The role of student evaluations of teaching in the improvement of assessment

NL BOERSEMA
21726345

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Supervisor: Prof S van Rooyen

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Preface

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“Whom have I in heaven but you?
And earth has nothing I desire besides you.
My flesh and my heart may fail,
but God is the strength of my heart
and my portion forever.”

Psalm 73:25-26
Abstract

Global concerns have arisen regarding the quality of higher education. As a part of the concerns regarding teaching and learning the aspect of assessment receives continuous criticism. Traditional methods of assessment are not sufficient to address all the changing needs of students anymore.

Students are often viewed as customers or stakeholders in the process of higher education which need to be satisfied. When such a perception is held it is necessary to determine their needs and expectations. One way in which their voices could be heard is by means of student evaluations of teaching (SETs). SETs are a measurement instrument through which students are able to give feedback to their instructors.

The primary objective of this study was to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SETs.

The literature study firstly focused on quality in higher educations and the role that students can play in the improvement thereof. The validity and reliability of SETs as a measurement instrument were then determined. The second part of the literature study was on the aspect of assessment in higher education and specifically on assessment in accounting education.

In this study a mixed methods approach was followed to collect, analyse and discuss data. With a mixed methods approach both quantitative and qualitative research methods are employed. A research questionnaire was used in order to collect quantitative data with regards to students’ perceptions of SETs. By means of non-probability convenience sampling the study sample selected existed of 428 students. Thereafter a document analysis of SETs was conducted to collect data with regards to assessment from the SETs. The qualitative data was obtained by means of research interviews. The purpose of the interviews was to gain insight into instructors’ perceptions and use of SETs. Interviews were conducted with a study sample of 8 instructors, selected through non-probability purposive sampling.

The quantitative research methods indicated that students believed that SETs are generally an effective way to evaluate instructors and that they are generally serious and unbiased when completing it. It further indicated that the section of SETs regarding assessment received lower average ratings than the other sections of the SETs.
With the qualitative research methods it was found that although instructors generally believe that SETs are an effective way in which students can give feedback on their instructors they had a lot of concerns regarding the use thereof. It was further established that instructors are hesitant to change their assessment practices as a result of feedback received from SETs.

This study contributes to the SET literature in general and specifically with regards to assessment in the field of accounting. Several recommendations were made with regards to the improvement of assessment in higher education and the role that SETs can play in the enhancement thereof.

Key words: Accounting education, assessment, deep learning, mixed methodology, quality in higher education, South Africa, student evaluations of teaching (SETs).
Opsummng

Wêreldwye besorgdheid omtrent die kwaliteit van hoër onderrig het die afgelope tyd ontstaan. As deel van hierdie besorgheid rakende onderrig en leer, ontvang die aspek van assessering ook aanhoudende kritiek. Tradisionele metodes van assessering is nie meer genoegsaam om die veranderende behoeftes van studente aan te spreek nie.

Studente word dikwels beskou as kliënte of aandeelhouers in die proses van hoër onderrig, wie se behoeftes bevredig moet word. Vanuit só ‘n persepsie is dit noodsaaklik om die behoeftes en verwagtinge van studente te bepaal. Een manier waarin hulle stemme gehoor kan word is deur middel van studente-evaluasies van onderrig (SEOs). SEOs is ‘n meetinstrument waardeur studente in staat gestel word om terugvoer aan hulle dosente te gee.

Die primêre doel van hierdie studie was om die betroubaarheid van die resulte van die afdeling rakende assessering vanuit die SEOs te bepaal en om te evalueer of assessering verbeter word na aanleiding van die resulte van die assessoringsafdeling van die SEOs.

Die literatuurstudie het eerstens gefokus op kwaliteit in hoër onderrig en die rol wat die studente in die verbetering daarvan kan speel. Die geldigheid en betroubaarheid van SEOs as meetinstrument is daarna bepaal. Die tweede deel van die literatuurstudie het gefokus op die aspek van assessering in hoër onderrig en spesifiek op assessering in rekeningkunde onderrig.

In hierdie studie is ‘n gemengde-metode benadering gevolg om data in te samel, te analiseer en te bespreek. Met ‘n gemengde-metode benadering word beide kwantitatiewe en kwalitatiewe navorsingsmetodes gebruik. ‘n Navorsingsvaerelys is gebruik om kwantitatiewe data rakende studente se persepsies oor SEOs te bepaal. Die studie-steekproef is deur middel van geriefsteekproefneming gekies en het bestaan uit 428 studente. Daarna is ‘n dokument-analise van die SEOs uitgevoer om sodoende data met betrekking tot assessering vanuit die SEOs te versamel. Die kwalitatiewe data is verkry deur middel van navorsingsonderhoude. Die doel van die onderhoude was om insig te verkry oor dosente se persepsies en gebruik van SEOs. Onderhoude is met 8 dosente gevoer, wat gekies is deur middel van ‘n doelgerigte steekproeftrekking.

Die kwantitatiewe navorsingsmetodes het aangedui dat studente glo dat SEOs oor die algemeen ‘n effektiewe manier is om dosente te evalueer en dat hulle oor die algemeen ernstig en onbevooroordeel is wanneer hulle dit voltooi. Dit het verder aangedui dat die afdeling van SEOs aangaande assessering laer gemiddelde graderings as die ander afdelings van die SEOs verkry het.
Deur middel van die kwalitatiewe navorsingsmetodes is daar gevind dat, alhoewel dosente oor die algemeen glo dat SEOs 'n effektiwe manier is waarop studente terugvoer aangaande hulle dosente kan gee, hulle baie besorgd het rakende die gebruik daarvan. Daar is verder bepaal dat dosente huiwrig is om hulle assesseringspraktyke te verander na aanleiding van die terugvoering ontvang vanaf SEOs.

Hierdie studie dra tot SEO literatuur in die algemeen by, asook spesifiek tot literatuur oor assessering in die veld van rekeningkunde. Verskeie aanbevelings is gemaak met betrekking tot die verbetering van assessering in hoër onderrig en die rol wat SEOs in die verbetering daarvan kan speel.

Sleutelwoorde: Assessering, gemengde-metodologie, kwaliteit in hoër onderrig, rekeningkunde onderrig, studente evaluasies van onderrig (SEOs), Suid-Afrika.
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CHAPTER 1

1.1 INTRODUCTION

1.1.1 Background

Over the past thirty years institutions of higher education have developed internal procedures to collect student evaluations of teaching and learning (Palermo, 2011:211). Student evaluations of teaching (SETs) are the most commonly used method world-wide to collect student feedback on educators (Zabaleta, 2007:55). This usually takes place by means of questionnaires in which the students rate the quality of their teachers' instruction on several aspects at the end of a term (Wagner et al., 2013:1).

According to Kember et al. (2002:411) there are three main reasons why SETs are important. Firstly it is used to improve the quality of teaching, when teachers improve on their weaknesses as revealed by their students. It is also used for appraisal exercises, like promotion or contract renewal. Lastly SETs are conducted because it is a requirement at most universities, as it enables them to demonstrate that they have procedures in place to ensure teaching quality.

The main reason why SETs are such an important tool for gaining insight in teaching quality is because of the intimate relationship that is formed between the student and the teacher during education. Students’ feedback could therefore play a significant role in improving the quality of education (Zabaleta, 2007:55). Shah and Nair (2010) conducted a study to determine the factors that influence students in selecting a university to study at. They found that the quality of the teaching staff is the main factor that influences this decision (Shah & Nair, 2010:11).

Extensive research on SETs has been done because of the important decisions made based on it (Zabaleta, 2007:56). The feedback from SETs is used by all the important role-players in higher education who aim to improve the teaching effectiveness and quality of education (Kuzmanovic et al., 2013:153). Most of these role-players are unaware of the great amount of studies that has already been done on this topic. The main focus of most of these studies that have already been conducted is the validity of the students’ opinion and factors that can influence it (Spooren et al., 2013:600).

Pounder (2007:179) presented a framework which serves to categorise most of the research done on SETs. The research done is divided in student related factors, course related factors and teacher related factors. The student related factors comprise of research done on how the
students' gender, academic level and maturity influence their ratings of teachers. Also how students use SETs to punish teachers for low grades. The course related factors include aspects like the class size, timing, course content and the students' grading. Lastly the teacher related factors involve research done on the age, experience and rank of the teacher and also on the teachers' behavioural traits.

At modern universities there is a renewed focus on teaching and learning activities. Teaching effectiveness plays an important role in the decisions that need to be made at a university (Chen & Hoshower, 2003:72). Teaching and learning do not consist of components which work independently from each other but instead take place in a system where all the components work together (Biggs, 2003). More studies are being conducted on strategies to enhance teaching, learning and assessment. Especially assessment has become an increasingly important subject of resent research (Conrad et al., 2007:155). If assessment is not done correctly it could do more damage to teaching than any other single factor (Biggs, 2003).

Teachers need to obtain data on how their students are progressing, what they are capable of doing and what must be done to encourage further development (Emmanouilidou, 2012:105). These activities form the core of assessment. Three main purposes of assessment are normally recognised. Firstly it is summative, to measure students' achievement. It is also formative, to provide for future learning. Lastly assessment enables students to put their skills and attributes to use in real-life settings (Jessop et al., 2014:74). If a teachers' knowledge in student assessment is enhanced it positively influences teaching effectiveness (Emmanouilidou et al., 2012:112).

John Biggs proposed a concept, constructive alignment, which emphasises the alignment between learning outcomes, learning activities and the assessment tasks (Biggs & Tang, 2007:53). Constructive alignment greatly emphasises student-centred teaching. According to Biggs and Tang (2007:105) learning depends on the students' activities rather than on those of the teacher. Constructive alignment could lead to more effective and efficient learning because of the students' awareness of the teachers' expectations (Wang et al., 2013:487).

Assessment should be conducted in such a manner that it supports student learning, which can be achieved when the assessment corresponds with the intended learning objectives (Biggs & Tang, 2007:165). Appropriate assessment is therefore needed because the students only learn that which they think they will be tested on (Biggs & Tang, 2007:169). The students' view of assessment and evaluation also determines the way in which future learning is approached.
(Struyven et al., 2005:326). If assessment is not done correctly it could lead to pressure and discouragement instead of satisfaction and achievement (Xiao & Carless, 2013:320).

1.1.2 Motivation of the study

The data extracted from SETs are commonly used as the dominant or in some cases the sole indicator of teaching quality at universities and colleges (Spooren et al., 2013:598). Universities therefore need to determine how the results from the SETs could be used to maximise teaching (Palermo, 2011:211).

At the university where this study was conducted SETs are also used to collect and analyse student feedback on the quality of teaching and is known as a student feedback form. The aim of the student feedback form is to determine how the student experienced the effectiveness of the lecturer's teaching and to assist the lecturer in improving the teaching-learning experience. This evaluation comprise of twenty-eight questions which can be divided in six different sections. The sections are: preparation, presentation, relationship with students, assessment, subject content and student involvement. Students are presented with the questions and need to give a rating on a scale from one to four, based on their experiences during the teaching period. If a student gives a rating of 1 they strongly disagree whilst at 4 they strongly agree (NWU, 2013). This process takes place at the end of each semester and is compulsory with regard to all lecturers in the School of Accounting Sciences.

Although extensive research has been done on SETs there is only a limited amount of research on the students' actual feedback on specific sections and questions from the SETs. Almost no research could be found on students' perspectives of their assessment as indicated by their ratings.

1.2 PROBLEM STATEMENT

Students' perceptions of assessment are strongly related to their approaches to learning (Struyven et al., 2005:326) and play an important role in their attitudes and motivation towards their education (Xiao & Carless, 2013:321). It determines what they focus on when studying, how much they study and how much effort is put into different learning tasks (Gibbs & Simpson, 2003:2). As assessment has such an enormous influence on the learning process (Struyven et al., 2005:326) it is necessary to determine students' perceptions of their assessment and the way in which it is conducted. The question therefore arises whether students are generally satisfied with the overall quality of their assessment and whether they
believe the assessment corresponds with the intended learning objectives (constructive alignment).

Final-year students in the UK have since 2005 completed an annual National Student Survey on the quality of their degree programmes and their overall satisfaction with the university. Their scores on assessment and feedback were relatively low, compared to those on teaching, resources and personal development (Jessop et al., 2014:73). Dames (2012) did a study in which he collected information on how students experienced teaching, learning and assessment. Even though instructors were convinced that their assessment tasks were clear and of a good standard, more than half of the students disagreed with this (Dames, 2012:44). It raised a big concern as consistent and fair assessment is needed to ensure deep learning (Dames, 2012:45).

The following research questions therefore arise:

- Do the responses of the students on the assessment section of the SETs provide an indication of their actual perception of assessment or is it based on a form of bias?
- Do management, lecturers and students take the SETs seriously and are the results used to improve assessment?

1.3 OBJECTIVES

The main objective of this study is to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SETs.

The main objective is supported by the following secondary objectives:

- Conceptualising from the literature the different aspects of quality in higher education and the role that students play in ensuring quality education (research objective 1)
- Conceptualising from the literature the validity and reliability of SETs (research objective 2).
- To demonstrate from the literature the importance of assessment and its role in teaching and learning (research objective 3).
- To determine whether accounting students’ perception of assessment, as indicated by their responses on the SETs, reflect their actual perception of assessment or whether it is based on some form of bias and to determine accounting students’ perceptions of assessment in Financial Accounting, Management Accounting, Taxation and Auditing (research objective 4).
- To compare the results of the assessment section of the SETs with that of the other sections and to compare the results of the assessment section between Financial Accounting, Management Accounting, Taxation and Auditing (research objective 5).
- To determine whether instructors take the results of the SETs seriously and if they use them to improve assessment (research objective 6).

1.4 RESEARCH METHODOLOGY

To achieve the above objectives, a thorough theoretical study of recent literature as well as an empirical study were conducted.

1.4.1 Literature review

The theoretical study that was conducted considered published academic research performed. The study focused on research on SETs. Firstly the importance of SETs needed to be determined and discussed. Furthermore the reliability and validity of SETs were investigated by focusing on factors that could influence it. Results of different studies were compared to obtain a good insight into the use of SETs and to determine the extent to which literature agrees or disagrees on various aspects.

Secondly there was a focus on current developments in the field of assessment, by establishing the nature and purpose of assessment. The importance of assessment for enhancing student learning was investigated and several aspects of assessment and assessment strategies were discussed. The study also identified and investigated instructors’ and students’ perceptions of assessment.

1.4.2 Empirical research

The primary objective was to investigate students’ general approach to SETs to determine the reliability and validity of the results. This was achieved by employing a mixed methods approach which made use of both quantitative and qualitative research methods. This design was chosen to meet the objectives of this study.

A quantitative research questionnaire was used to assess students’ perceptions of SETs and assessment. The survey asked specific questions related to the students’ use of and feelings towards SETs. Thereafter students’ were asked questions about their perceptions of assessment in the four main subjects, i.e. Financial accounting, Management Accounting, Taxation and Auditing.
Secondly a document analysis of SETs was conducted in order to compare the scores of the assessment section of the SET to the results of the other main sections of the SET. Furthermore the results of the assessment section in relation to the other sections were compared between four main subjects in the School of Accounting Sciences at a South African university. This was done to determine whether students were less satisfied with their assessment than with the overall teaching and whether their view on assessment differed between subjects.

Lastly there were interviews with instructors to investigate their perceptions of SETs and to determine whether the results can be used to improve teaching and learning.

1.5 OVERVIEW

The study was conducted in six chapters as follows:

Chapter 1: Introduction

This chapter contains the introduction of the research study. The background of SETs and assessment is discussed and issues identified in other studies are noted. There is a rationale of why the study was conducted and the problem statement outlines the matter under discussion in this study. The research objectives are addressed. Lastly it contains the methodology used as well as the outline of the study.

Chapter 2: The use of SETs in the improvement of quality education

This chapter serves to provide an overview of the literature regarding the role that students play in the improvement of quality education. It focusses specifically on the use of SETs as an instrument for students to provide feedback on the learning process. The purpose of SETs is established from the literature, as well as the validity and reliability thereof as found in previous studies. Lastly students’ and instructors’ perceptions of SETs are investigated and discussed.

Chapter 3: Assessment in higher education

Chapter 3 provides a thorough literature study of the concept of assessment. The importance of assessment is discussed as well as the different types of assessment and the purpose it serves. From the literature students’ and instructors’ perceptions of assessment are determined. Lastly the nature and development in the field of accounting are investigated and discussed.
Chapter 4: Research design and method

In chapter 4 the research methodology of this study is described. This includes the explanation of how the population was determined and justification of how the sample was selected. The procedures used in the selection, development and analysis of the three research instruments are discussed.

Chapter 5: Analysis of empirical results

This chapter serves to present the reported results of the empirical study. The analysis, interpretation and evaluation of the empirical research are provided. It comprises of the statistical techniques used to interpret the quantitative data as well as the qualitative measures used.

Chapter 6: Conclusion and recommendations

Chapter 6 provides a summary of the study and the insight that was obtained. This is done in the light of the objectives set out in the first chapter. The conclusions and recommendations are discussed.
CHAPTER 2

THE USE OF SETs IN THE IMPROVEMENT OF QUALITY EDUCATION

2.1 INTRODUCTION

Quality is becoming one of the main concerns of institutions of higher education and is especially encouraged by the external environment (Ardi et al., 2012:408; Nair et al., 2010:554; Mehralizadeh et al., 2007:352). Governments have an increasing concern to ensure that the institutions of higher education in their countries are worthy of respect and demonstrate value for money (Yorke, 1999:14; Houston, 2007:61), while institutional managers are also becoming more concerned with the “public accountability” of learning institutions and are continually implementing strategies to assure a higher quality of education (Mok, 2005:278). Higher education has changed over the years with reduced funding, increased competition and students who are increasingly seeing themselves as customers who buy a degree (Wilkens & Epps, 2010:419), which makes it all the more important for universities to improve quality in order to gain a competitive advantage. There are raising concerns about student learning, the productivity of the faculty, resource management and student access (Welsh & Dey, 2002:17).

The purpose of this chapter is to provide an overview of the literature regarding quality in higher education, and more specifically the role that students could play to help improve educational quality (see secondary research objective 1 in section 1.3). Students are often seen as both customers and participants in the educational process and institutions of higher education could greatly benefit from inputs from the students regarding the quality of education. Furthermore students’ perceptions of quality education are discussed in order to determine the aspects that they regard as important. A short discussion on why teaching effectiveness should be the main focus when institutions of higher education want to improve their quality then follows.

The discussion leads into to the second section of this chapter that focusses on student evaluations of teaching (SETs) – a means through which students could be actively involved in improving educational quality by having their voices heard. By using SETs, students’ perceptions about the quality of their education could be determined. Firstly the purpose and use of SETs are discussed. In order to put any trust in the results of SETs the validity and reliability of SETs needs to be determined by studying the results of previous research studies (see secondary research objective 2 in section 1.3). When determining the validity and reliability this study especially focusses on all the aspects that could cause biased results. After the discussion on validity and reliability the attitudes and beliefs of the students and instructors
regarding SETs are established. This section concludes by determining the extent to which SETs could be used to improve the quality of education.

2.2 QUALITY IN HIGHER EDUCATION

To define quality in higher education has been proven to be a challenging task, as it is difficult to determine who should be described as the customer in this multi-dimensional concept (Chen et al., 2007:131). This is due to the different expectations in which a university has to operate. The different stakeholders involved (e.g. students, faculty, the industry, the government, professional bodies and the university management) see the university from economic, societal and educational perspectives, all with different expectations (Houston, 2007:62). It is a challenging task to meet the expectations of all the institutions’ constituencies (Cheng & Tam, 1997:23). According to Dilshad et al. (2012:104) quality of education may be defined as “the achievement of academic goals/standards, delineated in the light of significant stakeholders’ needs and expectations, which may help the institution excel in its external environment”.

2.2.1 The role of students in improving higher educational quality

The students of an institution of higher education are among its stakeholders and form an essential part of the service process (Gallifa & Batallé, 2010:157). Though questionable, an increasing number of universities are now describing and treating their students as customers, as they have roles as service receivers that use the services of the university (Watjaatrakul, 2013:677). They are therefore sometimes regarded as the primary and possibly the most important stakeholder of the education system (Law, 2010:261; Katiliūtė, 2010:578). Wilkens and Epps (2010:417) argue that universities have become businesses and that their customers (the students) should be satisfied. Students are however not merely customers who passively receive a service but can also be seen as partners and collaborators in the educational process (Katiliūtė, 2010:578).

In countries all over the world the number of students enrolling in higher education is rapidly increasing while universities are also expanding (Oliviera et al., 2012:49; Mok, 2005:285). The profile of these students change over the years and it is therefore important for institutions of higher education to ensure that they adapt to assess their needs (Oliviera et al., 2012:49). With these different needs and expectations, institutions of higher education are constantly focussing on the quality of their service, as a means to ensure that they retain student numbers (Yeo, 2008:267). A good way for institutions of higher education to assure high quality is to have institutional self-knowledge i.e. to collect and analyse information about their activities. This will
ensure that they are able to determine what is working well and what needs improvement (Katiliūtė, 2010:575).

It is argued by Gallifa and Batallé (2010:157) that the quality of a service should be determined according to the assessment of the consumer. Service quality in higher education is perceived as sufficiently good when the consumer’s expectations are met, making it all the more important for institutions of higher education to understand these expectations (Hill, 1995:11). If students are viewed as customers their needs should be taken in account which could result in the improvement of the educational process (Watjatrakul, 2013:678).

In institutions of higher education the student is both a customer of the service which is provided and also a partner in the learning process (Yorke, 1999:17). They can be seen as the main input and simultaneously also the main output of the educational system (Elassy, 2013:166). Their contributions could significantly influence the quality of education (Hill, 1995:14) and ways in which students could be involved in the quality assurance process is considered globally (Elassy, 2013:162).

Student involvement in the quality process can be described as: “the roles that students should take and the power that they have to obtain to feel that their voices are heard” (Elassy, 2013:165). Wiklund et al. (2003:105) emphasise the importance of the active involvement of students in the quality management process and argues that their inputs should be heard respectfully. Katiliūtė (2010:574) observes that students are becoming more involved in the improvement and enhancement of their learning experiences and that it can be helpful in the establishment of an institution’s quality culture.

2.2.2 Students’ perceptions of quality in higher education

As previously mentioned, institutions of higher education are under pressure to establish educational quality. Resulting from this public pressure, institutions have a tendency to focus on the institutional aspects of quality and in return pay inadequate attention to the factors affecting the object of education i.e. the student and the learning experience (Law, 2010:261). This is also observed by Newton (2010:51) who argues that the motivation for quality was previously mainly to establish accountability, rather than to ensure improvement.

As the service quality in higher education is to a great extent determined by the students’ expectations (Yeo, 2008:268) a different approach to quality management in higher education may be to align students’ expectations with their perceptions of service delivery (Hill, 1995:13).
To achieve this it is necessary for institutions of higher education to determine the students’ needs (which may change over time) and their views on the quality of their education (Hill et al., 2003:15) and not just to collect information on what the institution perceives as important (Hill, 1995:14; Oldfield & Baron, 2000:86). Quality in higher education is to be “the totality of attributes bearing on the students’ experience” (Yorke, 1999:17). When the students’ needs and expectations are met they should have an overall satisfaction regarding the quality of the university and their attitudes toward the institution of higher education would improve (Gallifa & Batallé, 2010:158; Watjatrakul, 2013:690).

Students are actively involved in the learning process and to measure their satisfaction is an important aspect of quality management (Wiklund et al., 2003:101). The most important characteristics that influence students in their choice of a higher education institution is the quality of the institution, teachers, academic programs and infrastructure (Shah & Nair, 2010:10).

2.2.3 The quality learning experience

In the services sector there are no physical products as the process is perishable, which makes it problematic to establish agreement on the core aspects of quality in education (Chen et al., 2007:130; Houston, 2007:62). This is especially true for institutions of higher education as teaching can be seen as one of the most intangible services that exists (Gallifa & Batallé, 2010:158).

The main objective of higher education is to provide students with a high quality learning experience (Yeo, 2008:267) which encourages learning teaching effectiveness (Ngware & Ndirangu, 2005:191; Wongsurawat, 2011:67). Therefore, when institutions of higher education seek to improve the quality of education their focus should be on the improvement of the students’ learning experience (Srikanthan & Dalrymple, 2007:185).

It is argued that teaching effectiveness and quality is difficult to determine and almost impossible to measure (Morgan et al., 2003:18). Kim et al. (2000:470) provide a guideline of four factors that can be used to determine teaching effectiveness:

- The instructors’ attitude as perceived by the students.
- The instructors’ effectiveness in presenting the material to the students.
- The instructors’ reliability as indicated by his promptness in meeting the class and returning assignments.
• The instructors’ ability to teach essential principles and theories to students in a manner that enables them to apply it in practice.

Some of the different procedures available to evaluate teaching effectiveness include self-evaluation, student evaluation, student focus groups, teaching portfolios, peer evaluation or evaluation by a faculty committee. Douglas et al. (2008:32) established that communication and responsiveness are the most decisive aspects for students’ on their satisfaction with the quality of education. Hence, a communicative setting in teaching, learning and assessment is absolutely critical. This is often done by means of research instruments such as student feedback questionnaires (Oldfield & Baron, 2000:85), which can be seen as a common feature used to enhance quality assurance in universities worldwide (Law, 2010:251). The primary measure of teaching effectiveness in institutions of higher educations is through the use of student questionnaires (Chen & Hoshower, 2003:72).

2.3 STUDENT EVALUATIONS OF TEACHING

Students could be actively involved in measuring teaching effectiveness by means of student evaluations of teaching (SETs). SETs is one of the most common and predominant methods for universities worldwide to measure their own performance (Ngware & Ndirangu, 2005:184; Rogge, 2010:590). SETs can be seen as a control device or assessment tool used by students to measure the instructors’ performance and by faculties that strive to improve teaching effectiveness and course design (Crumbley et al., 2001:197; Chulkov & Van Alstine, 2012:171).

With SETs students are required to complete questionnaires on their tutors’ performance and the course design. This normally happens at the end of each semester, but can also take place at certain other times during the year (Ahmadi et al., 2001:12; Chulkov & Van Alstine, 2012:162). These questionnaires usually comprise of Likert-scale items (quantitative) (Wongsurawat, 2011:67) with a scale that is usually measured from 1 to 10 that proposes “very poor” to “highly satisfactory” ratings (Johnson, 2000:423). The SETs normally also contain open-ended questions (qualitative) with space for students to write their own comments (Wongsurawat, 2011:67). This allows them to express their unrestricted views and to provide diagnostic information on their course and instructor (Chen & Hoshower, 2003:77).

2.3.1 The purpose of SETs

SETs play a significant role in the improvement and evaluation of a faculty’s effectiveness and are usually the only means by which the quality of education is measured (McKone, 1999:397). The importance of SETs is perceived by Ahmadi et al. (2001:18) whom state that SETs are
extremely necessary for teaching effectiveness and should definitely be conducted at least once every semester for every course.

There are mainly four uses for SETs that can be recognised:

- The main significance is that it is used for feedback on teaching. Instructors are able to recognise their strengths and weaknesses as indicated by the students, and use this information to improve the quality of their own teaching thus ensuring high standards of education (Ahmadi et al., 2001:12; Lomas, 2004:162). This is especially possible due to the inclusion of students’ own comments in SETs, which are sometimes more specific and constructive than the Likert-scale items (Wongsurawat, 2011:67).
- It is used for decision making and appraisal exercises, such as salary increases, retention, pre- and post-tenure reviews and promotions (Ahmadi et al., 2001:12).
- It is a requirement at most universities to demonstrate that there are procedures in place for enhancing the quality of their teaching and to provide evidence for institutional accountability (Kember et al., 2002:411; Spooren et al., 2013:599). This is mainly influenced by international accrediting bodies which may require a university to have programs in place for the measurement of their faculty members (Chulkov & Van Alstine, 2010:163).
- At some universities the results of the SETs are made available to aid students in their selection of courses and tutors (Chen & Hoshower, 2003:74).

2.3.2 Validity and reliability of SETs

Due to the explosion in popularity of SETs an overwhelming amount of studies has already been conducted on it. Most of these studies concentrate on the validity, reliability, relevance, stability, usefulness, comparability and multidimensionality of SETs (Rogge, 2010:590; Crumley et al., 2001:197). Spooren (2010:121) groups these research studies in four categories aimed at obtaining a better insight into:

- The construction of valid questionnaires.
- The validity and reliability of students’ perceptions of teaching.
- The use of SETs to determine teachers’ skills.
- The use of SETs in the improvement of education.

As important decisions are based on the results of SETs and because of the growing use thereof, the validity, reliability and potential biasing factors concerning SETs have been questioned (Badri et al., 2006:44). Furthermore, if SETs are to be used as the primary
measurement for the quality of education, confidence in its validity is needed (Palmer, 2012:309).

In testing for the validity, researchers normally want to determine whether SETs serve as a good measure for teaching effectiveness (Chen & Hoshower, 2003:73) and the extent to which students are able to provide appropriate evaluations (Spooren et al., 2013:599). With the reliability of SETs the researchers normally seek to establish whether the SETs are consistent over time (Chen & Hoshower, 2003:73; Rantanen, 2013:225). Administrators and instructors need to ensure that the SETs provide accurate feedback that can be used in the improvement of education (McKone, 1999: 396), and it is therefore desired that the results from SETs should be related to the students’ learning experience and not to the personality, gender or other characteristics of the instructor (Centra & Gaubatz, 2000:18). This aspect is called the construct validity of SETs. Construct validity means that the SETs are associated with variables that are expected to be predictors of quality and not associated with variables that are irrelevant to teaching, thus causing the evaluations to be biased (Langbein, 1994:545).

2.3.2.1 Possible bias in SETs

Centra and Gaubatz (2000:17) provide the following definition of bias regarding SETs: “Bias exists when a student, teacher, or course characteristic affects the evaluations made, either positively or negatively, but is unrelated to any criteria of good teaching, such as increased student learning”. They also provide a more general definition of bias as: “when a known characteristic of students systematically affects their ratings”.

Even though several of the leading researchers of SET believe in its validity and that biasing factors have no or only a limited influence on the results, biasing factors are still researched and play a central role in recent literature (Spooren et al., 2013:609). Marsh and Roche (2000:202) mention this phenomenon and say that unsupported claims of potential biases in SETs continue to increase. They point out that a great deal of research on biasing factors of SETs are flawed and should be rejected on account of methodological weaknesses e.g. the use of correlation to argue for causation and the absence of a proper definition of bias (Marsh & Roche, 2000:203). They propose that research on the validity, utility and biasing factors in SETs should use a broad construct validity approach that recognises that (Marsh & Roche, 2000:203):

- Effective teaching and the SETs designed for measuring it are multi-dimensional concepts.
- A single criterion of effective teaching is insufficient.
• Interpretations of relations and potential biases should be critically evaluated across different contexts.

Due to the different methodologies and statistical procedures used in these studies on biasing factors in SETs the results are often conflicting and inconclusive (Ahmadi et al., 2001:13). Absolute methodologies for analysing SETs are not yet developed and therefore the controversy and debate about SETs remain (Rogge, 2010:591).

Most of the researched variables that could possibly compromise and influence the validity and reliability of SETs can be grouped into three main categories that will be further discussed namely (Pounder, 2007:179; Rantanen, 2013:224):

- Student related factors.
- Course related factors.
- Teacher related factors.

• Student related factors

**Gender**

Centra and Gaubatz (2000:18) argue that there has not been consensus in studies regarding gender bias in SETs and that previous studies produced conflicting results. They propose that this might be due to shortcomings in these studies’ designs. Research did however show a tendency of female students to give better evaluations than male students (Santhanam & Hicks, 2002:27) and that female students generally give better ratings to female instructors (Centra & Gaubatz, 2000:38; Smith et al., 2007:74). Centra and Gaubatz (2000:38) argue that these results may be attributed to the different teaching styles of female instructors and even if a bias does exist it will not be significant enough to influence the decisions made based on the results. This is consistent with the view of Spooren (2010:129) and Smith et al. (2007:74) who deem the gender variable to be statistically insignificant.

**Students’ grade**

Small positive correlations that have previously been found between SETs and grades have caused it to be an intense debated topic in biasing literature (Marsh & Roche, 2000:204). This correlation could either advocate the validity of SETs, as students who learn more receive higher grades and therefore give a good evaluation, or it could indicate the possibility that instructors could receive better evaluations by giving better grades, which would prove the existence of biasing factor (Spooren, 2010:121). Clayson et al. (2006:53) provide a few possible explanations for the correlation between grades and evaluations. One of these explanations is called the reciprocity hypothesis. According to this hypothesis students will change their
evaluations based on changes in their individual grades. In this instance it is the students’ own grades that influence the evaluations they give and not the instructors’ leniency (Clayson et al., 2006:54). Badri et al. (2006:52) could not find a significant consistency between students’ GPAs (grade point averages) and student evaluations while Clayson et al. (2006:61) discovered that students’ evaluations changed according to their individual grades (reciprocity hypothesis). They argue that an obvious bias exists, which could not be disregarded.

Another explanation for this grade correlation could be the attribution hypothesis. This hypothesis states that students have the tendency to attribute good grades to them but blame bad grades on external factors like their instructor’s performance (Clayson et al., 2004:63). They could however find no support for the attribution hypothesis (Clayson et al., 2004:67).

Stapleton and Murkison (2001:280) established that SETs are generally valid after detecting a positive relationship between the instructors’ evaluation results and the learning produced as indicated by the students’ grades. They found that students expected high grades in courses for which they gave the instructor a high rating. A strong correlation has been established between students’ perceptions of learning and their ratings of instructions. If students give a better overall evaluation of instruction they also have a high perception of what they have learned. It also corresponds with their “actual” learning as determined through exams (Centra & Gaubatz, 2005:19). Stehle et al. (2012:898) in turn determined that more effective teaching lead to better results in practical examinations and superior student evaluations and they therefore concluded that exam results and student evaluations could be valid measurements of teaching effectiveness.

- **Course related factors**

  **Grading leniency**

One of the most disputable potential sources of bias is whether teachers who give higher grades get better student evaluations (Griffin et al., 2014:339). Here it is not the physical grades that are called in question but rather the leniency with which it is allocated (Marshe & Roche, 2000:204). In his research Centra (2003:495) argues that some teachers may try to improve their evaluations by giving higher grades or by decreasing the students’ workload. Others argue that some students believe they should be able to receive a degree, regardless of the effort they put in, and may give lower scores on SETs when they actually fail due to their own incompetence. This can lead to a negative effect where the tutor lowers the standards, become more lenient in grading, reduces the amount of homework or use grade inflation to satisfy the
students. This occurrence may even induce conflict between instructors (Wilkens & Epps, 2010:419; Stapleton & Murkison, 2001:269; Winchester & Winchester, 2011:672).

The question asked is whether teachers are able to manipulate SET data by grading more leniently. If this bias does exist it should imply that the classes with the highest grades should also have the best evaluations, while classes with lower grades should have lower evaluations (Marshe & Roche, 2000:224). No appropriate measure of grading leniency is generally available and therefore expected grades are usually used (Marshe & Roche, 2000:208). Marshe and Roche (2000:204) present three possible interpretations of this positive correlation between grades and evaluations:

- Validity hypothesis: higher grades are an indication of better learning and thus support the validity of SETs.
- Prior characteristics hypothesis: there are other prior variables such as prior motivation or subject interest that influences student learning, grades and teaching effectiveness. There then appears to be a bias affect between grades and evaluations but it is actually a result of other underlying variables (Clayson et al., 2006:54).
- Grading leniency hypothesis: Instructors who give higher grades than deserved in return receives higher evaluations than deserved, causing a serious biasing factor.

They used a construct validity approach which focused on the multidimensionality of SETs and established support for the validity and prior characteristics hypotheses but only limited support for the grading leniency hypothesis (Marshe & Roche, 2000:224). Contrary to the grading leniency expectation Centra (2003) determined that no significant bias regarding the students’ expected grades exists. Students who had a higher expected grade sometimes even gave slightly lower ratings (Centra, 2003:516). The findings of Griffin et al. (2014:347) were in accordance with those of Centra (2003:345) who discovered varying levels of correlations between different courses and different departments. They warn that previously found correlations between GPAs and SETs should be handled cautiously. If a correlation does exist it could be due to other perplexing factors and administrators should examine such correlations with care to prevent being misled by the data (Griffin et al., 2014:347). Marshe and Roche (2000:208) also support this line of arguing that even though grading leniency may generate some bias, it has been difficult for researchers to establish evidence for this suggestion. In their research there was a modest correlation between SETs and grades. They suggested that if correlations exist it is probably insubstantial due to the small size thereof and the influence of other factors on this relation. Spooren and Mortelmans (2006:212) could find no support for the grading leniency hypothesis. They determined that students reward good teachers with high
evaluations which according to them underline the value of SETs. In contrast to above mentioned findings Petridou and Sarri (2004:156) did however identify an instructors’ grading system to be a possible bias and determined that instructors who grade more leniently are likely to get better evaluations.

**Class size**

Research has shown that class size definitely influences the results of SETs. For a smaller class size teachers tend to get better teaching evaluations (Koh & Tan, 1997:170; Langbein, 1994:552; Liaw & Goh, 2003:42). Centra (2003:498) do however make the argument that if students in smaller classes give higher evaluations because they are given more personal attention and therefore perform better in their studies the class size is not truly biasing the SETs. Teaching effectiveness could thus be improved by reducing the student-teacher ratio (Liaw & Goh, 2003:42).

**Subject level**

Another aspect that could influence the results of SETs is the subject level. Koh and Tan (1997:170) determined that first- and third-year subjects resulted in better evaluations than those of second-year subjects. According to the research of Al-Issa and Suliman (2007:312) and Hoefer et al. (2012:457) freshman and graduate students gave more positive evaluations than senior students, although Santhanam and Hicks (2002:27) determined that higher level students give more positive evaluations. They did however find that second-year students give the lowest ratings, which is consistent with the findings of Koh and Tan (1997). These results are in return contradicted by the results of Badri et al. (2006:53) who indicated that second- and fourth-year students tend to give better evaluations than first- and third-year students. Thus no clear cut conclusion about the influence of the subject level on SETs could be reached from studying the literature.

**Course workload**

Workload is regularly proposed as a potential bias to SETs as it is sometimes believed that an easier and less demanding course should lead to higher evaluations (Marshe & Roche, 2000:204). If this is true, it poses an enormous threat to the validity of SETs (Marshe & Roche, 2000:222). A positive relation between SETs and workload has been determined by different researchers (e.g. Marshe & Roche, 2000:223; Petridou & Sarri, 2004:156), and they even determined that instructors received better evaluations for difficult courses, which argues against the workload bias. Marshe and Roche (2000:226) conclude that instructors cannot get better ratings simply by making their course easier. They recommend that if instructors would
like to improve their evaluations they should rather provide the students with challenging materials which encourage them to master the course and make them value what they learned (Marshe & Roche, 2000:226). Remedios and Lieberman’s (2008:110) findings were consistent with those of Marshe and Roche (2000:226) and they determined that students’ evaluations are determined to a great extent by the degree to which they feel involved in the course. This involvement is measured by the extent to which they find their courses compelling, invigorating and useful (Remedios & Lieberman, 2008:110). The research of Stapleton and Murkison (2001:280) did however find a conflicting result to the above mentioned as they established a negative relationship between the instructors’ evaluation and the study production. They determined that instructors who gave more homework were assigned lower ratings.

**Class time**

SETs conducted at the end of the week proved to result in better evaluations than those conducted at the beginning of the week, supposedly because students might be more relaxed when it is almost weekend (Koh & Tan, 1997:176).

- **Teacher related factors**

  **Teacher characteristics**

  Surprisingly Koh & Tan (1997:170) found that teacher characteristics did not really affect the results of the SETs, in contrary to the findings of several other studies. Kim *et al.* (2000:466) determined that students gave higher overall evaluations to instructors whose attitudes were considered to be positive and that an instructors’ attitude did influence the teaching evaluations.

  **Physical appearance**

  Liu *et al.* (2013) examined how a teachers’ physical appearance influenced students’ course satisfaction and motivation. They determined that students were more motivated to learn and had a greater learning satisfaction when they perceived their teachers as attractive (Liu *et al.*, 2013:99). Campbell *et al.* (2005:617) could not find any evidence that an instructor’s attractiveness influences their evaluations. They conclude their research by stating that attractiveness could not be seen as an invalidator of SETs (Campbell *et al.*, 2005:619).

  **Gender**

  Smith *et al.* (2007:73) discovered that female instructors generally got higher evaluations than male instructors but that the variance was quite small. They suggest that this small variance should not be able to influence decision made based on the evaluations and argue that
students’ perceptions are not based on the instructors’ gender. Petridou and Sarri (2004:156) could find no difference between the evaluations for male and female instructors and determined that the instructors’ gender had no significant influence on the evaluations.

Age

It has been determined that younger instructors get better evaluations than older instructors even though older instructors tend to assign better grades (Zabaleta, 2007:59; McPherson et al., 2009:44). This can either be caused by the preferences of students or it could be that older instructors are less motivated to improve the quality of their teaching (McPherson et al., 2009:44). Spooren (2010:128) could find no significant relation between the instructors’ age or ranking and the instructors’ evaluations.

The halo effect

Although a lot of factors that can influence the results of SETs have been researched, the halo effect and ceiling/floor biases have been neglected in this literature (Keeley et al., 2013:441). Some researchers have indicated that a halo-effect – when a students’ overall impression of an instructor influences that entire person’s ratings – might exist in SETs (Spooren, 2010:121). With the halo effect students have a tendency to regard one aspect of an instructor as so important that it gives them ground for ignoring all other aspects (Clayson & Haley, 2011:102). This implies that they ignore the content of the question at hand and assign a rating based on a more global concern (Clayson & Haley, 2011:105). If the halo-effect exists there is usually very little variation between a student’s ratings.

Several researchers found substantial evidence to support the existence of a halo-effect in SETs (Feeley, 2002:234; Keeley et al., 2013:453; Phelps et al. 1986:153). It is argued by Feeley (2002:234) that the existence of a halo-effect does not necessarily prove that SETs are invalid. It could still give a good overall judgment of the instructor even though the evaluations might be slightly inflated. Keeley et al. (2013:454) make the suggestion that students should be encouraged to consider each question separately from their overall perception of the instructor in an attempt to control this effect.

The ceiling/floor effect

The ceiling/floor effect exist when the evaluation scale does not allow the students enough space for variability in their ratings (Keeley et al., 2013:442). To explain the ceiling effect Keeley et al. (2013:442) use the illustration of trying to weigh two different size elephants on a human scale. They would both max the scale out, thus making it impossible to distinguish between their
weights. Vice versa, if you try to determine the difference in weight of two humans by using a scale designed for elephants you will get an illustration of the floor effect.

Keeley et al. (2013:442) designed SET instruments that consisted of 7- and 9-point scales to determine whether this expansion from a 5-point scale would result in more variability. They could however find no proof to support this effect with regards to SETs (Keeley et al., 2013:454).

2.3.2.2 Other concerns regarding the validity and reliability of SETs

Apart from the biasing factors faculty members question the validity and reliability on account that the results may be a demonstration of whether the students’ expectations have been met rather than a knowledgeable indication of teacher performance and quality education (Sporen et al., 2013:599) i.e. it may lead to a better understanding of the characteristics of the students rather than teaching effectiveness (Stehle et al., 2012:889).

The validity and reliability regarding SETs are furthermore being questioned as it is filled out anonymously. Due to this anonymity it is almost impossible to determine whether comments are serious, sarcastic or biased (Wongsurawat, 2011:69). It could also be argued that this anonymity could result in more honest evaluations and that students won’t give negative ratings if they believe the instructor could use it against them. Fries and McNinch (2003:341) determined that when students were required to sign their names on SETs it resulted in overall higher and more positive evaluations.

Another issue that arises with the use of SETs is the criticism about the time when they are conducted. It usually happens at the end of a semester when the course is completed, which entails that the students who completed the evaluation never benefit from its results or experience the outcome thereof and are less serious when filling them out (Winchester & Winchester, 2011:672).

Lastly the ability of students to judge the class or methods properly are sometimes questioned, as they are not yet trained in the course material (Ahmadi et al., 2001:12). It is argued that SETs are such a popular way to collect information on instructors only because it is affordable, convenient and simple, but due to questions regarding its validity and reliability it is not necessarily the best method to evaluate instructors (Emery et al., 2003:38).
2.3.3 Students’ perceptions of SETs

Although extensive research has been done on the validity and concerns of SETs, only a limited amount of research has been conducted to determine the attitudes and beliefs of the groups involved in the execution of SETs like the students, faculty members (tutors and management) and others that use the information gained from it (Schmelkin et al., 1997:575). There is especially little research on SETs from the students’ point of view e.g. what they consider as important, how they perceive the process and their willingness to participate (Ahmadi et al., 2001:17; Chen & Hoshower, 2003:72). The usefulness of SETs is dependent on the active participation of the students. Meaningful input from them is required to ensure the success of SETs in measuring teaching effectiveness (Chen & Hoshower, 2003:72). If students’ perceptions of their evaluations are better understood the process and questionnaires could be improved to respond to their needs (Chen & Hoshower, 2003:84).

Seriousness

In order to test students’ objectivity and seriousness when they rate their tutors Ahmadi et al. (2001:12) developed a questionnaire for students with questions related to their perceptions of SETs, which specifically focused on their attitudes and beliefs while completing the SETs. They determined that students are generally serious when they answer the questions and they really want their voice to be heard (Ahmadi et al., 2001:18). This is consistent with the findings of Al-Issa and Suliman (2007:312) and Al-Abbadi et al. (2009:184) who established that students believed institutions of higher education should continue to give students the opportunity to evaluate their teachers and that they had a willingness to give their opinions on teaching. The students also perceived SETs as useful and worthwhile (Al-Abbadi et al., 2009:184).

Objectivity

Ahmadi et al. (2001:16) questioned students about their objectivity when completing the forms. The majority indicated that they do not give instructors higher evaluations than they deserve and they also do not give better evaluations for courses with less homework and easier exams (Ahmadi et al., 2001:16; Al-Abbadi et al., 2009:184). In compliance with the research on a possible gender bias the students indicated that the gender of their instructor also do not influence their evaluations (Ahmadi et al., 2001:18).

Students did however admit that they give better evaluations to instructors with a good sense of humour (Ahmadi et al., 2001:16) and that a instructor’s personality can influence their evaluations (Al-Abbadi et al., 2009:184). They also indicated that they may give lower
evaluations when an instructor did not teach them good enough to maintain their grade average, asked too many questions and appeared inexperienced (Crumbley et al., 2001:201).

Open ended questions

Although students indicated that they believe the open ended questions have the most value, only 38.7 percent of them revealed that they write comments. They also indicated that they do not write comments due to a lack of time, fear that it would compromise their anonymity, mistrust in its value and indifference (Ahmadi et al., 2001:17).

Motivation

Some students don’t understand the purpose and value of SETs and fill them out as quickly as possible as they don't believe it would make any difference while others write a lot of comments in the hope that it will make a difference (Ahmadi et al., 2001:12). In their study Chen and Hoshower (2003:84) examined the factors that influence students’ motivation to participate in SETs. They determined that the primary motivation for students to participate in SETs is to improve an instructor’s teaching and secondly to improve the course. Hence, students are more motivated to participate when they understand the purpose of SETs and when they believe their feedback can improve the quality of the teaching and/or course. Crumbley et al. (2001:201) established that the most important quality teaching factors for students are the instructors teaching style, presentation skills, enthusiasm, preparation and organisation and fair grading.

Although students want to fill out SETs they generally don’t believe that teachers take the results seriously and that it has an effect on the faculty’s advancement (Al-Issa & Suliman, 2007:312; Ahmadi et al., 2001:18; Al-Abbadi et al., 2009:184). Nair et al. (2010:561) propose that when SETs are utilised the results and improvements made should be reported back to the students to encourage their confidence in the process. If it is not possible for them to see results from their feedback they may be sceptical about SETs, become reluctant to participate and cease to give meaningful input (Nair et al., 2010:561; Chen & Hoshower, 2003:84).

2.3.4 Faculty’s perceptions of SETs

To establish a quality culture in institutions of higher education there should be a commitment to participate throughout the organisation (Lomas, 2004:160). When determining the usefulness of SETs it is also imperative to determine tutors’ and other faculty members’ perspectives regarding SETs. The question asked is whether they perceive these ratings as important, and how they utilise it (Schmelkin et al., 1997:577). A possible problem with the use of SETs could be the instructors’ negative perception of it (Koh & Tan, 1997:170). It is often believed that
faculty members remain sceptical and resistant towards the use of SETs due to factors concerning the quality and legitimacy of the data. Instructors may develop a tendency to accept good evaluations but interpreting bad evaluations as biased and inaccurate and thus ignoring studies which proved biasing questions to be myths (Marsh & Roche, 2000:205). There have been concerns of misuse of these ratings by faculty members, where forms have been disposed of or when the tutors bribe their students or bring them a treat on the day of the evaluations. As part of these concerns SETs have been described as invalid, unreliable, correlated with grades and popularity contests (Schmelkin et al., 1997:576). In their research Schmelkin et al. (1997:590) did find that faculty members view these evaluations as useful and that they are being used for formative and summative purposes. This is also supported by Balam & Shannon (2010:218) who found that although tutors don’t always believe that SETs are valid and reliable, they do believe that it could be useful. Ngware and Ndirangu (2005:183) established that instructors who didn’t receive results from their SETs were sceptical about the process but that those who did receive results indicated that it is helpful to improve their performance. Crumbley and Fliedner (2002:220) determined that administrators believe SETs could cause grade inflation and that they were not completely satisfied with the process. They did however indicate that they would not want to replace the evaluation system with an alternative.

2.3.5 The role of SETs in the improvement of education

Even though extensive research has been done on SETs there is but a few studies that attempts to determine whether SETs actually have an influence on the quality of teaching (Kember et al., 2002:412). Gallagher (2000:140) claims that it would be unwise for instructors to ignore the results from SETs as the main purpose thereof is to improve teaching. He argues that while SETs are compulsory it might be wise for instructors to give attention to what the students are saying and to make adjustments to their teaching accordingly. SETs make it possible for instructors to have a different mean of feedback on their instruction and they therefore do not need to rely solely on their own inferences about quality teaching (Gallagher, 2000:145).

Kember et al. (2002:422) found that SETs do not have a great impact on teaching effectiveness. This ineffectiveness of SETs could be due to factors such as bad timing and insufficient use of feedback (Knol et al., 2013:843). SETs could however be an effective instrument when it is coupled with individual, peer or expert consultation and when the feedback instructors receive is well-timed, relevant and specific (Knol et al., 2013:849).

Gallagher (2000:146) examined the SETs he received and by interpreting the results and discussing it with his peers he changed his instruction to adhere thereto. In return his SETs improved and he demonstrates that SETs can be used to improve teaching when the institution
of higher education has a culture that encourages the use of SETs (Gallagher, 2000:146). Wongsurawat (2011:76) argues that the written commentary on SETs could especially have a positive influence on an instructor’s teaching methods as it could contain more specific and helpful information than the Likert-style items.

### 2.4 SUMMARY

It is clear from the research that teaching quality in higher education is the most important aspect of quality in higher education that should constantly be improved. There is however concerns regarding this aspect of quality in higher education. It was further determined that students should be active participants in this pursuit of improvement as they are often seen as customers or stakeholders in higher education. One way in which students could be active participants in this process is by having their voices heard through means of SETs.

As the focus of the study is on the use of SETs it was thoroughly investigated in this chapter. SETs should be a valid and reliable instrument in order for management and instructors to place any confidence in its results. The most questionable aspect of validity and reliability is whether SETs are influenced by biasing factors. As a result studies on biasing factors with regards to SETs have been thoroughly and extensively researched. Even though positive correlations between certain factors and the results of SETs have been found, it is merely impossible to determine the extent to which these factors influenced the result. Ahmadi et al. (2001:13) noted that the research regarding bias in SETs is often conflictive and inconclusive. In this chapter this statement was determined to be true, as no clear cut answer of the extent to which SETs are influenced by biasing factors could be established.

When determining the perceptions of students and instructors regarding the use of SETs it has been found that students generally believed that it is important that their voices should be heard with regard to their education. Although students are generally serious and objective when filling out SETs, they are often not sure of the purpose of SETs. They have indicated that they don’t believe instructors pay enough attention to the results. This could make them sceptical about SETs and reluctant to participate in future.

For instructors, the results are often questionable as they have no way to be sure that it is not influenced by biasing factors. They sometimes have a tendency to accept good results but to reject the bad results as being influenced by biasing factors. Unlike students who are positive about making their opinions count by using SETs, instructors have been found to regard SETs as unfair popularity contests. When instructors don’t believe in the value of SETs it raises a big concern about whether SETs are used to improve teaching quality.
This leads to the final question of whether SETs have been proven to improve the quality of education. From research it seems that SETs could be used positively if instructors pay careful attention to the results and commentary. Especially the written commentary has been found to be of great value to instructors. There is however ways in which the usability could be enhanced for instance when SETs is well-timed and relevant.

The aim of this chapter was firstly to address the first research objective as defined in section 1.3 which seeks to conceptualise from the literature the different aspects of quality in higher education and the role that students play in ensuring quality education. A thorough literature overview on quality in higher education was conducted. It was established that students are often perceived as customers or stakeholder in higher education. Their perceptions and needs should therefore be determined in order to improve quality in higher education.

This chapter was furthermore aimed at addressing the second research objective (see section 1.3) which seeks to conceptualise from the literature the validity and reliability of SETs and the factors that could influence it. These biasing factors were thoroughly studied and discussed in this chapter.

The positive role that students can play in the improvement of education by means of having their views count through SETs has thus been established. The main objective of this study is however to determine how assessment, as an aspect of quality teaching, could be improved by using SETs. In the next chapter the focus is narrowed down by looking specifically at the importance of assessment in education and discussing ways in which it could be improved.
CHAPTER 3

ASSESSMENT IN HIGHER EDUCATION

3.1 INTRODUCTION

There has been an explosion in the literature with regard to studies on teaching, learning and assessment in higher education (Conrad et al., 2007:153). From the 1990’s wide interest and concern has arisen especially about the way in which instructors evaluate and assess their students’ performance and it has since become increasingly prominent in research studies regarding teaching and learning (Boud, 1995:35; Chin et al., 2011:121; Conrad et al., 2007:155; Tanner, 2001:24).

Institutions of higher education normally received accreditation based mainly on operational aspects and institutional effectiveness (Moskal et al., 2008:269). Currently different stakeholders demand that institutions of higher education incorporate better strategies for the assessment of student learning (Moskal et al., 2008:270). When assessment is thoroughly conducted it can provide stakeholders, e.g. legislators, tax payers, parents and students, with evidence of student learning and skills and provide information on the institution (Moskal et al., 2008:270).

In the past the predominant view of education was that if an instructor provided instruction of a reasonable quality it did not need to be changed according to students’ needs. They believed that this kind of education should be able to be effective for most of the students and that the reason that some failed was because of their own shortcomings (William, 2011:3). There is however an urgent call for educational improvement. Instructors are seeking to understand how assessment activities in the learning process can guide student learning towards certain goals (William, 2011:3). It has been suggested that schools should move their focus from what faculty teach to what students learn. This could be done by means of assessment processes that provide data on student learning and use these data to improve teaching activities (Stivers & Phillips, 2009:258).

The core aim of an instructor is to enhance student learning and in order to achieve this, students and instructors should be willing to change the roles that they play in the learning and assessment process (Black et al., 2004:18). Although it is easy and cost effective for instructors to make use of standardised tests to measure student learning, it is not necessary the best way to do so (Hamilton & Banta, 2008:27). Weurlander et al. (2012:749) acknowledge the impact of
assessment on students as it presents them with the knowledge that is perceived as important, it influences their approach to learning and it provides them with feedback on their learning.

In this chapter the focus is on the aspect of assessment in higher education in order to meet secondary research objective 3 (see section 1.3). Firstly the nature and purpose of assessment are determined from recent literature. The relationship between different types of assessment and different approaches to learning is discussed. As it is important to discuss instructors’ and students’ perceptions of assessment, it was determined from previous studies in the literature.

Instructors have to acknowledge that assessment is not a single, homogeneous entity, but rather a complex system. Different modules and courses make different demands of the students and it is necessary to take this complexity into account (Cilliers, 2010:710). As this study focusses specifically on accounting students this chapter concludes with a discussion of the nature and development of assessment in the field of accounting.

3.2 THE NATURE OF ASSESSMENT

The nature of the assessment system has an enormous effect on how students approach their studies and plays an important role in their learning experience (Srikanthan & Dalrymple, 2007:183; Struyven et al., 2005:326). It is an important tool that can either improve or hinder teaching and learning (Cilliers et al., 2010:696; Boud, 1995:35).

Even though assessment is such an important part of learning it is argued by Boud (1995:35) that it contains more bad practice and ignorance of important issues than any other aspect in higher education. Research has shown that assessment can be an expensive process that is often disliked by instructors and students and that it is sometimes not effective in supporting learning (Gibbs & Simpson, 2004:11). Instead of becoming negative, instructors need to confront the ways in which assessment can hinder learning in order to influence change in higher education (Boud, 1995:35).

3.3 THE PURPOSE OF ASSESSMENT

Assessment serves a number of purposes in the learning process. Mainly five is highlighted in the literature:

- It is important for measuring student achievement. Tests are used to measure student performance and determine how well they are performing relative to other students and established standards i.e. summative assessment (Miller, 2006:24).
- It is used to generate learning i.e. formative assessment (Jessop et al., 2014:74).
• It develops knowledge and skills that students can use in future employment and life settings (Jessop et al., 2014:74).

• Assessment provides students with extrinsic motivation and encouragement that influence their learning efforts when their results are good (Cilliers et al., 2010:697; Xiao & Carless, 2013:321).

• It serves as a method of quality assurance for institutions of higher education as it assures internal and external stakeholders that the institution is meeting its goals (Moskal et al., 2008:269; Stivers & Phillips, 2009:258)

With assessment the instructor can draw conclusions and make interpretations about the person taking the tests’ ability to perform tasks. The quality of assessment depends on the appropriateness, meaningfulness and usefulness of these interpretations (Birenbaum, 2007b:30). When instructors conduct assessment tasks they are sending a signal to their students that will lead to a learning response and instructors should therefore carefully examine their assessment designs when they receive disappointing responses (Hand et al., 1996:118). If assessment is meant to improve a student’s learning instead of just measuring it, it should be designed in ways that reflect this objective. Assessment should support students to engage in high quality learning (Willis, 1993:399).

To be able to improve the quality of assessment Gibbs (1999:153) lists six main functions of assessment that should be focused on:

• Acquiring student attention and effort;
• creating appropriate learning activities;
• providing feedback;
• assisting students in developing the ability to monitor their own learning;
• allocating marks; and
• ensuring accountability.

3.3.1 The two main forms of assessment

The two main reasons why students are assessed are for formative feedback and summative grading, both which is described as forms of assessment even though both serve a different purpose (Biggs & Tang, 2007:163). Each of these forms of assessment is now discussed.
3.3.1.1 Summative assessment

Assessment that takes place after learning is referred to as summative assessment (Biggs & Tang, 2007:97). Summative assessment is the assessment of learning outcomes and is used to assign grades at the end of a course (Curtis, 2011:192). With summative assessments students are often ranked in relation to their peers according to their scores and there is a concern about performance differences (Yin et al., 2008:339). Summative assessment is usually final, and therefore sometimes results in fear as students futures could depend on it (Biggs & Tang, 2007:164).

3.3.1.2 Formative assessment

Formative assessment is perceived as an aid to improve learning, motivation and achievement (Weurlander et al., 2012:749; Yin et al., 2008:339). As opposed to summative assessment which takes place after learning, formative assessment takes place during learning (Biggs & Tang, 2007:97). When student evaluations of teaching are done before the final examination it therefore focuses on the formative assessment, as summative assessment has not yet been conducted.

The objective of formative assessment is to assist and encourage students in their learning process by providing assessment opportunities that are non-judgemental and non-threatening. According to Black et al. (2004:10) assessment becomes formative assessment when the information from the assessment activities is used to modify teaching to adapt to the students' needs. It takes the differences in learning preferences of individual students into account and supports their needs (Rolfe & McPherson, 1995:838).

Rolfe and McPherson (1995:837) list seven benefits of formative assessment:

- It can be helpful to students in evaluating their knowledge and understanding and to practice their skills.
- It guides students into understanding what is expected from their instructors, including the level of competence that is required.
- Students can identify their strengths and weaknesses without being penalised.
- It provides opportunities for the instructor to give feedback and to take action to remedy student shortcomings.
- It assists instructors to evaluate and adjust their own teaching methods.
- Instructors can use it to determine student progress and achievement.
- It encourages interaction between instructors and students.
It has been proven by research that formative assessment plays an important motivational role in the learning process (Carrillo-de-la-Peña et al., 2009:66). Weurlander et al. (2012:752) established that formative assessment influences students’ motivation to study in more than one way. Firstly it serves as an external motivation as students feel some pressure to study for a formative assessment task. It also serves as an internal motivation as it increases students’ interest in the course content. This intrinsic motivation is prompted when the assessment task is challenging and stimulating (Weurlander et al., 2012:753). Furthermore formative assessment makes students aware of their own learning as they receive feedback on their progress. They are able to use this feedback to determine their own shortcomings and also to get a better perception of what the instructor perceives as important (Weurlander et al., 2012:753). Another positive aspect of formative assessment is that it can help students to cope with their large workloads by presenting it to them through smaller manageable assessment tasks that are conducted consistently throughout the course (Weurlander et al., 2012:758). It could thus contribute positively to students’ learning by influencing the way in which they learn and also what they learn (the learning outcome) (Weurlander et al., 2012:753).

Yin et al. (2008:356) warn that although formative assessment is held in high esteem and seems mostly promising, it is not a “magic bullet” and that it will not necessarily improve teaching and learning. It is important that instructors should be trained to use it and should have the ability to adjust their assessment according to their own needs as well as the needs of their students. One example of formative assessment that could be used incorrectly is when a formative assessment activity is planned but it is conducted near the end of the course. Even when the instructor gives timely feedback it will possibly be too close to the examination to take remedial action and instructors remain unaware of learning problems until it is too late to do something about it (Magdziarz et al., 2006:32).

Formative assessment can vary between formal and informal. Informal formative assessment is based on the concept that everyday learning activities can form a part of assessment and provide evidence of students’ learning (Ruiz-Primo, 2011:23). It is usually unpredictable events in the classroom that give rise to informal assessment opportunities, such as a student asking a question. It can take place whenever there is any student-teacher or teacher-student interaction (Ruiz-Primo, 2011:16). Formal formative assessment is also called “Embedded-in-the-curriculum assessment” by Shavelson et al. (2008:301). This assessment is planned beforehand and is used by the instructor to determine what the students know and what shortcomings they still possess. Afterwards the instructor can use this information to give feedback to the student on how they may improve their performance. (Shavelson et al.,
Shavelson et al. (2008:302) stretch the importance that formal formative assessment activities should be embedded into the curriculum to enhance students’ motivation.

Shavelson et al. (2008:297) argue that formative and summative assessment should be aligned in such a way that the formative assessment supports the summative assessment for which institutions are held accountable. They cannot be separated and should be considered together (Boud, 1995:36). Students’ results in their summative assessments are proven to be influenced by the use of formative assessments. Both summative and formative assessment always leads to learning and instructors just need to determine which kind of learning that is (Boud, 1995:36). This argument is also supported by Melton (1996:421) who recognises that these two forms of assessment might overlap. This could happen when students don’t take formative assessments seriously if it does not contribute to their final scores. They could then write several tests before their final examination to give them guidance regarding their performance. Carrillo-de-la-Peña et al. (2009:65) established that students who participated in formative assessments did better in their summative assessments. Their results in the formative assessments were not as important as their mere participation and even students who failed in their formative assessments were mostly successful in the summative assessments. They argue that the reason for this was that the feedback they received helped them in their learning process (Carrillo-de-la-Peña et al., 2009:66).

3.4 FEEDBACK ON FORMATIVE ASSESSMENT

The results of formative assessment are used to provide the instructor and students with feedback. Feedback is an important aid to learning when instructors and students can use it to modify their teaching and learning behaviour (Black et al., 2004:10; Maggs, 2012:1).

3.4.1 The purpose of feedback

Feedback is defined by Nicol and Macfarlane-Dick (2006:205) as: “anything that might strengthen the students’ capacity to self-regulate their own performance”. It is information of how a student’s performance relate to the goals he has in mind to achieve (Nicol & MacFarlane-Dick, 2006:200) and is sometimes regarded as the single most important aspect of the assessment process (Price et al., 2010:277). Feedback should become a priority as it challenges students to be critical about the quality of arguments (Black et al., 2004:17). Biggs and Tang (2007:97) stretch the importance of feedback by claiming that the effectiveness of a teaching/learning activity can be determined by how well it provides feedback to students.

Gibbs and Simpson (2004:19) present six functions that feedback can perform:
• Correct errors.
• Develop better understanding through explanations.
• Generates learning by suggesting more study activities.
• Developing generic skills by focusing on the use of skills rather than on knowledge of the content.
• Promotes meta-cognition by encouraging students’ reflection and awareness of the learning processes that are involved in the assignment.
• Encourage students to continue studying.

3.4.2 Guidelines regarding feedback

In order to improve learning it is important that instructors should be trained to give appropriate feedback (Maggs, 2012:11). Nicol and Macfarlane-Dick (2006:205) assembled a list of seven principles of good feedback practice:

• It helps to clarify what good performance is;
• facilitates the development of self-assessment;
• delivers high quality information to students about their learning;
• encourages teacher and peer dialogue around learning;
• encourages positive motivational beliefs and self-esteem;
• provides opportunities to close the gap between current and desired performance; and
• provides information to teachers that can be used to help shape teaching.

When instructors give feedback it is of utmost importance that the comments should contain ample and comprehensive information that can be used to improve teaching and learning (Boud, 1995:40; Gibbs & Simpson, 2004:17). It should contain information on what the students performed well on and where they should improve (Black et al., 2004:14). They should steer away from the use of either positive or negative remarks that are final, such as “good”, “right” and “rigorous” and should rather use valuable and specific comments that can be used for improvement (Boud, 1995:40; Gibbs & Simpson, 2004:17). The nature of feedback is more important than the amount of commentary. Instructors should thus ensure that they give quality remarks which can be useful to students and guide them in their future learning activities (Black et al., 2004:13). Also, if feedback is generally discouraging it will not serve its purpose as it will lead to less effort rather than more (Gibbs & Simpson, 2004:25). Formative assessment should be done frequently enough for feedback to cover only a small amount of material at a time in order to identify small gaps between what students learnt and what they are supposed to know. These small gaps are more manageable than big gaps that realise when a lot of material has
been covered (Curtis, 2011:197). Lastly, there should also be opportunities for students to respond to these comments (Black et al., 2004:14).

One problem in higher education is that feedback is sometimes seen as the sole responsibility of the instructor, which is not in line with the strife towards self-regulated learning. In order to become more self-regulated students should play a central role in the feedback process i.e. they should actively monitor their own achievement in relation to their desired goals (Nicol & Macfarlane-Dick, 2006:201).

Unfortunately the amount of formative assessment and feedback in institutions of higher education has been reduced over the years due a lack of resources. In some cases a formative assignment may be conducted but the students are not provided with feedback, or receive feedback very late in the course or after the exam when it serves no purpose (Gibbs & Simpson, 2004:9). In some instances instructors are under a lot of pressure and do not have enough time to provide thorough and useful feedback (Gibbs & Simpson, 2004:10).

3.4.3 Students’ and instructors’ perceptions about feedback

When students’ and instructors’ perceptions about feedback are examined a great discrepancy between them can be seen. It has been found that instructors generally display a positive attitude towards feedback; while students have been found to be negative about the feedback they receive (Price et al., 2010:288). In Maggs’ (2012:8) study all the instructors indicated that they make use of feedback. They mostly make use of verbal feedback and secondly preferred written feedback. According to the instructors even though students received sufficient feedback they could find no evidence to indicate that they use it to improve their performance (Maggs, 2012:9). They believe that students only care about their grades and not about the feedback (Havnes et al., 2012:26).

Unlike instructors whom are mostly satisfied with their feedback practices, students have proven to be generally unhappy with the feedback they receive (Price et al., 2010:288). Students expressed the need to receive constructive feedback that they can implement to improve future learning (Havnes et al., 2012:26). They indicated that by reflecting on feedback they obtained a better understanding about their careers and themselves and that they actively seek feedback (Altahawi et al., 2012:225) but that the quantity and timing of feedback caused them serious dissatisfaction. They indicated that they need more feedback than they currently receive (Maggs, 2012:9). Students have also been found to be critical of the feedback that they receive and saw it as vague and ambiguous (Price et al., 2010:281).
For this discrepancy between students’ and instructors’ perceptions to be resolved there needs to be a dialogue between them to determine how they understand feedback and its purpose (Price et al., 2010:288).

### 3.5 THE THREE FUNCTIONS OF ASSESSMENT

Earl (cited by Cohen, 2008:609) recognises three functions of assessment: assessment of learning, assessment for learning and assessment as learning. Each of these functions of assessment is discussed shortly below.

#### 3.5.1 Assessment of learning

Assessment of learning is the most commonly used method of assessment. It usually comprises of tests and examinations to determine students’ performance and knowledge of the subject. It is a summative way to judge a student’s achievement (Cohen, 2008:609). The disadvantage of this form of assessment is that there is little space to indicate to students what they did wrong and what they need to do to improve (Cohen, 2008:609). Another problem with this form of assessment is recognised by Stiggins (2002:760) who argues that it is impossible to address the learning needs of all students by way of a standardised test or exam. Each individual student has a different academic history with which they have to complete these summative assessments. For some it will be easy and they approach the assessment with confidence while others with a history of failure will be scared and discouraged.

#### 3.5.2 Assessment for learning (Learner centred teaching)

There has been a global focus in research on assessment for learning as a means by which student performance could be improved (Cooper & Cowie, 2010:979). One of the key features of transformative learning is that assessment should be the focus of the learning experience (Srikanthan & Dalrymple, 2007:181). Assessment for learning is described as any assessment which main goal in design and practice is to promote the student’s learning. It is thus not mainly used for accountability, ranking or to confirm a student’s accomplishments (Black et al., 2004:10).

The main difference between assessment for learning and assessment of learning is that the goal of assessment for learning is to provide feedback to the students in order to help them achieve the course goals and become better learners (Cohen, 2008:609). The educator does not merely measure the students’ performance, but helps them to improve on their short fallings (Cohen, 2008:610).
3.5.3 Assessment as learning

With assessment as learning the students become assessors of their own work. It is expected from them to assess their own work and to recognise the adjustments that they need to make to improve their performance (Cohen, 2008:610). It is often considered as an aspect of formative assessment that focuses on student meta-cognition (Volante & Beckett: 2011:247). In this method of assessment the process itself becomes a learning tool (Sum & Light, 2010:524). The students, rather than the teacher, become the assessors (Cohen, 2008:610).

3.6 STUDENT APPROACHES TO LEARNING

Assessment could directly influence the learning approaches that students adopt (Boud, 1995:36; Srikanthan & Dalrymple, 2007:183; Struyven et al., 2005:326). Students should be encouraged to develop good learning approaches in order to learn what instructors want them to learn. To achieve this, instructors should determine the kind of approach to learning that their students are adopting (Boud, 1995:37). Different learning strategies and approaches to learning have been researched extensively.

Boud (1995:36) argues that students’ approaches to learning are a result of:

- The intrinsic qualities of the form of assessment that is used.
- The way in which the instructor selects assessment activities that is appropriate for the subject and learning objectives.
- How the student interprets the assessment task and the context of the assessment.

He regards the latter as the most important factor as learning can be seen as a function of teaching and the context in which it occurs. He argues that learning is not just about engaging with a body of knowledge but how it is interpreted by the students and the actions that they take as a result of these interpretations (Boud, 1995:37).

Among these approaches are the deep, surface and strategic approaches to learning. In some situations students will develop surface approaches and in other deep approaches to learning which may be influenced by the form and nature of the assessment activity (Weurlander et al., 2012:748). If instructors understand these approaches they can use this knowledge to improve their teaching (Biggs & Tang, 2007:22). Each of these three approaches to learning will now be discussed.
3.6.1.1 Deep approach to learning

According to Birenbaum and Rosenau (2006:214) a deep approach to learning is: “characterized by the learner’s intention to understand the material to be learnt by applying strategies such as reading widely, using a variety of resources, discussions, activating prior knowledge, practicing reflection, etc.”. Deep learning occurs when students want to do their work in a meaningful way. They focus on the underlying aspects and deeper meaning of the content in an attempt to see the bigger picture (Biggs & Tang, 2007:24). This implies that they have learning with understanding and that they develop personal meaning (Samkin & Francis, 2008:238). They integrate new and pre-existing knowledge with each other to form new perspectives (Turner & Baskerville, 2013:583). When students apply a deep approach to learning they generally have a positive view towards their studies and enjoy their learning (Biggs & Tang, 2007:24).

For deep learning to take place appropriate assessment methods that support it are needed (Dames, 2012:45; Asikainen et al., 2013:216). Assessment should make use of a variety of techniques such as the development of analytical skills, cross-referencing, imaginative reconstruction and independent or reflective thinking (Samkin & Francis, 2008:237). Even though assessment plays a tremendous role in determining a student’s approach to learning, there are however also other factors that could influence it e.g. students’ intentions, study motivation and self-regulation (Asikainen et al., 2013:216).

3.6.1.2 Surface approach to learning

In contrast to a deep learning approach students may also develop a surface learning approach. This approach arises when students want to get their work done in the easiest way possible while they still seemingly meet the requirements. Examples of how a surface approach can be followed is when students apply rote-learning without an understanding of the content, or when they give bullet points instead of making a proper argument (Biggs & Tang, 2007:22). Surface learning is normally characterised by assessments in which students need to recall factual knowledge whereas deep learning is encouraged by assessments that focus on application and comprehension of the material (Weurlander et al., 2012:748). There may be some assessments where a deep approach to learning is unnecessary and where students should rather make use of a surface or strategic approach (Samkin & Francis, 2008:239).
The logical problem that arises when students adopt a surface approach is that they do not develop the skills such as critical thinking or reflection to effectively use their knowledge. In most situations a deep approach to learning is desired (Samkin & Francis, 2008:237).

Biggs and Tang (2007:22) list some reasons why students may adopt a surface approach:

- They want to pass by meeting only the minimum requirements needed to pass.
- Activities outside of their academic activities receive more importance.
- They do not have enough time or their workload is too great.
- They do not understand the requirements and believe that the instructor want them to convey factual knowledge.
- They have a sceptical view of education.
- They are anxious.
- They do not have the ability to adapt a deep approach to learning.

An important factor that is raised by Biggs and Tang (2007:20) is that “deep” and “surface” do not describe the character of the student but ways of learning. If it described the student it would be impossible to change when the goal is to encourage all students to use a deep approach to learning.

3.6.1.3 Strategic approach to learning

Students are also able to develop a strategic approach towards their learning. This approach implies that students try to determine the content that will be assessed and only focus their attention accordingly (Gibbs & Simpson, 2004:4). The strategic approach to learning is recognised by students who are highly motivated. Depending on the assessment situation they respectively make use of deep or surface learning (Hand et al., 1996:108).

3.7 CONSTRUCTIVE ALIGNMENT

According to Gibbs and Simpson (2004:3) a lot of research and focus in the media with regards to assessment in higher education is about aligning learning outcomes with assessment. Learning outcomes are the desired outcomes of learning that are made measurable by terms that describe how it can be achieved. It shifts the focus from the learning process onto what is to be learnt and what has been learnt (Melton, 1996:409). One problem that arises from using the traditional method that uses scores to determine performance is that these scores could be achieved in different ways which make it difficult to establish what the student actually learned.
By specifying the learning outcomes it is possible to measure the student’s performance more accurately and determine weaknesses (Melton, 1996:417). Shupe (2007:56) proposes that academic institutions can perform better when they are focused on student learning outcomes.

John Biggs proposed a new approach to assessment and learning named constructive alignment. Constructive alignment focusses on what should be learned. With criterion-referenced and outcomes-based assessment the assessment tasks are aligned with the intended learning outcomes, while constructive alignment promotes an intrinsic alignment between the assessment tasks, intended learning outcomes and also with the teaching/learning activities (Biggs & Tang, 2007:53). The word “intended” is specifically chosen as learning outcomes can spontaneously change – which is desired as constructive alignment do not only focus on predetermined outcomes but advocates freedom for students to determine their own learning (Biggs & Tang, 2007:54). There is a shift from teacher-centred learning to student-centred learning. It is proposed that constructive alignment should enhance deep learning and discourage surface learning (Wang et al., 2013:478). Constructive alignment is designed to encourage a deep approach to learning as it is based on constructivism, where the students construct their own knowledge (Biggs & Tang, 2007:54). Wang et al. (2013:487) researched this argument and showed that when constructive alignment is used in teaching and learning students tend to develop deep approaches to learning.

### 3.8 STAKEHOLDERS’ PERCEPTIONS OF ASSESSMENT

Although assessment serves multiple purposes in higher education, little is known about instructors’ and students’ perceptions of assessment and different aspects thereof (Fletcher et al., 2011:119). Instructors’ and students’ perceptions of assessment are now examined by studying previous research papers.

#### 3.8.1 Instructors’ perceptions of assessment

Faculty members have indicated that they regard assessment as a useful way in which student learning can be improved and in which they can be informed about their teaching practices (Fletcher et al., 2012:129).

Even though so much research on assessment has been done there is still reluctance with instructors to change their assessment methods (Watkins et al., 2005:285). Watkins et al. (2005:306) believe that different assessment strategies have not yet been implemented properly because staff developers focus too much on giving examples of how assessment should be enhanced without obtaining the instructors’ views of assessment. According to research done
by Ferguson (2007:81) this reluctance to change to a more learning-centred approach in assessment and to embrace learning outcomes could be due to:

- Faculty members who are not familiar with the concepts of learning-centred education.
- Faculty members who believe this approach is too time-consuming e.g. to create rubrics and define learning outcomes.

### 3.8.2 Students’ perceptions of assessment

It is important that the teaching and learning process should take the needs and expectations of students into account in order to become more student-centred (Lea et al., 2003:324). Students’ perceptions of assessment refer to their opinions, attitudes and preferences regarding assessment (Birenbaum & Rosenau, 2006:214). Boud (1995:36) argues that these perceptions and interactions of students are more important to learning than that which instructors perceive as the reality of assessment and that these perceptions cannot be assumed but should be obtained from the students. From a survey conducted in the UK since 2005 it became clear that students are generally less satisfied with their assessment and the feedback that they receive than with other aspects such as teaching, resources and their personal development (Jessop et al., 2014:73).

The word “assessment” is derived from the Latin word “assidere” which means to sit beside someone. If students are allowed to voice their opinions on assessment it could be seen as a sign of openness of dialogue and it is thus in correlation with the true meaning of assessment (Birenbaum, 2007b:39). If students’ instruction and assessment preferences are studied it could give us a better understanding about the factors that determine their learning process and its outcomes, which in turn can help the institution of higher education to identify and address factors that affect their progress (Birenbaum, 2007a:749; Elwood, 2012:501). It is also in accordance with the service orientation that institutions of higher education have been implementing (Birenbaum, 2007a:749). In order to obtain a holistic view of assessment it is imperative to determine how students view it (Boud, 1995:39). Students’ preferred assessment and instruction styles are usually determined by studying the results of their SETs (Birenbaum, 2007a:750).

Even though a lot of studies have been done on students’ preferred teaching styles studies regarding their preferences of assessment are limited (Birenbaum, 2007a:751). Students indicated that they prefer different types of assessment to provide different assessment opportunities for all students (Elwood, 2012:508). They were also found to hold a positive view
on student-centred learning and perceived it as more motivating and effective than conventional
teaching (Lea et al., 2003:331).

Other studies done with regards to students’ assessment preferences include a study done by
Birenbaum (2007a:760) who determined that students have varied preferences regarding
assessment. She did however find that students preferred instruction styles are related to their
preferred assessment styles. Students who preferred instructors that promote self-regulation
also preferred assessment that requires high-order thinking tasks. Students who are more
instructor-dependent and prefer a providing instructor prefer guided test preparation
(Birenbaum, 2007a:761). Birenbaum (2007a:764) suggests that when students’ conceptions of
their roles can be changed, i.e. from teacher-dependent to self-regulated learners, their
assessment preferences should better match the goals of higher education.

In another study on students’ perceptions of assessment by Fletcher et al. (2012:130) it was
determined that although students acknowledged the role that assessment can play in
improving learning, they indicated that they often perceived assessment as irrelevant and unfair.
Elwood (2012:503) did however determine from his study that students have a high regard for
examinations and view it as imperative and that good grades were of high importance to them.
They even enjoyed examinations to some extent i.e. when they were well prepared.

### 3.9 ACCOUNTING EDUCATION

Even though a lot of research on accounting education has been conducted there is generally a
lack of discussions on teaching quality (Beattie & Collins, 2000:2) and more specifically

#### 3.9.1 Concerns regarding accounting education

There have been global concerns regarding accounting education on an institutional level
(Watty et al., 2006:38), and criticism from the literature indicates that accounting teaching
practices are not adequate to address the needs of the profession (Fouché, 2013:139). More
research are done on how accounting education could be improved, while focussing on issues
such as the design content, assessment and delivery of accounting courses (Watty et al.,
2006:38). This research could be useful in the development of accounting education and assist
accounting bodies in developing international standards. Strengths and weaknesses can also
be identified to enhance the quality of the accounting education system. As a result the
improved skills of accounting students may benefit the market (Stainbank & Ramatho,
Today economies are subjected to rapid changes which require people in the accounting profession to be innovative and to pursue self-learning (Shih et al., 2013:348).

From reports on accounting education such as the Bedford Committee Report (1986) and the report from the Accounting Education Change Commission (1990) it becomes clear that accounting education has been a concern over the past years. These reports already recommended that accounting students should be taught how to learn, and that educational strategies can be used to accomplish this (Adler & Milne, 1995:110). More demands are made of instructors and students in the field of accounting (Fouché, 2013:139). Lawson et al. (2014:297) conclude from the literature that the need for change in accounting education is usually due to two factors i.e. the need to address accounting students’ long-term career demands and the need to prepare them for careers within a wide scope of organisational settings.

One aspect that can hinder improvement and change in accounting education is that accounting instructors often discuss their research with their colleagues but sometimes find it hard to discuss topics such as teaching, pedagogy, curriculum or learning (Ainsworth, 2001:279). Some other barriers may be that accounting instructors are unmotivated to change due to a lack of incentives, lack of feedback on students’ performance and the inability to maintain changes (Ainsworth, 2001:293).

### 3.9.2 Assessment in accounting education

In traditional accounting education the main focus were on the inputs, the instructor delivered the content to the students through their lectures. In this traditional method the emphasis falls on mechanical aspects of the content and students need to memorise the accounting processes (Hand et al., 1996:118; Shih et al., 2013:348). One negative result of this teaching method is that students experience accounting to be boring as they do not understand the principles (Shih et al., 2013:348). Hand et al. (1996:118) argue that there should be a shift in accounting assessment with a greater focus on the achievement of learning outcomes and the student’s learning process. The traditional “talk and chalk” method of teaching is not adequate to meet the requirements of effective teaching (Fouché, 2013:146).

The role of the professional accountant is ever changing. Accountants are not merely seen as bookkeepers or as auditors but are now held responsible for several activities such as financial planning, risk management, strategic management, etc. (Coetzee & Schmullan, 2012:85). Botha (2001:38) explains that professional accountants are competent when they possess
knowledge, skills and professional attitudes. In the accounting profession there is usually a focus on passing the final written qualifying examination before students can enter the profession. This examination tests a student’s knowledge and does not necessarily mean that the student also has the skills and professional attitude required to be a competent accountant as it does not adequately measure all three of these components. He could also find no support from the literature that success in the final examination is correlated with students’ success in their future careers (Botha, 2001:42). These findings is in compliance with the findings of Fouché (2013:146) who found that although the students in his study were competent with regards to the subject content they were less competent with regards to other skills. Teaching methods in the field of accounting were then found to be content driven and less innovative (Fouché, 2013:147).

It is not enough for accounting students to merely develop technical skills and subject knowledge but they also need soft skills identified from the literature such as oral and written communication skills, leadership, team-building skills, analytical thinking, self-management, critical problem-solving skills, technical competencies, and ethical values to succeed in their future accounting careers and to effectively manage themselves and their careers (De Villiers, 2010:9; Fouché, 2013:146). De Villiers (2010:9) states that assessment should not only be seen as the result of the learning process but that it should be used as a tool to develop these soft skills during the learning process. This can be achieved by the use of assessment strategies such as oral presentations, peer assessment and role play (De Villiers, 2010:15).

According to Samkin and Francis (2008:234) accounting students should take responsibility for their own learning and should embrace changes in accounting education for it to be successful. They should be actively involved in the learning process and should in some degree be responsible for their own learning (Fouché, 2006:115). In order to develop their own study habits and learning methods they need to act proactively and engage with the subject (Samkin & Francis, 2008:236). It is therefore needed that they should develop a deep approach to learning. This will enable them to obtain the skills needed to become an accountant such as solving problems by use of critical thinking skills and also to obtain a better understanding of the accounting discipline (Samkin & Francis, 2008:237). They argue that the development of these skills should be incorporated into the accounting course content (Samkin & Francis, 2008:239).

One way in which accounting education in institutions of higher education can be changed is by developing a proper assessment programme (Ainsworth, 2001:293). This assessment programme should make use of formative assessment and feedback in order to improve
learning (Curtis, 2011:209). Abhayawansa and Fonseca (2010:545) recommend that in accounting assessment the weight of examinations should be minimized while the weight of formative assessments should be maximized as it could lead to deep learning. This might sometimes be challenging to accomplish due to the influence of professional accounting bodies on assessment programmes. Bible et al. (2008:55) supply five reasons why accounting instructors should be concerned about the format of assessments:

- To ensure fair and accurate measurement of students’ performance.
- To determine students’ understanding of the content and to assign grades accordingly.
- To create assessment tasks that can objectively measure students’ mastery of accounting knowledge.
- To administrate feedback on the effectiveness of instructional methods.
- To perform assessment that would prepare accounting graduates for the accounting profession.

Turner and Baskerville (2013:588) developed an accounting assessment programme that comprised of authentic learning tasks with formative and summative feedback. As a result they determined that most of the students subjected to this programme developed deep approaches to learning. They also determined that once students adopt this approach they usually also apply it to future courses. Instructors should therefore develop their assessment tasks in such a way that students may develop deep learning from their first year at the institution (Turner & Baskerville, 2013:594).

Samkin and Francis (2008:249) warn that when assessment methods in accounting are changed it could make the students uncertain and anxious and that they should be assisted in the process.

3.10 SUMMARY

In this chapter the focus fell on assessment as an aspect of quality teaching in higher education.

The third secondary research objective of this study described in section 1.3 is to demonstrate from the literature the importance of assessment and its role in teaching and learning. This objective served as the main aim of this chapter as the focus fell on assessment as an aspect of quality teaching in higher education.

From the literature it is clear that assessment is of immense value in the educational process. Although several purposes of assessment are recognised and were discussed in this chapter,
the main overall desire is that it should support students to engage in high quality learning (Willis, 1993:399).

Both summative and formative assessment serve different purposes that could lead to learning (Boud, 1995:36). As a result summative and formative assessment works interrelated and should both be enhanced to improve quality learning. Student evaluations of teaching is normally done before the final examinations and therefore it serves as a measurement of formative assessment, more than summative assessment, as the last mentioned has not yet been conducted.

Feedback is such an inseparable and integral part of formative assessment that it was imperative to discuss it. The effectiveness of teaching has even been described as the extent to how well it gives feedback to students (Biggs & Tang, 2007:97). A discrepancy between instructors' and students' perceptions of feedback was found. It became clear that instructors were satisfied with the feedback they provided and believed that students generally do not pay any attention to it. Students did however indicate that feedback could support them, but that they were unsatisfied with the quality and amount of feedback they received. This proposes a problem that needs to be addressed by means of discussions between students and instructors on the purpose and value of feedback (Price et al., 2010:288).

Assessment serves mainly three functions, which were discussed from taking in account several previous studies. The function of assessment is distinguished between “assessment of learning”, “assessment for learning” or “assessment as learning”. Each of these functions was thoroughly discussed in order to recognise the purpose it serves.

As with feedback, instructors’- and students' perceptions of assessment differs greatly. Even though instructors held assessment in high regard as a way in which learning could be improved (Fletcher et al., 2012:129) they demonstrated a reluctance to change their assessment methods (Watkins et al., 2005:285). Several possible reasons for this unwillingness were recognised and discussed. It has been found that students acknowledged the role of assessment in education, but that they indicated that they often perceive it as irrelevant and unfair (Fletcher et al., 2012:130). A survey in the UK indicated that students were generally less satisfied with their assessment and the feedback that they receive than with other aspects of their education, such as teaching (Jessop et al., 2014:73). This raises a major concern with regards to the quality of assessment in higher education.

There is also a concern regarding assessment in accounting education, the field in which research in this study has been done. As the role of the professional accountant is changing the
way in which accounting students’ teaching and assessment are done should also change. The assessment done on accounting students should not merely consist of summative tests and exams, but should include formative assessment tasks and proper feedback (Curtis, 2011:209).

With this chapter secondary research objective 3 (see section 1.3, page 4) has been reached. Chapter four focuses on the research methodology followed in this study.
CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Chapters two and three focused on providing a literature review that gave an overview of previous research done on student evaluations of teaching, with a specific focus on assessment in the field of accounting. This chapter focuses on all the relevant information regarding the research paradigm, research design and methods used to conduct this study in an attempt to solve the research objectives.

The research methodology section is described as one of the most important aspects of a research paper as it provides information by which the validity of the study could be judged (Fox & Jennings, 2014:140; Kallet, 2004:1229). The way in which research is conducted e.g. the research design, data-sets and analysis techniques has a direct influence on the validity of the study results. The research methodology serves to provide a detailed explanation of how the study was conducted as this enables other researchers and reviewers to determine the merit of the study (Fox & Jennings, 2014:138).

According to Hannabuss (1996:23) the research methodology should be done fairly early in the study process in order to determine the feasibility of the project. It may sometimes be difficult for a researcher to determine what research methodology is best suited for the project, as it is often influenced by time and cost constraints. The researcher’s knowledge of different research methods also has an influence on the effectiveness thereof (Hannabuss, 1996:23).

4.2 THE RESEARCH OBJECTIVES

It is important that the empirical research should support and adapt to the research objectives. As stated in section 1.3 on page 4, the main objective of this study is to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SET. The secondary research objectives that are applicable to the empirical research were formulated in section 1.3 and are described as follows:

- To determine whether accounting students’ perception of assessment, as indicated by their responses on the SETs, reflect their actual perception of assessment or whether it is based on some form of bias and to determine accounting students' perceptions of
assessment in Financial Accounting, Management Accounting, Taxation and Auditing (research objective 4).

- To compare the results of the assessment section of the SETs with that of the other sections and to compare the results of the assessment section between Financial Accounting, Management Accounting, Taxation and Auditing (research objective 5).
- To determine whether instructors take the results of the SETs seriously and if they use them to improve assessment (research objective 6).

4.3 PARADIGMATIC ASSUMPTIONS

In research the scientist always interprets the research from a specific paradigm. It is a way of looking at the world, which is based on certain philosophical assumptions (Mertens, 2014:8) Hathaway (1995:541) describes a paradigm as the lens through which researchers can perceive and understand problems in their fields, and also the solutions to those problems.

According to Babbie and Mouton (2012:49) the research paradigm consists of the methods and techniques used by researchers, but it also includes the principles and assumptions that motivate their use. A paradigm is that which gives meaning to observations made by the researcher (Hathaway, 1995:541). It gives researchers the opportunity to make sense of the scientific world (Hathaway, 1995:541). As each research project is unique the manner in which research is conducted and the paradigm that is used greatly differ.

According to Scotland (2012:9) each research paradigm consists of four components i.e. ontology, epistemology, methodology and methods.

**Figure 4-1: The research process**

Source: Adapted from Wheeldon and Åhlberg (2012:6)
Ontology is concerned with that which constitutes reality (Scotland, 2012:9). Epistemology is about how knowledge can be created, acquired and communicated (Scotland, 2012:9) or the theory of knowledge within the theoretical perspective (Crotty, 1989:3). The strategy or plan of action about how data will be collected and analysed is described as the methodology (Scotland, 2012:9; Crotty, 1989:3). Lastly the methods are described as the techniques and procedures which are used to gather and analyse the data (Crotty, 1989:3). In Table 4-1 below Crotty (1989:5) attempted to list a representative sampling of each of the above mentioned components.

Table 4-1: Representative sampling of each component

<table>
<thead>
<tr>
<th>Theoretical Perspective (Ontology)</th>
<th>Epistemology</th>
<th>Methodology</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivism (and post-positivism)</td>
<td>Objectivism</td>
<td>Experimental research</td>
<td>Sampling</td>
</tr>
<tr>
<td>Interpretivism</td>
<td>Constructionism</td>
<td>Survey research</td>
<td>Measurement and scaling</td>
</tr>
<tr>
<td>Critical inquiry</td>
<td>Subjectivism</td>
<td>Ethnography</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Feminism</td>
<td>(and their variants)</td>
<td>Phenomenological research</td>
<td>Observation</td>
</tr>
<tr>
<td>Postmodernism etc.</td>
<td></td>
<td>Grounded theory</td>
<td>Interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Heuristic inquiry</td>
<td>Focus group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Action research</td>
<td>Case study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discourse analysis</td>
<td>Life history</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feminist standpoint research</td>
<td>Narrative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>etc.</td>
<td>Visual ethnographic methods</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Statistical analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Data reduction</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Theme identification</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Comparative analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cognitive mapping</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Interpretative methods</td>
</tr>
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<td></td>
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<td>Document analysis</td>
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<td></td>
<td></td>
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<td>Content analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conversation analysis etc.</td>
</tr>
</tbody>
</table>

Source: Adapted from Crotty (1989:5)
The purpose of these four components is to confirm the soundness of the research and to present convincing outcomes (Crotty, 1989:6). The research methods incorporated in a research study could be traced back, through the methodology and epistemology, to the researcher’s ontological position (Scotland, 2012:10).

### 4.3.1 Philosophical worldviews

All researchers have certain beliefs and philosophical assumptions which influence their research (Creswell, 2012:15). Creswell (2013:6) distinguishes between four different philosophical worldviews namely post-positivism, constructivism, transformative and pragmatism. The major elements of each of these worldviews are presented in Table 4-2 below.

#### Table 4-2: Four worldviews

<table>
<thead>
<tr>
<th>Post-positivism</th>
<th>Constructivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Determination</td>
<td>• Understanding</td>
</tr>
<tr>
<td>• Reductionism</td>
<td>• Multiple participant meanings</td>
</tr>
<tr>
<td>• Empirical observation and measurement</td>
<td>• Social and historical construction</td>
</tr>
<tr>
<td>• Theory verification</td>
<td>• Theory generation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transformative</th>
<th>Pragmatism</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Political</td>
<td>• Consequences of actions</td>
</tr>
<tr>
<td>• Power and justice oriented</td>
<td>• Problem-centred</td>
</tr>
<tr>
<td>• Collaborative</td>
<td>• Pluralistic</td>
</tr>
<tr>
<td>• Change-oriented</td>
<td>• Real-world practice oriented</td>
</tr>
</tbody>
</table>

Source: Creswell (2013:6)

Each of these philosophical worldviews is briefly explained below:

**Post-positivism**

The main ideas of positivism were formed by Auguste Compte between 1826 and 1829 (Babbie & Mouton, 2012:21). With post-positivism there is a claim that knowledge claims should be set within the conditions of the world as it is today and the different perspectives of class, race, gender etc. should be taken into account (Creswell, 2012:6).
Constructivism

Social constructivism is also sometimes described as interpretivism. With this worldview the researcher seeks to understand the world around them. This is done by developing subjective meanings from their own experiences (Creswell, 2012:24).

Transformative

With transformative research the agenda of the research is to transform people's lives with regards to issues such as domination, suppression, alienation and hegemony. The researcher serves as a voice for the participants in such situations (Creswell, 2012:24).

Pragmatism

Researchers who hold a philosophical belief based on pragmatism focus on the outcomes of the research (Creswell, 2012:28). The researcher chooses the best methods and techniques in order to meet the research objectives (Creswell, 2012:28).

4.3.2 The philosophical perspective of this study

In this study a pragmatic paradigm is adapted. The pragmatic paradigm was first adapted by philosophers that rejected the notion that answers to research problems can be found by means of a single scientific method (Mertens, 2014:35). According to Creswell (2013:10) the pragmatists tend to focus on all approaches available to help understand the research problem, rather than to focus on specific methods. It is thus a more practical approach to research (Cameron, 2011:101). This philosophical basis is especially applicable on mixed methods research as the inquirer makes use of quantitative and qualitative assumptions when conducting research (Creswell, 2013:11). Researchers have the freedom to choose the methods, techniques and procedures that best suit their needs (Creswell, 2013:11). The advantage of a pragmatic worldview is that it exposes the researcher to multiple methods, different worldviews, different assumptions and different forms of data collection and analysis (Creswell, 2013:11). In this study a mixed methods approach is followed which is supported by the pragmatic paradigm, as different methods are used to answer the research questions.

Table 4-3 illustrates the basic beliefs of the pragmatic paradigm according to its ontology, epistemology and methodology.
Table 4-3: Basic beliefs associated with the pragmatic paradigm

<table>
<thead>
<tr>
<th>Basic beliefs</th>
<th>Pragmatic Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontology</td>
<td>Asserts that there is a single reality and that all individuals have their own unique interpretation of reality.</td>
</tr>
<tr>
<td>Epistemology</td>
<td>Relationships in research are determined by what the researcher deems as appropriate to that particular study.</td>
</tr>
<tr>
<td>Methodology (approach to systematic enquiry)</td>
<td>Match methods to specific questions and purposes of research; mixed methods can be used as researcher works back and forth between various approaches.</td>
</tr>
</tbody>
</table>

Source: Adapted from Mertens (2014:11)

4.4 THE RESEARCH DESIGN

The purpose of a research design is to address the planning of scientific enquiry and consists mainly of two aspects i.e. the specification of what the researcher wants to find out and the most effective way of doing it (Babbie & Mouton, 2012:72). The research design helps the researcher to choose suitable research methods in order to support the research objectives and the pragmatic research paradigm of this study.

Babbie and Mouton (2012:74) make a clear distinction between the research design and research methodology by using an analogy of building a house. When a couple wants to build a house they have a lot of different ideas about the style, size, shape, etc. They then consult an architect who contemplates all their ideas and needs to visualise them in order to assemble a design of the house. He would then discuss the design with the couple, and after several changes are made they can begin with construction. The building of the house would consist of the execution of the design. The process of building the house, using different tools and methods is compared to the research methodology. At the end a building inspector comes to certify that the house was constructed in accordance to the original design.
As seen in the above mentioned comparison, a research design is the plan, structure or framework of how the research product will be conducted in order to answer the research question. The research methodology refers to the techniques, methods and procedures used in order to implement the research design (Babbie & Mouton, 2012:105).

**Figure 4-2 A metaphor of research design**

![Metaphor of research design](image)

Source: Adapted from Babbie and Mouton (2012:74)

The research design is normally based on three principles: empirical and non-empirical research; primary and secondary research and numerical and textual data (Babbie & Mouton, 2012:74). Figure 4-3 maps out the differences between empirical and non-empirical research. This study falls in the first quadrant, as empirical methods were used to gather primary data. Primary data (new information) was obtained through means of a questionnaire, interviews and document analysis. The primary data obtained consists of numerical and textual data. The data from the questionnaire and document analysis yielded numerical results, while the data from the interviews was processed into textual results.
4.5 QUANTITATIVE, QUALITATIVE AND MIXED METHOD RESEARCH

With quantitative research there is a dependence on numbers that represent concepts and opinions (Amatarunga et al., 2002:19). The researcher attempts to measure properties of phenomena through quantitative measuring. Researchers make use of either experimental or statistical control in their studies (Babbie & Mouton, 2012:49). Qualitative research on the other hand focuses on words and observations (Amaratunga et al., 2002:19) and can sometimes be very helpful to gain an understanding of local meanings of a certain phenomenon (Bartunek & Seo, 2002:238). It takes its departure point from the insider perspective. It uses observational
methods of data gathering, such as conducting interviews or observing participants (Babbie & Mouton, 2012:53).

In the research literature quantitative and qualitative research are often seen as complimentary and hence another mixed method exists. With mixed method research, also described as triangulation, the strengths and weaknesses of one method is balanced with those of the other method. Mixed method is described by Amaratunga et al. (2002:23) as: “research strategies that incorporate a combination of quantitative and qualitative research methods in the study of the same phenomenon”. It is a research design which includes both a quantitative as well as a qualitative component (Grafton et al., 2011:7). The advantage of making use of both quantitative and qualitative research is that better insights can be gained into the results (Amaratunga et al., 2002:30). The research questions could be addressed more extensively with a mixed method than using a method individually which could result in a better understanding of the research problem (Grafton et al., 2011:12). One research method is not inherently better that another, but the choice should depend on whether the method will enable the researcher to achieve the research objectives (Amaratunga et al., 2002:30). Creswell (2013:17) provides a summary of the three methods which can be seen in Table 4-4.

Table 4-4: Quantitative, mixed and qualitative methods

<table>
<thead>
<tr>
<th>Quantitative Methods</th>
<th>Mixed Methods</th>
<th>Qualitative methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predetermined</td>
<td>Both predetermined and emerging methods</td>
<td>Emerging methods</td>
</tr>
<tr>
<td>Instrument based questions</td>
<td>Both open- and closed- ended questions</td>
<td>Open-ended questions</td>
</tr>
<tr>
<td>Performance data, attitude data, observational data, and census data</td>
<td>Multiple forms of data drawing on all possibilities</td>
<td>Interview data, observation data, document data, and audio-visual data</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>Statistical and text analysis</td>
<td>Text and image analysis</td>
</tr>
<tr>
<td>Statistical interpretation</td>
<td>Across databases interpretation</td>
<td>Themes, patterns interpretation</td>
</tr>
</tbody>
</table>

Source: Creswell (2013:17)
A mixed method approach is followed in this study, as both quantitative and qualitative methods were employed. The quantitative study consisted of a research questionnaire and document analysis, while interviews were conducted as a manner of qualitative research.

4.6 THE STUDY POPULATION

The population for the quantitative data collection was selected by means of non-probability convenience sampling while the qualitative data collection was selected by means of non-probability purposive sampling. With convenience sampling the researcher relies on the availability of participants and with purposive sampling the sample is chosen based on the judgement of the researcher (Babbie & Mouton, 2012:166). The target study population selected with regards to the quantitative research was the full-time second- and third year B.com Management Accountancy, B.com Chartered Accountancy and B.com Financial Accountancy students at a South African university and with regards to the qualitative research the study population was their instructors.

4.7 THE RESEARCH INSTRUMENTS

The research instruments have a significant influence on the reliability and validity of a research study (Richardson, 2004:349). It is therefore important to employ the research instruments best suited to address the research questions.

During this study the following data collection instruments were used:

- A quantitative research questionnaire.
- A document analysis of SETs.
- Interviews with lecturers.

The purpose of using these mixed method instruments is to triangulate the data to gain a more complete overview of the use of SETs and the role it plays in improving assessment.

According to Richardson (2004:349) a research instrument is reliable when the results it yields are consistent when used repeatedly under the same conditions and with the same participants over a period of time. This consistency shows that the instrument is generally not influenced by errors of measurement. The other important requirement of a research instrument is that it should be valid i.e. it measures what it purports to measure (Richardson, 2004:350).

To demonstrate the validity and reliability of the instruments used in this study, a discussion of each of the instruments follows below.
4.7.1 The quantitative research questionnaire

In social research questionnaires are used in many research designs (Babbie & Mouton, 2012:239). In this study the research questionnaire was used in order to obtain primary data from the participants. This questionnaire as a research instrument is now discussed.

4.7.1.1 Description of a questionnaire

Questionnaires are one of the most widely used research instruments, even to a point where research are sometimes associated with questionnaires. As a result of the high usage of questionnaires it might seem that is simple to use, however it takes a lot of effort to create a good questionnaire that is able to answer the research questions (Rowley, 2014:308). A questionnaire is described as a document that consists of open and closed questions to which respondents provide answers (Rowley, 2014:308).

4.7.1.2 Objective of the questionnaire

The main purpose of a questionnaire is to gain unbiased answers from the participants (Synodinos, 2003:226). It is mostly used to conduct quantitative research, where the sample is profiled in numbers (Rowley, 2014:308).

Rowley (2014:308) gives a list of examples of when it is useful to make use of research questionnaires:

- When a situation can be surveyed and profiled to develop patterns that answer the research questions.
- When previous research on the subject has been conducted and there is enough knowledge to formulate useful questions.
- When there are willing participants from which meaningful data regarding the research subject can be gained.

The questionnaire in this study (Appendix A, page 148) was used to gain an understanding of students’ perceptions of SETs and to determine whether it could be reliably used to gain insight into their perceptions of assessment.

4.7.1.3 Reliability and validity of the questionnaire

Boynton and Greenhalgh (2004:1312) state that is possible for anybody to produce a list of questions and to photocopy it, but that it takes a lot of planning to establish a questionnaire from which meaningful data could be produced. It is important to construct an appropriate instrument
and to use it correctly; otherwise it will result in inaccurate data, wrong conclusions and vague recommendations (Boynton & Greenhalgh, 2004:1312; Synodinos, 2003:224).

Researchers should be aware of the drawbacks and limitations in questionnaire research, to be able to plan and construct a valid and reliable research questionnaire (Boynton & Greenhalg, 2004:1315; Rowley, 2014:328).

**Reliability**

There are two types of reliability i.e. internal and external reliability. The internal reliability refers to consistency of results from items within a test, while external reliability refers to the extent of consistency between different measuring instruments (McLeod, 2013).

In order to establish internal reliability Cronbach’s alpha was determined for all factors identified by means of factor analysis. Factors with a Cronbach alpha coefficient close to 0.6 or higher is good enough to work with, although the most reliable items are those with a Cronbach alpha coefficient above 0.6 (Ellis, 2015). Apart from one factor with a coefficient of 0.576 all the factors had coefficients of 0.70 and above. This reliability factor indicates that the same results would probably be obtained if the same respondents were asked the same questions again.

Whenever all the participants are asked the same questions in the same format the questionnaire is regarded as a standardised questionnaire. When a researcher makes use of a standardised questionnaire it automatically increases the reliability of the data (Boynton & Greenhalgh, 2004:1313). In this study a standardised questionnaire was used in order to increase reliability.

**Validity**

A research questionnaire can be regarded as valid when it measures that which it claims to measure (Boynton & Greenhalgh, 2004:1313). There are three main types of validity, which is each discussed below:

**Criterion-related validity:**

This type of validity is based on external factors (Babbie & Mouton, 2012:122). In order to achieve criterion-related validity the questionnaire was reviewed by two experienced researchers.

The criterion-related validity of the questionnaire is also increased when the researcher makes use of validated questionnaires, used in previous research. It gives researchers the opportunity
to compare their results with those from other studies (Boynton & Greenhalgh, 2004:1313; Rowley, 2014:312). Rowley (2014:312) states that it is advisable to use all or a part of previous questionnaires on a similar research topic as such questionnaires have already been tested. Previous questionnaires with regards to SETs were studied prior to constructing the questionnaire for this study i.e. Ahmadi et al. (2001), Al-Abaddhi et al. (2009), Marlin (1987) and Chen and Hoshower (2003).

**Construct validity:**

Construct validity is based on the logical relationships between variables (Babbie & Mouton, 2012:123). Construct validity was confirmed by means of a factor analysis (see section 5.4). The factors indicate the strength and correlations between variables.

**Content validity:**

With content validity the objective is to determine whether the full content of a definition or concepts is covered by the measures (Babbie & Mouton, 2012:123). The questionnaire was revised by Dr S M Ellis of the Statistical Consultation Services of the North-West University for elements containing possible bias and ambiguity (Ellis, 2015). The questionnaire was adapted by taking into account the comments and suggestions from the Statistical Consultation Services. Firstly the numbering and layout were adjusted to be better suited for statistical analysis. Furthermore, the wording of certain questions was amended and some questions were removed to prevent possible bias and ambiguity.

Another very important aspect in ensuring the content validity of a questionnaire is to pilot or pre-test it (Boynton, 2004:328; Synodinos, 2003:231). Such a pilot study gives the researcher the opportunity to revise the questionnaire and eliminate problems (Rowley, 2014:316). A questionnaire could easily fail when the participants do not understand the questions or get bored by it. It is impossible to predict how the people in the sample will respond to the questionnaire and therefore the reactions of pre-selected participants should be tested (Boynton, 2004:328; Synodinos, 2003:231). A pilot will give the researcher an indication of the clarity of the questions, and whether the questionnaire is easy to complete (Rowley, 2014:316).

It is useful to pilot the questionnaire on a group of specialists in the field of questionnaire construction, but it should also test the reactions of participants who are representative of the sample (Boynton, 2004:328; Synodinos, 2003:232). When piloting a questionnaire the researcher should make notes of the participants' reactions and questions in order to adjust and improve the questionnaire for its intended purpose (Boynton, 2004:328; Synodinos, 2003:231).
In piloting this questionnaire it was firstly presented to two experienced researchers in this field. They examined the questionnaire for any mistakes or possible problems. After the questionnaire was adapted according to their commentary it was presented to eight students who are representative of the sample. They had to complete the entire questionnaire and had the opportunity to indicate any problems they had with the completion and to give any further suggestions afterward. The purpose was to ascertain that all the questions are clear and understandable. It was also used to determine approximately how long it took them to complete, to ensure that the length falls within the guidelines as indicated by the research literature.

4.7.1.4 Constructing a research questionnaire

When discussing the layout of a questionnaire it should be noted that the guidelines for constructing a research questionnaire which are discussed below cannot be seen in a vacuum and may vary with regards to the unique circumstances in which a study is conducted (Synodinos, 2003:224).

Questionnaires can consist of closed ended questions, open ended questions or a mix of both. Closed ended questions always provide a few options from which the respondent can choose (Rowley, 2014:314). With closed ended questions the researcher can quickly gain data, but the disadvantage is that the respondents are limited by the range of possible answers (Boynton & Greenhalgh, 2004:1314). It may also be difficult to design closed ended questions as the researcher should have sufficient knowledge about the respondents to provide them with sensible choices (Rowley, 2014:314). It is thus important for the researcher to know the limitations of the respondents’ knowledge (Synodinos, 2003:230).

Boynton and Greenhalgh (2004:1314) suggest that researchers using the closed ended format should include a text somewhere in the questionnaire for participants to write additional comments. This will increase the richness of the quantitative data received.

With open ended questions the respondents are able to answer without any limitations and the researcher is therefore able to obtain a more in-depth understanding as respondents are able to express their thoughts and feelings. It is however a lot more time consuming and difficult to analyse than closed ended questions (Boynton & Greenhalgh, 2004:1314; Rowley, 2014:314). The questionnaire for this study consisted of closed ended questions in order to gain quantitative data which are easily comparable.

Synodinos (2003:226) argues that the wording of the questions is of utmost important, as a small difference in wording may result in completely different results. The questions should be written in familiar words so that it could be easily understood – even by people with little formal
education (Synodinos, 2003:226; Rowley, 2014:312). Boyton and Greenhalgh (2004:1314) suggest that the questions should be short and to the point, as low response rates are often caused by the use of complicated questions that the respondents do not understand. There should be no leading questions (i.e. that encourage a certain response or have an implicit assumption) or loaded questions (i.e. questions that provoke an emotional response) (Synodinos, 2003:227; Rowley 2014:314). Another important aspect with regards to the question construction is that each question should only cover one issue. When a single question deals with two issues the respondent may agree with one part and disagree with the other, which would lead to invalid data (Synodinos, 2003:227). The wording of this questionnaire was carefully studied by two research experts as well as the statistical consultation services of the North-West University, in order to make sure that it adheres to the above mentioned guidelines.

With regards to the length of a research questionnaire Rowley (2014:316) advises that it should fit on two sides of an A4 page, as this encourages the researcher to only include questions that are meaningful in addressing the research objectives. In addition to this it will also be easier for the respondents to complete and will maximise the response rate. The research questionnaire used in this study was one and a half pages long.

In addition to the above mentioned advice on the construction of questionnaires, Rowley (2014:315) also suggests that the questions:

- only exceptionally exist of “yes/no” answers
- should not use double negatives
- are not invasive
- do not encourage respondents to breach confidentiality.

Finally, the quality of the respondents’ answers can be improved by a questionnaire with a clear title, and which includes a short introductory paragraph which explains the purpose of the questionnaire and thanks the respondents for their cooperation in completing it (Rowley, 2014:315).

In constructing the research questionnaire all of the above mentioned guidelines were adhered to in order to increase the usefulness thereof. Attention was paid to the phrasing of the questions and simple language was used to clarify the questions and make it understandable for all the respondents.

The final questionnaire consisted of three sections (See Appendix A, page 148):
Section A: This section contains questions pertaining to the biographical information of the respondents i.e. their gender, field of study, amount of SETs completed and whether they do/ do not complete SETs whenever they are given the chance.

Section B: In section B questions regarding students’ perceptions of SETs were asked. The purpose of this section is to determine students’ general perceptions with regards to SETs, to determine whether they believed it is used by instructors to improve teaching and assessment and to determine whether students’ believed their ratings is influenced by biasing factors. A five point Likert scale was implemented as the scaling method. The five categories used were: strongly disagree, disagree, neutral, agree and strongly agree. The respondents had the chance to express how strongly they agreed or disagreed to the questions.

Section C: This section consists of six questions regarding assessment which the respondents had to answer for four different subjects, namely Financial Accounting, Taxation, Management Accounting and Auditing. The participants had to indicate their answers on the same scale as in section B.

4.7.1.5 Study population of the questionnaire

The study population of the questionnaire includes all full-time second- and third year B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy students enrolled at the School of Accounting Sciences at a South African university. This population comprises of a total of 852 students. The first year students were excluded from the study sample as the first year of study does not yet include the main subjects studied in this research paper. See Table 4-5 for the composition of the study population.

Table 4-5 Composition of the study population

<table>
<thead>
<tr>
<th></th>
<th>Number of students</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECOND YEAR STUDENTS</td>
<td>424</td>
<td>49.77</td>
</tr>
<tr>
<td>B.Com Management Accountancy</td>
<td>25</td>
<td>2.93</td>
</tr>
<tr>
<td>B.Com Chartered Accountancy</td>
<td>236</td>
<td>27.70</td>
</tr>
<tr>
<td>Course</td>
<td>Students</td>
<td>Percentage</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>B.Com Financial Accountancy</td>
<td>163</td>
<td>19.13</td>
</tr>
<tr>
<td><strong>THIRD YEAR STUDENTS</strong></td>
<td><strong>428</strong></td>
<td><strong>50.23</strong></td>
</tr>
<tr>
<td>B.Com Management Accountancy</td>
<td>40</td>
<td>4.70</td>
</tr>
<tr>
<td>B.Com Chartered Accountancy</td>
<td>201</td>
<td>23.59</td>
</tr>
<tr>
<td>B.Com Financial Accountancy</td>
<td>187</td>
<td>21.95</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>852</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### 4.7.1.6 Study sample of the questionnaire

For the purpose of this study a non-probability convenience sample was employed as the sample method. This method of sampling involves choosing respondents primarily according to their availability (Babbie & Mouton, 2012:166) and has the advantage that the researcher has control over the selection process (Tansey, 2007:13).

445 respondents completed the research questionnaire. Out of these completed questionnaires three were incomplete and removed from the data. After the spoiled questionnaires were abolished the quantitative sample consisted of 442 students. This represents a satisfactory 51.88% of the study population. This study sample is in line with similar studies done with regards to students’ perceptions of SETs such as Ahmadi *et al.* (2001) (sample size of 500), Al-Abbadi *et al.* (2009) (sample size of 557) and Crumbley *et al.* (2001) (sample size of 530).

### 4.7.1.7 Administration of the questionnaire

The academic staff responsible for the second-, and third year students were contacted to obtain permission to distribute the questionnaire during a scheduled contact session. After permission had been obtained, the questionnaires were hand-delivered to the students during the periods agreed upon with the instructors. A small introduction regarding the nature of the
research was given, and the questionnaire was briefly explained. The questionnaire did not take longer than ten minutes to complete. Upon completion the questionnaires were examined to eliminate obvious faulty answer sets. Three questionnaires were eliminated on such grounds.

4.7.1.8 Analysis of the questionnaire

Firstly the data were converted into useful files by means of putting the cards through a card reader. The data from the second – and third year students were kept apart. The data obtained from the questionnaire was then processed, analysed and interpreted with the assistance of Statistical Consultation Services of the North-West University by means of the SPSS programme (SPSS, 2015). A full discussion of the analysis procedures can be found in section 5.2.

4.7.2 Document analysis of SETs

The second quantitative research method employed in this study is a document analysis of SETs. This method is now thoroughly discussed and explained.

4.7.2.1 Description of the document analysis

A document analysis was done on the results of SETs done by second- and third B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy students from 2012 to 2015. These results are summarised by the School of Accounting Sciences on Excel spreadsheets. The SETs consist of Likert-style questions, which the students have to answer on a multi-choice answer sheet. The answers range from strongly disagree (1) to strongly agree (4).

4.7.2.2 Objective of the document analysis

The objective of the document analysis is to compare the results of the section on assessment in SETs with the other sections in the SET and to compare the data between the four different subjects (see section 1.3).

4.7.2.3 Reliability and validity of the document analysis

Reliability

In order to ensure reliability the document analysis included data from SETs conducted over a period of four years. A standardised questionnaire which remained the same over these periods of time was used.
**Validity**

The results from the SETs are recorded accurately as the answer cards was analysed by means of a card reader that created the data files. This data was exported to an excel spreadsheet where it could be further analysed.

### 4.7.2.4 Administration

Permission was obtained from the programme leaders of the B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy programmes within the School of Accounting Sciences at a South African university to gain access to the data from the SETs. Before this permission was granted, the researcher had to explain how the anonymity of the instructors would be guaranteed. In order to ensure anonymity the results from the second- and third year B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy students were combined, so that it would be impossible to trace a rating back to a certain instructor. The qualitative comments that students are allowed to write on the back of the SET forms were also removed, as some of them contains personal and sensitive information.

The results of 2014 and 2015 were split according to the four main subjects, in order to be able to compare the results between the different subjects. Unfortunately, only the combined results of all four subjects were available for 2012 and 2013.

### 4.7.2.5 Analysis

The results from the SETs were summarised by means of tables in Microsoft Excel. This made it easier to compare the different sections of the SETs with one another and also to compare the results of the assessment section between the four main subjects.

### 4.7.3 The qualitative research interview

The interview is described as the most widely used qualitative research method and one of the most important qualitative research methods used to conduct field studies and ethnographic research (Amaratunga *et al.*, 2002:25; Qu & Dumay, 2011:238). It is naturally based on human conversation, in which the researcher can set the pace and style of questions to gain optimum results (Hannabuss, 1996:22). In this study the research interview was employed as a qualitative research method. This method is now discussed.
4.7.3.1 Description

With an interview the researcher is able to gain insights into an interviewee's perspective of the research topic (Amaratunga et al., 2002:25). Rather than to ask the respondents to read a questionnaire, interviews normally consist of face-to-face encounters (Babbie & Mouton, 2012:249). This is also the main difference between a questionnaire and an interview because the questionnaire is usually completed without direct interaction between the respondents and the researcher (Rowley, 2014:308).

4.7.3.2 Objective of the research interview

The main objective of the research interview is for one person to obtain data from another person by means of a prearranged set of questions (Babbie & Mouton, 2012:249). Interviews are a good research method when used along with a questionnaire (Hannabuss, 1996:23). The advantage in using it in conjunction with other methods, such as the questionnaire, is that you can base your questions on that which you already know (Hannabuss, 1996:23). In this study the research questionnaire was conducted and analysed before the interviews were arranged. This made it possible for the researcher to construct questions based on knowledge gained from the questionnaire.

4.7.3.3 Reliability and validity of the research interview

Reliability

It is a major challenge for a researcher to carry out an interview that is free of researcher bias and subjectivity. It is always a risk that the researcher may steer the interviewee in a certain direction in their answering, and may put certain ideas or answers in their heads (Hannabuss, 1996:24). It is well-known that different interviewers get different responses according to their own attitudes (Babbie & Mouton, 2012:120). Although this is a risk for compromising the validity and reliability of the research Dilley (2000:135) warns that when the researcher is too focused on staying objective it may result in “stillborn” data. When he first conducted research interviews he didn’t deviate from his script at all. When the interviewees asked him to explain certain questions, he did not do it, as he thought it may compromise the validity of the results. When transcribing the data he realised his mistake and discovered that some of the questions were indeed unclear.

In order to ensure reliability it is important that the researcher is familiar with the interview questions and that the wording of the questions is followed exactly (Babbie & Mouton,
This will ensure that you ask the questions in the same way to all the participants and that they interpret the questions exactly how it was intended (Babbie & Mouton, 2012:253).

It is also important to record the responses exactly. The researcher should not summarise the results or correct bad grammar (Babbie & Mouton, 2012:253). This is necessary in order to ensure the reliability of the data for coding.

In conducting the research interview the researcher attempted to address the above mentioned factors by staying objective throughout the discussions. All interviews were recorded and the responses were carefully transcribed.

**Validity**

After the interviews were conducted a copy of the transcribed script was sent to each of the participants in order to confirm the content of their responses. The validity of a research interview could be compromised by selecting specific participants as the study sample. In this study purposive non-probability sampling was conducted to select the participants. Participants from each year group and for each subject were included in this study.

To increase the validity of the data received from a research interview it should be triangulated i.e. there should be at least two sources of data. This happens when similar results are gained from duplicate questions when more than one interview is conducted (Griffee, 2005:37). Another way in which data could be validated is when the interviewee tends to give the same answer when the questions are slightly different, as it indicates consistence (Griffee, 2005:37).

**4.7.3.4 Conducting a research interview**

As with the questionnaire it may seem easy to conduct an interview, but it is no trivial enterprise (Qu & Dumay, 2011:239). It requires the researcher to do sufficient planning and preparation but it also requires further skills from the researcher such as intensive listening and note taking (Qu & Dumay, 2011:239). Some of these skills may seem to be easy, but it is harder to employ in the formal and self-conscious setting of a research interview (Hannabuss, 1996:26). A real understanding between the interviewer and interviewee may be elusive when they have different perspectives and worldviews. It is however still possible for the interviewer to gain a rich set of data when proper planning has been done (Qu & Dumay, 2011:239).

Within the research interview methodology the interviews can range from being formal and well-structured to informal and unstructured. These different approaches each comes with its own sets of strengths and weaknesses and some may be more suitable for certain studies than
Structured interviews

The structured or standardised interview is an interview in which the questions are predetermined and there are only a limited number of response categories. With a structured interview there is a schedule of questions which the interviewer asks to all of the different interviewees, in the same order and with little deviation from the script (Qu & Dumay, 2011:244; Hannabuss, 1996:24). One advantage of structured interviews is that it is generally not influenced by the interviewer’s personal bias, it is also fairly easy to organise the results (Qu & Dumay, 2011:244; Hannabuss, 1996:24). With the use of a structured interview the researcher is able to interview a relatively large sample as a result of the ability to analyse the interviews fairly easily (Qu & Dumay, 2011:244).

Unstructured interviews

With the informal unstructured interview the interviewee has no advance knowledge of the questions that will be asked. This interview method requires the researcher to adapt to the responses of the interviewee and to generate follow-up questions that address the research objectives (Qu & Dumay, 2011:245). This interview takes place in an informal setting in which the interviewee can feel relaxed and unassessed (Hannabuss, 1996:24).

Semi-structured interviews

The semi-structured interview is the most used approach in educational evaluation (Griffie, 2005:36). According to Qu and Dumay (2011:246) the semi-structured interview “involves prepared questioning guided by identified themes in a consistent and systematic manner interposed with probes designed to elicit more elaborate responses”. The semi-structured interview may vary between interviews with highly scripted questions to interviews with more loosely scripted questions (Qu & Dumay, 2011:246). The researcher normally has a list of questions but the interviewee is free to ask for additional information or explanations (Griffie, 2005:36). The advantage of using a semi-structured interview is that it is more flexible than a structured interview. The interviewer has the ability to change the style, pace and order of questions to gain the best responses from the interviewee, while the interviewees have a chance to answer in their own words (Qu & Dumay, 2011:246). It does however take a lot of planning and careful consideration with regards to the questions being asked and the way in which it will be interpreted (Qu & Dumay, 2011:247).
When the researcher sets up interviews with the interviewees they need to be informed of the purpose of the research, why they had been chosen and how their responses will be treated (Hannabuss, 1996:25). The extent to which the purpose of the research should be explained to them may vary, in order for the results to be reliable.

The degree to which the interviews are formally structured or more relaxed and informal greatly determines how it will be conducted (Hannabuss, 1996:96). The process usually starts with an introduction from the researcher, with an explanation of how the interview will be conducted and how the data will be used.

The research interview is somewhat difficult to conduct because of the skill-sets needed. According to Dilley (2000:134) during the interview the researcher has to focus on five things at once:

- Listen to what the interviewee is saying.
- Compare the interviewee’s responses to what is known.
- Compare the interviewee’s responses to the rest of the questions.
- Be aware of the time.
- Offer information to prompt responses, clarification or further explanation.

A general rule of thumb is that the researcher should talk 20 percent of the time and the interviewee 80 percent. Listening is one of the most important aspects to successfully conduct a research interview (Dilley, 2000:134). The researcher should make eye contact and pay attention to the interviewee’s body language (Dilley, 2000:134).

**Difficulties of an interview**

Interviews may get a little expensive and time-consuming, especially when a large amount of interviews are carried out. Even when a fair amount of interviews are conducted, there is a risk that it covers only a small sample of the population, and that their results be unrepresentative (Hannabuss, 1996:23).

Another difficulty with interviews is that the results may be corrupted and unreliable as a result of various factors. It may be that the interviewee tries to deceive the interviewer knowingly. It could also be that the interviewee is unconsciously influenced by the researcher to give certain answers (Hannabuss, 1996:24).
4.7.3.5 **Study sample of the interview**

The population of the interview consists of the instructors of the second and third year students. The study sample was selected based on purposive non-probability sampling. With this method of sampling researchers choose the sample based on their knowledge of the population, its elements and the research objectives (Babbie & Mouton, 2012:166). Eight instructors who indicated their willingness to participate in this study were randomly selected from the study sample. The criteria were that they should teach or had previously taught one of the four main subjects to second- or third year B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy students. It was also important that they should have at least been evaluated by students more than once.

4.7.3.6 **Administration of the interview**

In order to conduct the interviews instructors were contacted and after the research were briefly explained, permission was obtained for the interviews to be held. Appointments were then scheduled.

It was made clear to the participants that the interviews are voluntary and anonymous. Further permission was obtained from each participant to record the interview.

The interviews consisted of a semi-structured pre-arranged set of questions. The script of the questions was carefully followed in order to ensure reliability. However, when the participants had questions the researcher answered it. The participants also had the opportunity to provide additional comments. The questions asked during the interviews are documented in Appendix B (page 150).

4.7.3.7 **Analysis of the interview**

The data obtained from interviews were recorded and then carefully and exactly transcribed. This was done in order to keep the data objective and free from any form of bias. The data were then sorted into categories according to the research objectives (section 1.3).

The purpose of analysing qualitative data is not to get it quantified but it is rather to explore the data by using content analysis (Pope *et al.*, 2000:114). In this study the qualitative data were analysed by means of thematic content analysis in which the researcher searched for patterns and themes in the data.

Firstly the researcher familiarised herself with the transcribed data, by reading it several times. After the data was repetitively read, different categories and themes were recognised. This was
done by identifying important themes, and ideas that kept on recurring between the data from different interviews. The themes were further investigated to identify sub-themes. Through this process of coding the researcher was able to make interpretations from the data.

4.8 SUMMARY

The objective of this chapter was to provide an overview of the philosophical paradigm underpinning this study, as well as the research design and methods implemented in order to reach research objectives 4, 5 and 6 (see section 1.3).

The paradigm best suited to address these research objectives was found to be a pragmatic paradigm as it provides the researcher the opportunity to make use of different methods and procedures in order to reach the research objectives (Creswell, 2013:11). This study makes use of a mixed method research approach that consists of both quantitative and qualitative research methods. This approach was thoroughly discussed and the reason for its implementation in this study was explained in section 4.5.

Three different research instruments were implemented in this study. I.e. the quantitative research questionnaire (see section 4.7.1), a document analysis of SETs (see section 4.7.2) and the qualitative research interview (see section 4.7.3). These instruments were individually discussed and their reliability and validity were accounted for. The study sample and population were identified for each instrument and the sampling methods were justified.

In conclusion, this chapter served to address and explain the different aspects of the research method and design implemented in this study. By doing so the purpose behind the use of different techniques and procedures used are clarified. In the next chapter the results and analysis of the empirical research are provided.
CHAPTER 5

ANALYSIS OF EMPIRICAL RESULTS

5.1 INTRODUCTION

The main objective of this study is to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SET. In order to achieve this, further secondary objectives were set. A thorough literature study regarding students’ roles in the improvement of quality in higher education as well as the aspect of assessment in quality education was undertaken in chapters two and three. The most suitable research method to achieve the remaining objectives was established and discussed in chapter four.

This chapter offers the report and discussion of the empirical research that were conducted.

5.2 THE RESEARCH QUESTIONNAIRE

Statistical Consultation Services of the North-West University, Potchefstroom Campus, conducted the statistical analysis of the data gained by means of the research questionnaire. The statistical analysis was needed in order to obtain reliable and useful data from the questionnaires which can assist in meeting the research objectives. The following techniques were used in order to analyse the data:

- Determination of the frequencies and percentages of the demographical information;
- Discussion of the combined results of all questions;
- Determination of Cramer’s V as a measure of association;
- Determination of adequacy of the data based on Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett’s test of sphericity;
- Factor analysis;
- Determination of the reliability of the factor analysis by means of the Cronbach alpha-value;
- One way analysis of variance (ANOVA), t-tests and effect sizes between the means of the extracted factors.
5.2.1 Demographical information

The data pertaining to biographical (and other relevant information) is subsequently interpreted for both second and third year students.

In this study the sample group consists of second- and third-year students and therefore two sets of classification information are presented in this section. The first section of the research questionnaire related to the demographic information of the sample and refers to the following:

- Year of study
- Gender
- Field of study

In Table 5-1 below, the sample classification is presented as a view of the total sample by means of a frequency table and a pie chart. As a view of the total sample (N) it can be seen that 48.87 percent of the responses came from second year students and 51.13 percent of the responses came from third year students. The ratio of responses from third- and second- year students was fairly equal.

<table>
<thead>
<tr>
<th>Sample classification: Year of study</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>216</td>
<td>48.87</td>
</tr>
<tr>
<td>Third year students</td>
<td>226</td>
<td>51.13</td>
</tr>
<tr>
<td>N</td>
<td>442</td>
<td>100</td>
</tr>
</tbody>
</table>

The information obtained from these two groups of students is represented by frequency tables and bar graphs. Table 5-2, illustrates the classification information relating to the respondents.
gender. 56.02 percent of the second year students were female while 43.98 percent were male. This corresponds with the responses from the third year students of which 56.64 percent were female while 42.92 percent were male. Thereby, indicating that the overall majority of respondents were females. There is only one third year student who did not complete the question, presenting 0.44 percent of the responses.

Table 5-2 Sample classification: Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Second year students</th>
<th>Third year students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>95</td>
<td>43.98%</td>
</tr>
<tr>
<td>Female</td>
<td>121</td>
<td>56.02%</td>
</tr>
<tr>
<td>Not indicated</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

When determining the study field of the students it can be seen in Table 5-3 that the overall majority of both second and third year students were B.Com Financial Accountancy students while the overall minority were B.Com Management Accountancy students. For the second year students 43.06 percent were B.Com Financial Accountancy, 37.04 percent B.Com Chartered Accountancy, 10.65 percent B.Com Management Accountancy and 9.26 percent did not indicate their study field. For the third year students 44.25 percent were B.Com Financial Accountancy 41.59 percent B.Com Chartered Accountancy, 12.83 percent B.Com Management Accountancy and 1.33 percent did not indicate their study field. The 9.26 percent of second year students that did not indicate their study field could be due to the fact that there are a small number of students who enrolled for another course e.g. Risk Management that takes some classes with the B.Com Management Accountancy, B.Com Chartered Accountancy or B.com Financial Accountancy students.
The third question of the research questionnaire gives an indication of the approximate number of SETs completed by the students as seen in Table 5-4. 36.11 percent of the second year students completed approximately 15 – 20 SETs, 28.70 percent completed between 10 – 15 SETs, 24.54 percent completed less than 10 SETs and only 9.72 percent have completed more than 20 SETs. 38.50 percent of the third year students have completed more than 20 SETs, 22.57 percent between 15 – 20 SETs, 21.24 percent completed between 10 – 15 SETs and 17.26 percent completed less than 10 SETs. Two second year students and one third year student did not respond to the question respectively presenting 0.93 percent and 0.44 percent of the total responses.

<table>
<thead>
<tr>
<th>Field of study</th>
<th>Second year students</th>
<th>Third year students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>B.Com Management Accountancy</td>
<td>23</td>
<td>10.65</td>
</tr>
<tr>
<td>B.Com Chartered Accountancy</td>
<td>80</td>
<td>37.04</td>
</tr>
<tr>
<td>B.Com Financial Accountancy</td>
<td>93</td>
<td>43.06</td>
</tr>
<tr>
<td>Not indicated</td>
<td>20</td>
<td>9.26</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The table above shows the distribution of SETs completed by second and third year students across different fields of study.
Table 5-4 Sample classification: Approximate number of SETs completed

<table>
<thead>
<tr>
<th>Approximate number of SETs completed</th>
<th>Second year students</th>
<th>Third year students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Less than 10</td>
<td>53</td>
<td>24.54</td>
</tr>
<tr>
<td>15-20</td>
<td>78</td>
<td>36.11</td>
</tr>
<tr>
<td>More than 20</td>
<td>21</td>
<td>9.72</td>
</tr>
<tr>
<td>Not indicated</td>
<td>2</td>
<td>0.93</td>
</tr>
<tr>
<td>Total</td>
<td>216</td>
<td>100.00</td>
</tr>
</tbody>
</table>

5.2.2 Section B

Analysis of combined data from section B

Section B contained questions regarding students’ perceptions of SETs. The objective of this section was to determine whether:

- Students believed that SETs are a necessary and effective way to evaluate instructors (General perceptions of SETs)
- Students believed that SETs are used by instructors to improve teaching and assessment (Instructors’ use of SETs)
- Students' ratings of instructors are influenced by biasing factors (Possible biasing factors)
General perceptions of SETs

Table 5-5 below shows the combined results of students’ general perceptions of SETs.

Table 5-5 Combined results: General perceptions of SETs

<table>
<thead>
<tr>
<th>General perceptions of SETs</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>...adequate time?</td>
<td>2.5%</td>
<td>5.9%</td>
<td>15.2%</td>
<td>28.6%</td>
<td>47.8%</td>
</tr>
<tr>
<td>...effective way to evaluate instructors?</td>
<td>4.3%</td>
<td>10.9%</td>
<td>28.7%</td>
<td>31.0%</td>
<td>25.1%</td>
</tr>
<tr>
<td>...important to evaluate instructors?</td>
<td>9.9%</td>
<td>2.0%</td>
<td>11.8%</td>
<td>32.8%</td>
<td>52.5%</td>
</tr>
<tr>
<td>...SETs appropriate measure of teaching?</td>
<td>3.2%</td>
<td>7.9%</td>
<td>29.4%</td>
<td>34.2%</td>
<td>25.3%</td>
</tr>
<tr>
<td>...serious when completing?</td>
<td>1.1%</td>
<td>2.3%</td>
<td>12.0%</td>
<td>33.9%</td>
<td>50.7%</td>
</tr>
<tr>
<td>...give adequate thought to process?</td>
<td>1.4%</td>
<td>3.4%</td>
<td>19.0%</td>
<td>43.1%</td>
<td>33.1%</td>
</tr>
<tr>
<td>...fair when giving ratings?</td>
<td>1.8%</td>
<td>1.1%</td>
<td>12.2%</td>
<td>40.7%</td>
<td>44.1%</td>
</tr>
</tbody>
</table>

The majority of students indicated that they hold a fairly positive view with regards to SETs, as can be seen in Table 5-5 above. The majority strongly agreed on having adequate time to complete it, felt it is important to evaluate instructors, were serious when completing it and were fair when giving ratings. They agreed on SETs being an effective and appropriate way to evaluate instructors and that they give adequate thought to the process.

Instructor’s use of SETs

Table 5-6 below shows the combined results of students’ perceptions of whether SETs are used by instructors.

Table 5-6 Combined results: Instructors’ use of SETs

<table>
<thead>
<tr>
<th>Instructors’ use of SETs</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>...instructors pay attention to SETs?</td>
<td>12.2%</td>
<td>16.1%</td>
<td>42.1%</td>
<td>20.8%</td>
<td>8.8%</td>
</tr>
<tr>
<td>...use SETs to improve assessment?</td>
<td>10.7%</td>
<td>16.4%</td>
<td>44.7%</td>
<td>20.3%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

The majority of students indicated that they stand neutral with regards to whether instructors pay attention to SETs and whether they use it to improve assessment.
Possible biasing factors

Table 5-7 below shows the extent to which students believe their ratings are influenced by biasing factors.

Table 5-7 Combined results: Possible biasing factors

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>...influenced by the grades you receive?</td>
<td>25.8%</td>
<td>24.7%</td>
<td>27.4%</td>
<td>14.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>...influenced by your view of the instructor?</td>
<td>13.0%</td>
<td>16.6%</td>
<td>26.6%</td>
<td>30.9%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>

As seen in Table 5-7 above the majority of students indicated that their SET ratings are not influenced by the grades they received as their responses felt fairly equal into the categories from strongly disagree – neutral. The majority of students did however indicate that their ratings are influenced somewhat by their view of the instructor.

5.2.3 Section C

The objective of section C is to determine students' perceptions of assessment and different aspects thereof with regards to Financial Accounting, Taxation, Management Accounting and Auditing.

The combined results are presented in Table 5-8 on the following page.
Table 5-8 Combined results: Section C (Assessment in the different subjects)

<table>
<thead>
<tr>
<th>Question</th>
<th>Assessment in Financial Accounting</th>
<th>Assessment in Taxation</th>
<th>Assessment in Management accounting</th>
<th>Assessment in Auditing</th>
</tr>
</thead>
<tbody>
<tr>
<td>...thoroughly prepared by your instructor on how learning outcomes will be assessed?</td>
<td>3.4% 8.4% 22.2% 32.5% 33.5%</td>
<td>2.3% 7.6% 27.5% 33.1% 29.3%</td>
<td>3.7% 9.8% 27.2% 39.7% 19.4%</td>
<td>7.0% 14.5% 29.3% 33.6% 15.6%</td>
</tr>
<tr>
<td>...assessment is fair?</td>
<td>1.2% 7.7% 20.9% 36.1% 34.1%</td>
<td>2.6% 3.8% 19.9% 39.8% 33.7%</td>
<td>2.2% 6.7% 24.6% 39.0% 27.3%</td>
<td>4.8% 8.9% 26.3% 33.6% 26.3%</td>
</tr>
<tr>
<td>...assessment corresponds with learning outcomes?</td>
<td>0.7% 3.9% 18.8% 35.7% 40.6%</td>
<td>0.3% 3.6% 21.2% 39.4% 35.2%</td>
<td>1.5% 6.5% 24.1% 35.9% 31.4%</td>
<td>1.6% 8.3% 25.0% 34.4% 30.4%</td>
</tr>
<tr>
<td>...sufficient feedback on assessment?</td>
<td>1.5% 7.7% 21.5% 32.2% 36.8%</td>
<td>1.8% 6.6% 17.8% 44.6% 29.9%</td>
<td>2.5% 7.3% 27.5% 35.6% 26.8%</td>
<td>2.0% 8.3% 27.3% 38.5% 23.8%</td>
</tr>
<tr>
<td>...receive feedback timely enough?</td>
<td>1.9% 9.0% 19.4% 36.4% 33.0%</td>
<td>0.8% 6.6% 17.8% 44.6% 29.9%</td>
<td>2.5% 7.3% 27.5% 35.6% 26.8%</td>
<td>1.4% 9.2% 25.7% 36.5% 27.0%</td>
</tr>
<tr>
<td>...understand what is expected in assessments?</td>
<td>2.2% 6.8% 19.8% 34.6% 36.3%</td>
<td>1.0% 7.1% 23.8% 36.6% 31.2%</td>
<td>2.5% 7.3% 27.5% 35.6% 26.8%</td>
<td>5.3% 12.0% 27.9% 30.6% 24.0%</td>
</tr>
</tbody>
</table>

79
As seen in Table 5-8 the combined results of students’ perceptions of assessment indicate that they were slightly more satisfied with their assessment in financial accounting than with the other subjects. For the other three subjects they generally agreed with all the questions. With regards to the sufficiency of feedback in auditing, the majority of students did however indicate a neutral response. However, when searching for practical significance differences between second- and third year students’ responses with regards to their perceptions of assessment, significant differences between the two groups were found (See section 5.6).

5.3 MEASURES OF ASSOCIATION

Cross tabulations were run to determine the strength of association between the variables. Phi and Cramer’s V were both estimated as the measure of association, but as the dataset has two categories, these measures are identical.

Cramer’s V is a statistical measure that calculates the strength of association in a contingency table. It presents a value that differs from 0 to 1. A value close to 0 indicates that there is a weak association between the variables. The closer the value is to 1, the stronger the association.

Table 5-9 below indicates the interpretation of Cramer’s V

<table>
<thead>
<tr>
<th>Cramer’s V</th>
<th>Strength of association</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 0.10</td>
<td>Negligible association</td>
</tr>
<tr>
<td>0.10 – 0.20</td>
<td>Weak association</td>
</tr>
<tr>
<td>0.20 – 0.40</td>
<td>Moderate association</td>
</tr>
<tr>
<td>0.40 – 0.60</td>
<td>Relatively strong association</td>
</tr>
<tr>
<td>0.80 – 1.00</td>
<td>Very strong association</td>
</tr>
</tbody>
</table>

Source: Rea and Parker (1992:203)

Cross tabulation was done for all the questions in the data set, but there were only a few for which Cramer’s V was significant enough to be further interpreted.

Table 5-10 shows the association between second and third year students’ responses to question 17 of the questionnaire.
Cramer’s V of 0.370 shows that there is a moderate association between the responses of second- and third- year students. This means that the question can be further interpreted. The question asked whether the students feel that they are thoroughly prepared by their lecturer about how learning outcomes will be assessed in Financial Accounting. The results appear in Table 5-11 below.

Table 5-11 Responses to question 17: Do you feel that you are thoroughly prepared by your instructor about how learning outcomes will be assessed in Financial Accounting?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year</td>
<td>4.80%</td>
<td>13.80%</td>
<td>31.00%</td>
<td>31.00%</td>
<td>19.50%</td>
</tr>
<tr>
<td>Third year</td>
<td>2.00%</td>
<td>2.90%</td>
<td>13.20%</td>
<td>34.10%</td>
<td>47.80%</td>
</tr>
</tbody>
</table>

These results illustrate that the third year students are more satisfied with the way in which they are prepared by the lecturer about how learning outcomes will be assessed in Financial Accounting. 47.80 percent of the third year students strongly agreed while only 19.50 percent second year students strongly agreed.

Table 5-12 shows the association between second- and third- year students’ responses to question 18.

Table 5-12 Association question 18: Do you feel that you are thoroughly prepared by your instructor about how learning outcomes will be assessed in Taxation?

<table>
<thead>
<tr>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phi</td>
<td>.372</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.372</td>
</tr>
</tbody>
</table>
Cramer’s V of 0.372 shows that there is a moderate association between the responses of second- and third- year students. This means that the question can be further interpreted. The question asked whether the students feel that they are thoroughly prepared by their lecturer about how learning outcomes will be assessed in Taxation. The results appear in Table 5-13 below.

**Table 5-13 Responses to question 18: Do you feel that you are thoroughly prepared by your instructor about how learning outcomes will be assessed in Taxation?**

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>1.10%</td>
<td>2.70%</td>
<td>18.50%</td>
<td>32.10%</td>
<td>45.10%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Third year students</td>
<td>3.30%</td>
<td>12.00%</td>
<td>35.40%</td>
<td>34.00%</td>
<td>15.30%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

These results illustrate that second year students are more satisfied with the way in which they are prepared by the lecturer about how learning outcomes will be assessed in Taxation than third year students. 45.10 percent of the second year students, indicated that they strongly agree in comparison to the 15.30 percent of third year students.

Table 5-14 shows the association between second and third year students’ responses to question 21 of the questionnaire.

**Table 5-14 Association question 21: Do you feel that the assessment you receive in Financial Accounting is fair?**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>Phi</td>
<td>.273</td>
</tr>
<tr>
<td></td>
<td>Cramer’s V</td>
<td>.273</td>
</tr>
</tbody>
</table>

The Cramer’s V of .273 shows that there is a moderate association and indicates that the question could be further interpreted. This question asked whether students feel that Financial Accounting assessment is fair. The results appear in Table 5-15 below.
Table 5-15 Responses to question 21: Do you feel that the assessment you receive in Financial Accounting is fair?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>1.40%</td>
<td>10.50%</td>
<td>29.50%</td>
<td>33.80%</td>
<td>24.80%</td>
</tr>
<tr>
<td>Third year students</td>
<td>1.00%</td>
<td>4.90%</td>
<td>12.10%</td>
<td>38.30%</td>
<td>43.70%</td>
</tr>
</tbody>
</table>

The results indicate that third year students are more satisfied with the fairness of assessment in Financial Accounting than second year students. Only 24.80 percent of the second year students strongly agreed to the statement while 43.70 percent of third year students strongly agreed.

Table 5-16 shows the association between second and third year students’ responses to question 29 of the questionnaire.

Table 5-16 Association question 29: Do you feel that sufficient feedback on your assessment in Financial Accounting is provided?

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phi</td>
<td>.235</td>
</tr>
<tr>
<td></td>
<td>Cramer’s V</td>
<td>.000</td>
</tr>
</tbody>
</table>

The Cramer’s V of .273 shows that there is a moderate association and indicates that the question could be further interpreted. The question asked whether students were satisfied with the amount of feedback that they receive on Financial Accounting assessment.
Table 5-17 Responses to question 29: Do you feel that sufficient feedback on your assessment in Financial Accounting is provided?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>1.10%</td>
<td>2.70%</td>
<td>18.50%</td>
<td>32.10%</td>
<td>45.10%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Third year students</td>
<td>3.30%</td>
<td>12.00%</td>
<td>35.40%</td>
<td>34.00%</td>
<td>15.30%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

It can be seen from the results in Table 5-17 above that the third year students are more satisfied with the amount of feedback received from Financial Accounting assessment than the second year students. 45.10 percent of the third year students indicated that they strongly agree while only 15.30% of the second year students strongly agreed.

Table 5-18 shows the association between second and third year students’ responses to question 33 of the questionnaire.

Table 5-18 Association question 33: Do you feel that you receive feedback in Financial Accounting timely enough for it to be useful?

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>Phi</td>
<td>.285</td>
</tr>
<tr>
<td></td>
<td>Cramer’s V</td>
<td>.285</td>
</tr>
</tbody>
</table>

The Cramer’s V of .285 shows that there is a moderate association and indicates that the question could be further interpreted. The question asked whether students feel that the feedback that they received in Financial Accounting were timely enough for it to be useful.
The results from question 29 and question 33 are in accordance with each other. The second year students were not only less satisfied with the amount of feedback they receive in Financial Accounting but also with the time in which feedback is provided. Although 45.10 percent of the third year students strongly agreed only 28.50 percent of the second year students felt that way.

Table 5-20 shows the association between second and third year students’ responses to question 37 of the questionnaire.

**Table 5-20 Association question 37: Do you understand what is expected of you in assessments in Financial Accounting?**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>Phi</td>
<td>.231</td>
</tr>
<tr>
<td></td>
<td>Cramer's V</td>
<td>.231</td>
</tr>
</tbody>
</table>

The Cramer’s V of .231 shows that there is a moderate association and indicates that the question could be further interpreted. The question asked whether students understood what is expected of them in Financial Accounting assessments.
Table 5-21 Responses to question 37: Do you understand what is expected of you in assessments in Financial Accounting?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>1.10%</td>
<td>2.70%</td>
<td>18.50%</td>
<td>32.10%</td>
<td>45.10%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Third year students</td>
<td>3.30%</td>
<td>12.00%</td>
<td>35.40%</td>
<td>34.00%</td>
<td>15.30%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

As shown in Table 5-21 above the third year students have a better understanding of what is expected of them from Financial Accounting assessments. The majority of the third year students (35.4 percent) only indicated that they agree while the majority of second year students (45.10 percent) indicated that they strongly agree.

Table 5-22 shows the association between second and third year students’ responses to question 38 of the questionnaire.

Table 5-22 Association question 38: Do you understand what is expected from you in assessments in Taxation?

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Approx. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal by Nominal</td>
<td>Phi</td>
<td>.222</td>
</tr>
<tr>
<td></td>
<td>Cramer's V</td>
<td>.002</td>
</tr>
</tbody>
</table>

The Cramer's V of .222 shows that there is a moderate association and indicates that the question could be further interpreted. The question asked whether students understood what is expected of them in Taxation assessments.
Table 5-23 Responses to question 38: Do you understand what is expected from you in assessments in Taxation?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second year students</td>
<td>1.10%</td>
<td>1.70%</td>
<td>22.60%</td>
<td>36.70%</td>
<td>37.30%</td>
<td>0.60%</td>
</tr>
<tr>
<td>Third year students</td>
<td>1.00%</td>
<td>11.70%</td>
<td>24.90%</td>
<td>36.60%</td>
<td>25.90%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Unlike question 37 with regards to what is expected of students in Financial Accounting it can be seen in Table 5-23 above that the second year students are more at ease with what is expected from them in Taxation assessments than the third year students. While the majority of second year students (37.30 percent) strongly agreed the majority of third year students (36.60 percent) only agreed.

5.4 EXPLORATORY FACTOR ANALYSIS

The main aim of the statistical analysis is to find underlying factors in the data set. Factor analysis is mainly used in order to reduce the number of variables and to detect relationships and commonality between variables (Doble & Supriya, 2011:240). After conducting the KMO measure of sampling adequacy and Bartlett’s test of sphericity it has been determined that the data are suitable to be subjected to factor analysis. Factor analysis was carried out using a principal component analysis method with an oblique oblimin rotation. The principal component analysis is used to combine two or more variables by a single factor (Doble & Supriya, 2011:240). The three main goals of principal component analysis are recognised by Abdi and Williams (2010:434):

- It is used to extract the most important information from the data table.
- It reduces the size of the data set by only keeping the most important information.
- It simplifies the description of the data set.
- It is used to analyse the structure of the observations and variables.

The adequacy of the data for factor analysis was evaluated based on the value of Kaiser-Meyer-Olkin (KMO) and Bartlett’s test (homogeneity of variance). After the adequacy was
confirmed factor analysis was firstly done for section B (questions 6 – 16) of the questionnaire regarding students’ perceptions on SETs in general and also regarding the assessment aspect of SETs. Another factor analysis was done for section C (questions 17 – 40) of the questionnaire regarding assessment in four subjects (Financial Accounting, Taxation, Management Accounting and Auditing).

5.4.1 Sampling adequacy of the factors

The KMO measure represents the adequacy of sample-size and compared the value of partial correlation coefficients against the total correlation coefficients (Venkaiah et al., 2015:2). The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlation is large relative to the sum of correlations, indicating diffusion in the pattern of correlations. A value close to 1 indicates that patterns of correlation are relatively compact and so factor analysis should yield distinct and reliable factors. When the KMO yields a value close to 1 it indicates that it is good idea to do a factor analysis of the variables.

Bartlett’s test of sphericity is another indicator of the strength among variables. It tests the hypothesis that variables are unrelated to the population. When the observed significance level is 0.00001 it is small enough to reject the hypothesis.

The KMO test of sampling adequacy and Bartlett’s test of sphericity were done for two sets of data. The first set of data comprises of section B (questions 6 – 16) and are all questions regarding SETs and students’ perceptions thereof. The second set comprises of section C (questions 17 – 40) of the questionnaire regarding assessment in different subjects.

5.4.2 Sampling adequacy and pattern matrix for extracted factors: Section B (Questions 6-16)

Table 5-24 shows the results of the two tests which indicate the suitability of the data from section B for factor analysis. KMO tests of sampling adequacy and Bartlett’s test of sphericity indicated that the data were appropriate for factor analysis. Considering the KMO, it was found that adequate measurements concerning sample size were reported for these questions. An adequacy measure of 0.745 were reported, with a 0.60 measure suggested by the literature as the minimum value for a good factor analysis.

The Bartlett’s Test of Sphericity reached statistical significance for section B of the questionnaire with a significance score <0.000, considering that a score <0.05 is considered significant. This indicates that there are significant relationships among variables.
After the adequacy for factor analysis was confirmed a factor analysis was done on section B. Through using a principal component analysis three factors were extracted after the rotation was done. These three factors account for 57.232% of the data.

The first factor or component includes variables pertaining to students' perceptions of SETs. The second factor or component includes variables pertaining to the degree in which students believe SETs are used by instructors. The third factor includes variables pertaining to possible bias of the students whilst completing SETs.

Table 5-25 on the following page shows the pattern matrix of the data from questions 6 – 16 (SETs). Extraction method: Principal component analysis, rotation method: Oblimin with Kaiser normalization.
A second factor analysis was done for section C (questions 17 – 40) of the questionnaire regarding assessment in four different subjects (Financial accounting, Taxation, Management accounting and Auditing).

Table 5-26 shows the results of the two tests which indicate the suitability of the data from section C for factor analysis. KMO tests of sampling adequacy and Bartlett’s test of sphericity indicated that the data were appropriate for factor analysis. Considering the KMO, it was found that adequate measurements concerning sample size were reported for these questions. An adequacy measure of 0.903 was reported, thus indicating a good measure.

The Bartlett's Test of Sphericity reached statistical significance for questions 17 – 40 with a significance score < 0.000. This indicates that there are significant relationships among variables.
After the extraction of three components 59.359 percent of the variance is accounted for.

The first factor or component includes variables pertaining to students' perceptions of different aspects of assessment in Taxation and Management accounting. The second factor or component includes variables pertaining to students' perceptions of different aspects of assessment in financial accounting. The third factor includes variables pertaining to students' perceptions of different aspects of assessment in Auditing.

Table 5-27 on the following page shows the pattern matrix of the data from questions 17-40 (Assessment). The factors were extracted using principal component analysis and the oblimin rotation method.
5.4.4 Coefficient of reliability/Cronbach’s alpha coefficient

In order to ascertain the reliability of the factors it is necessary to calculate Cronbach alpha coefficients and mean inter-item correlations for all six factors. These coefficients of reliability are presented in Table 5-28.
Table 5-28 Cronbach’s alpha for all six factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Cronbach alpha coefficient</th>
<th>Mean inter-item correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 Student perception</td>
<td>0.768</td>
<td>0.332</td>
</tr>
<tr>
<td>F2 Used by instructors</td>
<td>0.780</td>
<td>0.639</td>
</tr>
<tr>
<td>F3 Student bias</td>
<td>0.576</td>
<td>0.404</td>
</tr>
<tr>
<td>F4 Taxation/ Management accounting</td>
<td>0.920</td>
<td>0.490</td>
</tr>
<tr>
<td>F5 Financial accounting</td>
<td>0.892</td>
<td>0.580</td>
</tr>
<tr>
<td>F6 Auditing</td>
<td>0.857</td>
<td>0.500</td>
</tr>
</tbody>
</table>

Items with a Cronbach alpha coefficient close to 0.6 or higher is good enough to work with, although the most reliable items are those with a Cronbach alpha coefficient above 0.6 (Ellis, 2015). The Cronbach alpha coefficients for the factors are reliable as the Cronbach alpha for all factors is above 0.6 except for F3 which is close to 0.6 (0.576). This reliability indicates that these sub-sets would probably yield the same results if the same respondents were asked the same questions again.

5.4.5 Association with biographical data and practical significant differences (Effect Sizes)

After the factor analysis was conducted it was necessary to determine whether significant differences exist between two different groups. T-tests were done to compare the average means between different groups. When the significance value of the t-test is less than 0.05 it is an indication that the means are statistically different.

Analysis of variance (ANOVA) is a statistical procedure used to compare data from more than two conditions or groups. It is a technique in which the significance of the difference between the sample means are tested (Field, 2013:430). It uses a null hypothesis which assumes that there are no differences between the groups. When the p-value is less than 0.05 the difference are statistically significant.

ANOVA is able to indicate whether significant differences exist, but is unable to specify between which groups these differences appear. Therefore it is necessary to do post hoc tests. In this instance the Tukey honestly significant difference (HSD) test for unequal sample sizes was
conducted on factors that differed significantly from others in order to investigate differences between groups.

While a p-value can inform on whether a significant difference exists it is unable to determine the size or magnitude of the effect. Therefore it is necessary to calculate the effect sizes (Ellis & Steyn, 2003:52). These effect sizes can be determined by calculating the standardised difference between the means (Ellis & Steyn, 2003:52). The guidelines for the interpretation of effect sizes (d) is presented in Table 5-28

Table 5-29 Guidelines for interpretation of effect size (d)

<table>
<thead>
<tr>
<th>Effect Size $d$</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2</td>
<td>Small</td>
</tr>
<tr>
<td>0.5</td>
<td>Medium</td>
</tr>
<tr>
<td>0.8</td>
<td>Large</td>
</tr>
</tbody>
</table>

These interpretations of the effect sizes are however just guidelines and not definite cut-off points. In order to differentiate between effect sizes in tables, asterisks were used to indicate the significance of effect sizes. One * asterisk indicates a small significance, two ** asterisks indicate a medium significance, while three *** asterisks indicate a large effect.

In this study effect sizes were calculated between the six factors on the following items:

- Gender
- Field of study
- Complete / do not complete SETs
- Academic year of study

5.4.5.1 Gender

Table 5-30 on the following page shows the effect sizes and statistical significant differences with regards to gender.
Table 5-30 Statistical significant differences with regards to gender

<table>
<thead>
<tr>
<th>Factors</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>2-tailed p-value</th>
<th>Effect Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1: Student perception</td>
<td>Male</td>
<td>192</td>
<td>3.9370</td>
<td>0.64480</td>
<td>0.000</td>
<td>*0.32</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>249</td>
<td>4.1444</td>
<td>0.56857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2: Used by instructors</td>
<td>Male</td>
<td>192</td>
<td>2.9063</td>
<td>0.93734</td>
<td>0.150</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>249</td>
<td>3.0402</td>
<td>1.00523</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3: Student bias</td>
<td>Male</td>
<td>192</td>
<td>2.9193</td>
<td>0.95308</td>
<td>0.132</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>249</td>
<td>2.7731</td>
<td>1.07563</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4: Taxation / Management accounting</td>
<td>Male</td>
<td>177</td>
<td>3.8233</td>
<td>0.64952</td>
<td>0.615</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>233</td>
<td>3.8587</td>
<td>0.77111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5: Financial accounting</td>
<td>Male</td>
<td>183</td>
<td>3.9436</td>
<td>0.78437</td>
<td>0.901</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>236</td>
<td>3.9536</td>
<td>0.85093</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6: Auditing</td>
<td>Male</td>
<td>160</td>
<td>3.6300</td>
<td>0.80162</td>
<td>0.799</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>221</td>
<td>3.6520</td>
<td>0.87521</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The only statistical significant difference (p < 0.05) was found for F1 (Student perception). With regards to the other factors (F2-F6) no indication of significant practical differences could be found.

F1: A small size effect (d=0.32) exists for this factor. It could be seen by the means of the gender groups that female students' perceptions with regards to SETs is more positive (mean = 4.14) than that of their male counterparts (mean = 3.94).

5.4.5.2 Field of study

Table 5-31 on the following page shows the effect sizes and statistical significant differences with regards to the field of study.
Table 5-31 Statistical significant differences with regards to the field of study

<table>
<thead>
<tr>
<th>Factors</th>
<th>Field of study</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Significance p-value</th>
<th>Effect Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>4.1099</td>
<td>0.62726</td>
<td>0.513</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>4.0161</td>
<td>0.60828</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>4.0757</td>
<td>0.61369</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>F1: Student perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>3.0192</td>
<td>1.10241</td>
<td>0.008</td>
<td>*0.20</td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>2.7960</td>
<td>0.98253</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>3.1114</td>
<td>0.93501</td>
<td>0.08</td>
<td>*0.32</td>
</tr>
<tr>
<td>F2: Used by instructors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>2.7885</td>
<td>0.95664</td>
<td>0.570</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>2.8908</td>
<td>0.97934</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>2.7824</td>
<td>1.06888</td>
<td>0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>F3: Student bias</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>3.9204</td>
<td>0.80105</td>
<td>0.205</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>3.9096</td>
<td>0.70929</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>3.7839</td>
<td>0.70441</td>
<td>0.17</td>
<td>0.18</td>
</tr>
<tr>
<td>F4: Taxation / Management Accountancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>4.0862</td>
<td>0.84614</td>
<td>0.395</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>4.0011</td>
<td>0.75180</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>3.9246</td>
<td>0.85710</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>F5: Financial Accounting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Management Accountancy</td>
<td>52</td>
<td>3.7092</td>
<td>0.93797</td>
<td>0.544</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>B.Com Chartered Accountancy</td>
<td>174</td>
<td>3.6864</td>
<td>0.79464</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.Com Financial Accountancy</td>
<td>193</td>
<td>3.5955</td>
<td>0.87151</td>
<td>0.12</td>
<td>0.10</td>
</tr>
</tbody>
</table>
The only statistical significant difference was found between the three different study fields with regards to F2 (p < 0.05).

**F2: Two small effect sizes were identified for this factor. The effect between B.Com Management Accountancy and B.Com Chartered Accountancy is d = 0.2. Between B.Com Chartered Accountancy and B.Com Financial Accountancy an effect size of d = 0.32 were found. The B.Com Chartered Accountancy students indicated that they had less confidence in SETs being used by instructors (mean = 2.80) than B.Com Management Accountancy (mean = 3.02) and B.Com Financial Accountancy (mean = 3.11) students.**

5.4.5.3 Complete SETs/ do not complete SETs

Table 5-32 on the following page shows the effect sizes and statistical significant differences with regards to whether SETs are completed.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Complete SET forms</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>2-tailed p-value</th>
<th>Effect Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1: Student perception</td>
<td>Yes</td>
<td>404</td>
<td>4.0880</td>
<td>0.59987</td>
<td>0.006</td>
<td><strong>0.6</strong></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>26</td>
<td>3.6923</td>
<td>0.66356</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2: Used by instructors</td>
<td>Yes</td>
<td>404</td>
<td>3.0161</td>
<td>0.94661</td>
<td>0.076</td>
<td>*0.37</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>26</td>
<td>2.5769</td>
<td>1.18905</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3: Student bias</td>
<td>Yes</td>
<td>404</td>
<td>2.8342</td>
<td>1.03342</td>
<td>0.854</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>26</td>
<td>2.8654</td>
<td>0.81924</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4: Taxation / Management accounting</td>
<td>Yes</td>
<td>378</td>
<td>3.8808</td>
<td>0.71316</td>
<td>0.005</td>
<td>**0.66</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>3.4079</td>
<td>0.71565</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5: Financial accounting</td>
<td>Yes</td>
<td>386</td>
<td>3.9812</td>
<td>0.80552</td>
<td>0.069</td>
<td>*0.4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>24</td>
<td>3.6111</td>
<td>0.93466</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6: Auditing</td>
<td>Yes</td>
<td>355</td>
<td>3.6669</td>
<td>0.84712</td>
<td>0.067</td>
<td>*0.41</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>19</td>
<td>3.3158</td>
<td>0.76758</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant differences (p – values < 0.05) were reported for F1 and F4 with regards to whether students complete SETs when given the chance. Both of these factors showed effect sizes with a medium practical significance.

**F1: A medium statistical significant difference (0.60) has been found. Students who indicated that they do not complete SETs whenever they are given the chance had a lower regard for SETs, as indicated by their perceptions of SETs. The mean for students who do complete SETs was 4.09 as opposed to a mean of 3.69 for students who do not complete SETs.**
**F4:** A medium statistical significant difference (0.66) has been found between the perceptions of students who complete and do not complete SETs with regards to assessment in Taxation and Management Accounting. Students who do not complete SETs were less satisfied with their assessment in Taxation and Management Accounting (mean = 3.41) than students who do complete SETs (mean = 3.88).

**F2, F5, F6:** Small statistical significant differences (0.37; 0.40; 0.41) have been found for these three factors. Students who do not complete SETs also had less confidence that SETs are being used by instructors and were less satisfied with their assessment in Financial Accounting and Auditing.

### 5.4.5.4 Year of study

Table 5-33 shows the effect sizes and statistical significant differences with regards to the year of study.

**Table 5-33 Statistical significant differences with regards to the year of study**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Year of study</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>2-tailed p-value</th>
<th>Effect Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1: Student perception</td>
<td>2nd</td>
<td>216</td>
<td>4.0112</td>
<td>0.59005</td>
<td>0.150</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>226</td>
<td>4.0948</td>
<td>0.62759</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2: Used by instructors</td>
<td>2nd</td>
<td>216</td>
<td>2.9954</td>
<td>0.91625</td>
<td>0.814</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>226</td>
<td>2.9735</td>
<td>1.03460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3: Student bias</td>
<td>2nd</td>
<td>216</td>
<td>2.8356</td>
<td>1.05415</td>
<td>0.959</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>226</td>
<td>2.8407</td>
<td>0.99837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4: Taxation / Management accounting</td>
<td>2nd</td>
<td>190</td>
<td>3.9771</td>
<td>0.69701</td>
<td>0.001</td>
<td>*0.34</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>223</td>
<td>3.7355</td>
<td>0.72135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5: Financial accounting</td>
<td>2nd</td>
<td>212</td>
<td>3.6972</td>
<td>0.83419</td>
<td>0.000</td>
<td>**0.61</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>210</td>
<td>4.2044</td>
<td>0.72634</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6: Auditing</td>
<td>2nd</td>
<td>183</td>
<td>3.5037</td>
<td>0.89459</td>
<td>0.002</td>
<td>*0.29</td>
</tr>
<tr>
<td></td>
<td>3rd</td>
<td>201</td>
<td>3.7664</td>
<td>0.77261</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 5-33 above the factors were investigated for statistical significant differences between the two year groups. The p-values were significant (p < 0.05) for F4, F5 and F6.

**F4:** A small effect size (0.34) has been found between second and third year students perceptions of assessment in Taxation and Management Accounting. The third year students have been found to be less satisfied with their assessment in Taxation and Management Accounting (mean = 3.74) than the second year students (mean = 3.98).

**F5:** A medium statistical significant effect size (d = 0.61) exist between the second – and third year students with regards to their perceptions of assessment in Financial Accounting. The third
year students were more satisfied with their assessment in this subject with a mean of 4.20 compared to the 3.69 mean of the second year students.

**F6:** For the students perceptions of assessment in auditing a small size statistical significant difference (0.29) could be found. The third year students were slightly more positive (mean = 3.76) about their assessment in Auditing than the second year students (mean = 3.50).

### 5.5 DOCUMENT ANALYSIS OF SETS

The aim of the document analysis of previous results from SETs was firstly to compare the results of the assessment section of the SETs with that of the other sections and secondly to compare the results regarding assessment in the four major subjects (Financial Accounting, Management Accounting, Taxation and Auditing) with each other. The questions on the SET form used by the university where this study was conducted are available in Appendix C, page 151.

The document analysis of SETs was done by means of Microsoft Excel. Different spread sheets were drawn up to present the SET data from different years.

The SETs from 2012-2015 were obtained. Unfortunately only the summarised results from 2012 and 2013 were available, so no distinctions could be made between the different subjects.

The results were presented as a list with all the questions from the questionnaire. Each question received a rating out of four. The averages for each question were then determined in order to be able to make comparisons between the different categories.

The SETs from 2014 and 2015 were received according to the subjects. The B.Com Management Accountancy, B.Com Chartered Accountancy and B.Com Financial Accountancy results were all combined, in order to ensure the anonymity of the instructors.

The results of this analysis are presented and discussed below.

**5.5.1 Comparison of the sections of the SETs**

The objective of this section is to see how the section regarding assessment in the SETs is rated in comparison to the other sections of the questionnaire. The SETs consist of six sections namely preparation, presentation, relationship with students, assessments, subject involvement and student involvement. The section regarding student involvement is an additional section included by the university which asks students about their own participation and class
attendance. This section was not included in this study as it contains no information with regards to the instructors or teaching methods.

The results of the averages of each section of the questionnaire from 2012 – 2015 are now presented by means of tables.

Table 5-34 on the following page shows the average results of each section of the questionnaire for 2012. It can be seen that assessment is the section with the lowest average rating (3.37) while the section on the instructor’s relationship with students received the highest average rating (3.54).

Table 5-34 Results from the SETs of 2012

<table>
<thead>
<tr>
<th>Sections of the SETs</th>
<th>Average rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>3.51</td>
</tr>
<tr>
<td>Presentation</td>
<td>3.38</td>
</tr>
<tr>
<td>Relationship with students</td>
<td>3.54</td>
</tr>
<tr>
<td>Assessment</td>
<td>3.37</td>
</tr>
<tr>
<td>Subject content</td>
<td>3.42</td>
</tr>
</tbody>
</table>

Table 5-35 presents the results of the SETs of 2013. The section regarding assessment received the lowest rating (3.47) while the section on the instructor’s relationship with students again scored the highest rating (3.62).
Table 5-35 Results from the SETs of 2013

In 2014 the section regarding assessment again scored the lowest rating (3.32) as can be seen in Table 5-36. The section regarding the instructor’s relationship with students scored the highest rating (3.53).

Table 5-36 Results from the SETs of 2014
As seen in Table 5-37 on the following page the section regarding assessment scored the lowest average rating (3.3) in 2015. Again, the section on the instructor’s relationship with students scored the highest rating (3.57).

Table 5-37 Results from the SETs of 2015

<table>
<thead>
<tr>
<th>Sections of the SETs</th>
<th>Average rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>3.5</td>
</tr>
<tr>
<td>Presentation</td>
<td>3.42</td>
</tr>
<tr>
<td>Relationship with students</td>
<td>3.57</td>
</tr>
<tr>
<td>Assessment</td>
<td>3.3</td>
</tr>
<tr>
<td>Subject content</td>
<td>3.4</td>
</tr>
</tbody>
</table>

For the years 2012 – 2015 assessment had lower ratings than all the other sections regarding instruction and course content.

5.5.2 Comparison of the assessment section between subjects

In Table 5-38 the average ratings from the section about assessment of 2014 and 2015 can be seen, divided according to the four main subjects. In 2014 Financial Accounting got the highest average rating (3.68) while Management Accounting scored the lowest average rating (3.16). In 2015 the highest average ratings was scored by Financial Accounting (3.43) and Taxation (3.44). Auditing received the lowest average rating (3.12) in 2015.
5.6 THE RESEARCH INTERVIEW

Semi-structured interviews were conducted in order to determine the instructors’ perceptions and use of SETs. The questions were asked based on a research questionnaire consisting of open-ended questions. Permission was obtained from the interviewees to record all interviews for transcription and analysis. Based on the transcribed text, three different themes were identified and analysed. These themes are the effectiveness of SETs, students’ capability to complete SETs and instructors’ use of SETs. The results of the interviews are now discussed. As the interviews were conducted in Afrikaans, the quotations were translated.

5.6.1 Theme 1: Effectiveness of SETs

The first theme in the interviews was regarding the SETs. It consists of three sub-themes namely:

- SETs as an effective way of evaluating instructors
- SETs as an effective way to improve teaching
- Differences between different sections on the SETs
5.6.1.1 SETs as an effective way of evaluating instructors

Firstly the instructors were asked whether they believed that SETs are an effective way to evaluate instructors on their teaching methods. Table 5-39 contains the direct words of the participants on the effectiveness of SETs as an evaluation of teaching methods. Although hesitant, some of the instructors felt that SETs could be an effective way to evaluate instructors (1). Most of them did however have a lot of concerns and requirements regarding the effective use thereof. They mentioned that a lot of the commentary they receive are irrelevant (2). They argued that not all of the questions on the questionnaire are relevant for all the subjects, and that some of the questions were subjective. It totally depends on the students’ perceptions (3). Furthermore, they believed that the conditions under which the SETs are conducted play a role in the effectiveness thereof (4).

Table 5-39 Participants’ responses regarding the effectiveness of SETs for evaluating instructors’ teaching methods

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is an effective way</td>
<td>1</td>
<td>…because, yes, you do learn things from the students’ answers. It gives instructors and management a good idea. …mostly, yes. I think it gives an indication. I am careful to say that is a very effective way of feedback.</td>
</tr>
<tr>
<td>Some commentary is invalid</td>
<td>2</td>
<td>…some of their commentary is not always valid. …sometimes stupid things come out.</td>
</tr>
<tr>
<td>Some questions are irrelevant</td>
<td>3</td>
<td>…some questions on the questionnaire may only sometimes give you a good indication. …the questionnaire is very generic. It feels like they should adapt the questionnaire for each subject. Not everything is relevant. There is a lot of questions which I feel are relevant, but there are also question’s that aren’t. …the questions are very standard, while it is supposed to differ</td>
</tr>
</tbody>
</table>
Setting under which it takes place | 4 |
---|---|
...it depends on the setting in which you conduct it. We try our best to tell them that it is serious and that we use it for feedback.
...I think it depends greatly on how the students feel on that day.
...the biggest issue that I have is that all the instructors are evaluated at once.

5.6.1.2 SETs as an effective way to improve teaching

Table 5-40 provides the participants' responses on whether they believe that SETs are an effective method to improve teaching. Most of the participants indicated that it could be used to improve teaching as it gives instructors feedback on their teaching (1). They did however indicate that it depends greatly on the questions asked, and whether it is relevant (2).

Table 5-40 Participants' responses regarding the effectiveness of SETs to improve teaching

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants' direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gives good feedback</td>
<td>1</td>
<td>When you focus on things where they didn't give you such a good rating you can adapt your teaching.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>There are often good ideas. They especially give good ideas on the back, so there is definitely something positive to it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>...it could point some things out and give you good feedback. So that you can determine your strengths and weaknesses.</td>
</tr>
<tr>
<td>Relevance of questions</td>
<td>2</td>
<td>It depends on the asked questions. Some of the questions can't help to improve teaching.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, I think it can. If there are more specific questions.</td>
</tr>
</tbody>
</table>
5.6.1.3 Differences between different sections of the SETs

The purpose of this question was to determine whether the participants observed differences between how the different sections of the SETs were rated. In Table 5-41 the participants’ responses on this question is summarised. Most of the participants indicated that they have not noticed any significant differences between the ratings of different sections of the questionnaire (1). Some of the respondents indicated that the section regarding the students’ participation had lower ratings than the other sections (2). Although most of the participants did not notice significant differences between the sections, they did however indicate that there was one question that received notably lower ratings than the other. This question is regarding the use of the study guide (3).

Table 5-41 Participants’ responses regarding differences between the sections of the SETs

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>No differences recognised</td>
<td>1</td>
<td>I have never noticed one section that is rated good while another one is bad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not really. Not specifically on my evaluations, they are fairly constant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not that I can specifically remember.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>…there is no section were I specifically saw that I did pertinently better than in the other sections.</td>
</tr>
<tr>
<td>Differences recognised in the section about student participation</td>
<td>2</td>
<td>Yes, those questions about the student, is very bad in comparison with the rest.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Far worse is definitely the class attendance questions, those questions where the students have to answer about themselves.</td>
</tr>
<tr>
<td>Question about the use of the study guide</td>
<td>3</td>
<td>…have seen that everybody say something about the study guide.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maybe that the rating of one question, regarding the study guide, decreased.</td>
</tr>
</tbody>
</table>
5.6.2 Theme 2: Students capability to complete SETs

The second theme is regarding the instructors’ perceptions of how the SETs are perceived by the students. It consists of three sub-themes namely:

- Students’ competence to complete SETs
- Students' seriousness when completing SETs
- Students’ bias when completing SETs

5.6.2.1 Students’ competence to complete SETs

The first question regarding the students was whether the instructors believe that the students are competent to complete SETs. The results are provided in Table 5-42 about half of the instructors indicated that they believe that students are competent, as they are ultimately the clients who experience the instructor (1). Two main concerns regarding their competence were however recognised. The first one was that students who does not regularly come to class are not competent to rate their instructors (2). Secondly the objectiveness of the students was doubted (3).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are competent</td>
<td>1</td>
<td>I think so yes, the questions are fairly straight forward. Yes, they are your clients, and should be satisfied. …who else should report on the instructor?</td>
</tr>
<tr>
<td>Students do not have all the</td>
<td>2</td>
<td>…sometimes half of them don’t even come to class. …and then we are evaluated by someone who does badly in a test</td>
</tr>
</tbody>
</table>
necessary information

because he did not focus in class.

There is a difference between students who really come to classes and benefits from it. But those who come to class once a week and don’t know what is going on is not really competent.

Sometimes students don’t even know your surname, so how can they evaluate someone?

I don’t always know if they have all the information. E.g. their expectations of you. They have an idea in their heads about how it should be, and what you should do for them, that isn’t always true.

They don’t always know of all the preparations that go into a lesson.

<table>
<thead>
<tr>
<th>Objectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

I think that first year students would find it very difficult to be objective, but when they get used to the process, at their third or fourth year they would maybe provide more reliable results.

When the students are objective, realise the seriousness of the matter and are honest.

…in other respects I think that if the student does not like the instructor, he will give him a bad rating, regardless of the question.

…while a third year student has three years’ instructors against which he can measure the instructor. So is it still objective or is it subjective against a standard which were set during his three years?

5.6.2.2 Students’ seriousness when completing SETs

In this question the instructors were asked whether they believe that students are generally serious when completing SETs. These results can be seen in Table 5-43. Most of the instructors agreed that students are generally serious when completing SETs (1). They did indicate that there is always some amount of students who just fill it out to get it over with, and are not really
serious about SETs (2). According to the instructors the students are more serious when the purpose of SETs is explained to them and they have a clear understanding thereof (3).

Table 5-3 Participants’ responses with regards to whether students are serious when completing SETs

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are serious</td>
<td>1</td>
<td>I think most of them are.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>...can see they thought about it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I got the idea that they are fairly serious when completing the SETs in my classes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I did not get an indication that they are not serious.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I suppose most of them are probably serious.</td>
</tr>
<tr>
<td>Not all of the students are</td>
<td>2</td>
<td>…you get one or two who just fill it out to get it over and done with.</td>
</tr>
<tr>
<td>serious</td>
<td></td>
<td>…some situations where you can clearly see the whole class think it is a joke.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I think they just fill it out.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I think there is a lot who are, but there are definitely also students who are not serious.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not at all.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some of them are serious, and others just don’t care.</td>
</tr>
<tr>
<td>Need to understand the purpose</td>
<td>3</td>
<td>It depends on how it is pitched. When the person in front makes a joke, the students also won’t be serious.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, but they need to realise the seriousness of the matter. You know, explain to them what it is about.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When they realise the seriousness of the matter, and know why they need to do it. They must not see it as a formality.</td>
</tr>
</tbody>
</table>
5.6.2.3 Students’ bias when completing SETs

The last question with regards to the students’ capability was whether the instructors believe that the students are influenced by biasing factors when completing the SETs and are presented in Table 5-44. Only three instructors believed that it is fairly free of bias, because of the anonymity thereof (1). The other five instructors all believed that different biasing factors play a role. These biasing factors could be divided into two categories namely course related bias, and instructor related bias. With regards to the course related bias factors like the difficulty of the subject, marks and whether the student likes the subject were identified (2). The instructor related biasing factors identified include how the instructor compares to other instructors, physical appearance, personality and grading (3).

Table 5-44 Participants’ responses with regards to whether they believed the students’ results are based on some form of bias

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
</table>
| Not a great influence | 1      | I think because it is anonymous it is not that biased.  
…think they see through it, so I don’t think that it has such a big influence.  
I don’t think there is a direct relation because it is done anonymously. |
| Course related bias | 2      | First- and second year students’ ratings are much better than third years and honours. Because, the course gets harder, and when the course is harder they are more inclined to give bad ratings.  
I think marks definitely play a role. I think the students feel that when you give a good mark you are a good instructor.  
I think when you like a subject…you will give the instructor a better rating. |
| Instructor related bias | 3      | They compare you to other instructors.  
They are not objective. E.g. when it is a pretty lady, or when she is nice. Tight jeans, let’s give her good ratings.  
And things like how the instructor behaves in class. Are they |
friendly and give enough tips?

I think so. On the commentary they sometimes write things like: “It is a pretty instructor and it is nice to look at her”.

When you coach the students for your tests and exams you normally receive good feedback.

….or when the instructor always gives memos and good tips, then we score her good.

I think there are methods in which you can control the results in terms of how you ask your questions.

5.6.3 Theme 3: Instructors’ use of SETs

The third theme is regarding the instructors’ use of SETs. It is divided into three sub-themes namely:

- Time spent on SETs by the instructor
- Altered teaching methods as a result of SETs
- Altered assessment as a result of SETs

5.6.3.1 Time spend on SETs by the instructor

The purpose of this question was to determine whether instructors spend time to go through the results of the SETs. The results can be seen in Table 5-45. All of the instructors indicated that they spend some amount of time on it (1). Some of them indicated that they spend more time on the qualitative information that the students write on the back of the SETs than on the quantitative information (2). With regards to the qualitative information they did however mention that there are also some irrelevant or personal messages, which can be ignored (3).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend time on the</td>
<td>1</td>
<td>…when I receive it I see where I can improve.</td>
</tr>
</tbody>
</table>
Yes, you look at the summary and what the students write.

Yes, I take it and spend time on it.

…but I really spend about three or four times more time on the qualitative information.

…I read it and received good commentary.

I look at the qualitative things.

Sometimes you laugh about it, and throw it out.

…there are regularly guys who write rubbish…it doesn’t help me.

…you receive commentary that is inappropriate, about your clothing etc. Things that have nothing to do with the module.

5.6.3.2 Altered teaching methods as a result of SETs

Table 5-46 provides the participants’ responses with regards to whether they have changed their teaching methods as a result of information obtained from the SETs. Six of the eight instructors indicated that they have changed their teaching to some extent, although some of these were minor changes (1). Only two instructors indicated that they have not changed their teaching methods as a result of SETs (2).

Table 5-46 Participants’ responses with regards to whether they use SETs to alter their teaching methods

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed teaching methods</td>
<td>1</td>
<td>When I see the same message I try to do something about it.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, absolutely.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I have changed my teaching methods.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, I have a little.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes, I try to make it more practical.</td>
</tr>
</tbody>
</table>
Oh, absolutely, absolutely. I have definitely made adjustments. I haven’t really received commentary on my teaching methods. So I have always been giving class in the same way. To be honest, not really, I still do what I believe is effective and I believe what I do is effective.

### 5.6.3.3 Altered assessment as a result of SETs

Table 5-47 provides the participants’ direct words with regards to whether they have used SETs to change their assessment methods. Only one of the instructors indicated that he has made changes to his assessment methods (1). The other eight instructors strongly believed that students should not be able to influence assessment, as there is a certain standard and criteria which assessment must meet (2).

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number</th>
<th>Participants’ direct words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed assessment</td>
<td>1</td>
<td>Yes, I have. I let them write more class- and e-Fundi tests. I.e. more formative assessments.</td>
</tr>
<tr>
<td>Have not changed assessment</td>
<td>2</td>
<td>No, not at all.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, in the sense that we as instructors know what the guys should be able to do at the end. That is what you assess and to which you move. They must meet a certain standard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, I feel a test must be on standard and that is it. I won’t make a test easier if they complain that it is too hard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, assessment is unfortunately one of those things where I very strongly feel that the students should not have an influence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No, to be honest, no.</td>
</tr>
</tbody>
</table>
5.7 SUMMARY

This chapter served to provide an overview of the data analysis of the empirical research done in this study.

Firstly the analysis of the quantitative research questionnaire was thoroughly explained. It was analysed with the help of the Statistical Consultation Services of the North-West University, Potchefstroom Campus. After the demographical information was provided the measures of association were measured for each question by means of Cramer’s V in order to measure the strength of association between the variables of each question (see section 5.3). The results of these measures of association are discussed in the next chapter.

Lastly a factor analysis was done on the data to find relationships and commonality between the variables (Doble & Supriya, 2011:240). The sampling adequacy for two data sets (Section B and Section C of the questionnaire) where determined, and for both the Bartlett’s Test of Sphericity reached statistical significance. This implied that both data sets were suited for further factor analysis. From these data sets six different factors were extracted. The reliability of these factors was established by means of Cronbach’s alpha (Section 5.4.4). The practical significant differences (effect sizes) of these factors with regards to the students’ gender, field of study, whether they complete SETs and their academic year of study were determined in order to identify differences between the groups. The results of these findings are discussed in the next chapter.

The quantitative document analysis was done by means of Excel spreadsheets. The data was analysed by calculating the averages of the different sections of the SETs from 2012 – 2015. The results were presented with tables which can be seen in section 5.5.

Lastly the analysis of the qualitative research interview was discussed. The data from the research interview was transcribed and coded in order to identify different themes. From these data three main themes were identified. I.e. The effectiveness of SETs, students’ capability to complete SETs and instructors’ use of SETs. These themes and sub-themes were tabulated and discussed in section 5.6. The participants’ direct words were given in order to support the identified themes.

With this chapter secondary research objectives 4, 5 and 6 (section 1.3, page 4) were reached. In the next chapter the findings from the empirical research done in this chapter are further discussed. Chapter 6 provides the major findings, conclusions, recommendations, limitations and recommendations for future research.
CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

In this concluding chapter, a general overview of the study is provided in order to indicate that the research objectives, as stated in section 1.3, have been addressed. Conclusions are drawn, the limitations pertaining to this study are discussed and recommendations for further research opportunities are provided in order to conclude this chapter.

6.2 OBJECTIVES OF THE STUDY

As discussed in section 1.3 the main goal of this study was to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SET.

The main objective is supported by the following secondary objectives:

- Conceptualising from the literature the different aspects of quality in higher education and the role that students play in ensuring quality education (research objective 1)
- Conceptualising from the literature the validity and reliability of SETs (research objective 2).
- To demonstrate from the literature the importance of assessment and its role in teaching and learning (research objective 3).
- To determine whether accounting students' perception of assessment, as indicated by their responses on the SETs, reflect their actual perception of assessment or whether it is based on some form of bias and to determine accounting students' perceptions of assessment in Financial Accounting, Management Accounting, Taxation and Auditing (research objective 4).
- To compare the results of the assessment section of the SETs with that of the other sections and to compare the results of the assessment section between Financial Accounting, Management Accounting, Taxation and Auditing (research objective 5).
- To determine whether instructors take the results of the SETs seriously and if they use them to improve assessment (research objective 6).
In this chapter conclusions are drawn for each one of the objectives. These conclusions are based on the findings in Chapters 2 to 5.

6.3 OVERVIEW OF THE LITERATURE

The literature study was done in order to obtain information to reach secondary research objectives 1 to 3 and it will be discussed below:

6.3.1 Quality in higher education and students’ role in ensuring quality education

The literature study started with a thorough discussion of quality in higher education in order to establish the theoretic background for the study. Quality is one of the main concerns of institutions in higher education (Ardi et al., 2012:408) and it is therefore imperative to discover what quality in higher education entails. The concept of quality in higher education can be explained as being “the achievement of academic goals/standards, delineated in the light of significant stakeholders' needs and expectations, which may help the institution excel in its external environment” (Dilshad et al., 2012:104).

The students of an institution of higher education could be seen as one of the above-mentioned stakeholders (Gallifa & Batallé, 2010:157). They could also be described as the consumers or clients of an institution of higher education, which should be satisfied (Yorke, 1999:17; Wilkens & Epps, 2010:417). It was established in section 2.2.1 that in order to ensure quality in higher education it is important that the students’ needs and expectations should be met (Gallifa & Batallé, 2010:158; Watjatrakul, 2013:690). According to Hill (1995:13) these expectations could be met when it is aligned with their perceptions of service delivery in higher education. In order to do this it is imperative that institutions of higher education should determine students’ perceptions and needs.

According to Douglas et al. (2008:32) communication and responsiveness are viewed by students as one of the most important aspects of quality education. This communicative setting can be established by means of SETs (Oldfield & Baron, 2000:85).

6.3.2 The validity and reliability of SETs and the role it plays in ensuring quality education.

One way in which students’ needs and expectations could be known and a communicative setting can be established is through SETs. SETs can be seen as a tool through which students have the opportunity to measure their instructors' performance (Crumbley et al., 2001:197; Chulkov & Van Alstine, 2012:171). The purpose of SETs and the role that it plays in the
improvement and evaluation of a faculty’s effectiveness was thoroughly discussed in section 2.3.1. Four main uses of SETs were found in the literature and can be summarised as follows:

- It is used for feedback on teaching. Instructors are able to recognise their strengths and weaknesses as indicated by the students, and use this information to improve the quality of their own teaching thus ensuring high standards of education (Ahmadi et al., 2001:12; Lomas, 2004:162).
- It is used for decision making and appraisal exercises, such as salary increases, retention, pre- and post-tenure reviews and promotions (Ahmadi et al., 2001:12).
- It is a requirement at most universities to demonstrate that there are procedures in place for enhancing the quality of their teaching and to provide evidence for institutional accountability (Kember et al., 2002:411; Spooren et al., 2013:599).
- At some universities the results of the SETs are made available to aid students in their selection of courses and tutors (Chen & Hoshower, 2003:74).

The second research objective is to conceptualise from the literature the validity and reliability of SETs. This was specifically addressed in section 2.3.2. In order to determine whether SETs are valid and reliable it is necessary to determine whether it is influenced by some form of bias. Different studies regarding biasing factors in SETs were studied and compared in order to determine the extent to which SETs are influenced by biasing factors. The possible biasing factors identified from the literature were grouped into three main categories namely student related factors, course related factors and teacher related factors.

For some of these categories small relationships were found between the possible biasing factor and the ratings on the SETs (Santhanam & Hicks, 2002:27; Marshe & Roche, 2000:204; Petridou & Sarri, 2004:156; Liu et al., 2013:99). However, even though some instances of bias have been confirmed there is a lot of research that consider these biases as insignificant (Marshe & Roshe, 2000:203; Spooren, 2010:129; Smith et al., 2007:74; Koh & Tan, 1997:170). It seems that there is more research that proved that SETs are not profoundly influenced by biasing factors. It might even be that some claims of biases in research are unsupported and could be rejected on account of methodological weaknesses (Marshe & Roshe, 2000:203). In his research Moore (1990:260) validates SETs as a valuable and reliable instrument as established by his study of the literature. Even though other concerns regarding the validity and reliability of SETs were identified and discussed in section 2.3.2.2, the conclusion made in this study is that SETs are generally a valid and reliable measurement tool.
6.3.3 The important role of assessment in teaching and learning

As the main objective of this study is to determine the role of SETs in the improvement of assessment it was necessary to thoroughly study the concept of assessment from the literature, in order to understand its role in teaching and learning. This is also the third research objective of the study.

Over the last fifteen years wide interest and concern has arisen about assessment, and it has been in the centre of considerations regarding teaching and learning (Boud, 1995:35; Chin et al., 2011:121; Conrad et al., 2007:155; Tanner, 2001:24). Over the years the role of the instructor has changed from providing reasonable education to enhancing teaching and learning by means of effective assessment.

Three functions of assessment in the learning process were identified from the literature namely assessment of learning, assessment for learning and assessment as learning. Each of these functions was discussed in section 3.5.

The main reason why assessment plays such an important role in education is because of the influence that it has on students’ approaches to learning (Boud, 1995:36; Srikanthan & Dalrymple, 2007:183; Struyven et al., 2005:32). The three different approaches to learning, i.e. deep approach, surface approach and strategic approach, were discussed in section 3.6. Although different approaches might be suitable in different situations (Samkin & Francis, 2008:239) a deep approach to learning is preferred as it is characterised by the intention of the student to understand the material (Birenbaum & Rosenau, 2006:214). It is important that appropriate assessment methods should be incorporated in order to encourage students to develop a deep approach to learning (Dames, 2012:45; Asikainen et al., 2013:216). One method known to encourage such a deep approach to learning is constructive alignment (Wang et al., 2013:487). The purpose of constructive alignment is to align the learning outcomes with the teaching activities and assessment tasks (Gibbs & Simpson, 2004:3; Biggs & Tang, 2007:53).

6.4 EMPIRICAL STUDY

In order to meet secondary research objectives 4 to 6, it was necessary to do an empirical study. A mixed method approach was followed, and both quantitative and qualitative research methods were employed.
6.4.1 Students’ objectiveness and seriousness when completing SETs

The purpose of secondary research objective 4 is to determine whether students’ perceptions of assessment, as indicated on the SETs, reflect their actual perception of assessment or whether it is based on some form of bias and to determine students’ perceptions of assessment in the four different subjects. A quantitative research questionnaire was developed in order to address this objective.

These questionnaires were submitted to the Statistical Consultation Services of the North-West University to assist with the data analysis thereof. The validity and reliability of the data was confirmed by the different statistical methods such as the exploratory factor analysis (section 5.4) and Cronbach’s alpha coefficient (section 5.4.4).

6.4.1.1 Summary of the demographical information of the respondents

The first section of the questionnaire served to give an overview pertaining to the biographical information of the participants. The following results were obtained regarding the students’ demographical profile:

- 48.87% of the respondents were second year students and 51.13% of the respondents were third year students (see Table 5-1).
- For both the second- and third year students the majority of respondents (56%) were female (see Table 5-2).
- The majority of second- and third year students were part of The B.Com Chartered Accountancy and B.Com Financial Accountancy fields of study. Only a small number of students were from the B.Com Management Accountancy field of study (see Table 5-3).
- The majority of the second year students indicated that they have completed between 15-20 SETs, while the majority of third year students indicated that they have completed more than 20 SETs (see Table 5-4).

6.4.1.2 Combined results of second- and third year students

The objective of section B of the research questionnaire was to establish whether students’ are generally serious when completing SETs and the extent to which they are influenced by forms of bias. This section existed of questions regarding students’ perceptions of SETs in order to determine whether:

- Students believed that SETs are a necessary and effective way to evaluate instructors (General perceptions of SETs).
- Students believed that SETs are used by instructors to improve teaching and assessment (Instructors’ use of SETs).
- Students’ ratings of instructors are influenced by biasing factors (Possible biasing factors).

The combined findings of each of these above mentioned objectives are now discussed.

**General perceptions of SETs**

When examining the combined results of the questions regarding students’ perceptions of SETs it has been found that the students generally hold a positive view with regards to SETs (see Table 5-5). The majority of students indicated that they strongly believed that it is important for students to evaluate their instructors and agreed that SETs are an effective way to do so. These findings are consistent with the findings of Hejase et al. (2013:573) who found that students believe that SETs are an effective and appropriate means through which instructors can be evaluated.

With regards to their own seriousness the majority indicated that they strongly believed that they are serious and fair when giving ratings and agreed that they give adequate thought to the process. This is in accordance with the results obtained from previous studies (Ahmadi et al., 2001:18; Hejase et al., 2013:573) which established that students are generally serious when completing SETs, that they give fair and accurate ratings and that they want their voices to be heard.

**Instructors’ use of SETs**

From the combined results with regards to whether students believe SETs are used by their instructors the majority of the students indicated that they stand neutral towards the questions (see Table 5-6). The two questions asked were whether they believed instructors pay attention to SETs and whether they believe that instructors use SETs to improve assessment. To both of these questions the majority of the students indicated a neutral response. From the literature it was established that students from previous studies did not believe that instructors take SETs seriously and that they did not believe that it was used to improve education (Al-Issa & Suliman, 2007:312; Ahmadi et al., 2001:18; Al-Abbadi et al., 2009:184; Hejase et al., 2013:573). These findings were thus somewhat in line with previous findings from the literature.
Possible biasing factors

Two questions in the questionnaire asked students whether their responses are influenced by biasing factors. The combined results, as seen in Table 5-7, indicated that students believe their ratings are not influenced by the grades they receive. This is in line with the findings of Ahmadi et al. (2001:16) and Al-Abbadi et al. (2009:184). They did however indicate that their ratings are somewhat influenced by their view of the instructor. In the studies done by Al-Abbadi et al. (2009:184) and Hejase et al. (2013:573) the students also admitted that an instructors’ personality and traits can influence their ratings. It has furthermore been found that students will sometimes give instructors with a good sense of humour a better rating (Ahmadi et al., 2001:16).

6.4.1.3 Exploratory factor analysis of section B

An exploratory factor analysis of section B of the questionnaire was done in section 5.4. Firstly the sampling adequacy was determined by means of KMO and Bartlett’s test. The adequacy for the data was confirmed (see Table 5-24) and three factors were extracted by using a principal component analysis. These three factors are:

- General perceptions of SETs (F1)
- Instructors’ use of SETs (F2)
- Possible biasing factors (F3)

The pattern matrix of these three factors can be seen in Table 5-25. The reliability of these factors was established by Cronbach’s alpha coefficient (see Table 5-28). The effect sizes and practical significant differences of the data were calculated in order to determine where statistical significant differences exist for factors between the groups (see section 5.4.5).

With regards to section B of the questionnaire the following conclusions were made from the group differences.

**General perceptions of SETs (F1)**

With regards to students’ perceptions of SETs it has been found that female students generally tend to hold a more positive view regarding SETs than male students. This is consistent with the findings of Heine and Maddox (2009:8) and Hejase et al. (2013:573) who established that females felt slightly more positive about the SET process than their male counterparts.

The students who do not complete SETs also had a lower regard for it than the group who do complete SETs, which would be expected.
Instructors’ use of SETs (F2)

Small effect sizes were found with regards to whether students believed SETs are used by instructors between the different fields of study. The B.Com Chartered Accountancy students indicated that they had less confidence that instructors use SETs than B.Com Management Accountancy and B.Com Financial Accountancy students.

Possible biasing factors (F3)

No statistical significant differences were found for F3 (Possible biasing factors).

6.4.2 Accounting students’ perceptions of assessment in the four different subjects.

The second part of research objective 4 is to determine accounting students’ perceptions of assessment in Financial Accounting, Management Accounting, Taxation and Auditing. Section C of the research questionnaire seeks to answer to this part of the research objective.

6.4.2.1 Results from the measures of association (Cramer’s V)

In section 5.3 measures of association were determined for all the questions in the questionnaire in order to identify associations between variables. Moderate to strong associations were found for some of the questions regarding assessment and feedback in Financial Accounting and Taxation. It was found that the second year students were generally more satisfied with the assessment and feedback received in Taxation than the third year students, while the third year students in turn were more satisfied with the assessment and feedback received in Financial Accounting.

6.4.2.2 Combined results of second- and third year students

The combined results of second- and third year students’ perceptions of assessment in the four different subjects are presented in Table 5-8. From this table it is concluded that students are generally satisfied with their assessment in the four different subjects. They strongly agreed with almost all the questions with regards to assessment in Financial Accounting, indicating that they are almost completely satisfied with assessment in this subject. For the other three subjects, i.e. Taxation, Management Accounting and Auditing, they mostly agreed with the questions. It seems that overall students are therefore slightly more satisfied with their assessment in Financial Accounting than with their assessment in the other three subjects.
6.4.2.3 Exploratory factor analysis of section C

The exploratory factor analysis of section C was done in section 5.4. Again, the sampling adequacy of the data was determined by means of KMO and Bartlett's test. The result of these tests can be seen in Table 5-24. The adequacy of the data was confirmed and three factors were extracted by using a principal component analysis. These three factors are:

- Taxation / Management accounting (F4)
- Financial Accounting (F5)
- Auditing (F6)

The pattern matrix of these three factors is displayed in Table 5-27. The reliability of the data was established by Cronbach’s alpha coefficient (see Table 5-28). The effect sizes and practical significant differences were calculated in order to determine where statistical significant differences exist for factors between groups (see section 5.4.5).

With regards to section C of the questionnaire the following conclusion can be made from the group differences:

**Taxation / Management Accounting (F4)**

The first statistical significant difference that was found with regards to assessment in Taxation and Management Accounting was between the group of students who generally complete SETs and the group who do not generally complete SETs. The group who do not complete SETs indicated that they are slightly less satisfied with their assessment in SETs than the group who do complete SETs.

Secondly, the second year students were found to be more satisfied with their assessment in Taxation and Management Accounting than the third year students. This is in line with the results from the measures of association discussed in section 6.4.2.1.

**Financial Accounting (F5)**

The third year students were more satisfied with their assessment in Financial Accounting than the second year students. This is also in line with the results from the measures of association discussed in section 6.4.2.1.
**Auditing (F6)**

The results from the group differences indicated that third year students are more satisfied with their assessment in Auditing than the second year students.

6.4.3 **Comparison between different sections of the SETs**

A document analysis of SETs was conducted in order to compare the results of the assessment section of the SETs with that of the other sections and to compare the results regarding assessment in the four major subjects with each other. The results of these comparisons are now discussed.

6.4.3.1 **Section on assessment compared to the other sections of the SETs**

For all the years from 2012 – 2015 the section on assessment received the lowest average ratings (See section 5.5.1). This is consistent with the findings of a study in the UK in 2005 where it was found that students were less satisfied with their assessment and feedback than with other aspects of teaching (Jessop *et al.*, 2014:73). Dames (2012) also discovered that although instructors believed their assessment was on a good standard the majority of students disagreed with it. It could therefore be concluded that assessment in the field of accounting is not perfect and could still be improved.

6.4.3.2 **Results of the assessment section compared between subjects**

The only data available for comparisons between different subjects for the assessment section was for 2013 and 2015. It seems that Financial Accounting received the best ratings, as it got the highest rating in 2014 and the second highest rating in 2015. No other definitive conclusions about these comparisons could be made.

6.4.4 **Instructors’ perceptions of SETs and the use thereof in the improvement of assessment**

The last secondary objective is to determine whether instructors take the results of the SETs seriously and if they use them to improve assessment. In order to achieve this objective interviews with different instructors were conducted. The results of these interviews can be seen in section 5.6. Through the coding of the data three themes were identified namely:

- Effectiveness of SETs.
- Students’ capability to complete SETs.
- Instructors’ use of SETs.
The conclusions drawn from each of these themes are now discussed.

**Effectiveness of SETs**

The instructors were asked whether they believed that SETs is an effective way to evaluate instructors on their teaching methods. The instructors indicated that they generally believe that it is an effective way of evaluation, although most of them did have concerns regarding the use thereof. This correlates with the findings of Schmelkin *et al.*, 1997:576 and Marshe & Roche, 2000:205 which found that instructors have some concerns regarding SETs and that they remain sceptical about the use thereof (see section 2.3.4 of the literature review).

A few of the instructors deemed some of the questions on the questionnaire as subjective, irrelevant and invalid. Furthermore they indicated that the usefulness of SETs is dependent on the setting in which it is conducted i.e. whether the students are serious, how they feel, and whether all the instructors are evaluated at once. With regards to the students’ mood when completing SETs, Comer (1980:232) did not find any evidence that it can influence the ratings on the SETs.

The second question regarding the effectiveness of SETs was whether they believed that SETs is an effective method to improve teaching. Most of the instructors indicated that it could be a good method as it provides them with feedback. They did however indicate that it depends on the questions asked in the questionnaire. In previous research studies (Schmelkin *et al.*, 1997:576; Balam & Shannon, 2010:218) it was determined that even though instructors had concerns with the use of SETs they did regard it as useful for obtaining information (see section 2.3.4 of the literature review).

Thirdly the instructors were asked if they have ever noticed that a specific section of the questionnaire is rated generally higher or lower than the other sections. Most of the participants indicated that they have not experienced such differences. Even though the instructors did not notice differences between the sections it was found in this study that the section on assessment did receive lower ratings from 2012 – 2015 (see section 5.5.1)

These results and the participants’ direct words are found in section 5.6.1
Students’ capability to complete SETs

The instructors were then asked questions regarding to the capability of students to complete SETs. About one half of the instructors believed that students are capable of evaluating their instructors. The other half of the instructors doubted the capability of the students on account that they do not regularly attend classes and on account that they are not objective. In their research Crumbley and Fliedner (2002:218) found that 71.7% of the instructors in their study believed (agreed or strongly agreed) that students are not qualified to judge all the areas of teaching skills.

Secondly the instructors were asked whether they believe that students are serious when completing SETs. Most of the instructors indicated that they deem the students to be serious although they said that there will always be some students who are not serious about it. They did however mention that students tend to be more serious when the seriousness of SETs is explained to them. From the literature it is clear that students are indeed more motivated and serious when completing SETs when they understand the purpose thereof and when they believe that it is used to improve the quality of education (Chen & Hoshower, 2003:84).

Lastly the instructors were asked whether they believe that students are influenced by some form of bias when they completed the SETs. Three of the instructors believed that it is mostly free of bias as it is done anonymously. The other five instructors all believed that students are to some extent influenced by biasing factors such as how the instructor compares to other instructors, physical appearance, personality and grading.

These results and the participants’ direct words are found in section 5.6.2.

Instructors’ use of SETs

The interview was also used to determine to which extent the instructors make use of SETs to improve their teaching methods and assessment.

They were firstly asked whether they spend time to go through the results of their SETs. All of them indicated that they do. Some of them mentioned that they spend more time on the qualitative information on the back of the SETs.

They were then asked whether they have changed their teaching methods as a result of ratings or commentary from the SETs. Six of the eight instructors indicated that they have made some changes, although some of these were minor changes. The other two instructors have not made changes to their teaching as a result of SETs.
Lastly the instructors were asked whether they have made changes to their assessment methods as a result of SETs. Only one instructor indicated that he has made changes to his assessment methods by providing more formative assessment opportunities. The other seven instructors indicated that they have not made changes to their assessment methods at all. They suggested that assessment should meet a certain standard and criteria and that students should not be able to influence it. This finding is in line with the findings of Watkins et al. (2005:285) and Ferguson (2007:81) who established that instructors are reluctant to change their assessment methods.

6.5 OVERVIEW AND RECOMMENDATIONS

The main objective of this study was to determine the reliability of the results of the section on assessment from the SETs and to evaluate whether assessment is improved based on the results of the assessment section of the SET.

With regards to the reliability of the results of SETs it has been found from the literature that although there are concerns regarding the use of SETs it is generally believed to be a valid and reliable measurement tool. The empirical study by means of a research questionnaire indicated that students also considered themselves to be serious and fair when completing SETs. They indicated that the marks they receive do not influence their ratings, while their view of the instructor could somewhat influence their ratings. From both the literature study and the empirical findings it seems that the results of SETs are a reliable source of the instructors’ performance with regards to teaching and assessment. However, from the literature study and research interviews with instructors it seems that instructors still remain sceptical about the reliability of SETs.

The second part of the main objective was to determine whether assessment is improved as a result of the SETs. In order to answer this question interviews with instructors from the School of Accounting Sciences were conducted. From the data of these interviews it has been found that instructors do not adapt their assessment methods according to the feedback they receive from SETs. SETs could be a valuable tool to assist with the improvement of assessment in higher education, but unfortunately it seems that this rarely occurs. This could be because of a mistrust of SETs, but also because of a misunderstanding of the purpose of assessment.
As a result of these findings the following recommendations can be made:

- Instructors in the field of accounting should be better equipped with knowledge regarding the importance and purpose of assessment. They must especially understand the way in which assessment could influence students’ learning approaches.
- As suggested by Watkins *et al.* (2005:306) instructors will be reluctant to change assessment strategies if their conceptions of teaching and learning are not changed first. They must understand the need for educational improvement and the role that assessment plays in enhancing quality education.
- Workshops should be conducted to inform instructors about the different strategies, functions and methods of assessment as well as the importance of good and timely feedback.
- Instructors should be educated about how different assessment strategies (e.g. formative- and summative assessment) could be employed in order to encourage a deep approach to learning.
- Instructors must acquaint themselves with literature regarding SETs in order to have confidence in its results. When instructors deem SETs to be unreliable they will not adapt their teaching and assessment according to the feedback they receive. When no improvements are made SETs serve no purpose and is a waste of valuable time and resources.
- Instructors must give feedback to students with regards to ways in which they paid attention to the students’ ratings and commentary. When students are aware that instructors pay attention to SETs it could increase their motivation to complete. It will make the students feel like their voices count and are heard.
- Instructors should be encouraged by management to pay careful attention to the results of the SETs and the qualitative commentary that they receive. As stated by Gallagher (2000:140) instructors are unwise if do they ignore the results of SETs as the main purpose thereof is to improve teaching. They need to understand the importance of SETs and use the results thereof to determine their strengths and weaknesses in order to improve quality in higher education.
- When SETs are conducted students should be informed about the purpose of SETs. They must understand that it is a necessary tool through which quality in higher education could be ensured. When they realise that instructors and management is serious about the use of SETs it will also make them more serious about completing it.
6.6 LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

As with every study this study was subjected to certain limitations which are now discussed:

- This study was conducted at only one university and within only one faculty. This implicates that these results could not be generalised for all other universities in South Africa.
- The study was further limited in that it included only second- and third year students. First year- and post-graduate students were not taken into account.
- Only SETs from the last four years were available for use in the document analysis. From these data only the results of 2014 and 2015 were available divided between the four major accountancy subjects.

Future research opportunities may include the following:

- This study was only conducted within a School of Accounting. As a future research opportunity this study could be employed within different schools and different faculties.
- Students’ perceptions of SETs were only determined by means of the quantitative research questionnaire. In future research studies additional qualitative measures, e.g. focus groups, can be used to gain a deeper insight into students’ perceptions.
- Statistical significant differences in the results obtained from students of different fields of study and different years of study were found (see section 5.4.5.2 and section 5.4.5.4). These differences could be further investigated in order to investigate its cause and to establish whether other researchers obtain similar results when the study is done with students from other universities.
- This research study focusses specifically on the role of SETs in the improvement of assessment. Future studies may focus on the improvement of other aspects of education such as curriculum development or teaching strategies.
- Future studies could focus on more effective ways of conducting SETs e.g. online completion of SETs, conducting SETs multiple times during the course or creating specific questions with regards to different fields of study.
- Lastly, future studies could be conducted with regards to whether institutions of higher education have a culture that encourages the use of SETs and the way in which this culture encourages improvements in teaching and learning.
6.7 SUMMARY

Chapter 6 served to give an overview of the research study. The secondary research objectives were used as a guideline to summarise the findings presented in the previous chapters. By doing so conclusions could be drawn.

After careful consideration of the results recommendations were formulated in order to address the shortcomings detected through the study. The limitations of this study were presented and recommendations were made for possible future study opportunities.

The final conclusion of this research study is that SETs are a valid and reliable measurement tool of instructors’ performance. Unfortunately, it is not used to its full potential, possibly because of distrust or ignorance. SETs could be used to improve assessment in higher education, but instructors’ beliefs about the role that students’ should play in the assessment process withhold them for using students’ feedback on their assessment methods.

The researcher trusts that management and instructors will take these findings into consideration and hopes that the recommendations made will be taken seriously. If management, instructors and students understand the importance and purpose of SETs, it could be of great value for the improvement of quality in higher education, and especially the improvement of assessment.
Bibliography


ANNEXURES

7.1 APPENDIX A: QUANTITATIVE RESEARCH QUESTIONNAIRE

RESEARCH QUESTIONNAIRE

BIOGRAPHICAL INFORMATION:
1. Gender: 1. Male 2. Female
3. Approximately how many SETs have you completed at the NWU?
4. Do you complete SET forms whenever you are given the chance?
   1. Yes 2. No
5. If you do not complete SET forms, please indicate the reason why not:
   1. Time constraints 2. Fear of not being anonymous 3. Believe it is useless 4. Do not care 5. Other (Please specify on the back of your answer sheet)

STUDENT EVALUATIONS OF TEACHING (SETS):

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<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>Do you feel that you are thoroughly prepared by your lecturer about how learning outcomes will be assessed?</td>
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<td>Do you feel that the assessment you receive in this subject is fair?</td>
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<td>Do you think assessment corresponds with the learning outcomes?</td>
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<td>Do you feel that sufficient feedback on your assessment is provided?</td>
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<tr>
<td>Do you feel that you receive feedback timely enough for it to be useful?</td>
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<td>34</td>
<td>35</td>
<td>36</td>
<td></td>
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<td>Do you understand what is expected of you in assessments?</td>
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<td>38</td>
<td>39</td>
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</tbody>
</table>
7.2 APPENDIX B: SEMI-STRUCTURED RESEARCH INTERVIEW QUESTIONS

1. Do you believe that SETs are an effective way to evaluate instructors on their teaching methods?
2. Do you believe that students are capable of evaluating their instructors?
3. Do you believe that SETs could be used effectively in order to improve education?
4. Do you believe that students are serious when completing SETs?
5. Do you think that students’ evaluations are influenced by some kind of biasing factors?
6. Do you spend time on going through the results of your SETs?
7. Have you ever changed your teaching methods as a result of commentary from the SETs?
8. Have you ever changed your assessment methods as a result of feedback received from the SETs?
9. Have you ever noticed that you normally receive better or worse results on a certain section of the SET than on other sections?
7.3 APPENDIX C: SET QUESTIONNAIRE OF THE SOUTH AFRICAN UNIVERSITY WHERE THIS STUDY WAS CONDUCTED

Student feedback form

Information

The aim of this questionnaire is to determine how you as a student experience the effectiveness of the lecturer’s teaching.

This information will assist the lecturer to improve the teaching-learning experience of the student if necessary. You are therefore requested to be honest with your responses.

Use the following scale to indicate how you experience your lecturer’s teaching and learning.

Colour the relevant number on the multi choice card.

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<th>Stem nie saam nie</th>
<th>Stem saam</th>
<th>Stem volkome saam</th>
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<td>Disagree</td>
<td>Agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

Official questionnaire:

THE LECTURER:

1. Is on time for classes
2. Plans thoroughly and prepares thoroughly for contact sessions.
3. Makes use of the study guide or refers to it during contact sessions.
4. Uses a level of language that I can understand
5. Presents contact sessions that are valuable learning opportunities for me.
6. States learning outcomes I have to master for every contact session.
7. Makes use of multimedia in support of learning / makes effective use of visual aids.
8. Encourages students to work together during contact sessions.
9. Encourages students to participate in the class discussions.
10. Encourages student to think critically, ask questions and participate in discussions.
11. Is friendly towards students.
12. Promotes an atmosphere of mutual respect.
13. Encourages students to make a greater effort in their studies.
14. Offers support and assistance when requested to do so.
15. Explains how outcomes will be assessed.
16. Gives feedback on tests and assignments within a reasonable time.
17. Assesses assignments and projects fairly and transparently.
18. Bases assessments on learning outcomes as stated in the study guide.
19. Encourages students to attend learning support on campus when their performance is weak.
20. Explains the relevance of concepts and theories.
22. Refers to relevant and recent developments in the subject.
23. Explains the relationship between study units.
24. Prescribes a fair volume of study material.
25. Presents study material in an organised manner as set out in the study guide.
DECLARATION

I, Clarina Vorster (ID: 710924 0034 084), Language editor and Translator, and member of the South African Translators’ Institute (SATI member number 1003172), herewith declare that I did the language editing of the Dissertation of NL Boersema (student nr 21726345) from the Northwest-University, Potchefstroom Campus.

Title of the article: The role of student evaluations of teaching in the improvement of assessment.

C Vorster
9 Lanyon Street
Potchefstroom
2520

Date
10 November 2015