ results as compared to the _____ budget. [Vigario 2005 : 7]

The correct responses would be ‘budgets’, ‘product’, ‘actual’ and ‘original’. The readers’ knowledge of the subject would assist them in ‘guessing’ the correct word.

The Cloze scores obtained from the passages are compared with reference points of different levels of comprehension. Rye (1983) used the following comprehension levels. A Cloze score of between 0% and 40% indicates that the respondent was able to read the passage at the *Frustration Level*. The language is difficult for readers to cope with. A score of between 40% and 60% indicates reading at the *Instructional Level*. At this level the reader is able to cope, but

some assistance will be required. A score of 60% to 100% indicates an *Independent Level* of reading. The reader is able to cope with the language. Bormuth (1968) and Rankin and Culhane (1969) as a result of their comparison of Cloze and multiple-choice comprehension test scores used the following criterion level scores. A score of less than 44% (i.e. equivalent to a 75% score on multiple-choice instructional level passages) indicates reading at the frustration level, 44% to 57% for the instructional level and above 57% (i.e. equivalent to a 90% score on multiple-choice independent level passages) for the independent level. These criterion levels are not significantly different to those proposed by Rye (1983). Bormuth proposed that textbooks should be at the instructional level – between 44% and 57%.

Alderson (1979) used fictional writing for a study on changing the frequency of the deleted words. From a sample of three passages of differing difficulty, every 6th, 8th, 10th and 12th word was removed. It was expected that texts with every 12th word deleted would produce higher Cloze scores. Nonetheless, the change in the deletion frequency of the words showed no significant differences in the Cloze scores obtained. A change in deletion frequency may result in a different measure of readability as criterion levels proposed by Bormuth (1968), Rankin and Culhane (1969) and Rye (1983) were based on the deletion of every 5th word.

Hartley and Trueman (1986) considered the effect of the typographic layout on Cloze scores. Amongst others, the effect of using variable line-length as a cue to word length, dashes representing the number of missing letters and whether respondents were required to write their answers in separate boxes or in-text were considered. The respondents who completed passages with the dashes did better than the variable line-length respondents as did the in-text respondents compared to those who answered in separate boxes. However, the differences were not significant.

2.4 Cloze Procedure and Accounting Textbooks

A number of studies in the literature deal with Accounting textbooks.

Cornachione (2004) focused on two frequently used introductory financial accounting textbooks in Brazilian universities, labeled TB2 and TB3. Four randomly selected passages from each book were administered to 112 undergraduate accounting students. The first sentence of each passage of the textbook remained and every 5th word was deleted and replaced with fixed-length blanks. There were 50 deletions per passage.

The first hypothesis tested by Cornachione was to determine if the textbooks were below the instructional level. Both textbooks returned an average score of 44%, which corresponds with the instructional level thus indicating that both books are understandable to the students. The second hypothesis considered whether there were significant differences between parts of the same textbook. TB 3 showed no significant differences between parts whilst there were significant differences between parts in TB 2. TB 2 failed the uniformity test, which potentially could lead to students experiencing comprehension problems with the different parts of the textbook.

The four most frequently used Australian first year university financial accounting textbooks were researched by Williams, Leung, Kent and Heazlewood (2004). Two hundred and eight students participated in the study. Of these students, 41 students (19.7%) had English as a second language, which is pertinent to the current study where 20% of the students indicated that English was not their first language.

Eight passages were randomly selected from each textbook. Each student had to complete four passages, two from each textbook and in each passage ten words were deleted. In this study, the first 15 words of the selected passages were retained. From the 16th word onwards every 5th word was deleted and replaced by an underscored blank line of a standard length.

Williams et al reported Cloze scores of below 40% for all four textbooks analysed. Consequently, students were reading the textbooks at the frustration level. Williams et al compared the scores of first language students with students who had English as a second language. The difference between the two scores was not statistically significant ($p = 0.3022$). However, the English second language students had consistently lower average Cloze scores. This fact should be borne in mind by authors writing textbooks for diverse language students.

Williams et al also compared the scores between students who had studied accounting previously with those who had no prior study of accounting. The differences were not significant, but what was of interest was the fact that students who had no previous study of accounting scored marginally higher than those with prior study of accounting, 33.40% compared with 31.56%.

Adelberg and Razek (1984) studied four intermediate accounting textbooks used at two American universities. Two hundred and fifty-one intermediate accounting students completed the Cloze tests. Twelve passages were randomly selected from each textbook with six of the passages from the first half of the textbook and six passages from the second half of the textbook. Every 5th word was deleted with the first word to be deleted randomly selected.

The Cloze scores obtained ranged between 47% and 53% from one university and 40% to 48% for the other university. The first hypothesis tested by Adelberg and Razak was to determine if the readability varied between the textbooks. Text 1 was significantly more understandable than the other three texts with it achieving the highest Cloze score at both universities.

The second hypothesis tested whether the textbooks were being read above the instruction level. Adelberg and Razak used 44% as the criterion level for instruction. All of the textbooks were not significantly different from the

instructional level of 44%. The third hypothesis investigated whether the sample passages did not vary significantly within each textbook. This hypothesis was rejected at both universities for all four of the textbooks. There were significant differences between passages in each of the textbooks. This finding was consistent with that of Cornachione (2004) where one of the textbooks was found to be lacking in uniformity of understandability. If lecturers are aware of this shortcoming, they can keep it in mind when using the textbook and provide additional material for the problematic sections.

Taxation textbooks were researched by Raabe, Stevens and Stevens (1984). Two hundred and eighty-eight undergraduate and graduate students from two large American Midwestern universities participated in the study. Six federal taxation textbooks and Internal Revenue regulations were used in the study. Three passages from each textbook and the regulations were selected. There were 50 deletions per passage and every 5th word was deleted with the first and last sentences being left intact.

The results of this study returned Cloze scores of between 27.2% and 47.0% with only one passage being above the 44% instructional level criterion. The results were consistent between the two universities.

From the above studies, Accounting textbooks in many cases fall below, or barely meet, the instructional level of 44% suggested by Bormuth (1968). The results suggest that Accounting textbooks are generally at a low level of readability. The results are consistent with a small pilot study conducted by the author on three MAF textbooks at UKZN. The highest Cloze score of 47.77% presented compares favourably with the highest Cloze scores of other Accounting textbooks. The lowest Cloze score of 33.75% is also relative to the low Cloze scores obtained on the Accounting textbooks.

2.5 Limitations of the Cloze Procedure

Jones (1997) is critical of the use of the Cloze procedure as a measure of reader's understandability of accounting text. Jones's arguments are as follows;

1. the Cloze procedure does not necessarily measure understandability and that to assume that it does, may be potentially dangerous;
2. justifying the Cloze procedure's results with reference to the text-based readability measures is invalid since these measures are problematic for different reasons;
3. a meaningful interpretation of Cloze scores is difficult because of the lack on consensus about a benchmark criterion reference point;
4. the technical nature of accounting texts causes difficulties when implementing the Cloze procedure;
5. there are particular problems with the Cloze procedure's representativeness for both samples and populations; and
6. in many situations the Cloze procedure is not particularly easy to use.

Jones says that further research needs to be conducted to determine whether the Cloze procedure does actually measure the understandability of accounting texts and what would be appropriate criterion reference scores for accounting.

Stevens, Stevens and Stevens (1993) in response to an article by Flory, Phillips and Tassin (1992) (see later) who criticized the Cloze procedure, argue in favour of the Cloze procedure being used to assess adult readability. Stevens et al recognize that the Cloze procedure is suitable for assessing textbooks used at college level.

Jones and Flory et al both felt that the Cloze procedure was difficult to administer. Stevens et al acknowledge that the Cloze procedure is time consuming, however, they state as follows:

Yet, it seems particularly appropriate for use in assessing the readability of college textbooks where instructors have access to subjects (students), class time and textbooks. [Stevens et al 1993 : 290]

Stevens et al, Adelberg and Razek (1984) and Bormuth (1975) in their studies concluded that the Cloze procedure “serves as a tested, valid measure of whether a reader comprehends that material”. (Stevens et al 290)

2.6 Readability Formulae

In addition to the Cloze procedure, readability formulae can be used to evaluate the readability of text. There are a considerable number of readability formulae available. Readability formulae are generally based on word difficulty and/or sentence length. Readability formulae are easy to use and objective.

Readability formulae have been used in many areas including education, legal and governmental writing and psychological tests (Smith and Smith 1971). A selection of these formulae is the Lexical Density, Gunning Fog Index, Dale-Chall Formula and Flesch amongst others.

The Lexical Density Test refers to the proportion of new and repeated words in a text. A text with high Lexical Density will use many different words. A text with a low Lexical Density uses a relatively small number of words, which are repeated often. A lexically dense text has a Lexical Density of around 60% to 70%. Texts, which are not as dense, have a lower Lexical Density of around 40% to 50%.

The Lexical Density Test uses the following formula:

$$\text{Lexical Density} = (\text{Number of different words} \div \text{Total number of words}) \times 100$$

The Gunning Fog Index (GFI) (1968) gives an indication of the number of years of formal education the reader would require to read text proficiently. A GFI of 15 equates to matriculation plus a three year degree. ‘The Gunning Fog Index formula implies that short sentences written in plain English achieve a better score than long sentences written in complicated language’

[<http://www.usingenglish.com>]. GFI considered words of three or more syllables to be “hard” words. Technical documentation has a GFI of between 10 and 15 and professional writing does not often exceed 18. The GFI uses the following formula:

Reading Level (grade) = (Average no. of words in sentences + percentage of words of three or more syllables) x 0.4

The Dale-Chall formula is a function of unfamiliar words and the average sentence length. Unfamiliar words are words not appearing on the Dale list of 3 000 words. The formula is as follows:

$$\text{Dale-Chall} = (0.1579 \times \text{Dale score}) + (0.0496 \times \text{average sentence length}) + 3.6365$$

Dale score = number of words not on Dale list divided by number of words in sample x 100

The Flesch formula (1948) is one of the most frequently used measures of readability. Flesch was an advocate of 'plain English' in writing, academic or otherwise. The formula is calculated using sentence length and syllables per 100 words. The formula is as follows:

$$\text{Flesch} = 206.835 - (0.84 \times \text{number of syllables per 100 words}) - (1.015 \times \text{average sentence length})$$

A score of between 0 and 30 would be considered, very difficult, and suitable for reading by persons with a postgraduate degree. Thirty to 50% is considered difficult and at an undergraduate level. The Flesch formula has been used in the following studies of accounting textbooks and financial statement readability – Courtis, 1995; Courtis, 1998; Smith and Smith, 1971; Smith and Taffler, 1992; Flory, Phillips and Tassin, 1992; and Razek, Hosch and Pearl, 1982 amongst others.

The above mentioned readability formulae do not consider the lexis specific to the discipline of Accounting or any other discipline. The formulae are based on commonly used English. Fuentes and Rokowski (2007) suggested that a corpus of discipline specific knowledge should be integrated into the teaching programme. Students would then learn how to use the language of the discipline, which are often words which have a different meaning in everyday

English, and the students would thus become inculcated into the communities of practice of the discipline.

The words that are most frequently used in the discipline of Accounting would come up as the most frequently used words. This type of research has interesting implications for subjects such as Accounting, especially in the English for Specific Purposes environment. It could be argued that the Accounting curriculum and hence the textbooks should be constructed with progressive vocabulary acquisition in mind, starting with the most frequently used words which would be the fundamental concepts of the discipline.

Heese (1991) administered a reading competency test to 443 first-year UNISA students. Heese sought to measure the reading ability of the students and then determine whether the tutorial matter, measured against the Gunning Fog Index (GFI) and the UNISA Fog Index (UFI), was at a level which the students could understand. If the tutorial matter rates too high, students will have difficulty reading it and this could lead to demotivation and resultant high attrition and failure in the examinations.

More than half (60%) of the students were rated as poor readers on the reading competency test. Pretorius (2000) also tested the reading skills of a group of 1 242 Psychology I UNISA students. Pretorius arrived at a similar conclusion to Heese in that more than half the students tested returned an average reading score of reading at the frustration level.

Due to the fact that the majority of first year students are not competent readers, Heese suggested that tutorial matter with a GFI of 12 (matric level) or a UFI of 18 would probably be too high for most students. Heese recommends that tutorial matter have levels of 10 and 16 respectively. Heese suggests that these scores could be obtained by making reading material more understandable without lowering standards.

Snyman (2004) considered the readability of printed brochures about schizophrenia. The Fry reading test and Cloze testing were used to determine the readability of the brochures. One of the brochures measured a readability of 17+ on the Fry test – reading at a post-graduate level. A Cloze test on this brochure was completed by graduates and post-graduates. The average score was below 60%, the level that ensures readability.

Snyman also pointed out that 49% of the South African public, have a sufficient grasp of the English language. This is confirmed by the studies of Heese and Pretorius. The poor standard of English of the population needs to be considered by lecturers when selecting textbooks and authors writing for the university textbook market should take cognisance of this fact.

Flory, Phillips and Tassin (1992) examined the difference in readability across seven intermediate financial accounting textbooks. The Flesch Reading Ease Formula and the Gunning Fog Index were used to measure readability. The authors used readability formulae as they are objective and easier to administer than the Cloze procedure. Intermediate textbooks were selected as the authors felt that many important principles are covered which are core to the study of financial accounting.

Flory et al were interested in comparing the readability of each of the textbooks and not in determining an absolute reading level. Their argument was that readability formulae tend to inflate the scores of technical material and thus all scores were similarly inflated. Some of the textbooks were co-authored and differences within the same textbook were not considered. Using systematic sampling with a random starting point, 30 pages were selected from each textbook. This was deemed to be a representative sample of the textbook and every chapter was sampled at least once.

The results of the statistical analysis found no significant difference across textbooks for the Flesch Reading Ease Formula. With the Gunning Fog Index, one of the textbooks was found to be significantly different. This suggests that this textbook was more difficult to read. As only one of the textbooks returned a statistically significant difference, Flory et al concluded that there was probably little difference in the readability of the seven textbooks. Flory et al do make the point that readability formulae should be used as a starting point in textbook selection. Once the readability has been objectively established, other factors such as illustrations, problems and supplementary materials be considered when making the final choice of prescribed textbook.

Razek, Hosch and Pearl (1982) investigated the readability of six intermediate and six advanced financial accounting textbooks. The selected textbooks represented the majority of accounting textbooks available to accounting educators at that date in the United States. From each textbook, a random sample of 100 words, were selected from each chapter. The Flesch Reading Ease Score was used to measure readability.

The intermediate accounting textbooks returned an average score of 29.72, which represents a *very difficult* level of readability on the Flesch scale. Flesch scores of between 0 and 29 are considered very difficult and would be indicative of scientific and professional writings. The lower the score the more difficult the writing is considered to be. The scores ranged from 27.87 to 31.72. Two of the textbooks had a score greater than 29, 31.72 and 31.70, falling marginally into the *difficult* range.

The advance accounting textbooks had an average score of 22.24 also falling into the *very difficult* range. However, the range of scores was wider with the highest score being 16.04 and the lowest 29.60, all within the *very difficult* range. The main reason for the difference in scores between the intermediate and advanced textbooks was due to the word length. The advanced books tended to

use longer words with average of 188.69 syllable-per-100-words. The average for the intermediate books was 181.25.

Razek et al concluded that intermediate books were written at an appropriate to slightly above reading level and the advanced books were at a level above that of the intended users. They also noted that the research did not consider the technical content, format or any dimension other than readability.

2.7 Use of Textbooks

In order for students to be successful in their studies, not only must the textbooks be written at a level which makes them understandable to the students, the students also must use the textbooks. A number of studies have undertaken research into students' use of textbooks.

Before contemplating the use of textbooks, it is important to look at factors that might be used in evaluating an appropriate prescribed textbook. Litz (2005) suggested that the following criteria need to be taken into consideration when deciding on a textbook. The first criterion is an analysis of the author/s and publishers credentials. The contact details of the publishing company should be printed in the book. The author/s credentials should be stated, such as the authors' formal education and teaching experience. Cost of the textbooks is the second criteria to be evaluated. The cost should be evaluated in terms of the economic circumstances of the student body.

Accessibility and availability need to be taken into account. Is the book currently in print and readily available? Furthermore the publisher should be available to provide teaching demonstrations and additional information. Quality and value for money require consideration. Is the book printed on high quality paper? Is the presentation concise, user-friendly and clear? The extent of supplementary material provided, for example CDs, workbooks and a website designed to accompany the book necessitates deliberation. Lastly the authors' approach to

teaching methodology should be appraised. Does the methodology conform to the current context?

Friedman and Wilson (1975) undertook a study on students' use of textbooks. The subjects were 137 students registered for introductory psychology at the Eastern Michigan University. For the purposes of this study, the authors affixed tiny glue seals between adjacent pages at 64 pre-selected points in the prescribed textbook at the start of the semester. The glue seals were positioned such that simply flipping through the pages would not break the glue seal.

At the end of the semester the students were, asked by the authors, if the authors could temporarily loan their textbooks. An analysis of the textbooks was undertaken to determine how many glue seals had been broken. It was found that students made greater use of material appearing earlier in the chapter than later. The course was assessed by means of three tests, each test covering approximately five chapters of the book. The earlier chapters from each of the five chapters had more glue seals broken than the later, of the five chapters.

Kim and Pak (2002) in their study of physics students reported similar findings of students' use of workbooks. The students tended to work on the mechanics part of the workbook more than the other parts of the workbook. The mechanics part was at the beginning of the workbook.

The above findings have implications for lecturers regarding the organization of topics for lecturing purposes and for authors of textbooks. From the lecturer's point of view, critical topics should be structured early in the term and not directly before a test. For authors, material key to the chapter should appear early in the chapter.

Wandersee (1988) administered a Preferred Method of Study questionnaire (PMOS) to 133 undergraduate students who were majoring as teachers. The

PMOS consisted of six questions regarding the students' use of textbooks. The first question asked the students the number of times they re-read new textbook material. There was a correlation between the number of times the student re-read the textbook and the student's college grade-point averages. The second question asked if the students would adopt a different strategy when studying a science textbook compared with a history textbook. The majority stated they would adopt the same strategy, however, a minority (46%) said that they would adopt a different strategy depending upon the subject.

The third item questioned whether the student would adopt a different study method depending upon the type of test – essay or multiple-choice. A significant majority said that they would adapt their study methods. The fourth item questioned their practice of constructing charts, graphs or tables when reading a new chapter of a textbook. The majority of the sample said that they seldom constructed organizational tools. Of those who did, an outline was the most frequently mentioned tool. Item 5 asked the students if they were still experimenting with various study methods or continued with tried and trusted methods. The majority of the sample said that they would use a single method.

The sixth item asked the students what was their goal when reading a textbook chapter. The majority said that their goal was to extract meaning embedded in the text by the author. Only 6% of the respondents said that they attempted to connect the knowledge in the chapter with prior knowledge. In general remarks, many students expressed the wish that they had more time to study from the textbooks. This may indicate a lack of time management skills by students, a factor highly ranked as leading to success in the studies by Sadler and Erasmus (2005) and Fraser and Killen (2005) (see later). Lecturers could use the results of this study to assist students with improving their study techniques and use of textbooks.

Sikorski, Rich, Saville, Buskist, Drogan and Davis (2002) surveyed the purchase and use of introductory level college texts at two universities. The participants consisted of 439 AU¹ students and 739 ESU students. An 11-item questionnaire was administered to the students regarding their use of textbooks. Of the AU students 31% reported purchasing the introductory psychology textbook compared to 91% of the ESU students. The main reason for not purchasing the text by the AU students was that the local bookshops would not buy the text back. Of the students who did not purchase the text most said they would borrow it from a friend.

The students were questioned on their purchase of at least one other introductory level text. Thirty percent of AU students and 18% of ESU students answered in the affirmative to this question. The main reasons suggested for not purchasing the textbook were financial reasons (AU 13%, ESU 21%) and that the text was “useless” or not necessary (AU 18%, ESU 54%).

Of the students who purchased texts, 82% of the AU students and 78% of the ESU students said that they never read the text or only read it sparingly. Only a small minority of students (AU 6%, ESU 4%) felt that reading the texts was the most important factor affecting their final grades. Taking notes and studying the notes was considered the single most important factor to doing well by students at both universities (AU 64%, ESU 58%).

Sikorski et al suggested that examinations contain some material from the textbook. This would encourage the students to use the textbooks and develop a culture of critically reading texts, which is essential for later years of study.

Sappington, Kinsey and Munsayac (2002), in an effort to encourage students to read assignments before class, students were told that they should be prepared

¹AU and ESU not explained in article

for surprise quizzes on the day's material and would be awarded bonuses depending upon the results of the quiz. The students were then placed in three groups, pass, zero or fail, depending upon the results of the quiz. In the final examination, the pass group obtained scores significantly higher than the zero and fail students. The zero group obtained scores significantly higher than the fail group. However, the standard deviations varied widely among the groups.

Sappington et al noted that lecturers were reluctant to introduce surprise quizzes because of student resistance and the resultant impact on the lecturer's course evaluations. In 2005, the researcher implemented a short quiz at the start of each tutorial period with a limited group of students. This was met with strong resistance from the students. The practice was discontinued after a short period, but irreparable damage had already been done to the lecturer-student relationship.

Carpenter, Bullock and Potter (2006) reported on a survey undertaken by The Publishers Association. The publishers noted the sales of textbooks had been decreasing over the past few years and sought to investigate reasons for the declining sales. Surveys were conducted on lecturers and students perceptions of textbooks. Seven hundred and seventy-one students participated in face-to-face intercept interviews with each interview lasting approximately 10 minutes. The participants were from ten United Kingdom universities and were from all fields of study and years of study.

Twenty-one lecturers participated in a telephonic survey. The lecturers represented a wide range of subjects and from the same universities as the students surveyed. A further study, to address issues raised on the telephonic survey, was conducted. This comprised 100 telephone and 202 Internet interviews with academics teaching on undergraduate programmes.

Students were asked to rate the importance of textbooks used in their courses to the learning and understanding of the subject. Ninety-one percent of the students responded that textbooks were important for learning and understanding and 58% said that textbooks were very important. Students are more likely to rate textbooks as very important if the lecturer makes a strong recommendation for the textbook. Fifty-five percent of the lecturers recommended on average five books leaving the choice of purchase to the student. Forty-four percent of the lecturers prescribe a core textbook the students should purchase.

Lecturers felt that students did not read enough and generally had little idea how to use a textbook. Students did not read 'around the topic' by consulting a number of books. Students were becoming overly reliant on and expectant of lecture notes and handout materials. This leads to the students becoming less independent and being 'spoon fed'. The students' main concern is with achieving high grades and learning only what is required to attain the grades. A strategic approach to learning is being adopted many students.

One of the findings of the study was that students see a university education as a means to a good job. With this in mind one of the students commented as follows with regard to the price of textbooks:

They're very expensive, but I guess the publishers can get away with charging these high prices because we students need them. I suppose it is only a short-term cost to ultimately getting a good degree and getting a better job [Carpenter et al 2006 : 2].

Generally, students found textbooks to be very expensive and price was the key factor, when making a purchase decision. This was particularly significant when the students have to buy several textbooks for a given course. Lecturers were also conscious of the price of textbooks. Of the lecturers interviewed about half cited cost as a factor in textbook purchasing. They would not expect a student to

buy a textbook costing in excess of £20 (R281). One of the lecturers interviewed commented if the student purchased a textbook for every module it would cost upward of £400 (R5 628) to purchase the required textbooks.

Students felt that the textbook did give value for money if the book was integrated into and referred to in lectures. Textbooks were also considered value for money if the whole textbook, and not certain chapters, were used. This is particularly a problem with MAF where the students were required to purchase two Vigario textbooks from which only selected chapters are covered in MAF III. However, the balance of the chapters, were covered in Advanced MAF in the Honours year. If the student proceeds to Honours, which is the intention of most of the students studying MAF III, they would not be required to purchase textbooks for Advanced MAF.

On the negative side, students found the language to be confusing and that the textbooks were out of date relatively quickly. This is a very real problem in accounting as books are out of date after one year, for example the Income Tax Act. However, it is not a serious problem in MAF, as MAF is not bound by legislation, which changes every year as it does in Financial Accounting, Taxation and Auditing. The core principles upon which MAF is based have not changed radically over the years. Nevertheless, the application of the principles to modern day circumstances necessitates an updating of the textbooks on a regular basis.

The Association of American Publishers (www.publishers.org) commissioned research on the higher education textbook market. Two studies were undertaken, the first in December 2004 and the second in August 2006. In the 2004 study, 1 029 faculty members were surveyed and 502 faculty members in the 2006 study.

The findings are in agreement with of the UK Publishers Association. Students spent on average \$650 (R4 637) on textbooks. This cost is not a barrier to access to tertiary study as it represents a small proportion of the estimated cost of study of \$12 000 for tuition, board and lodging.

Price was also considered, by lecturers when prescribing textbooks, however, quality comes first. Eighty percent of lecturers wanted texts as current as possible leading to publishers being required to publish new editions, on average, every four years. As previously mentioned it is necessary to have new editions of accounting textbooks every year due to changes in the legislation.

From the 2004 study, 84% of lecturers believed that students needed a textbook to complete their course. In the 2006 study, this had increased to 90% of the academics stating that students' performance would be improved if they made more use of the prescribed textbooks. This again reinforces the belief of lecturers that textbooks are a crucial aid to academic success, but this view is not necessarily shared by students.

Another factor, stated by lecturers, as being of increasing importance between the two studies was the supplementary material provided with the textbooks. This was due to the fact that almost half of the respondents felt that the preparedness of students entering higher education had decreased between the two studies. Supplementary learning material, such as online homework assignments and quizzes would help to bridge the gap. This is highlighted by the fact that 79% of the respondents in the 2006 study felt that the less prepared students would do significantly better if they spent time working with the supplementary material.

Supplementary material is not provided with either of Vigario's books. Neither of the books has an index at the back which makes it difficult for the first time users to find their way around the book. Drury has supplementary material in the form

of online questions and quizzes. Students can access these questions for additional practice, but it is doubtful whether any of them used the facility. The newer editions of Corriea et al also have supplementary material, however much of it is aimed at the lecturer.

Two South African studies investigated students' use of textbooks amongst other factors. Sadler and Erasmus (2005) conducted research on the factors, which were considered conducive to academic success or failure of black graduates studying towards a career as a chartered accountant. One hundred and three UNISA Honours in Accounting, black students responded to the questionnaires sent. The home language of the majority (20%) of students was Zulu followed by North Sotho and Xhosa (15%) and South Sotho and Tswana (13%). Seven percent of the students stated that English was their home language.

UNISA lecturers from the Honours programme and students were asked to rank factors, from a list of factors, which they considered lead to a student being successful or unsuccessful in their studies. The fact that textbooks were only available in one language ranked very low on the list of unsuccessful factors by both lectures and students alike. Lecturers ranked this factor 37th and students 44th out of 45 unsuccessful factors. Lecturers ranked poor undergraduate results as the foremost reason why students were unsuccessful in their studies. Students ranked this item in a lowly 34th position.

Fraser and Killen (2005) undertook a study on the perceptions of students and lecturers in factors that contribute to academic success or failure at university. Their study was undertaken at two universities, a contact university, the University of Pretoria (UP) and a distance education institution, UNISA.

The fact that textbooks were available in only one language was listed as a factor that could lead to failure. From the UNISA study, this variable was ranked 37th out of 37 factors contributing to failure by lecturers and 33rd by students. At UP,

lecturers ranked it 34th and the students 16th. From the results of this study and that conducted by Sadler and Erasmus, the fact that textbooks are available in only one language, which may not be the students' home language, is not considered a factor leading to failure at tertiary institutions.

Both studies listed poor literacy skills as a factor contributing to failure at university. If a student is not able to read fluently with understanding it will take the student far longer to comprehend the subject matter than student who is a fluent reader. However, marked differences were found between the lecturers and students perceptions of poor literacy skills being a factor contributing to failure. This was particularly so in the UNISA studies.

In the Sadler and Erasmus study lack of literacy skills, was ranked 12th by lecturers and 40th by students. This large differential was also found in Fraser and Killen's UNISA division of their study. The lecturers ranking was 4th and the students 32nd. Lecturers and students have widely different perceptions of the students' lack of literacy skills. The lack of literacy skills was less markedly different with the students from the UP division of Fraser and Killen's study. The lecturers ranking was 11th and students 24th.

Students learn in a number of different ways and way they learn is often dependent upon the style of questioning in tests and examinations. The surface approach to learning is characterized by memorization and reproduction of knowledge and questions, which require straight recall of knowledge, would promote this type of learning. With the deep approach to learning the student engages with the material and draws meaning for it and is able relate the knowledge gained to different areas. Questioning at the higher level of Bloom's taxonomy would encourage this style of learning.

For learning to take place, students must be encouraged to use the prescribed textbooks. However, the textbooks need to be written at a level that students are able to

read and understand. Textbooks that are difficult to engage with could lead to lack of motivation and loss of interest in the course.

From research conducted (Cornachione, 2004; Williams et al, 2004; Adelberg and Razek, 1984 and Raabe et al, 1984) using the Cloze procedure and accounting textbooks, most of the textbooks were being read at slightly above or below the 44% instructional level criterion. Textbook authors need to take heed of the findings and be conscious of the diverse needs of learners when writing textbooks.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1 Introduction

This research uses methods from both positivist and interpretivist paradigms. The paradigm has methodological implications and hence the type of knowledge that results. The positivist paradigm is used to describe and explain phenomena by experience and observation. Typically survey studies and statistical analysis amongst others would be the methodologies used. On the other hand, the intention of the interpretivist paradigm “is to understand the subjective world of human experience” (Cohen et al 21 : 2007). Unstructured interviews could be one of the methodologies used.

The study uses multiple methods of data collection. Data is collected from both qualitative and quantitative perspective. Interviews with both staff and students were undertaken to elicit perceptions and usage of the prescribed MAF textbooks. Questionnaires were sent to lecturers at ten SAICA accredited universities, to establish what MAF textbooks are used by these universities at undergraduate level. Data was also collected from a student evaluation questionnaire drawn up by the Quality Promotion Unit (QPU) in conjunction with the MAF lecturers. The School of Accounting underwent an external review in October 2005. The results of the review were used in the discussion of the MAF textbooks. The results obtained from the Cloze tests written by students were statistically analysed to ascertain the readability of the textbooks considered. The textbooks must be both read by and understood by the students. Readability formulae were applied to the MAF textbooks and ‘real’ Accounting texts, such as the International Accounting Standards (IAS) and the Income Tax Act.

3.2 Textbooks used in Study

This research considers the readability of MAF textbooks used at some South African universities. The textbooks investigated in this study were two of the textbooks prescribed for the MAF III course for students registered on the

Howard College campus of UKZN in the 2005 academic year. The textbooks, *Managerial Accounting* and *Managerial Finance* both authored by Prof Frisco Vigario, a former Professor in the School of Accounting. At the time of the study Prof Vigario was member of the School of Accounting. The textbooks were published by the author and not subjected to an external or internal review process. The students were also required to purchase a question bank compiled by certain lecturers in the School. The questions in the book are from past MAF III tests and examinations.

The alternative MAF textbooks used in the study were those most commonly used by SAICA accredited universities. (See later on selection.) The textbooks were *Managerial Accounting and Finance* by C Drury and *Financial Management* by Corriea, Flynn, Wormald and Uliana.

3.3 Positivist and Quantitative Methods

Although quantitative data analysis is usually allied to large-scale survey studies, in this research the quantitative method used is the Cloze procedure drawn from readability studies of applied linguistics. The theories behind Cloze are discussed in Chapter 2. The methods used to obtain the required data are the Cloze tests completed by the students. (See further details in section below.) The data is analysed using statistical methods. Thus the use of Cloze testing could be regarded as fitting in with a positivist paradigm of research.

3.4 Postal Questionnaire

Exploratory/Survey questionnaires were used as a method of collecting data from other SAICA accredited universities. The questionnaires (Appendix 4) were sent to the Heads of Accounting departments at ten SAICA accredited universities in South Africa. The questionnaires were used to determine what MAF textbooks are most frequently used at other universities.

The questionnaires were mailed with a covering letter and an enclosed stamped addressed envelope. Lack of response to the mailed questionnaire was followed-up with an e-mail sent to the heads of school two months later. The response rate to the questionnaire was 70%. The response rate to the questionnaire was good considering the fact that mailed questionnaires tend to have a low response rate.

The construction of the questionnaire was such to determine what textbooks were used and the criteria used by course co-ordinators at South African universities to select prescribed MAF textbooks. A questionnaire was used as anonymity is assured with questionnaires and this helps respondents to be more honest in their answers. The questionnaire consisted of both open-ended and closed questions as both factual data and opinions were sought.

From the responses to the closed questions, the most frequently prescribed MAF textbooks at SAICA accredited universities were established. The open-ended questions looked at reasons why the textbooks were prescribed. Open-ended questions allow respondents to answer in as much or little detail as they wish. However, the responses may be subjective as they are the opinion of the respondent, the lecturer, completing the questionnaire. The opinion could be different if another respondent/lecturer had completed the questionnaire.

The responses to the questionnaires were analysed to determine which MAF textbooks the majority of universities prescribed. These textbooks were then used in the Cloze tests for comparison against the UKZN prescribed MAF textbooks.

There are advantages and disadvantages of using postal questionnaires. The advantages are that a large number of participants can be surveyed, there is no risk of interviewer bias and there is comparability between responses because the wording of the questionnaire is standardised. However, the researcher does

not know if the intended recipient completed the questionnaire and understood the questions.

Due to the factual requirements of the questionnaire used in this research misunderstanding of the questions should not have been a problem, but the amount of time and effort devoted to completing the questionnaire, by the lecturers, differed. Some respondents wrote long answers and others were very concise. Another disadvantage associated with postal questionnaires is poor response rates, however as discussed above, this was not a problem with this research.

3.5 Student Evaluation Questionnaire

MAF III students on both the Howard College and Pietermaritzburg campuses (previous University of Natal) completed the student evaluation questionnaire (Appendix 1). It is at the lecturer's discretion whether students complete the QPU questionnaire. However, at the former University of Natal, it was expected that every lecturer would be subjected to a student evaluation each year. This did not appear to be the situation at the former University of Durban-Westville.

The student evaluation questionnaire comprises 48 closed questions which required the student to answer on a five-point Lickert scale from A. strongly agree to E. strongly disagree. The questions cover a number of areas such as the lecturer, textbooks and tutorials. In addition there are a further 3 open-ended questions which required the students to write comments. These questions covered: 'What aspects of the module did you find most useful?' 'What suggestions do you have as to how the lecturer/s could improve her/his teaching?' and 'Any other comments?'

On the Howard College campus, 214 full-time students who attend a MAF III lecture during the second semester of 2005 completed the questionnaire. The number of students completing the questionnaire represented about 54% of the students registered for the course. On the Pietermaritzburg campus, 62 students

completed the evaluation, representing 62% of the students. On both campuses, completion of the evaluation by the students was optional. A lecturer who did not lecture MAF administered the questionnaire.

Responses to the closed questions were used to determine whether the students found the textbooks understandable and whether they found them beneficial to the course. The open-ended questions were a rich source of comment regarding what the students thought of the textbooks.

3.6 External Review

During 2005, the School of Accounting was subject to an external peer review, which was coordinated by QPU. The review is in accordance with university policy of an external school review conducted every six years, preferably in the year preceding an external professional body visit. SAICA conducted an accreditation visit during 2006.

The terms of reference of the review panel were the general quality areas and additional areas. The additional areas “arose out of a specific set of concerns relating to the performance of UKZN graduates in the SAICA Qualifying Examination Part 1 for admission to the profession of Chartered Accountant”. [External Review 2005 : 5].

The review panel was comprised of experts in each of the four accounting disciplines from universities in South Africa, three staff from QPU and three other persons. One of these persons was from the South African Institute for Distance Education and the other two from within the university community.

3.7 Measuring Readability

There are many different techniques available, which can be used to measure the readability of text. Readability of text is influenced by two factors: the personal factors inherent in the reader, such as motivation, competence and

attitude, and the textual factors inherent in the text. One of the methods frequently used is the Cloze procedure. The Cloze procedure was developed in 1953 by W Taylor (Rye 1983) as a method of evaluating the readability and comprehension of text. The procedure consists of removing words from the text at set intervals, for example, every 5th word. Readers are required to fill in the missing blanks. The higher the number of correct words the more understandable is the text considered to be.

In addition to the Cloze procedure, readability formulae can be used to evaluate the readability of text. Readability formulae are objective measures designed to show how easy or difficult a text is to read. The readability formulae do not provide a consistent rating regarding the readability of text. The researcher conducted a pilot study on three Managerial Accounting textbooks (two of which form part of this study) were subjected to the Fog Index and Lexical Density Test. The results are presented in Table 1.

	Textbook I		Textbook II		Textbook III	
	Score	Ranking	Score	Ranking	Score	Ranking
Fog Index	12.34	3	15.31	1	13.16	2
Lexical Density	49.65%	2	43.0%	3	54.26%	1

TABLE 1: Readability Statistics

From Table 1 it can be seen that Textbook II has the highest Fog Index, i.e. it is the most difficult to read according to the Fog Index. In terms of Lexical Density, Textbook II has the lowest Lexical Density and accordingly is considered the easiest to read. Thus Textbook II has gone from being the most difficult to read according to the Fog Index to be the easiest to read according to Lexical Density. Due to the divergent results obtained by the researcher from the above-mentioned readability formulae, the Cloze procedure was adopted as the preferred methodology for gauging readability.

Readability formulae are quick and easy to compute as there are many software programmes readily available, which instantly produce readability scores.

Readability formulae are based on the average sentence and word length of a given passage. Short sentences and short words are perceived as being easier to read and understand. Shortening sentences will result in higher readability scores. Nevertheless the text may become cumbersome and difficult to read. Harrison and Baker (1998) questioned the validity of using shorter sentences to improve the readability score. They contend that longer sentences can increase comprehension. In shortening sentences the proper use of terminology may become oversimplified.

Short words are also considered easier to understand and hence the use of short words would increase the readability scores. A word is defined as hard if it has three or more syllables. However, short words can also be hard. Thus for example the word *tine* would be considered an “easier” word than *television* simply because it has fewer syllables. However, students may have difficulty with the word *tine*, which would return a higher readability score than *television*, which is easier to understand, but has a lower readability score.

Some readability formulae rate a passage as more difficult to read if it contains a high proportion of words not on the Most Frequent word lists. The lists reflect general non-academic English used in newspapers, magazines and books, and thus not suited to an analysis of academic writing. For academic writing, there is an Academic Word List which includes words found on the 2 000 Most Frequent Word Families. The words on this list reflect academic English used in universities. However, the Academic Word List is generic and not suitable for Accounting texts. Words fundamental to the study of MAF, such as *budget*, *indirect cost* and *high-volume* are unlisted words. From the pilot study undertaken the number of Accounting related words on the Academic Word List was between 11.11% and 14.56%. Therefore readability formulae using Word

Frequency Lists would not be suitable for an analysis of MAF textbooks as many commonly used words in MAF are not on the lists.

A corpus of Accounting words would impact on the scores obtained from readability formulae. A word such as *standard* which is used regularly in management accounting would be considered a difficult word due to the fact that it is a long word and has more than one syllable. The word *standard* is collocated with many different words such as *standard cost*, *standard usage*, *standard hours* and *standard units* which have specific meaning in MAF. A concordance of Accounting words would assist students with lexicon of Accounting and influence the scores calculated on readability formulae.

The Cloze procedure differs from other readability formulae because it is dependent upon both the interaction between the text and the respondent. Readability formulae concentrate on syntactic difficulty and presuppose that there is textual coherence. These formulae are passive and do not require any participation by the reader compared with the Cloze procedure which requires active participation on the part of the reader. Additionally, the Cloze procedure would be completed by the intended audience. The Cloze procedure is considered to be (Stevens et al 1993) a more valid and reliable measure of adult readability than readability formulae.

The Cloze procedure is easy to use and analyse. The scoring of the Cloze procedure is objective as the word is either the correct word or not correct and the text itself is used in the analysis. However, the problem is to determine at what level a text is considered readable - 50% of the missing words correct, 75% or 100%? Bormuth (1968) proposed that textbooks returning a score of between 44% and 57% to be considered readable. These percentages are low because only the exact word response is considered to be correct. This criterion has been used for the research.

Depending upon what dimension of comprehension the researcher wishes to test, the selection of words to be deleted will differ. For example, every n^{th} word, technical words only, conjunctions or adverbs deleted. Much of the literature (Cornachione, 2004; Williams et al, 2004; Adelberg and Razek, 1984 and Raabie, Stevens and Stevens, 1984) on Cloze tests and Accounting topics uses the deletion of every 5th word and 50 deletions. Fifty deletions were selected as this is consistent with prior studies and Taylor (1956) suggested that 50 deletions provided a sufficient sample for reliable results.

Each of the four textbooks was divided into three equal parts. A random number generator was used to select two pages from each part. From each of the selected pages, a passage was selected. No attempt was made to pair topics between textbooks since that negates a random selection. One of the textbooks was written by multiple authors therefore it was essential that a cross-section of the book was covered to account for differing writing styles.

In each randomly selected part, only text was selected – references to graphs, tables and examples and end of chapter questions were excluded. From each of the selected passages, the first and last sentences were left intact to provide context to the passage. Twenty-five words per passage were deleted and replaced by an underlined blank space of uniform size (Appendix 2). The uniform size blank was used so that blanks were not indicative of the length of the deleted word. Therefore 50 words were deleted from each third of the textbook. With the four textbooks selected, this amounts to 24 different passages. (Four books, divided into thirds and two passages per third.)

The number of selected passages, six per book, is considered to be an adequately representative sample of the textbook. Prior statistical research (Taylor 1956, Bormuth 1965 and Stevens et al 1993) found that a minimum of three randomly selected passages per book provided a representative sample.

3.8 Students Completing Cloze Procedure

The students who attended a tutorial were requested to complete two randomly selected passages, one from a Managerial Accounting textbook and one from a Managerial Finance textbook. In each passage 25 deleted words were deleted. In total each student completed 50 deleted words. The tests were administered by the tutors therefore the researcher was not involved in the process. In addition, the students did not know the researcher, as the researcher did not lecture to them. The students were not asked to provide names or student numbers to ensure anonymity. The biographical information requested was whether the students were male or female and whether English was their mother tongue or not.

There were approximately 380 full-time 3rd year BComm Accounting students on the Howard College campus when the study was conducted. Participation in the exercise was voluntary. Of the students who attended the tutorial on the appointed day, 281 students completed the passages. There was not time limit set for completion of the passages. The size of the sample makes the results obtained representative of the population. However, due to the fact that participation was voluntary, the results may be skewed. Of the students who did complete the passages, it is impossible to determine whether the student completed it to the best of his/her ability, simply made a half-hearted attempt to satisfy the tutor or felt that it was an exercise in futility.

The researcher marked the Cloze passages, and calculated the number of correct words for each student. Only exact word replacement was considered correct. Some researchers allow the use of synonyms. The results, in addition to the biographical data were entered onto STATA. A number of statistical tests were done on this data and the results discussed in Chapter 4.

Exact word replacement is objective as there is only one right answer. Synonyms are subjective as markers may have different thoughts on what words

are considered synonyms. Litz and Smith (2006) considered the correlation between exact replacement scoring (ERS) and semantically acceptable scoring (SEMAC). A group of 45 Korean English as a Foreign Language students completed a Cloze passage. The passage was marked twice, once using ERS and the second time using SEMAC. The findings from the study revealed an extremely significant statistical correlation between the scores.

3.9 Interpretivist and Qualitative Methods

In addition to Cloze testing, this research used various methods that fit in with the interpretivist paradigm. With the interpretivist paradigm, research participants are free to express ideas and not be constrained by the researcher's closed questions or hypotheses. The data obtained is subjective as it is what the respondents said which may well differ from what they really think. Knowledge obtained falls into the interpretivist framework and tends to be anti-positivist. Interpretivists seek to understand individual's interpretations of the world and then from the views expressed, develop theories giving insight into the subject being studied. The theories are grounded in the data obtained.

Grounded theory is a qualitative research method where theory is developed from the data. Grounded theory begins with data collection obtained from open, unstructured methods. From an analysis and review of the data collected, a theory is developed. Thus the theory fits the data, the data is not forced to fit with the theory. The methods used to obtain data in this research are individual and group interviews and open-ended questionnaires.

3.10 Focus group interviews – students

Interviews were used a means to gather data regarding the research topic (Appendix 3). Focus group interviews were used as this allows members of the group to share their thoughts with each other. In this way participants are able to trigger new ideas from each other and consider a range of views. However, with focus groups it is important to ensure that all participants contribute to the

interview and the interview is not dominated one or two individuals. Some individuals may be influenced by others and agree with whatever is being said.

Questions have been raised with regard to the accuracy of interviews as a method of data collection. Interviews are subjective and participants may be saying what they think the interviewer wants to hear. The position of power of the interviewer relative to the interviewees could well affect what is being said. The interviews may be constructed due to the nature of the situation and different from normal conversation. The meanings obtained from the interview could also be distorted by the interviewer's interpretation of what was said.

It is not possible interview the whole population therefore the data obtained from the sample of participants interviewed can be generalized to a larger group. The participants who met the requirements for this research would have been students at the University of KwaZulu-Natal who had studied MAF III using the prescribed textbooks.

The selection of the sample of participants to be interviewed must meet the requirements of the research. For the study purposive sampling was used as requesting volunteers resulting in six students volunteering out of a population of approximately 350 students. The sample of students who participated in the interviews were, six MAF III tutors, three Financial Accounting I (Access) tutors and the six students who volunteered. However, the sample did represent a cross section of students from top students to weak students, males and females and race groups.

They were interviewed in three focus groups with two groups of six students and one group of three students. Focus groups rely on an interaction between the group with participants sharing views and building other participants views. The participants in each of the focus groups expressed similar views and these

shared views give rise to intersubjectivity. The discourse of participants may differ from speech used in everyday conversation.

The interviews consisted of open-ended questions on the students' perceptions and their usage of the prescribed textbooks. Open-ended questions are used as these allow the participants to answer in detail or a short answer, as they wish. Data regarding the students' perceptions of and use of textbooks was obtained from focus group interviews.

The participation in the interviews was voluntary. The students interviewed granted consent to be interviewed. The voluntary nature of participation in the interviews may result in bias as it could be said that the only students who volunteered were students who had issues with the textbooks and/or the course. However, from the replies obtained the students provided a balanced view of both the merits and weaknesses of the textbooks.

The interviews were conducted with both Honours students and third year students. The Honours students had used the prescribed textbooks at both third year level and in their Honours year. The third year students were interviewed during the fourth term thus they had been exposed to the textbooks for a large portion of the academic year. A student conducted the interviews with the third year students since the researcher was in a position of power relative to the students as one of their MAF III lecturers. The said student had attended the interviews with the Honours students and was familiar with the research project. Using a third party should eliminate bias in the students saying what they think the researcher wants to hear and creating a favourable impression with the researcher as lecturer.

An audio recording of the interviews was made. The interviews were transcribed, verbatim by the researcher. Audio recordings capture only verbal data. Visual or non-verbal aspects of the interview are not recorded and meanings or intonations

may be lost in the transcription. The transcripts were analysed and NVIVO used to ascertain patterns in the responses by the students with regard to their usage of the prescribed textbooks and their thoughts on the good/bad points of the textbooks. This is done by counting the frequency of occurrence of words and noting themes in the responses.

Using interviews to gather data has a number of advantages. Respondents can answer questions at a time that is convenient to them. The interviewer can also probe in areas where answers may be unclear and follow up on interesting answers. A weakness of interviews as a method of gathering data is that the researcher may introduce bias into the manner of directing the questions. Interviews can also be time-consuming when conducted and in the transcription of the data obtained.

3.11 Interviews - lecturing staff

Lecturers who lectured MAF III on the Howard College, Pietermaritzburg and Westville campuses participated in interviews with regard their insights into the textbooks (Appendix 5). Permission was sought from the staff member for an interview and then the interview was conducted at an arranged time in the privacy of the lecturer's office. The lecturers were requested to sign an 'Informed Consent Document'.

Five lecturers were interviewed representing lecturers from the three campuses. At the time of the research, there were seven lecturers who were either currently lecturing MAF III or had lectured it in the past year. The interviews were done one-to-one basis. Therefore opinions expressed by the individual lecturers would be representative.

The interviews with open-ended questions were conducted to enable the researcher explore the participants views of the four selected MAF textbooks. The questions consisted of a consideration of the strengths and weaknesses and

criteria used in the selection of prescribed textbooks. Unstructured interviews allow participants to freely express their opinions. The researcher's role is to direct the flow of ideas, encourage comments with trigger questions and not direct answers through tone of voice or phrasing of the questions. The researcher must not influence the respondents by the way the questions are formulated.

An audio recording of the interviews was made. The researcher transcribed the audio recording verbatim. The data obtained was analysed using NVIVO to determine themes regarding the textbooks.

This research made use of a number of different methods to gather data. Both quantitative and qualitative methods were used depending upon the data required. Interviews with lecturers and students were conducted on the use of textbooks, lecturers at other SAICA accredited universities were surveyed on their views of the textbooks prescribed and the reasons for prescribing such textbooks and the Cloze procedure was used as a measure to determine the readability of the prescribed MAF textbooks. Readability formulae were applied both to textbooks and authentic texts from the field of Accounting.

CHAPTER 4 – RESULTS

4.1 Introduction

The following observations with regard to use textbooks were obtained from a number of sources. Students on both the Pietermaritzburg and Howard College campuses, completed the student evaluation questionnaire (SEC) that was administered by Quality Promotion Unit (Appendix 1). Student interviews (SI) (Appendix 3) and lecturer interviews (LI) (Appendix 4) were conducted on the Howard College and Westville campuses. These were used to determine students and lecturers' perceptions of the two prescribed MAF textbooks. The results of the report of *External Review of the School of Accounting – University of KwaZulu-Natal (2005)* were also considered.

The review committee stated that:

- “*Textbooks have also tended to become standardised at accredited universities, particularly in the field of Management Accounting and Finance, where Management Accounting by C. Drury and Financial Management by Correia, Flynn, Uliana and Wormald are used by almost all.*”

The above noted use of the two textbooks was borne out by the questionnaire survey conducted by the researcher. Questionnaires (Appendix 4) were sent to ten of the SAICA accredited universities. The response rate to the questionnaire was 70%. The results of the questionnaire affirmed the findings of the Review Committee that *Drury* and *Correia et al* were the most oft prescribed MAF textbooks. UKZN was the only university using Vigario's textbooks at undergraduate level.

One of the lecturers' interviewed also commented about the fact that Vigario was not used by other universities.

- “*I didn't think his book is well received generally, anyway other than by Natal*”. (LI)

The Review Committee also commented on the fact that the selection of textbooks was not sufficiently transparent, especially with regard to textbooks

authored by staff members. MAF textbooks were particularly singled out for comment:

- *“that textbooks authored by staff members were prescribed where this was out of synch with what was being studied elsewhere”.*
- *“it was the view of the panel that a more comprehensive and complete texts such as Cost and Management Accounting by C. Drury, or Financial Management by Correia et al, would be more appropriate than those of F. Vigarito, which are not really textbooks, but question banks with limited explanatory material and which are elsewhere used only as supplementary and illustrative texts”.*

In Vigarito - *Financial Management*, of the 422 pages containing text, 175 pages (41% of the textbook) are questions and solutions thus confirming the comment made by the Review Committee.

4.2 Readability Scores of MAF Textbooks used in the Study

The Lexical Density Test and Gunning Fog Index readability scores were calculated for the MAF textbooks used in the study. The results are shown in Table 2. From the measures calculated in Table 2, the Drury textbook has the highest scores indicating that it was most difficult in terms of readability. It also had the highest standard deviation. Drury was the only non-South African textbook investigated in the study. With an average GFI of 17.11, Drury would be suitable for students at a master's level (matriculation (12 years) + 5 years). Furthermore, Drury had the highest average Lexical Density at 57.04%. Texts above 60% are considered lexically dense and difficult to read. The number of *hard words* varied considerably within each book. The highest number of *hard words* was 71, in one of the Drury passages.

The Correia et al was the textbook which was considered the easiest to read. The average GFI at 12.51 represents a level slightly above matriculation level and is consistent with that suggested by Heese (1991). The Lexical Density is

52.08%, less dense, therefore easier to read. In addition, the average syllables per word, is the lowest indicating the Correia et al use shorter words.

Book	Average syllables/word	Hard words	Lexical Density Test	Gunning Fog Index
Vigario Man Acc				
1	1.73	34	46.45	11.90
2	1.61	29	49.47	13.89
3	1.84	49	56.88	11.01
4	1.86	38	55.11	14.71
5	1.89	46	56.02	14.85
6	1.68	26	51.20	12.20
Average	1.77		52.52	13.09
Std deviation			4.14	1.61
Drury				
1	1.94	48	56.76	15.95
2	1.74	39	63.16	19.76
3	1.98	41	62.07	16.01
4	1.68	36	49.07	15.99
5	2.00	71	53.77	15.08
6	1.59	27	57.39	14.48
Average	1.82		57.04	17.11
Std deviation			5.24	2.41
Vigario – Fin Mgt				
1	1.77	42	55.67	12.15
2	1.53	33	48.74	17.69
3	1.77	34	58.01.	12.76
4	1.68	42	48.51	17.68
5	1.74	41	55.10	14.90
6	1.84	38	56.00	14.41
Average	1.72		53.67	14.93
Std deviation			4.03	2.36

Correia et al				
1	1.46	20	53.90	11.34
2	1.85	41	56.21	12.44
3	1.56	23	44.15	10.88
4	1.97	61	52.72	16.66
5	1.63	41	50.00	12.07
6	1.63	29	55.49	11.67
Average	1.68		52.08	12.51
Std deviation			4.46	2.10

TABLE 2: Selected Readability Statistics of MAF textbooks

The two Vigario textbooks returned different scores indicating that the standard of writing is not consistent between the books. On the GFI, the *Management Accounting* textbook was considered easier to read with a score of 13.09. The standard deviation at 1.61 was the lowest of the four books indicating that all chapters were written at a similar level of difficulty. The *Managerial Finance* textbook had a GFI of 14.93, which is at a level suitable for third year students. Difference in scores on the Lexical Density Test was slightly over 1% and at a level that should make them readable to the students.

T-tests were calculated for the Lexical Density and GFI of the passages chosen for the Cloze tests and the results are presented in Table 3. At the 95% confidence level, using Lexical Density, there was no significant difference between the two Management Accounting Cloze passages (Vigario and Drury), the two Financial Management Cloze passages (Vigario and

	Lexical Density P	Gunning Fog P
Vigario – Man Acc vs Drury	0.1961	0.0181
Vigario – Fin Mgt vs Correia et al	0.6241	0.0146
Vigario vs Vigario	0.6480	0.0289

TABLE 3: Results of Lexical Density and Gunning Fog t-tests

Correia et al) or between the two Vigario textbooks. However, using the GFI all combinations tested returned a significant difference. Therefore there was inconsistency in the results obtained between the two measures of readability.

4.3 Readability of 'Real' Texts in Accounting

The majority of the students studying MAF would be doing so with the intention of a career as a Chartered Accountant. Chartered Accountants are required to interpret new legislation with regard to accounting and auditing standards and the income tax act. Accordingly the readability statistics were calculated for the definition of *gross income* in Section 1 of the Income Tax Act and *Costs of conversion* from Accounting Statement IAS 2 – Inventories. South Africa adopted international accounting standards from January 2005. The results are presented in Table 4.

Taking into consideration the fact that IAS 2 is an international accounting standard, it is written at a level that would be easily readable to qualified accountants who have the equivalent academic qualification of a master's degree (NQF 7). The definition of gross income on Lexical Density would be acceptable to the intended audience. However, the GFI returned a score of 79.46, which is beyond readable. This high score is due to the fact that the definition is one sentence. The readability of tax legislation could be improved immeasurably by limiting the length of the sentences.

Statement	Average words per sentence	Hard words	Lexical Density	Gunning Fog Index
Gross income	188.00	42	49.03	79.46
IAS 2	22.14	26	42.02	14.28

TABLE 4: Readability statistics of Gross Income and IAS 2

The 'real' text scores were compared against the average textbook scores for the Lexical Density and GFI. The Lexical Density scores for the 'real' texts were lower than the average scores of the textbooks illustrating that the 'real' texts are considered to have a low Lexical Density and should be readable by the 'person-in-the-street'. It is not possible to compare the GFI for 'Gross

income' for reasons stated above. The GFI score for IAS 2 is typical of technical documentation and is very similar to the average score (14.41) of all four textbooks.

4.4 How and for what do students use textbooks?

The Howard College MAF III students were requested to complete a student evaluation questionnaire (Appendix 1). One of the sections of the questionnaire was an evaluation of the Managerial Accounting (MA) and Managerial Finance (MF) textbooks. The responses obtained from 210 students are shown in Table 5.

Question	% Positive		% Neutral		% Negative	
	MA	MF	MA	MF	MA	MF
I found the textbook for the module understandable	43	40	24	26	33	35
I used the textbooks a lot to help my understanding of the course	32	34	21	25	46	41
I found the textbook related well to the content of the lectures	33	28	26	35	42	37
I found the textbook beneficial in helping to understand the module	32	32	28	26	40	42

TABLE 5: Student Evaluation of Managerial Accounting and Finance textbooks – Howard College

A questionnaire similar to the above was distributed to MAF III students on the Pietermaritzburg campus. The class on the Pietermaritzburg campus is smaller than Howard College and the responses obtained from the 62 students who completed the questionnaire are shown in Table 6. The Pietermaritzburg students were not required to differentiate between the MA and MF textbooks.

For the students on the Howard College campus the results of the questionnaires indicated more negative responses about the textbooks than

positive responses. The Pietermaritzburg campus also returned negative responses, but slightly fewer negative responses.

Question	% Positive	% Neutral	% Negative
I found the textbook/s for the module understandable	35	30	35
I used the textbooks/s a lot to help my understanding of the course	43	23	33
I found the textbook/s related well to the content of the lectures	52	22	27
I found the textbook/s beneficial in helping to understand the module	39	22	39

TABLE 6: Student Evaluation of Managerial Accounting and Finance textbooks – Pietermaritzburg

These results were borne out in the interviews with students. A number of the students had not purchased the prescribed textbooks. They had heard from students in prior years, who said it was a waste of money to purchase the prescribed textbooks. The negative comments by about half of the students were such:

- “*that’s the reason I didn’t buy it because students who did it last year said you don’t need it and so far I haven’t needed it*”, (SI)
- “*you can definitely pass Man Acc without the book*”; (SI) and
- “*I don’t think most of them even buy the textbooks*”. (SI)

Students either did not use the textbooks or used them irregularly. The students did not use the textbooks for reading prior to the lecture, after the lecture or in preparation for tests and examinations.

- “*I didn’t really read before the lecture and I didn’t really use it that much during the lecture time or for tuts, maybe a bit before the exam*”, (SI)
- “*I never remember using it for exams or tests*”, (SI)

- *“yes only if there was something I needed clarification on would I go to the textbook only if I had a lot of extra time I would go through the book”*; (SI) and
- *“you get some of them (chapters) were like 60 pages and its ridiculous you sit there and I can do my tut and I can be finished in 3 hours or I can read the textbook which is going to take me about 3 hours and then do the tut and I just learn from the tut anyway”*. (SI)

Another reason given for not using the books was that the content of the lectures differed from the books and that the lecturers provided notes in class to compensate for the deficiencies in the prescribed textbooks. The comments were such as:

- *“they (the lecturers) could try to relate the work covered in lectures more to the textbook”*, (SEQ)
- *“the textbook should be interrelated to the lectures”*, (SEQ)
- *“there were very few references to the textbook when they go through in lectures”*; (SEQ) and
- *“The finance book is poorly explained and has virtually nothing in common with the content of lectures”*. (SEQ)

When asked whether they had referred to any other textbooks to assist them with their studies, only one of the students interviewed had used a textbook from the library. This student said

- *“I actually used library books at a better advantage than using the textbook”*. (SI)

The unanimous answer to the question regarding the use of other MAF textbooks was

- *“No, I mostly used the lecture slides with the extra notes I had written down during the lecture”*. (SI)

The general consensus among the students was that one is able to pass the course by learning mainly from the tutorials and the notes provided by the lecturers. Students commented:

- *“I think its because the level of questioning that you are asked in your tests or exam is so closely related to tuts”, (SI)*
- *“you actually don’t need a textbook because you are taught everything and you are given handouts in terms of the work you need to focus on”, (SI)*
- *“we wrote everything down in the handouts so we didn’t have to refer back to the textbook to get an idea of what the examples were about because we had it in the handout”; (SI) and*
- *“yes you could have passed (general agreement) and you could have done well if you had done your tuts, went through every single tut from beginning to end”. (SI)*

Hutcheson and Tse (2004) in their study of first and second year economics students at an Australian university asked the students what they did to seek help with their studies. Over 80% of the students stated that they would look up information in other textbooks recommended by the lecturer. This was certainly not the situation with the students in the current research. The second most common method of obtaining help, in the Hutcheson and Tse study, was to learn from the model answers provided at the tutorials. This finding is in agreement with the current research being undertaken where a number of students stated that they learnt from their tutorials only.

4.5 What do students consider good/bad points of the prescribed textbooks?

The former University of Natal – Durban (UND) had used both of Vigario’s textbooks for a number of years. Pietermaritzburg only started using Vigario from 2005. Prior to that, Drury and Correia et al were used. According to a former UND lecturer, the students called Drury “dreary” thus the change in textbook. Amongst accounting academia, it was a recognized fact, that Correia et al, contains numerous errors in the solutions to the end-of-chapter questions. This assertion was confirmed by UND lecturers interviewed and one of the main reasons proposed for changing to Vigario’s textbook. Students from the Westville campus had used Drury and Vigario’s financial

management textbook. The former University of Durban-Westville used Correia et al, however none of the students interviewed on the Westville campus had used the book.

4.5.1 Vigario

When questioned about the two Vigario textbooks, the following comments were, noted by the students. The students generally found that both books were too simple:

- *“The textbook’s too simple”, (SI)*
- *“The textbook is too simplified”, (SI)*
- *“it gives you the basic principles but like I said before it doesn’t elaborate further”; (SI) and*
- *“the examples in each of the sections often helped to clarify matters, usually the simple matters, however”. (SI)*

In contrast some students felt that the textbooks were at the wrong level and commented as such:

- *“Prof Vigario’s book just seems to advanced, its not very easy to understand”; (SEC) and*
- *“it is strongly linked in honours with the textbook and (honours) tuts as opposed to third year and textbook”. (SI)*

The students found their textbooks unhelpful when completing their tutorials.

- *“The end-of-chapter examples were very different to our tutorial questions”; (SI) and*
- *“The information in the books is not understandable. One cannot link the information to the examples and tut questions”. (SI)*

However, there were some positive comments expressed by students regarding the textbooks:

- *“the finance book was quite good for our accounting projects”, (SI)*
- *“so the finance book was very good for the project”, (SI)*
- *“examples and helpful diagrams with explanations”; (SI) and*

- *“some of the examples proved helpful in gaining understanding”*. (SI)

There were a number of negative sentiments expressed by the students regarding the prescribing of Vigario’s books as textbooks.

- *“The textbook is absolute waste of money. Should not be recommending a book just to fill Vigario’s pockets but rather suggest a book more relevant and applicable to content of lectures”*; (SEQ) and
- *“The textbook was terrible. If I meet Prof Vigario I will find it difficult to be nice to him and not throw his textbook at him”*. (SEQ)

A number of students felt that the textbooks should be changed

- *“I really did not get much help from our Vigario textbook. I believe changing the textbook would really help future students”*, (SEQ)
- *“Get a new textbook. Vigario is very confusing.”*; (SEQ) and
- *“Get a new textbook. Vigario is shocking.”* (SEQ)

The students did not mention the fact that the textbooks were written from a South African perspective, nor the cost of the textbooks. The cost and South African context were, however, noted as important factors by the lecturers interviewed. Only one student obliquely alluded to the cost factor.

- *“The work covered this year could be in ONE textbook –why do we have to buy 2 textbooks when we only use half of each?”* (SEQ)

4.5.2 Drury

Drury had been used variously on each of the three former campuses over the years. The comments made with regard to Drury varied. The most often quoted comment from the students was that it was difficult reading and is not a South African book.

- *“Drury in my opinion is a very bad book. Its very, very heavy reading”*, (SI)
- *“it was also very heavy reading”*, (SI)

- *“you look at a few concepts they try to explain sunk costs in Drury you’ll be reading like this whole page and you still wouldn’t get the point of it”;* (SI) and
- *“Drury even the values that they use the dollars and some of the terms we can’t really relate to them”.* (SI)

However, other students felt that it was easy reading:

- *“it was easy to read, understandable”;* (SI) and
- *“it was easy to read”.* (SI)

Again it was noted that the textbook was lacking in other areas:

- *“A lot of stuff that was covered in the textbook is not required of us, at third year level”;* (SI)
- *“a lot of sections we covered weren’t in Drury, cost estimation”;* (SI) and
- *“didn’t go into depth”.* (SI)

To conclude on students’ views of textbooks, one the students identified the core issue:

- *“the truth of the matter is no matter how you are going to change the textbook its not going to change the way the students think it is just to pass in the end they are doing what’s going to make them pass they are going to learn whatever we can do to pass. To change the textbook its not going to change the way we approach a question, the way we approach our studying”.* (SI)

4.6 What do lecturers at UKZN consider to be the good/bad points of the prescribed textbooks?

The selection of the prescribed MAF textbooks was a cause of concern to some of the lecturers interviewed. Some lecturers felt that they did not have any choice in the matter and the textbooks used at the former UND had been imposed on them.

- *“I didn’t have any choice in the matter (selection of the textbooks)”* (LI) and felt that

- *“prescribed Vigarío for the wrong reason”*. (LI)

Another lecturer said:

- *“we should support one another as colleagues, but only if his book is good, he’s got quite tough competition”*. (LI)

Three of the lecturers interviewed felt that the textbooks were at the wrong level for undergraduate students and had been written aimed at the Honours student. One of the lecturers said:

- *“My understanding, if I put it in context, is that the books are actually written for the honours year”*. (LI)

Lecturers adjusted their teaching strategy to compensate for the perceived problems with the textbooks. The reasons provided by lecturers for not using the textbooks extensively were:

- *“it didn’t give enough examples so we used to supplement that with our own notes”*, (LI)
- *“I made my own notes (for the students)”*, (LI)
- *“Vigarío very brief and need to supplement it, fill in the gaps”*; (LI) and
- *“it (the class) is so big you want to make sure that the class is continually writing otherwise you lose them and the noise starts”*. (LI)

Only one of the lecturers interviewed indicated that he expected the students to bring the textbook to class,

- *“teaching strategy forcing them to engage with the textbook so I always insist that they bring the textbook to lectures, that they write in the textbooks, that I refer to examples in the textbook”*. (LI)

This is borne out by a comment made by one of the students

- *“he did refer to Drury quite a lot and the examples from Drury”*. (LI)

Another problem noted by two lecturers, were errors in the Vigarío textbooks.

- *“When it first came there were a lot of errors in the book”*, (LI)
- *“errors in both Vigarío’s in-text examples”*; (LI) and
- *“errors in textbook which leads to a loss of confidence”*. (LI)

The lecturers made comments similar to the students about the fact that Drury was not a local textbook and the standard of English used was at high level.

- *“Drury is a foreign textbook so again you have to ask yourself is it appropriate in South Africa if you are teaching students from a book where all the examples are in pounds”, (LI)*
- *“it is of a much higher standard (than Vigario) in the sense that it incorporates research, other studies and different ways of looking at it”, (LI)*
- *“Drury is theoretically sound but needs good direction from the lecturer”, (LI)*
- *“maybe for our students it came in a bit above their heads”, (LI)*
- *“its an English textbook and maybe it’s the language he uses is proper”, (LI)*
- *“Drury was too verbose”; (LI) and*
- *“And I found that extremely, extremely boring, tiresome far too much”. (LI)*

Regarding Vigario the lecturers commented:

- *“they (the students) find Vigario eminently more readable and easier to follow than Drury”; (LI) and*
- *“let’s just try to understand what we need to do as quickly as possible so Vigario doesn’t pad it”. (LI)*

The feeling among the lecturers is that the students have a substantial amount of work to cover in their third year of study, as many of them are doing four major subjects, therefore cover what the students need to know and not what is “nice” to know.

4.7 The Criteria used by Course Co-ordinators at South African universities to select prescribed textbooks

One of the reasons cited by a number of universities for prescribing a textbook was that it could be, used by students in 2nd year, 3rd year and honours. A number of SAICA accredited universities introduce MAF in the 2nd

year of the curriculum. At UKZN, and the former universities of UND and UD-W, MAF has always been taught for the first time at 3rd year level. The use of one textbook for a number of years, results in a cost saving to the students, as they do not have to buy a new textbook each year. Related to this was the fact that cost was mentioned by some of the respondents to the survey. One of the universities commented that the textbooks were “fine, but a bit expensive”. Two other universities said that they had stopped using Drury because the cost was becoming a big factor. As the rand weakened against pound sterling the book became increasingly expensive.

Other reasons cited for the textbooks selected were that the textbooks were comprehensive in covering the topics required by SAICA. The fact that Correia et al is a South African textbook was also mentioned and it related to the South African context. However, one of the universities stopped using Correia et al as there were many errors in the solutions and certain material was outdated. Errors in Correia et al were also a factor referred to by the UKZN lecturers who were interviewed.

In conclusion, comments from the Review Committee, and a lecturer on the subject of textbooks. The Review Committee:

- *“There is a dire need to introduce more appropriate textbooks at both undergraduate and postgraduate level. This is particularly the case in Management Accounting and Finance”.*

From a lecturer:

- *“it also shows that there is no perfect textbook”;* (LI) and
- *“students don’t know what textbook they want anyway”.* (LI)

4.8 Results of the Cloze Procedure

Two hundred and eighty-one students completed two passages each, one from the Managerial Accounting section and one passage from the Managerial Finance section of the four selected MAF textbooks. There were 25 deletions per passage resulting in each student completing 50 deletions.

The researcher marked the Cloze passages and the results entered onto STATA for statistical analysis. The descriptive Cloze statistics are in Table 7.

Book	No of students completing passage	Mean Cloze score %	Standard Deviation	Highest Cloze score %	Lowest Cloze score %
Vigario – Man Acc					
1	27	40.74	3.095	56.00	8.00
2	21	63.81	3.133	80.00	32.00
3	22	40.36	2.482	60.00	8.00
4	17	40.00	4.757	76.00	4.00
5	24	30.00	3.487	56.00	0.00
6	26	53.37	2.220	71.00	33.00
Average		44.71			
Std dev		4.139			
Drury					
1	21	34.86	2.989	52.00	8.00
2	24	37.83	2.631	56.00	16.00
3	24	35.50	2.689	56.00	20.00
4	27	41.33	3.122	64.00	4.00
5	25	44.48	3.070	72.00	20.00
6	23	36.17	3.012	60.00	8.00
Average		38.36			
Std dev		3.010			
Vigario – Fin Mgt					
1	25	40.96	3.529	64.00	4.00
2	23	39.65	3.468	60.00	4.00
3	22	41.82	3.009	56.00	0.00
4	24	41.33	4.147	64.00	0.00
5	23	31.13	2.861	52.00	0.00
6	27	33.04	2.801	60.00	12.00
Average		37.99			
Std dev		3.401			

Correia et al					
1	27	36.30	2.824	56.00	12.00
2	26	50.77	2.278	64.00	32.00
3	22	43.27	3.552	60.00	16.00
4	21	50.86	4.315	68.00	4.00
5	24	36.83	3.081	60.00	16.00
6	17	30.58	4.107	64.00	0.00
Average		41.44			
Std dev		3.755			

TABLE 7: Descriptive Cloze Statistics

Bormuth (1966) and Rankin and Culhane (1969) proposed the following scores to indicate the different reading levels – less than 44% frustration level, 44% to 57% instructional level and above 57% independent level. These scores vary slightly from those proposed by Rye (1983) of below 40% frustration level, 40% to 60% instructional level and above 60% independent level. They all agreed that textbooks should be read at the instructional level. This research will use the levels of Bormuth and Rankin and Culhane as this is the level, which was used in the majority of the studies on accounting textbooks (Adelberg and Razek, 1984; Cornachione, 2004 and Williams et al, 2002).

Three of the four textbooks investigated in the study returned a mean Cloze score of below 44% thus signifying that some of the students were reading the books at the frustration level. Vigarío’s managerial accounting textbook returned the highest average Cloze score of 44.71%. This falls marginally into the instructional level of reading.

Only four of the Cloze passages were being read above the frustration level. The passage with the highest Cloze score at 63.81% was at the independent level. The other three passages were at the instructional level that considered appropriate for textbooks. The two highest scores were from Vigarío’s managerial accounting book. The passage with the highest Cloze score was

from AC108 para 12 (now known as IAS 2). The students would be familiar with this accounting statement having learnt the statements in Financial Accounting II and III.

Students will be required to interpret and apply accounting statements in a working environment. The fact that students scored highly on this particular passage indicates that the statements are written in language that is understandable to future accounting professionals. If this passage is excluded from the average Cloze score the average decreases to 40.89%, within the frustration level.

Stevens, Stevens and Raabe (1985), using the Cloze Procedure, investigated the readability of Financial Accounting Standards Board (FASB) Statement 33: "Financial Reporting and Changing Prices". The FASB is the standard setting body in the United States. The average Cloze score obtained in the Stevens et al study was 46% noticeably less than that obtained in this study. Furthermore, the students in the Stevens et al study had previous exposure to the accounting statements.

The second highest average score was from the passage on Linear Programming. This topic is taught at Honours level, however, if the student did Higher Grade Mathematics at school they would have been exposed to Linear Programming as it is part of the Higher Grade syllabus. This fact could have influenced the Cloze score.

The two other scores above the frustration level were from Correia et al. One of the passages (50.77%) was on financial statement analysis, another topic which the students would have been familiar with from prior studies.

A T-test was done on the Cloze results for the textbooks (Table 8) which shows the p values. At the 95% level of significance there was a statistically significant difference between the textbooks. This finding is in agreement with the results obtained from the Gunning Fog Index (Table 3). It should be expected that the two Vigario textbooks would be written at the same level.

However, the two Vigario Cloze passage results were significantly different and that the average mean Cloze scores of one the books was 17% lower than the other Vigario textbook (Table 7).

	Vigario – Man Acc vs Drury	Vigario – Fin Mgt vs Corriea et al	Vigario – Man Acc vs Fin Mgt
p value	0.0027	0.0304	0.0013

TABLE 8: T-statistic values

4.8.1 Alpha Cronbach

The Alpha Cronbach model reliability test is an analysis of internal consistency. The higher the score obtained, the more reliable the data is considered to be. Reliability scores of between 0.60 and 0.70 are considered acceptable, with scores above 0.80 being preferable. The Alpha Cronbach scores are shown in Table 9.

Vigario – Man Acc	Drury	Vigario – Fin Mgt	Correia et al
0.5465	0.6485	0.3834	0.5227

TABLE 9: Alpha Cronbach Scores

Drury was the only textbook with an Alpha Cronbach score of over 0.60. At 0.6485, Drury the test score obtained were regarded as satisfactory. Vigario – *Financial Management*, had the lowest test score at 0.3834 indicating very little internal reliability in the test scores obtained. This textbook also had the lowest average Cloze score at 37.99%. Generally the test scores indicated a low level of internal consistency between the passages as scored by Cloze.

4.8.2 First Language

The students who completed the Cloze passages comprised students who stated that English was their first language and those who said English was an additional language. Thus, it was considered important to determine whether a student’s first language would have an effect on the Cloze scores obtained. Of the 281 students who completed the Cloze passages, 223

(79.4%) had English as their first language (EFL) and 58 (20.6%) had English as an additional language (EAL).

Table 10 shows the Cloze results according to language. The difference in mean Cloze scores between EFL students and EAL students was not statistically significant at the 95% level of significance ($p = 0.2627$). Both groups of students were reading the textbooks at the Frustration Level.

	English 1 st language	English additional language
Mean	41.17%	38.21%
Standard deviation	5.914	5.581

TABLE 10: Cloze scores English 1st language and English additional language students

This finding is in agreement with that of Williams et al. The sample in the Williams et al study was 167 (80.3%) students with English first language and 41 (19.7) students English second language. The percentages were very similar to those of the current study. Williams et al found that there was no statistically significant difference between the mean Cloze scores, however the English second language students had consistently slightly lower scores.

4.8.3 Male/Female

The difference in average Cloze scores between males and females was considered. The students were fairly evenly distributed 128 (45.55%) males and 153 (54.45%) females. The results are shown in Table 11. There was no statistically significant difference at the 95% level of significance ($p = 0.3203$) for the male and female students. The males on average slightly underperformed in comparison with the female students.

	Males	Females
Mean	39.72%	41.25%
Standard deviation	6.347	5.431

TABLE 11: Results of Cloze scores - males and females

The highest Cloze scores for the male and female, EFL and EAL students were compared. The results are shown in Table 12. The highest score attained by an EAL male was substantially lower than that of the EFL male and female and the EAL female. The reason for this finding was not investigated further, and could be attributed to the individual student. The students with the highest Cloze, with the exception of the male EAL, were reading the textbooks at the Independent Level.

	English First Language	English Additional Language
Male	72%	56%
Female	66%	66%

TABLE 12: Comparison of Cloze scores – sex and language

The Alpha Cronbach model reliability test was performed to determine the internal consistency between the Cloze scores for each passage of the textbooks for each student. The students were grouped according to sex and language. The results are shown in Table 13.

Male EFL	Male EAL	Female EFL	Female EAL
0.5370	0.4407	0.3837	0.4789

TABLE 13: Alpha Cronbach scores for sex and language

The internal consistency was low for all groupings with no group over the 0.6 level, considered the minimum for internal consistency. The highest score was for the male EFL students and the lowest for the female EFL students. Therefore, there was a low consistency between the scores obtained for each of the Cloze passages completed by the student. The female EFL students having the lowest consistency between the Cloze scores obtained between the passages. The lack of consistency between the Cloze scores of the passages could be due to a number of factors, for example, loss of interest and concentration on the task.

4.9 Comparison Between Mean Readability Scores

Textbook	Cloze		Lexical Density		Gunning Fog	
	Score	Rank	Score	Rank	Score	Rank
Vigario – Man Acc	44.71	4	52.52	3	13.09	3
Drury	38.36	2	57.04	1	17.11	1
Vigario – Fin Mgt	37.99	1	53.67	2	14.93	2
Correia et al	41.44	3	52.08	4	12.51	4

TABLE 14: Comparative mean readability scores – Cloze, Lexical Density and Gunning Fog

The mean readability scores of the four textbooks are compared in Table 14. A score of “1” indicates that the textbook is the most difficult to read and “4” would be the easiest to read. Ranking of the mean scores for the textbooks was constant for the Lexical Density and GFI readability formulae with Drury having the highest ranking. This suggests that Drury, the only non-South African textbook in the study, is the most difficult textbook to read and this fact was alluded to by staff and students alike. Vigario – *Financial Management* had the second highest ranking in terms of reading difficulty. Drury and Vigario – *Financial Management* were ranked 2 and 1 on Cloze scores (low Cloze score indicates low level of readability, i.e. more difficult).

According to the readability formulae, Correia et al was considered the easiest to read with Vigario – *Management Accounting* the second easiest to read. Again with the Cloze scores, the ranking was swapped around, with Vigario – *Management Accounting* having the highest Cloze score and Correia et al the second highest Cloze score.

T-tests were used to establish if there was a statistically significant difference between the means scores of the four textbooks. These scores are shown in Table 15. This was done to ascertain if the textbooks were at the same standard for each of the three readability measures calculated. At the 95% level of confidence, except for two scores there was a significant difference between the mean readability scores implying that the readability formulae are

not consistently ranking the textbooks. The two scores which were not significantly different were the Cloze vs Lexical Density for Vigario – *Management Accounting* and Cloze vs GFI for Corriea et al.

	Vigario – Man Acc p	Drury P	Vigario – Fin Mgt p	Correia et al p
Cloze vs Lexical Density	0.2400	0.0025	0.0026	0.0416
Cloze vs GFI	0.0015	0.0129	0.0001	0.0020
GFI vs Lexical Density	0.0000	0.0069	0.0000	0.0000

TABLE 15: T-test comparison between readability formulae and textbooks

The conclusion reached from the Cloze testing indicates that all four of the MAF textbooks tested are being read at the Frustration Level. There was no statistically significant difference between the mean scores obtained by males and females and EFL and EAL students. There was a lack of consistency in the mean Cloze scores reported from each of the textbooks, thus indicating that the chapters in the textbooks are written at varying levels. This is borne out by the lack of internal reliability where the Alpha Cronbach levels for three of the four textbooks, was below that considered satisfactory. The fourth textbook had a level considered satisfactory. The fact that the Cloze scores are indicative of the students reading at the Frustration Level, is confirmed by the students comments that they learn from their tutorials and lecture notes and not the textbook. However, this is not the only reason they do not use the textbook.

CHAPTER 5 – REVIEW

5.1 Objective

The purpose of this research is to compare readability of the different Managerial Accounting and Finance textbooks used by B.Comm Accounting students at some South African universities with a view to determining optimal textbooks for lecturer and student use. The Cloze procedure was used to determine the readability of two Managerial Accounting and two Managerial Finance textbooks.

As a lecturer in MAF, the researcher had noticed that some of the students have difficulty using the prescribed textbooks. In interacting with students they have indicated that the prescribed textbooks are not user-friendly, difficult concepts are not fully explained, the text is dense and not all lecturers regularly referred to the textbooks making the relationship between the book and the coursework vague.

5.2 Limitations

The study was subject to a number of limitations. Among these was that the results obtained from the research were specific to the group of student who completed the Cloze procedure at University of KwaZulu-Natal – Howard College campus.

The effect of the lecturer has not been taken into consideration. The said cohort of students, were lectured to by three different lecturers and tutored to by the lecturers and seven Honours students, during the year. The student's attitude towards the lecturer/s or tutor/s or the subject may have influenced the completion of the Cloze passages.

The students' motivation and interest in the result may well also have an influence on the Cloze scores obtained. The students had pre-existing knowledge of three of the twelve passages selected for the Cloze procedure. Furthermore two of the textbooks selected were the students prescribed

textbooks. However, the Cloze scores attained did not indicate that these two books realised higher Cloze scores than the other two books.

5.3 Conclusions

A number of premises were examined to determine the use and readability of textbooks. The first considered the readability scores of the MAF textbooks used in the study. The Gunning Fog Index and Lexical Density Index scores were calculated for the 24 sample passages used in the study. All sample passages returned readability scores demonstrating that the textbooks are at a level that the students ought to be able to read. However, for the Gunning Fog Index there was a statistically significant difference between the readability scores attained. There was no statistically significant difference between the Lexical Density scores.

The students tend not to use the textbooks or use them intermittently. The most common methods of learning for tests and examinations were to use the worksheet type notes provided by the lecturers in class and the tutorial solutions. Students, on the whole, tend not to engage critically with their textbooks.

When considering the good and bad points of the MAF textbooks, the students were inclined to be negative about the fact that the prescribed textbooks were written by a senior academic in the School of Accounting. The students also thought that the two prescribed textbooks were not relevant or applicable to the level of study. Moreover, Drury was considered unsuitable because it lacked references to the local South African socio-cultural environment.

UKZN MAF lecturers were interviewed to ascertain their reflections of the four MAF textbooks employed in this study. With regard to the Vigario textbooks, several of the lecturers stated that they did not have any choice in the selection of the textbook as Vigario was imposed upon them and it was not the most appropriate textbook. The language used in Drury was considered to be at a level above that of the students' comprehension possible due to the

fact that it was not written in “South African English”. The most oft alluded to comment with regard to Corriea et al was the errors in the textbook, mainly in the solutions to the end of chapter questions.

Course co-ordinators at other SAICA accredited universities were surveyed to establish their reasons for prescribing certain MAF textbooks. Coverage of the SAICA syllabus was considered of importance to the lecturers. Cost was also factor stated by lecturers. Errors in Corriea et al were again referred to as a reason for no longer prescribing that textbook.

The Cloze scores realised on the passages, suggest that on average, the students were reading the textbooks at the Frustration Level. There was no statistically significant difference in the Cloze scores attained between males and females and English first language and English as an additional language students.

5.4 Future Research

The research could be extended to include studies from other universities to determine if similar results would be obtained from Cloze testing on the MAF textbooks. The study could also be extended to students in other years of study at UKZN to determine if similar results are obtained.

A study using the Cloze procedure might also be undertaken where subject specific words are deleted. This may well alert the lecturer to the students’ lack of understanding of key terms and concepts. The students scores from the Cloze Procedure could be compared with either matriculation examination results or university results obtained to determine if there is a correlation between the Cloze scores and success at university.

Due to the lack of published studies and specifically South African studies, further research could be conducted on the Cloze procedure and the Income Tax Act, Auditing and Accounting statements. In addition, readability studies could be undertaken of textbooks in these disciplines.

In the current study, with the Gunning Fog Index and the Cloze tests there was a statistically significant difference between the mean scores. The Lexical Density found that there was no statistically significant difference between the mean scores of the texts chosen from the textbooks. However, the 'real' texts showed a lower Lexical Density, as they are written more for the general public.

The highest Cloze score obtained by an EAL male was substantially lower than that of the English first language male and female and EAL female. The reason why there is this difference is an area for future research.

5.5 Recommendations

A corpus of Accounting words could be compiled. Although some work has been done on this internationally (Fuentes and Rokowski 2007) there is a need to develop such a corpus in South Africa using the real texts that Accounting students have to understand such as the Income Tax Act and Accounting and Auditing Standards. The readability formulae could be calculated using a frequency weighting of these words. These readability scores could be compared with the Cloze procedure to determine correlation between the two measures.

The Cloze procedure could be used by authors to determine the readability of textbooks. The procedure could also be used in the selection of textbooks. Once the readability of the textbook has been established, other factors such as end of chapter questions, supplementary material and suitable coverage of the SAICA syllabi need to be considered, in addition, before the textbook is prescribed to students.

The Cloze procedure could also be used by lecturers to highlight problem areas experienced by students in the understanding of the content of the subject. Students' misunderstanding of the topic is evidenced by the responses to the missing words in the Cloze passages.

Although MAF textbooks were comprehensively analysed in this dissertation, no decisive conclusion could be reached due to the varying results achieved. To conclude in the words of one of the lecturers interviewed “there is no perfect textbook”.

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APPENDIX 1 – STUDENT EVALUATION QUESTIONNAIRE

SCHOOL OF ACCOUNTING, UNIVERSITY OF KWAZULU-NATAL EVALUATION QUESTIONNAIRE

Campus _____

In this questionnaire you will be asked your opinion on various aspects of the module for the purposes of evaluation. Student Evaluation is one of the methods used for improving the quality of teaching at the university. This survey will provide your lecturer with valuable feedback about teaching effectiveness. You do not need to sign your name and all information is confidential. Please complete as accurately and honestly as possible.

Thank you for your co-operation.

Module Name: _____

Course Leader's Name(s): _____

Number of students in the class: _____ **Number of students in your tut group:** _____

In each question you are presented with a statement to which you should indicate the EXTENT of your agreement/disagreement. Please respond on the computerised answer sheet. Your possible answers are:

A = strongly disagree B = disagree C = neutral response D = agree E = strongly agree

If any items are not applicable please leave them blank.

Fill in your answer on the right hand side of the answer sheet, under answers 1- 41. **Please use an HB pencil, blue or black pen only.** Please write your responses to the open-ended questions on this questionnaire. Please remember to hand in both the computerized answer sheet and this questionnaire.

Module

1. I thought this module was well organized and administered.
2. A detailed **and** useful course outline was provided (which included details on course outcomes and how the course would be assessed).
3. It was clear to me how the different topics and sections of the module fitted together.
4. There was a good balance between the theory and its application.
5. I found that I could apply things that I learned in this module in my other modules.
6. As a result of studying this module I have learned to think in new ways.
7. As a result of studying this module I have grown and developed personally.
8. I believe that I have been given sufficient guidance in order to cope with this module
9. I found that the workload for this module was manageable.
10. I attended all or almost all the lectures in this module.
11. The teaching environment (lecture room/laboratory) is conducive to learning.

Lecturer (This to be done for each individual lecturer)

12. I found that the lecturer was always well prepared.
13. I found that the lectures were clear and well-delivered.
14. I found that the lectures were pitched just right for me.
15. I found that I could understand the language used in these lectures.

16. I found that the lecturer explained concepts clearly.
17. I found that the lecturer emphasized important information.
18. I found that the lecturer presented the material in ways that were interesting and stimulated my enthusiasm for the subject.
19. The lecturer pointed out links between the material and other areas in the field.
20. The lecturer made good use of appropriate module materials (handouts, readings etc).
21. The lecturer made good use of appropriate teaching resources (chalkboard, OHP, audio-visual aids etc).
22. The lecturer encouraged questions and class discussion.
23. I felt comfortable enough to participate in the class discussions
24. I thought that the lecturer had a good relationship with the class.
25. The lecturer was sensitive to the different cultural and social backgrounds of the students.
26. I found that the lecturer was approachable.
27. I found the lecturer to be available for consultation outside normal lecture times.

Textbook/s

28. I found the textbook/s for the module was understandable.
29. I used the textbook/s a lot to help my understanding of the course.
30. I found that the textbook/s related well to the content of the lectures.
31. I found the textbook/s beneficial in helping to understand the module.

Tutorials

32. The relationship between the tutorials and the lectures was clear to me.
33. The tutorials were well organised.
34. I felt comfortable enough to participate in tutorials.
35. I found the tutorials helped me to understand the module material better.
36. I found that I could handle the volume of work covered in the tutorials.
37. I found the tutorial handouts to be helpful.
38. I found that the tutor was always well prepared.
39. I found the tutor helpful.
40. The tutor encouraged questions and class discussion.

Course Projects (if applicable)

41. I found the project/s to be a beneficial experience
42. I felt that my assessed marks were fair reflections of my attempts at the project/s

Assessment

43. The way in which we were going to be assessed was made clear from the start.
44. I think there is a good link between what we learn in the module and how we are assessed.
45. I understood what was expected of me in the tests.
46. I thought that the tests were fair.
47. The lecturer provided useful feedback on tests and assignments.
48. I found that assessment tasks were returned within a reasonable time frame.

Comments

49. What aspects of the module did you find most useful?

50. What suggestions do you have as to how the lecturer/s could improve her/his teaching?

51. Any other comments?

APPENDIX 2 – SAMPLE CLOZE PASSAGES

Dear Student,

I am conducting research into the readability of Managerial Accounting and Finance textbooks. Fred Akal has kindly provided me with time in this Financial Accounting III tutorial for you to complete the research. Please could you spend about 25 minutes reading the instructions below and completing the attached paragraphs.

If you require any further information on this project, I may be contacted on (031) 260-2217 or Rm 233 M Block on the Westville campus. Further information on the project may be obtained from Dr Charlotte Mbali, CHES, Level 3, Howard College campus. Office telephone number (031) 260-3257.

Thanking you for your participation in this research project.

K Bargate
Senior Lecturer
School of Accounting

PLEASE PROVIDE THE FOLLOWING BIOGRAPHICAL INFORMATION

Male	ث
Female	ف
English Mother Tongue	ث
English Non-Mother Tongue	ف

Instruction Sheet

This test consists of two passages taken from various MAF textbooks. A number of words have been deleted from each passage, and in the place of each word you will find a fixed-length underlined blank space. Your task is to predict, for each blank space, the precise word deleted and to write this word in the space provided. In other words, you are to try to guess exactly what words the writer

used in preparing the textbook. Your ability to make correct predictions should reflect your sensitivity to clues provided by the surrounding context of each word as well as your knowledge of Accounting.

Some words will be easier to guess than others. For each missing word, make the best guess you can and please do not leave any blank unfilled. You will find it helpful to go through each short passage twice. On the first time through, get the general idea of what the passage is about and fill in the 'easier' blanks tentatively. On the second time through, correct the mistakes and misconceptions you may have held during the first reading.

For the purpose of this test, a 'word' is defined as a symbol surrounded by two blank spaces. In terms of this definition, an abbreviation (e.g., CA), a number (e.g., 47) or a hyphenated construction (e.g., decision-making) would each be considered as one word.

Sample Cloze Test

Relevant and irrelevant costs and revenues

For decision-making, costs and (revenues) can be classified according (to) whether they are relevant (to) a particular decision. Relevant (costs) and revenues are those (future) costs and revenues that (will) be changed by the (decision).

Joint Product Costing

Context of allocating joint product costs:

The main reason for allocating joint product costs to two or more products is for the purpose of stock valuation.

Joint costs are sometimes _____ for the purpose of _____ the selling prices and _____ profitability. This cost allocation _____ is incorrect as selling _____ should be market related _____ not cost plus. Profitability _____ each joint product is _____ erroneous as the profit _____ strongly influenced by the _____ used to allocate the joint _____. As the products are _____ and cannot be separated, _____ per product should not _____ determined for managerial accounting _____ making.

It is regrettable _____ companies often make cost _____ so as to determine _____ profitability of a product.

_____ for joint cost allocation _____ are four generally accepted _____ of allocating joint costs –

a. _____:

Costs are allocated in _____ to the physical volume _____ weight or each joint _____.

b. Sales value method

Joint costs are allocated in proportion to the sales value of the joint products. Profit margins are the same for each joint product.

Strategic Management Accounting

The internal business perspective

A firm can produce excellent performance measures relating to creating satisfied and loyal customers by allocating excessive resources to meeting customer requirements (e.g. having a massive number of employees servicing customers). Adopting such an approach, _____, is likely to have _____ adverse impact on the _____ measures relating to the _____ perspective. Creating satisfied and _____ customers only translates into _____ the financial perspective objectives _____ ensuring that the key _____ business processes are effective _____ efficient. In the internal _____ process perspective, managers identify _____ critical internal processes for _____ the organization must excel _____ implementing its strategy. The _____ business process measures should _____ on the internal processes _____ are required to achieve _____ organization's customer and financial _____. Kaplan and Norton identify _____ principal internal business processes. _____ are:

- 1 innovation processes;
- 2 operation _____;
- 3 post-service sales processes.

_____ processes

Objectives for the _____ processes include increasing the _____ of new products, decreasing _____ time to develop new products and identifying new markets and customers. In the innovation process, managers research the needs of customers and then create the new products or services that will meet those needs.

APPENDIX 3 - QUESTIONS FOR FOCUS GROUP INTERVIEWS TO STUDENTS

1. Do you regularly use the textbook, i.e. for pre-reading before the lecture, tutorial and test and examination preparation?
If so, what sections have you used?

2. What do you consider to be the good points of this textbook?

3. What do you consider to be the negative points of this textbook?

4. Have you consulted any other MAF textbooks to assist you with your studies?
If yes, what textbook/s have you consulted?

APPENDIX 4 - QUESTIONNAIRE SENT TO SAICA ACCREDITED UNIVERSITIES

1. Textbook/s currently used for MAF and the number of year that the textbook/s have been used:
2. Reasons for choosing the textbook:
3. If you have used the textbook/s for less than 2 years, please state what textbook/s was previously used:
4. Why did you change?
5. Any general comment you would like to make with regard to the MAF textbooks which are available? (cost factor, relevance to South Africa, etc)

APPENDIX 5 - QUESTIONS FOR UKZN STAFF

1. How and for what do students use the prescribed textbooks?
2. What do the students consider to be the good and bad points of the prescribed textbooks?
3. What as lecturer, do you consider the good and bad points of the prescribed textbooks?
4. By what criteria do course co-ordinators in South African universities select the textbooks?
5. What do you think about the readability of these textbooks for students?
6. What are the most important criteria for you to judge if a textbook is readable?
7. After explaining the Cloze procedure, Do you think it is a good idea to use the Cloze procedure to test the readability of textbooks?