



# **Improving student engagement in a financial accounting first year course**

Submitted in fulfilment of the requirements  
of the Degree of  
Master of Accounting (Financial Accounting)  
in the Faculty of Accounting and Informatics at the  
Durban University of Technology

Suanne Dix (20722166)

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Supervisor: Dr J Skinner (PhD)

Co-Supervisor: Professor P Green (PhD)

## DECLARATION

I, Suanne Dix, declare that the content within this dissertation is my own work. All sources that I have used or quoted have been acknowledged in the text by means of completed references. This study has not been previously submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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Suanne Dix

..11/12/2018.....

Date

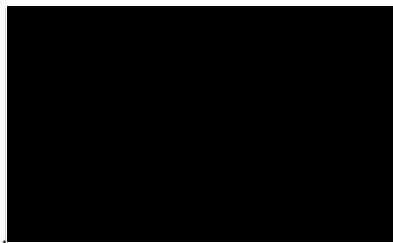
### Approved for final submission

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Supervisor: Dr J Skinner (PhD)

..11/12/2018.....

Date

.....

Co-Supervisor: Prof P Green (PhD)

..11/12/2018.....

Date

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*“Whatever you do, do it all for the glory of God”*

*1 Corinthians 10:31*

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## **ABSTRACT**

This study was conducted to assess and improve, where necessary, the level of engagement in a financial accounting first year course. It explored the current level of engagement by students in Financial Accounting 1 at the Durban University of Technology. Further, the study examined what the reasons were for students engaging / not engaging with subject material and then sought to identify ways that engagement could be improved in areas where improvement was needed. The target population of the study was Financial Accounting 1 students registered for the National Diploma: Accounting. The study used a mixed methods approach. A questionnaire was used to collect data. Quantitative data was analysed statistically while qualitative data, collected from the open-ended section of the questionnaire, was analysed using thematic analysis. The data showed that many students do attend lectures and are motivated to succeed – however, attendance at tutorials is not given priority and attempting homework exercises even less so. Lectures are held in large groups but as the students were required to participate in the smaller environment of tutorials, and further, as their lack of understanding would be further exposed if they were required to complete an exercise on their own, it appeared that the less the students were willing to participate. The pass rate for Financial Accounting 1 is consistently above 80% however, the data showed that some areas of engagement were lacking. This may show a lack of alignment between the level of engagement required and the level of the assessments. The qualitative answers gave insight into the reasons why students engage / do not engage. Students tend to arrive on campus feeling motivated to improve their lives, however, they face challenges such as overcoming socio-economic problems as well as transport issues, lack of confidence, poor time management skills and some logistical challenges associated with tutorials. Their lack of confidence is shown when they are less willing to engage in environments where they may feel more vulnerable. There is scope for high impact practices to be used in Financial Accounting 1 at DUT. Conclusions drawn and recommendations made include teaching and learning policies that will embed engagement.

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# Chapter 1 – Introduction

## 1.1 Introduction

The unemployment crisis is an issue challenging South Africa currently. Higher education institutions have a role to play in that they are providing training for students to gain skills and make themselves more employable. This study was conducted among financial accounting students studying the National Diploma: Accounting at the Durban University of Technology (DUT). Students graduating with such a diploma can expect to add to the economic growth of South Africa by seeking employment in various sectors of the economy such as the Receiver of Revenue, municipalities, banks, bookkeepers in small businesses, or as entrepreneurs in their own businesses.

Studies by Strydom, Kuh and Mentz, as well as Sekhukhune, and also Mpofu, have identified South African students as facing significant challenges that are magnified compared to many other countries. South Africa, as a developing country, faces issues of a socio-economic nature, resource constraints, students being under-prepared for tertiary studies and significant fee challenges. These studies all found that these challenges impact on the success of students at tertiary institutions and so there is much that the students have to overcome. The institutions and the lecturers also face challenges as, in order to assist the students to be successful in their studies, they must be made aware of the issues students are facing so that appropriate interventions can be sought (Sekhukhune, 2008, Strydom 2010, Mpofu 2017). A study by Visser, McChlery and Vreken (2006: 109) showed that accounting students are active, visual and sequential learners. They thrive on the use of techniques such as the use of interactive study guides and group work (Visser, McChlery and Vreken 2006). Active learning implies getting involved and being engaged with the subject material. This study focuses on improving student engagement in a financial accounting first year course in order to assist students to improve their chance of success.

This chapter begins with a discussion of the concept of student engagement and then an explanation of why the researcher chose to research this topic based on personal experience. The research problem, aims and objectives as well as the research questions are introduced.

A brief overview of the research methodology is presented followed by a summary of the structure of the dissertation.

## 1.2 Importance of student engagement

In most areas of life what a person puts in is what they will get out, be it time spent on a friendship, on a sport or a hobby. The same relationship is present when it comes to studying and the Calvin and Hobbes cartoon below by Bill Watterson sums this up – what you get out of school depends on what you put into it.

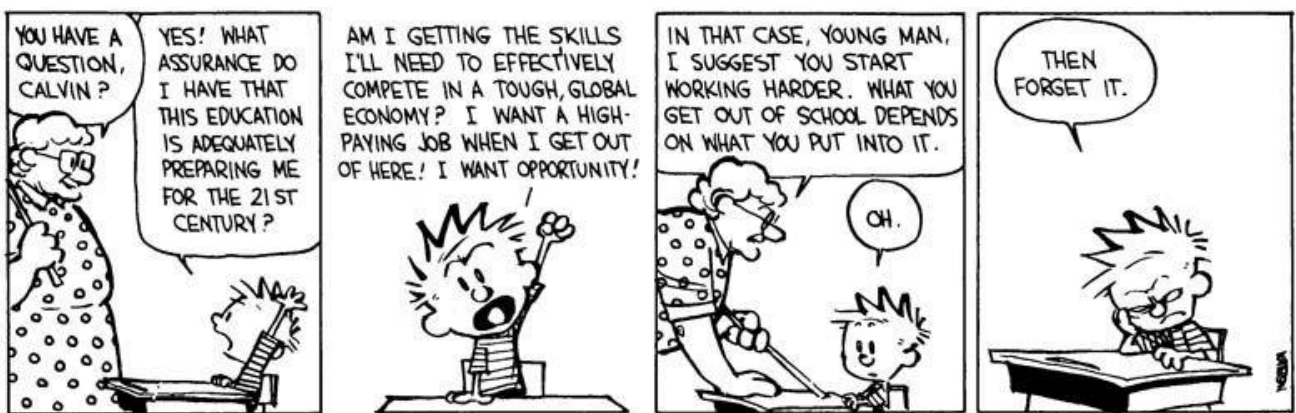


Figure 1.1 Calvin and Hobbes by Bill Watterson

(Watterson 1992)

The idea of having to put in effort (i.e. engaging with one's studies) has been widely researched, with Chickering and Gamson, Pascarella and Terenzini, Astin, Biggs and Tang as well as Kuh all being authors that have made significant contributions to the literature on student engagement. They have referred to student engagement as involving concepts such as: what a student does; student involvement; or time on task (Astin 1984; Pascarella and Terenzini, 1991; Chickering and Gamson, 1999; Kuh 2008b; Biggs and Tang, 2011)

Kuh (2008: 68) has referred to 'the student engagement trifecta'. These are three considerations that can assist with the understanding of student engagement overall. These three considerations are:

- What students do? – time and energy devoted to educationally purposeful activities.

- What institutions do? – using effective educational practices to induce students to do the right things
- Educationally effective institutions channel student energy towards the right activities. (Kuh 2008a)

Kuh, Chickering and Gamson as well as Pascarella and Terenzini all contribute towards the following as a list of good practices in undergraduate education: student-staff contact, active learning, prompt feedback, time on task, high expectations, respect for diverse learning styles and co-operation among students (Pascarella and Terenzini 1991; Chickering and Gamson 1999; Kuh 2008a). These factors, when practiced, all contribute to an environment that will promote participation and engagement by students.

Research shows that there is a link between how much effort a student puts into their studies and their success (Astin 1993; Wawrzynski, Heck and Remley 2012; Gerber, Mans-Kemp and Schlechter 2013). However, referring back to the Calvin and Hobbes cartoon above, Calvin's response of – "then forget it" – is unfortunately a common response by students. Lecturers then face the challenge of trying to change the response to one of enthusiasm for being actively involved in participating with the subject material.

Kuh (2008: 71 - 72) refers to certain high impact practices that lecturers and institutions can use to encourage and improve student engagement. These include: conducting first year seminars, establishing common intellectual experiences, creating learning communities, and incorporating collaborative assignments into courses. Kuh suggests that if these high impact practices are included then it will increase the likelihood that students will invest time and effort, interact with staff and fellow students, experience diversity, receive more frequent feedback, discover the relevance of their learning, and demonstrate their competence publicly (Kuh 2008a).

Kuh argues that lecturers need to be aware of the need for students to engage with their subject and then be willing to incorporate high impact practices into their teaching. If this is combined with support from the educational institution then Kuh's "engagement trifecta" is at play therefore increasing the odds that engagement will increase, bringing with that greater student success.



## **1.3 Background to the study**

### **1.3.1 The South African environment**

The challenges of a socio-economic nature that South African students face have been mentioned above. Unemployment is a significant challenge in South Africa and a University education is seen as highly desirable and is sought after as a route to finding a well-paid job. This can in turn lead to a way out of poverty for many South Africans.

Since becoming President of South Africa, Cyril Ramaphosa has frequently referred to the challenge of unemployment in South Africa. In the State of the Nation address delivered on 16 February 2018 he said “at the centre of the national agenda in 2018 is the creation of jobs, especially for the youth”. He continued by referring to a “jobs summit” that would be convened stressing the importance of “what we need to do to ensure our economy grows and becomes more productive, that companies invest on a far greater scale, that workers are better equipped, and that our economic infrastructure is expanded” (Ramaphosa 2018).

On 27 March 2018 President Ramaphosa followed up on issues raised in his State of the Nation Address by launching the Youth Employment Service (YES). The YES initiative aims to see more than one million young South Africans being offered paid work experience over the next three years. The purpose of this is to place the needs and opportunities for young people at the centre of economic growth. It is hoped that this paid work experience will benefit young people giving them invaluable experience in the work place and making them more employable in the future (Diko 2018).

Clearly, youth unemployment and assisting young South Africans to improve their skills and qualifications and make themselves more employable is high on President Cyril Ramaphosa’s agenda. In spite of this enthusiasm by the President there are those organisations such as the South African Federation of Trade Unions whose general secretary, Mr Zwelinzima Vavi, has criticised these efforts by highlighting the weak basic education system which leaves a large proportion of pupils not even reaching matric. He points out that with no matric these young people will at best find an insecure, casual and underpaid job if they manage to find anything at all (Naki 2018). It is therefore all the more crucial that those students who do

reach university are enabled to become successful, independent thinkers, able to lead others and develop South African commerce and industry.

### **1.3.2 The Durban University of Technology (DUT) environment**

The DUT Faculty of Accounting and Informatics strategic plan 2017 – 2019 (2017: 5) includes as its mission statement: "Developing Leaders for the Information Society". One of the ways that this will be done is through "excellence in teaching and learning" (Durban University of Technology Faculty of Accounting and Informatics 2017).

The implementation plan of this strategic vision includes (2017: 20) "providing enabling and accessible living and learning environments that promote student success and advance the intellectual, psychosocial and emotional growth and wellbeing of our students." And then further "provide innovative teaching, learning and assessment that focuses on demand-driven and user-oriented programs that accommodate the diverse needs of our students and enhance the quality of our graduates" (Durban University of Technology Faculty of Accounting and Informatics 2017).

The Faculty strategic plan includes the goal of promoting student success and enhancing the quality of graduates. This could contribute to the government agenda of upliftment of the South African youth and reduction of the unemployment rate.

### **1.3.3 The Financial Accounting 1 learning environment**

Schank, Berman and Macpherson (1999: 164) refer to the concept of learning by doing. They state that "we live in a culture in which fact-based knowledge dominates traditional instruction...but it makes more sense to teach students how to perform useful tasks. There is only one way to teach someone how to do anything, and that is to let them do it" (Schank, Berman and Macpherson 1999). Again, Koedinger (2015: 111) refers to how mere information is a poor way to learn and that instead more effective learning comes from doing (Koedinger *et al.* 2015). Bradshaw and Harvey (2017: 3) refer to authentic learning as allowing students to do more than just learn but they need to learn how to be a practitioner in their chosen field (Bradshaw and Harvey 2017).

The idea of learning by doing can be linked to the idea of engagement. The Oxford dictionary includes synonyms for engagement as “participation”, “taking part” or “being involved” (*Oxford Dictionary* 2018). Learning by doing could also be described as students participating, taking part or being involved. The nature of Financial Accounting is that it is a practical subject that is dominated by practical examples that require students to participate. Reading a textbook is not sufficient. Students need to get involved in the subject and attempt exercises covering different accounting examples in order to demonstrate an understanding of these concepts. This means that the idea of participating, taking part, being involved, learning by doing and therefore engagement is of particular significance in a subject such as Financial Accounting.

Furthermore, the link between student engagement and success in a subject is well researched. The greater the engagement of a student with the subject material the more likely they are to pass a subject (Parker 2006; Biggs and Tang 2011; Sawon, Pembroke and Wille 2012; Gerber, Mans-Kemp and Schlechter 2013; Masui *et al.* 2014). The pass rate achieved for the Financial Accounting 1 students who are registered for the National Diploma: Accounting at DUT is consistently above 80% for assessments. However, a study of this nature specifically focusing on student engagement in Financial Accounting 1 at a University of Technology in South Africa has not been conducted allowing scope for the current study. It is also worth considering that since these students are continuing into the second and third year of financial accounting and are also making accounting their career, it is important that students do not just pass the subject but that they have a thorough understanding of the fundamental concepts.

#### **1.4 Research problem**

At a Financial Accounting 1 level the researcher has found during her years as a lecturer in the subject that not all students complete homework, attend tutorials, read their textbook or engage regularly in activities that would enhance their understanding of the subject and increase their chance of success. It has been frustrating to request students to attempt an exercise at home only to find that by the next lecture the majority of students have made no attempt at the exercise. This means that there are students attending the lecture who are not getting the benefit that they could be receiving as they have failed to engage with the subject

material sufficiently. A study by Heiner noted that students can follow material better, ask deeper questions and participate in class more readily if they have engaged with the material before the lecture (Heiner, Banet and Wieman 2014).

## **1.5 Research aim and objectives**

The aim of this study was therefore to determine the level of student engagement in Financial Accounting 1 and thereafter to devise strategies that can be implemented within the learning environment that can encourage and promote engagement and participation within the subject.

In order to accomplish this aim, the following objectives were addressed:

- The first objective of the study was to investigate to what extent the National Diploma – Accounting students are engaging with the Financial Accounting 1 subject material.
- The second objective was to investigate the reasons why / why not students were / were not engaging with the subject material.
- The third objective was to identify ways that engagement could be maintained in areas where it was good, and improved in areas where engagement was not satisfactory.

## **1.6 Research questions**

The objectives of the study have led to the following research questions:

- To what extent, and in what ways, are students engaging with Financial Accounting 1 material?
- What are the reasons why students engage / do not engage with the subject material?
- What strategies can be used that will require students to engage more closely with the material?

The first two research questions will be addressed in chapter 4 where the research questionnaire will be analysed. The third research question will be addressed in chapter 5 where conclusions and recommendations will be made.

## **1.7 Significance of the study**

Although student engagement is a well-researched topic, no study of this nature has previously been undertaken specifically in Financial Accounting 1 at a South African University of Technology.

Gaps were identified in student engagement within Financial Accounting 1 where high impact practices might be included in order to support engagement. It is hoped that in this way participation of students in the subject will be improved and engagement increased.

The findings of this research could be useful to lecturers who teach Financial Accounting 1, lecturers who set accounting homework for students, those setting a course structure for an accounting subject and those advising students on study habits.

## **1.8 Research methodology**

The research methodology is the framework that was used to achieve the aim of the research study. It includes the research design, target population, data collection instrument, data analysis, ethical considerations and the reliability and validity of the study.

### **1.8.1 Research design**

A mixed method approach was used in this study. However, a quantitative method (a survey questionnaire) was the main strategy with an element of qualitative research being included through the use of open-ended questions within the questionnaire.

A questionnaire was chosen for this study because it allowed an account of the behaviour of students to be obtained in order to establish the level of student engagement with subject material that occurs among these financial accounting first-year students. The open-ended questions in the questionnaire allowed insight into the individual reasons why students engage, or why they do not engage, with the subject material. The quantitative strategy included the gathering of data by means of a questionnaire and the subsequent statistical analysis thereof. The open-ended questions forming the qualitative element at the end of the questionnaire would also be analysed and discussed through the employment of thematic

analysis. In this way it was concluded that the use of a questionnaire as the primary research instrument would enable the researcher to gather information that would allow the objectives of the study to be achieved.

The inclusion of focus group interviews was also considered should the data obtained from the questionnaires prove to be inadequate. However, the researcher deemed the responses obtained from the open-ended questions in the questionnaire to be sufficiently detailed and varied. As a result the qualitative element of the questionnaire was deemed sufficient for providing a rich insight into the reasons why / why not students were / were not engaging.

### **1.8.2 Target population**

The population for this study was chosen to be those students studying Financial Accounting 1 that were registered for the National Diploma: Accounting at the Durban campus of the Durban University of Technology. Financial Accounting 1 is a subject offered to many students who are registered for a variety of different diplomas. However, those students studying the National Diploma: Accounting were chosen for this study as financial accounting is their chosen field of specialisation, therefore making financial accounting a major subject for their diploma and accounting as their chosen career. The responses from this group were therefore considered to be particularly important.

Once this particular group of students has graduated they will be working as accountants at various institutions as well as potentially becoming business owners. As discussed above, reducing unemployment among the youth, and promoting entrepreneurship is currently high on the government's agenda. Concerningly, a study by Fatoki (2014: 156) revealed that the financial knowledge of many business owners was lacking and this was contributing to the failure rate of businesses in South Africa (Fatoki 2014). The target population for this study therefore, has a role to play in plugging this knowledge gap in South African businesses.

### **1.8.3 Data collection instrument**

As mentioned above, a questionnaire was chosen as the data collection instrument. Sekaran and Bougie (2013: 147) suggest that when the survey is confined to a local area then a good way to collect data is to personally administer the questionnaire as the completed responses

can be collected within a short space of time (Sekaran and Bougie 2013). The researcher is in almost daily contact with the target population for the study and so a questionnaire was a fast and easy way to collect data.

As part of the Durban University of Technology Siyaphumelela Project the researcher had been involved in the administration of the Classroom Survey of Student Engagement (Classe). This is a survey administered by the University of the Free State which was offered to DUT as a means of gathering data on various aspects of student engagement with the aim of enhancing teaching and learning practices (Strydom, Kuh and Mentz 2010; Strydom, Basson and Mentz 2012). DUT's Siyaphumelela Project, meaning "we succeed" is a project which aims to gather data by using surveys so that, if necessary, changes can be made to teaching and learning in order to promote success within subjects. Since data is evidence-based, any changes made to teaching and learning strategies will be supported by data.

Initially the present study was going to use the information gathered from the Classe survey as its principal source of data. However, the number of responses received from the Financial Accounting 1 students to the online Classe survey were extremely low. This seemed to be due to the Classe survey being online and its completion not compulsory. Further, Classe is a general survey and is not financial accounting specific. As a result the questionnaire used in this study drew on the Classe survey with some changes made to suit the specific context of a practical subject such as Financial Accounting 1, while a manual questionnaire was used to increase the response rate.

The questionnaire included two sections (see Appendix E). The first consisted of closed questions where students were asked to respond against a Likert scale and the second section consisted of open-ended questions allowing students to respond in their own words.

#### **1.8.4 Data analysis**

Quantitative data for this study was analysed using the Statistical Package for Social Sciences (SPSS) version 25.0. The qualitative data from the open-ended questions was arranged in themes that are each discussed and visually illustrated using tables.

### **1.8.5 Ethical considerations**

No deception of any kind was used. Students were informed regarding the purpose of the questionnaire. They were not in any way forced to participate in the questionnaire and they were informed that the information gathered would be anonymous, would be kept confidential and would be used for academic purposes only. Student participation was in this way voluntary as well as confidential and anonymity was maintained. Therefore, ethical considerations were taken into account and the necessary ethical clearance obtained from the institution.

## **1.9 Structure of the dissertation**

### **1.9.1 Chapter 1- Introduction**

This chapter contextualised the research study by discussing the background, research problem, aims and objectives, research questions and the overall methodology of the study.

### **1.9.2 Chapter 2 – Literature review**

This chapter reviews relevant literature associated with student engagement, and why engagement and student success are linked within the context of this study. Seminal literature as well as recent literature is reviewed including DUT-specific strategic plans and policies.

### **1.9.3 Chapter 3 – Research methodology**

This chapter discusses the research methodology used in the study - namely, the research design, the data collection instrument, and the method of data analysis.

### **1.9.4 Chapter 4 – Analysis of data**

This chapter reports on the analysis of the data that was collected and how this data relates to the research objectives of the study.



## **1.9.5 Chapter 5 – Conclusions and recommendations**

This chapter presents the conclusions from the data analysis as well as providing recommendations that can be used as a result of this study and makes suggestions for further research.

## **1.10 Conclusion**

This chapter highlighted the importance of student engagement and why it is an important consideration for teaching and learning at DUT and in Financial Accounting 1. The background to this study was explained as well as the research problem, aims and objectives and the research questions were stated. Thereafter, the research methodology was detailed and a road map for the study was explained.

The next chapter will focus on the literature review pertaining to student engagement, its link to student success, what factors inhibit student engagement and what practical ways student engagement can be promoted and encouraged.

## **Chapter 2 – Literature Review**

### **2.1 Introduction**

Cohen, Manion and Morrison (2011: 121) state that a literature review sets out what the key issues are in the field to be explored, and why they are, in fact, key issues, and it identifies gaps that need to be plugged in the field (Cohen, Manion and Morrison 2011).

Schryen supports this description of a literature review by describing it as a review of what we already know, what we still need to know, and then how we can get there (Schryen 2013). A good literature review therefore, summarises current literature and then identifies knowledge gaps. Similarly, Rowe proposes that a literature review synthesizes past knowledge on a topic, and identifies knowledge gaps in the literature (Rowe 2014).

The literature review that follows will identify the nature of student engagement. Existing research regarding student engagement in an international as well as in a South African context will be identified. Following that, studies already conducted that reveal the reasons why students do not, and are not always able to, engage with material will be investigated. Lastly, existing research will be identified that looks at how lecturers can change the environment to encourage engagement.

A detailed literature review on student engagement reveals no published research on engagement specifically by accounting students at a University of Technology in South Africa. Therefore, there exists a gap available for research in this area as the practical nature of accounting relies on engagement for students if they are to be successful.

### **2.2 What is student engagement?**

Ivala (2013: 123) points out that “the earliest use of the engagement construct was by Ralph Tyler, who showed the positive effects of time-on-task”. Ivala (2013: 124) continues by mentioning how the concept of engagement has been developed and fleshed out by various authors, one of them being Pace who “showed that students gained more from their studies and other aspects of the college experience when they invested more time and energy in educationally purposeful tasks such as studying, interacting with their peers and teachers

about substantive matters, and applying what they learn to concrete situations and tasks” (Ivala and Kioko 2013).

Astin, who is a seminal author on the topic of student engagement, as far back as 1984, described engagement as “student involvement”. This reflects the amount of physical and psychological time and energy that a student invests in the academic experience. A highly involved student devotes considerable energy to studying, spends much time on campus, and participates and interacts with faculty members and other students. An uninvolved student will neglect studies, spend little time on campus, and will not interact academically with faculty members or other students. Astin expands on what is meant by involvement by listing some verbs that capture the active nature of involvement, such as: to commit oneself, to devote oneself, to join in, to participate in, to engage, to take part in, to take an interest in, and to incline towards. Astin points out that these verbs are behavioural in nature and therefore involvement implies an expected behaviour (Astin, 1984).

Biggs and Tang (2011: 20) describe student participation and learning as “what the student does”. This would be all the academic activities that a student engages in, in order to pass a subject. It is the effort that a student puts into a subject. Student engagement refers to the willingness of students to participate in academic activities such as attending class, completing homework and generally seeking a meaningful involvement in the learning of a subject (Gerber, Mans-Kemp and Schlechter, 2013). McInnis refers to engagement as where students feel they are part of a group, are committed to learning, and where learning outside of the lecture time is considered as important as the timetabled lecture or tutorial period (McInnis 2003).

Strydom (2012: 3) refers to Kuh and defines student engagement as being twofold. “First, the amount of time and effort students spend on academic activities and other activities that lead to the experience and outcomes that constitute student success. The second is the ways in which institutions allocate resources and organise learning opportunities and services to induce students to participate in, and benefit from, such activities” (Strydom, Basson and Mentz 2012).

### **2.2.1 Student engagement in South Africa**

In 2006 the Indiana University granted permission for their National Survey of Student Engagement (NSSE) to be used in South Africa as the South African Survey of Student Engagement (SASSE). This project was piloted at the University of the Free State and sought to gather information on the activities that students engage in, their reading, writing and educational programmes, time usage as well as personal growth and satisfaction with the institution. The hope was that the gathering of such information would allow key improvement factors to be highlighted and prioritised and then this would allow relevant interventions to take place.

Strydom, Kuh and Mentz (2010: 275) state that student engagement in South Africa is an important issue because

firstly, the country urgently needs better retention and graduation rates from the system to allow the country to provide the human resources needed for development. Secondly, similarities in the circumstances and challenges facing South Africa, when compared to other countries, support research, demonstrating that student engagement can be a potentially powerful tool for improving student success, and the efficiency and effectiveness of the higher education system as a whole (Strydom, Kuh and Mentz 2010).

In a further study conducted in 2012, Strydom noted that the increased access to higher education has not been matched with an increase in student success. Strydom pointed out that students face challenges of under-preparedness, language issues and lack of financial support. However, he emphasises the need to develop solutions to enhance teaching and learning in order to improve these success rates. The gathering of data regarding student engagement should not stop just as a body of evidence but should continue beyond that and be used to develop interventions at either staff or student level to address practices that constrain the students' learning (Strydom, Basson and Mentz 2012).

Ivala conducted a study at the Cape Peninsula University of Technology where quantitative data obtained from the SASSE results were expanded, using a qualitative approach and conducting interviews with students and lecturers. It was felt that knowledge of the factors

that either promote or hinder students' levels of engagement could assist CPUT in designing interventions that may enhance throughput rates (Ivala and Kioko 2013). Research was also conducted by Schreiber and Yu at the University of the Western Cape in 2016 using the SASSE online questionnaire. This study (2016: 172) "highlights that influences on student persistence are complex and require a comprehensive approach. Factors beyond the classroom and the academic challenge, which include peer environment and the individual experience, the campus culture and climate as well as the organisational context, contribute towards student persistence." Schreiber and Yu further identified differences in engagement based on race and gender and that critical factors impacting on persistence behaviours be investigated so that students from all gender and race groups are equally engaged and equally successful (Schreiber and Yu 2016).

### **2.3 Student engagement and student success**

Astin concluded that any form of student involvement benefits learning and student development (Astin 1993). Generally, the more time students spend on activities the more they will learn (Astin 1984).

Wawrzynski identifies that the relationship between engagement and achievement is well documented internationally. However he finds that evidence of this in the South African environment is not as well researched. The South African environment includes an evolving higher education system which is different from many other countries. Nevertheless the Wawrzynski study did find that the more time spent of engaging with a subject, the greater were the gains in student success (Wawrzynski, Heck and Remley 2012).

The importance of engagement with a subject in order to succeed in the South African context was also investigated by Parker who acknowledged that study time can be used as an indicator of effort but it is also the productivity and effort put into this study time that should be considered. Effort is often measured by attendance and usually the greater attendance the better the performance of students. Parker's study looked not just at lecture attendance but at studying outside the timetabled lecture and tutorial time as being important. In Parker's study, students that reported studying more than three hours each week achieved significantly

higher exam scores than those that spent less than one hour (Parker 2006). These findings emphasise the need for engagement. Gerber, Mans-Kemp and Schlechter also conducted a study in South Africa that investigated students' engagement with routine academic activities, these being class attendance and homework submissions. The study found that students needed to engage with material in order to achieve academic success. The more students engaged with material, the better they performed in the final exam (Gerber, Mans-Kemp and Schlechter 2013).

### **2.3.1 Two groups of students**

There are a number of studies that divide students into two groups. Biggs, Eiselen and Geysler as well as Gracia and Jenkins all refer to a group of students who are successful in a subject and another group that is not successful. These studies all find that those students in the successful group tend to be those that engage actively, while those that are in the unsuccessful group tend to sit back and do not engage with the subject material.

As far back as 2002, Gracia and Jenkins conducted a study where students were divided into two groups – a failure group and a pass group. Their study was conducted in Wales and involved accounting students. The students were divided into those that had passed all modules in the previous year, and those that had failed one or more modules. This study randomly chose 42 students across these two groups. Data was collected by means of interviews. Students in Gracia's failure group blamed poor memory, lack of revision, poor attendance, lack of time management, lack of motivation, having no interest in the subject, poor teaching, and illness, as reasons for their lack of achievement. Their decision to study accounting was often not driven by personal desire but rather due to not getting into the course they actually wanted to do, or by peer pressure to go to university and study a course that would lead to a prestigious job. In contrast the students in Gracia's pass group had a much more positive outlook and their decision to study accounting often came from a comfortable association and encouragement from family. The students in the failure group were lacking in confidence and so did not participate in the lectures as they were anxious about their own lack of ability. This meant that these students were comfortable to sit in lectures and do very little else as their lack of confidence hindered their willingness to participate and so they did not engage actively in the learning experiences. The Gracia study found that tutorials were

important and that the tutor played an important role in encouraging engagement so that students felt in control of their studies but also felt supported and encouraged. The problem was that it was only those students that attended the tutorial that would benefit from this support and encouragement. Those that did not attend remained disengaged and isolated which would add further to their feeling of lack of confidence. The study hoped to provide a predictive tool to be able to identify those students who were susceptible to failure and then to provide appropriate support. These support strategies would be developed after the study (Gracia and Jenkins 2002).

As noted, the Gracia and Jenkins study was a Welsh study. However, Eiselen and Geysler conducted a similar study in South Africa in 2003 where students were divided into two groups. This study also involved accounting students. Two groups of students were identified, namely, achievers and “at risk” students. The study involved 25 achievers and 20 “at risk” students who agreed to undergo psychometric tests as well as agreeing that their background characteristics (demographic information and academic results) be identified. Focus interviews were also held. In this study it was found that the “at risk” group referred frequently to matric accounting, indicating a reliance on their school accounting experience as a guarantee for good performance at university. The “at risk” group acknowledged that hard work was necessary but also felt that natural talent contributed to achievement. There was a perception that time, stress and study management was not so valued because achievement came down to simply natural ability. The achievers showed better study discipline, motivation, persistence and responsibility. They were aware of all the support that was available and they indicated that at school they had learnt to work hard, to manage time and have a positive attitude. They brought these characteristics into their university experience. The achievers felt that there were not enough practice exercises required while the “at risk” group felt that there was too much stress, they struggled to manage their time and they felt humiliated in class meaning that they did not want to participate as this would make them feel uncomfortable and highlight their own lack of understanding. Eiselen and Geysler found that the “at risk” group relied on matric accounting to see them through Accounting 1 and when they realised that this reliance was not working they felt overwhelmed. It was identified that the “at risk” group did not achieve because they did not attend lectures, they did not do homework, they did not have study methods, they chose the wrong subjects, they had the wrong friends, they did not know how to write tests/exams and they had the wrong attitude. The study yielded

deeper insight into the differences between achievers and “at risk” students with the view to improving the “at risk” group (Eiselen and Geysler 2003).

John Biggs, who is a prolific author on student engagement issues, claims that students are diverse in their academic orientation and commitment to their studies. He also divides students into two groups which he refers to as the “Robert and Susan problem”. Susan is academically committed and is the type of student who comes to the lecture with background knowledge and some questions. Robert is the type of student who has no background knowledge when he comes to the lecture and no questions. He just wants to put in sufficient effort to pass. He wants to remember only the basics and recall them when necessary in tests and exams. Robert wants to just attend lectures and get by with the minimum engagement possible while Susan is willing to engage far more actively with the subject. Biggs suggests that there are more Roberts than Susans in today’s classrooms. The Robert type of student needs to be encouraged to engage more with the material in order to gain a more thorough understanding and ultimately success in a subject (Biggs and Tang 2011).

No matter what the two groups are called – Robert vs Susan, achievers vs at risk or pass vs failure – it seems clear that those students that fall into the successful group will be those that engage actively with the subject material while those students who do not engage with the subject material will be likely to fall into the unsuccessful group.

## **2.4 Factors that inhibit student engagement**

Unfortunately, some students do not engage adequately with subject material for reasons that are not always within their control. Agar conducted a study in South Africa as far back as 1990 that aimed to investigate problems experienced by students. The study revealed that students encounter a wide variety of socio-economic as well as learning difficulties. They also face problems with the adjustment between university and school (Agar 1990).

In 2012 Wawrzynski conducted a study in South Africa that confirmed the findings of the 1990 Agar study, in that students face numerous challenges which can be termed barriers to engagement. Wawrzynski (2012: 106) noted that “although it is important to examine academic outcomes and their barriers, since the majority of a student’s time is spent outside



the classroom, it is equally important to explore how the co-curricular experiences influence student learning outcomes.” Time spent on activities outside of the classroom was very important and many students were constrained by financial need, transportation problems and lack of knowledge of support available (Wawrzynski, Heck and Remley 2012).

The barriers to engagement faced by students are therefore numerous and are discussed further below.

#### **2.4.1 Lack of motivation**

A study by Agar and Knopfmacher, conducted in South Africa in 1995, on 500 students across a variety of subject disciplines, found that students tended to have a positive attitude to being at university but there was a great deal of anxiety about their performance and many found it difficult to be motivated. Students struggled to accept responsibility for their learning by being diligent, self-disciplined and willing to work hard. High anxiety and low motivation point students towards failure. The anxiety felt resulted from teaching material which is increased and exercises being largely unsupervised compared to school (Agar and Knopfmacher 1995). In 2010, Prinsloo and Muller agreed in that their study said that academic performance is influenced by study time but they also cited motivation as a key determinant of success (Prinsloo and Muller 2010).

A study by Byrne and Flood, involving accounting students in Ireland, found in that engagement with subject material is necessary for student understanding and success but their study focused on the motives, preparedness and expectations of students when entering a first-year accounting course. The study found that most students enter a subject with good motives, they feel well prepared and confident – however they have a concerningly low expectation of the work commitment required of them. Many students want to engage with the subject material but many do not expect this engagement to require so much time and effort. Students also lacked confidence to approach their lecturer with questions they had (Byrne and Flood 2005). If students do not understand the subject material, they feel reluctant to ask questions indicating a lack of confidence and an unwillingness to make themselves vulnerable by exposing their lack of understanding.

Passing or failing is clearly measurable but attitude and behavioural qualities are also important. The experience of attending lectures and participating is important for lifelong learning and motivation (Sawon, Pembroke and Wille 2012). Masui concurred with the sentiment of Sawon in that it was found that students' activities and efforts matter and a student's academic performance is influenced by study time which is in turn influenced by motivation. Masui concluded that the relationship between study time investment and academic achievement is undeniable and that active teaching and learning prepares students for lifelong learning which gives rise to a well-rounded more productive and motivated person (Masui *et al.* 2014). This is important as willingness to participate in active learning can indicate an understanding of the material and a confidence to be engaged. Lifelong learning can then only be achieved once the fundamental concepts are well understood.

#### **2.4.2 Absenteeism**

As far back as 1984, Astin identified that the time and energy that students need to devote to family, friends and activities such as part-time jobs all represent a reduction in the time and energy that the student has to devote to his academic development including lecture attendance (Astin 1984). A case study of three South African Universities by Wadesango and Machingambi expanded on absenteeism as being a problem and reasons for students being absent were investigated. The main reasons for absenteeism, and hence lack of engagement with a subject, were identified as follows:

- Part-time jobs and other work commitments,
  - Catching up on other work related to studies which showed a lack of time management among students,
  - Dislike of lecturers because of poor teaching styles, lecturers coming late, and lectures being too long,
  - Low motivation to attend as the lectures were boring,
  - Wanting to spend time with friends,
- (Wadesango and Machingambi 2011).

Some of the above reasons for being absent relate to lack of confidence coming from a lack of understanding of the material such as, finding the work boring or being distracted by friends.

However, there are other reasons which may be out of the students control such as, the need to earn an income necessitating the student to seek part-time work.

### **2.4.3 Socio-economic problems**

Luke conducted a study in Australia and reiterated the importance of attendance as a key starting point to engagement but found that student absences were typically due to health problems, financial problems and work commitments or family issues as well as sometimes to mental health issues. Again the link between active engagement, learning and student success is present and although attendance at lectures does not guarantee success, it is a first step towards engaging and learning (Luke 2015).

Research done in South Africa provided similar findings. Strydom conducted research at the University of the Free State. Strydom pointed out that the best predictors of success are academic preparation and motivation, but this was linked to student engagement involving the devotion of time to academic activities. However, in order for engagement to take place students had to overcome challenges. The challenges facing students in South Africa were magnified compared to many other countries given the socio-economic issues, the capacity and resource constraints as well as challenges facing South Africa as a developing country (Strydom, Kuh and Mentz 2010).

Sekhukhune conducted a study regarding the reasons for students dropping out of an accounting diploma at a University of Technology in South Africa. It was found that students encountered problems similar to those socio-economic issues found in the Luke study. However, since the Sekhukhune study was conducted in South Africa there were a number of unique challenges facing the South African student. The Sekhukhane study found that lack of finance is a major stumbling block for many South African students. Students face challenges regarding finances to cover their tuition fees, textbooks and accommodation, while a further significant challenge was finding sufficient finances to feed themselves. A student who was hungry would not cope with the demands of an academic environment and Sekhukhane found this problem to be significant. Linked to financial challenges, Sekhukhane identified accommodation as a source of problems for South African students. Accommodation on campus is frequently insufficient. Students are then sometimes forced to

find off-campus accommodation to rent. Apart from possibly being more expensive, this off-campus accommodation came with other issues such as being crowded to try and keep rent costs lower, as well as noise and travel concerns. Students frequently needed all round support to assist them with university life. They lacked time management skills, study skills, tutorial support and discussion groups as well as non-academic support involving a sense of community and belonging. Sekhukhune concluded that students should be made aware of the challenges they could be expected to face so that support could be given before they became part of the statistics of failure (Sekhukhune 2008).

Although the Sekhukhune study is from 2008 even today the same kinds of issues identified still plague students in South Africa. Mpofu conducted research in 2017 and identified the same kind of socio-economic problems such as lack of ability to pay student fees, accommodation issues and general socio-economic challenges that have fuelled student protests across South Africa in recent years (Mpofu 2017).

#### **2.4.4 Poor time management**

As mentioned already, Sekhukhane identified among various challenges, lack of time management skills by students (Sekhukhune 2008). Chen expanded on time management as an issue by conducting a study in 2016 among students at Pennsylvania State University to investigate the time students used for studying and academic pursuits. The study required students to reflect on their time usage by recording it in a diary. The participants were surprised at how they spent their time. Students had felt that they were overworked and that they spend a great deal of time on academic activities. The time diary revealed, however, that time management was in fact poor for many students. While leisure activities were important - many students were surprised to see the amount of time they wasted on watching TV, or on doing hair and make-up as well as internet surfing. The feedback from participants was that the diary resulted in self-reflection and a desire to use time more wisely. As a result they wanted to spend more time on their academic work and use their leisure time more productively (Chen *et al.* 2016).

Time management and its importance is also emphasised by Huda who describes the ability to learn, how learning progresses and how this learning is integrated with time management.

Huda further describes how the study habits of students should be developed to empower a learning culture among students allowing them to manage their time effectively since time management can be considered a core element of the learning process (Huda et al 2018).

#### **2.4.5 Lack of confidence**

Byrne, Flood and Griffin found in their study that many students lacked the confidence to study effectively or to engage in independent reading and note taking. Students struggled to judge the standard required to do well in the exams. They found that achievement was linked to confidence, attempting questions in advance of tutorials, and being able to organise oneself to meet deadlines. If students could not meet these demands then they were likely to be at risk (Byrne, Flood and Griffin 2014). Students need to have an understanding of the work covered in order to have the confidence to engage further with the material. Asking questions in lectures and participating in tutorials comes with a confidence in one's own ability and if this is lacking then students tend to withdraw their willingness to engage. If this happens then students run the risk of missing out on the essential building blocks of accounting which is critical to further understanding as the student moves onto second and third year.

In the South African context Sekhukhane found that this lack of confidence is exacerbated by the fact that many students in South Africa are taught in English which is not their home language. They therefore face challenges regarding the analysis and interpretation of the study material. Further, they often lack confidence to express themselves which hinders their engagement with the study material (Sekhukhane 2008). A study by Ivala concurred in that lack of confidence in English reading and writing skills were identified as a barrier to engagement (Ivala and Kioko 2013).

Thus, students are facing numerous issues that draw them away from active engagement with subject material. These are issues of adjustment to a new environment, lack of motivation due to feelings of being overwhelmed and therefore unwillingness to engage. In addition socio-economic problems, an inability to manage time, and stress, as well as distraction coming from family commitments and friends.

## **2.5 Changing the learning environment to improve student engagement**

Research is therefore clear that engagement is necessary for success. It is also clear that students face many challenges that may prevent them actively engaging with subject material. However, the literature indicates that it is important to consider the wider learning environment in order to ascertain an approach that would achieve the most engagement possible.

Krause and Coates point out that institutions are responsible for creating environments that make learning possible and that provide learning opportunities. They further recognise that it is the first-year experience that shapes student attitudes and approaches to learning. Krause and Coates (2008: 500) state that, “Developing the capacity to manage one’s time, study habits and strategies for success as a student is foundational to success in the first year” (Krause and Coates 2008).

### **2.5.1 Learning environment and teaching styles**

Biggs and Tang (2011: 16) state that “all teachers have some theory of what teaching is, even if they are not explicitly aware of that theory. Teachers’ theories deeply affect the kind of learning environment they create in their classrooms” (Biggs and Tang 2011). These authors go further to describe three levels of teaching that impact the classroom environment. The first level of teaching focuses on what the student is. The teacher is the knowledgeable expert, students are expected to absorb information and then be able to report it back accurately. When the students do not learn it is due to something the students are lacking. It is not because there is anything wrong with the teaching but rather the students are incapable or unmotivated and it is not the teacher’s responsibility to correct this. Teaching in this paradigm is unreflective and is unlikely to change. The second level of teaching is described as focusing on what the teacher does. This kind of environment includes plenty of variation in teaching techniques but focuses only on what the teacher is doing and not on what the student is learning. The effect that the variations of teaching techniques have on the desired student learning is not considered. The third level of teaching focuses on what a student does which is also how Biggs and Tang describe engagement by students. This is a student-centred approach where the purpose of teaching is to support learning. Teachers master a variety of teaching techniques but they focus on what a student does and how well the intended learning actually takes place (Biggs and Tang 2011).

Teachers being able to implement the third level of teaching has become important as a study conducted by Hornsby has found. Hornsby noted that education is seen as a way to break the poverty cycle and so as a result, classes have in recent years become larger and larger. Unfortunately, Hornsby found that large classes tended to have poor levels of engagement, students showing less commitment and a lower motivation. Lecturers needed to find adaptive responses to try and counter the challenges of not only large classes but the lack of engagement that went with that (Hornsby and Osman 2014).

Biggs further refers to two climates in the classroom – a more strict environment versus a more free, trusting environment. The strict environment leads to an anxious environment where students are constantly told what to do, attendance is monitored and deadlines and regulations are rigorously imposed. In the more free environment teachers assume that students work best when given the freedom and space to use their own judgement. These two environments are opposites of one another and Biggs suggests that in order to get the most from students, a balance should be found between the two. A strict environment becomes intolerable for students while a totally relaxed environment would be very difficult to maintain control. Biggs and Tang (2011: 41) suggest “we should create the sort of learning climate that we believe strikes the right balance for optimal learning, given our theory of teaching, the conditions under which we work, and the nature of the subject we are teaching and of our students” (Biggs and Tang 2011).

Cekiso found that accounting students tend to prefer technical tasks and benefit from working with practical applications. Working on problems and arriving at answers logically was beneficial. Finding the balance between teaching methods and the learning styles of students led to an increase in the comfort levels of students and this resulted in an increased willingness to learn and therefore, engage with the subject material (Cekiso, Arends and Mkabale 2015).

### **2.5.2 Surface and deep approaches to learning**

Biggs and Tang (2011: 24) describe the surface approach to learning “as an intention to get the task out of the way with minimum trouble, while appearing to meet course requirements...the terms ‘cutting corners’ and ‘sweeping under the carpet’ convey the idea:

the job appears to have been done properly when it hasn't." This kind of approach includes rote learning selected content instead of understanding it (Biggs and Tang 2011). On the other hand, Biggs and Tang (2011: 26) describe the deep approach to learning as students feeling a need to know. If this is the case they "will automatically try to focus on underlying meanings, on main ideas, themes, principles or successful applications. This requires a sound foundation of relevant prior knowledge, so students needing to know will naturally try to learn the details, as well as making sure they understand the big picture" (Biggs and Tang 2011). Biggs and Tang conclude (2011: 27) by saying "the bottom line is that teachers have to work with material they have. Whereas lectures and tutorials might have worked in the good old days when highly selected students tended to bring their deep approaches with them, they may not work so well today" (Biggs and Tang 2011). Biggs and Tang (2011: 27) suggest that there needs to be a "focus on those factors that encourage a deep approach" (Biggs and Tang 2011). The fostering of a deep approach to learning and the desire by students to know and understand work will only be achieved if lecturers are also sensitive to the factors that inhibit engagement especially in the South African context.

One challenge to deep learning that is faced by many institutions today is the massification in higher education. Hornsby and Osman (2014:712) point out that there has been a rapid increase in student enrolment and with that come challenges. They suggest that large classes are not learning environments that are conducive to higher order cognitive skills / deep learning by students. Those students that require interaction tend to suffer when the amount and intensity of student-teacher interaction decreases and this allows deep learning to be avoided (Hornsby and Osman 2014).

### **2.5.3 Alignment of curriculum, teaching methods and learning**

The curriculum, teaching methods, and the students' learning should align so as to encourage maximum engagement and therefore success in a subject. This is supported by Booth, Lockett and Mladenovic in that they found that assessments should encourage and reward a deep approach to learning and the curriculum and that teaching methods need to be aligned to achieve the goal of deep learning (Booth, Lockett and Mladenovic 1999). Biggs, Kember and Leung expanded on this by the notion that moving away from rote learning to a deeper learning, and suggested that the lecturers take responsibility for ensuring that their teaching



and assessments are aligned to promote this deep learning and better understanding in students (Biggs, Kember and Leung 2001).

Biggs and Tang (2011: 97) state that “alignment is a principle in curriculum theory that assessment tasks should be aligned to what is intended to be learned.” (Biggs and Tang 2011). The intended learning outcomes include not just lectures on a topic but rather an activity involving that topic and assessment tasks being aligned with the learning outcomes that are intended for that course. Biggs and Tang (2011: 99) state that “the students are ‘entrapped’ in this web of consistency, optimizing the likelihood that they will engage the appropriate learning activities...but leaving them free to construct their knowledge their way.” (Biggs and Tang 2011). Biggs and Tang (2011: 99) explain further by saying “where assessment is not aligned to the intended or other desired outcomes, or where the teaching methods do not directly encourage the appropriate learning activities, students can easily ‘escape’ by engaging in inappropriate learning activities, which become a surface approach to learning.” (Biggs and Tang 2011).

Biggs and Tang defend this level of alignment in curriculum, teaching and learning as it can be interpreted as spoon feeding students (2011: 100). They state that “constructive alignment, by way of contrast, makes the students themselves do the real work, the teacher simply acts as ‘broker’ between the student and a learning environment that supports the appropriate learning activities” (Biggs and Tang 2011).

In addition, Kahu and Nelson suggest that the interface between students and institutions is important as this interaction as well as the psychosocial construct of students contribute to student engagement and success. This must be considered and should provide focus for the design and implementation of the curriculum (Kahu and Nelson 2018).

The following section deals with the strategic plan of the Faculty of Accounting and Informatics at DUT.

#### **2.5.4 Faculty Strategic Plan, curriculum renewal and student centredness**

The DUT, Faculty of Accounting and Informatics strategic plan 2017 – 2019 (2017: 5) includes as its mission statement "Developing Leaders for the Information Society". One of the ways that this will be done is through "excellence in teaching and learning" (Durban University of Technology Faculty of Accounting and Informatics 2017). This same strategic plan refers to promoting student success and enhancing the quality of graduates.

The Financial Accounting department at DUT is in the process of a curriculum renewal project. All module descriptors in the new curriculum are required to include details of what graduate attributes are addressed by that particular module. Further, student centredness and the creation of a well-balanced and holistic individual are central to the general education modules being offered. The philosophies and strategies underpinning the newly re-curriculated accounting programme include that the nature of financial accounting has theory behind it as a foundation, but the bulk of the subject involves calculations and reports. As a result students learn by participation in class, group discussions, lecture examples and solutions as well as tutorials and feedback sessions. Further, technology and large class sizes have to be considered and ways of teaching changed to adapt so that students are provided with a deep sustainable approach to learning (Durban University of Technology CQPA 2017).

Both the DUT Faculty of Accounting and Informatics as well as the re-curriculation within the Department of Financial Accounting encourage using the learning environment to promote engagement and student success.

## **2.6 Practical ways to encourage student engagement**

### **2.6.1 High impact practices**

Kuh refers to 'high impact practices' that can encourage engagement and overall development of students. He suggests that the curriculum of first year students should include first year seminars that bring small groups of students together with staff. He further suggests that there should be a strong emphasis on critical enquiry, writing, information literacy and collaborative learning in order to develop competencies of students. Learning communities where learning is encouraged across courses, and involves students in questions beyond the

classroom, should be encouraged. Study groups are another high impact practice identified by Kuh. Students should learn to work and solve problems in the company of others. Study groups also give students the opportunity to improve their understanding by listening and learning from others (Kuh 2008b).

Kuh expands on the idea of high impact practices by promoting an environment that includes teaching, integrating and application. Students should be taught to reflect and think about their experiences both in and out of the classroom. They must integrate and grasp the relevance of what they are learning, and they must apply their knowledge by transferring and using what they have learnt. Kuh identifies that a narrow approach to learning is not enough and that a deep integrative learning needs to be promoted by encouraging engagement in a number of ways. Students should be engaging themselves with subject material. The institution should be using educational practices that induce students to engage and activities that channel the students' energy towards beneficial activities. This can be done by following certain good practices. Kuh suggests positive staff/student contact, encouragement of active learning, provision of prompt feedback, high expectations, respect for diverse learning styles and overall co-operation among students (Kuh 2008b).

An environment that encourages and uses Kuh's high impact practices should enhance engagement and student success.

### **2.6.2 Formative Assessments**

Biggs and Tang suggest formative feedback as a means to encourage deep learning through encouragement of engagement. They compare formative and summative assessments. They do however suggest the term "formative feedback" instead of "assessment", to emphasise that this is done while the course is still in progress and corrective action can then be taken from this feedback. This feedback is very important as it helps to bridge the gap between where the student is, and where they should be in their understanding and ability within the subject. Feedback should be done while the subject is still in progress so that students can use the feedback to learn from mistakes. Learning from errors is an important learning opportunity. However Biggs emphasises that feedback should be given in a way that does not degrade or humiliate the student, otherwise it is counterproductive. It is very

important that the student must feel motivated to attempt the task. The activity must be seen to be of value as well as perceived to be attainable but also challenging in order for students to feel confident in their ability and understanding but also not bored. Once they have achieved success in an activity, students then feel confident to move onto a more advanced concept. In this way students should feel that they are taking responsibility for their own learning and therefore they stand to gain the most from an activity (Biggs and Tang 2011).

Curtis concurs that formative assessment should provide feedback to students that directs their attention to enable them to identify gaps in their knowledge (Curtis 2011). If gaps in understanding are identified at a formative stage then there is still time for the student to improve their understanding before the summative assessment is conducted. If gaps in understanding are not identified early enough then students are unaware that they have not reached the required level of knowledge until it is too late and they have failed the subject. Perera, Nguyen and Watty further concur in that assessments should develop understanding and engage students to reflect on their learning. Feedback from these assessments is considered integral for improved student learning. Their study also found that there is a strong correlation between tutorial based formative assessments and exam performance. The feedback from the formative assessments improved student learning and encouraged student attendance as well as participation (Perera, Nguyen and Watty 2014).

As Biggs has also suggested, Byrne, Flood and Griffin found that feedback was important to assist students to require a realistic perception of their abilities. Byrne, Flood and Griffin found that over half the students in their study lacked confidence to engage their lecturer and their fellow classmates. A learning environment which boosts confidence by providing feedback in a non-threatening way, and which focuses on effort and understanding, can lead students to be more inclined to ask questions and therefore to engage with the subject material at a deeper level (Byrne, Flood and Griffin 2014).

Stegmann pointed out that, with the massification of the student body, feedback on assessment becomes more of a challenge, from the increased number of students present in the lectures. In this situation feedback was generally limited to the provision of a solution to the assessment questions and some general verbal comments given to the group as a whole. Stegmann suggested a system of peer assessment in an attempt to provide greater feedback

to students. When students were exposed to a variety of both good and bad work, they were more likely to develop an ability to assess the quality of their own work. Students could better understand the assessment process and had an improved capacity for self-reflection and self-assessment as a result of assessing the work of their peers. The more aware students were of the kind of errors made, the more they learnt from this and then did not repeat the errors (Stegmann and Malan 2016).

### **2.6.3 Role of lecturers**

Lecturers play a vital role in the engagement by students and can act as important catalysts for the encouragement for students. Wadesango found that a significant determinant of student absenteeism was the lecturers themselves. (Wadesango and Machingambi 2011) The role of the lecturer in student engagement was important. If the lecturer was motivated and enthusiastic about their subject this would influence the attitude of students to that subject. A study by Kottasz echoed the same sentiment expressed by Wadesango in that lecturers played a vital role in encouraging engagement. Kottasz found that absence from lectures was sometimes due to lack of motivation to attend. Some students found lectures boring and simply not worth attending. If the lecturer was willing to engage enthusiastically with the material and with the students then this could inspire students and it would have a positive effect on attendance. Kottasz suggested that new styles of teaching could be investigated in order to inject more energy and inspiration into the imparting of the subject material during lecture time (Kottasz 2005). Krause and Coates concurred in that they identified that the students' perception of the interest that teaching staff showed in student progress played a role in students attitude (Krause and Coates 2008).

De Villiers and Werner (2016: 46) recommended "that an awareness of the nature of student engagement and its influence on academic success is promoted and reinforced among both students and academic staff over the course of the academic year." They continued by saying that student engagement should be discussed at staff meetings and engaged students acknowledged, thereby supporting students by keeping the importance of engagement in the minds of staff (De Villiers and Werner 2016).

Teixeira and Gomes further found lecturers to play a significant role in inspiring students to engage with subject material. In their study they found that students complained that if lecturers behaved in an authoritarian, impersonal and detached way that did little to enhance the learning environment and so they were not motivated to engage with the subject (Teixeira and Gomes 2016). This was further endorsed by Axelson and Flick who point out that lecturers have enormous power over their students for good or ill (Axelson and Flick 2010). A powerfully engaging lecturer can turn students' apathy towards learning to joy and excitement.

The role of lecturers is also emphasised in a study by Farr-Wharton who examined the impact of lecturer-student exchange on engagement, course satisfaction, achievement, and intention to leave university pre-maturely. This study found that even though lecturers are under increasing threat of being replaced by technology, the lecturers played a significant role in enhancing engagement and tertiary student outcomes (Farr-Wharton et al 2018).

#### **2.6.4 Pre-reading of material**

Heiner conducted a study in Canada involving science, physics and biology students. It was found that students consider pre-reading a low priority and they prefer to focus their time on activities that they feel will directly impact their mark on a subject. However, Heiner found that if pre-reading was specific and linked directly to material to be covered immediately in lectures this will promote the value of it. On-line quizzes were used to further prioritise pre-reading. Lecturers also frequently referred to the pre-reading material during lectures. All of this assisted students to increase their understanding of the value of pre-reading and as a result many students acknowledged that pre-reading helped them to feel more prepared for class and helped them to keep pace with the material (Heiner, Banet and Wieman 2014).

#### **2.6.5 Support for students**

Students that find themselves facing significant challenges and for whom engagement does not come naturally, have been found to benefit from academic support structures. Agar found this to be the case in that academic support can address some problems with assisting students to cope with the demands of university, however many problems experienced by students, with their long term success in mind, can only be addressed by wider socio-

economic change which of course provides a very significant challenge to overcome not possible within the lecture environment alone (Agar 1990).

A study by Lourens at Technikon Pretoria identified intervention strategies such as bridging courses as a means to assist students that needed extra support (Lourens and Smit 2003). Further, Ilsever and Leung found that the use of support and supplementary programmes to assist low achievers to succeed in their studies did assist by improving study skills and did enhance engagement with the subject material. This study found that the use of a support programme did effectively help students to learn better and this improved their expectations of achieving a better final mark for their subject. A support tutorial programme provided an opportunity for engagement outside the lecture and, apart from providing actual tutorial help, it also provided students with psychological support that first-year students often need (Ilsever and Leung 2015).

Lubbe (2017: 69) expands on the idea of support for students by the idea of extending current three-year qualifications to four years including the current accounting qualification.

The current system requires underprepared students to complete the overloaded and technically demanding existing curriculum within the standard three-year period, a system that is arguably setting students up for failure. It is no wonder that so many students are struggling with motivation and anxiety issues. Poor performance and failure do not only negatively affect a student's personal reflection; having to repeat modules often results in a misalignment of the curriculum (knowledge frames) and eventual dropout altogether, resulting in students leaving higher education with nothing other than student debt (Lubbe, 2017:69).

### **2.6.6 Group work**

Astin found that a peer group was a very powerful source of influence. Discussing work with other students, working on group projects, tutoring other students, and generally participating in student life all contributed positively to personal and academic development. Peer groups meant that students were held accountable by their peers and there was a sense of responsibility in assisting their peers in groups. Working with peers in groups generally had

a positive effect academically (Astin 1993). Group work was also found by Hall, Ramsay and Raven to make subject material more student-centred. Students working in groups during tutorials seemed to increase the learning of students, and group work seemed to be able assist students to progress to a higher level of understanding (Hall, Ramsay and Raven 2004).

McInnis echoed the findings of other researchers in that the single most important determinant of student success is the amount of time and effort put into studies and university life. However, further to this it was found that, similar to the Hall study, studying in groups with other students adds considerably to success rates. Students engage better when they feel they are part of a group of students and, together with lecturers, are committed to learning. An environment where learning outside the classroom is considered as important as timetabled classes further promoted engagement (McInnis 2003).

Group work was further identified by Visser, Vreken and McChlery as an interactive method of promoting engagement. Accounting students require problem solving and holistic thinking and these skills were promoted within a group. Visser suggested that an environment that fostered this approach was favourable to enhance engagement and understanding by students (Visser, McChlery and Vreken 2006). Kuh also identified group work as a useful activity for the promotion of engagement and development of students. Study groups were helpful in that learning to work and solve problems in the company of other students was beneficial and improved understanding by listening and learning from others (Kuh 2008b). Yuan and Kim concurred in a study that showed that especially in large class environments peers could provide one another with quality feedback which can improve the overall learning of students (Yuan and Kim 2018).

### **2.6.7 Use of social media**

De Villiers and Werner conducted a study at the Nelson Mandela Metropolitan University among first-year human resource students regarding student engagement and academic success. One of the recommendations made from this study was that academic staff continuously reflect on how they can enhance interaction, and using social networking sites was an option suggested (De Villiers and Werner 2016).



Ivala conducted a study at the Cape Peninsula University of Technology regarding the use of social media to enhance the levels of student engagement. Ivala found that technologies that students use in their everyday life could be used to promote student interaction and achieve greater engagement with learning materials. However, there was a difference across disciplines, as well as in the maturity level of the students, which determined how successful this was. Some subjects achieved more interaction than others and first year students were found to resent the lecturer for intruding into what they perceived as their social space. Other hindrances were lack of internet data and limited accessibility to computer facilities. In spite of this they felt that any strategy that is likely to have a positive impact on student levels of engagement was worth investigating (Ivala and Gachago 2012).

### **2.6.8 Career guidance**

It stands to reason that students who are interested in the subject material will be more willing to engage with that subject material as they naturally enjoyed the concepts involved. This means that students need to register for a diploma that involves subjects they enjoy and that will lead them to a career that they actually want to be in. This was supported in a study by Stipanovic, Stringfield and Witherell who identified career guidance as important for success in studies. They found that career counselling enhanced students' sense of career and self-efficacy. If students were studying towards a course that they were interested in, and had a natural aptitude for, then they were more motivated, more willing to challenge themselves and generally had a better preparedness for their studies and future careers (Stipanovic, Stringfield and Witherell 2017).

## **2.7 Conclusion**

In this literature review existing research internationally, as well as in South Africa, on student engagement has been scrutinised. The over-arching finding is that student engagement is necessary for success in a subject. However, it is clear that there are many factors that inhibit engagement by students. These factors have been identified and discussed and the idea that the learning environment can be changed to encourage student engagement has been explored.

Student engagement at a University of Technology, specifically in the field of accounting as a University subject in South Africa, is not as widely researched. There was therefore scope for a study at DUT among accounting students to determine the level of their engagement and the ways that this engagement can be encouraged. This is especially important within a practical subject such as financial accounting and in an environment where student success is of great significance.

The following chapter will discuss the research methodology used in this study.

## **Chapter 3 - Research Methodology**

### **3.1 Introduction**

The previous chapter examined the current literature on student engagement both internationally and in South Africa. This chapter will focus on the research methodology used in this study. The following aspects of research methodology will be discussed: the study design, the population and the sample will be described. The research instrument will be discussed as well as methods implemented to ensure the reliability and validity of the research instrument.

Leedy and Ormrod (2005: 89) explain that “research seeks, through data, to discover underlying truths”. These truths must be uncovered and the research methodology is the method that researchers use to answer and solve the research problem. Different research problems result in different research designs. (Leedy and Ormrod 2005).

The research design chosen for this study and the reason for this choice, as well as the population chosen for this study and the data collection process, will be described below.

### **3.2 Research methodology**

#### **3.2.1 Research design**

Mouton (2001: 55) describes a research design as a “plan or blueprint of how you intend conducting the research” (Mouton 2013). Sekaran and Bougie (2013: 95) define research design as a “blueprint for the collection, measurement, and analysis of data, based on the research questions of the study. Creswell (2009: 3) refers to research design as “the plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis” (Creswell 2009).

When the research design for this study was chosen, the research questions, as set out in Chapter 1, were borne in mind so that the research design could best address these questions.

The research design chosen was a mixed method design with a quantitative strategy being adopted as the principal method. However, an element of qualitative research strategy was also used. The mixed method approach is explained below.

### **3.2.2 Mixed method strategy**

Creswell and Plano Clark (2018: 1) explain that mixing methods is a natural way of doing research as we see it displayed in our everyday lives. They explain numerous examples of both quantitative and qualitative information being used in order to make decisions. One such example is how politicians will use the statistics (quantitative) from an area, as well as personal stories (qualitative) of those living in that area, to then plot a plan of action. They therefore suggest that mixed methods has great applicability due to its natural usage in a variety of settings (Creswell and Plano Clark 2018).

Creswell (2009: 233) defines quantitative research as “a means for testing objective theories by examining the relationship among variables. These variables can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures” (Creswell 2009). He continues by describing qualitative research as:

a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures; collecting data in the participants’ setting; analysing the data inductively, building from particulars to general themes; and making interpretations of the meaning of data (Creswell 2009, 233).

He further explains that “mixed methods research is an approach to inquiry that combines or associates both quantitative and qualitative forms of research. It involves philosophical assumptions, the use of qualitative and quantitative approaches and the mixing of both approaches in a study” (Creswell 2009, 233).

Creswell and Plano Clark (2018: 5) bring the above together by stating that “in mixed methods, the researcher

- collects and analyses both qualitative and quantitative data rigorously in response to research questions and hypotheses,

- integrates (or mixes or combines) the two forms of data and their results,
- organises these procedures into specific research designs that provide the logic and procedures for conducting the study, and
- frames these procedures within theory and philosophy”  
(Creswell and Plano Clark 2018).

These authors (2018: 5 – 6) further explain that the applicability of mixed method approaches can be seen in an example where “a researcher collects data using quantitative survey procedures and follows up with interviews of a few individuals who completed the survey to help explain the reasons behind, and meaning of, the quantitative survey results” (Creswell and Plano Clark 2018).

### **3.2.3 Mixed method approach for this study**

Based on the above explanation of a mixed method approach, a mix of both quantitative and qualitative research design was chosen for this study with a quantitative method as the main strategy and an element of qualitative research also being used. Cohen, Manion and Morrison (2011: 256) explain that, “typically, surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or by determining the relationships that exist between specific events.”(Cohen, Manion and Morrison 2011). A survey was chosen for this study because it would allow an account of the behaviour of students to be obtained in order to establish the level of student engagement with subject material that occurs among financial accounting first-year students. It would further allow insight into the reasons why students engage, or why they do not engage, with subject material. This would meet the objectives of the study which are to determine the level of engagement of the National Diploma– Accounting Financial Accounting 1 students, the reasons why / why not students are / are not engaging and then to investigate practical ways that the learning environment can be changed to improve student engagement if this should prove to be necessary.

The quantitative strategy would therefore include the gathering of data by means of a questionnaire and the subsequent statistical analysis thereof. The open-ended questions at the end of the questionnaire would add a qualitative element and give insight into the reasons why / why not students are / are not engaging. This would then allow practical suggestions to

be made to change the learning environment where necessary. The questionnaire was designed so that first the students would provide quantitative information by answering Likert scale questions and secondly students could then give qualitative explanation when answering the open-ended questions at the end of the questionnaire. This was in line with the suggestion by Creswell and Plano Clark mentioned above where quantitative data is collected and followed up with qualitative data (Creswell and Plano Clark, 2018).

Focus group interviews were considered, should the information from the qualitative element of the questionnaire prove to yield insufficient detail – however, this proved unnecessary. Further, the researcher has extensive experience in teaching Financial Accounting at tertiary level and so in addition to the formal research instrument, the study also draws on this experience within Chapter 5.

### **3.3 The data**

#### **3.3.1 Research setting and study population**

Sekaran and Bougie describe a research population as the whole group of people, objects, or events that the researcher would like to investigate and from which the researcher wants to make inferences (Sekaran and Bougie, 2013: 240). The population for this study was chosen as the Financial Accounting 1 students registered in 2018 for the National Diploma: Accounting. The study was conducted at the Ritson Road Campus of the Durban University of Technology. Financial Accounting 1 forms part of a number of diplomas offered at the Durban University of Technology. The study was however confined to the students registered in 2018 for the National Diploma – Accounting. Financial Accounting 1 is a compulsory first-year subject for students registered for this diploma and they are divided into two groups of approximately 100 students each. The researcher lectures one half of this group of students and so these students were a natural choice of population for the researcher.

The criteria for participation was simply that the student was registered for National Diploma -Accounting and was attending Financial Accounting 1 lectures. All students were offered the opportunity to participate on a voluntary basis whether they were students attempting the subject for the first time, or whether they were repeating.

### **3.3.2 Data collection**

Prior to the data collection being done, a gatekeeper's letter (see Appendix C) was obtained, giving the researcher permission to conduct research at the Durban University of Technology. A letter of information (Appendix A) was also provided to each participant at the data collection site as well as a letter of informed consent (Appendix B). Ethical clearance had also been obtained prior to data collection (see Appendix D).

### **3.3.3 Questionnaire**

As explained above, a questionnaire was chosen as the data collection instrument. Kumar (2011: 145) describes a questionnaire as "a written list of questions, the answers to which are recorded by respondents" (Kumar 2011). Sekaran and Bougie (2013: 147) suggest that when the survey is confined to a local area then a good way to collect data is to personally administer the questionnaire as the completed responses can be collected within a short space of time (Sekaran and Bougie 2013). The researcher is in almost daily contact with the chosen population for the study and so a questionnaire was a fast and easy way to collect data.

Kumar details the advantages and disadvantages of using questionnaires (2011: 148 – 149). The advantages of questionnaires are that they are convenient and inexpensive. There is also great anonymity as there is no face-to-face interaction between the respondent and the interviewer. The disadvantages of questionnaires are that they may be limited to the abilities of the study population. The response rate can be very low with questionnaires which respondents are required to return at a later date, as respondents often fail to return them. There is also no opportunity to clarify issues and it is possible to consult with others therefore distorting responses (Kumar 2011). In the case of this study, the population was university students, ensuring that all would be capable of responding competently. The questionnaire was administered during lectures making it easy for students to respond by filling in the questionnaire there and then. There was also an opportunity for students to clarify anything they were uncertain of as the researcher was present at the front of the room and the students completed the questionnaire in silence, therefore not consulting with others.

### **3.3.4 The structure of the questionnaire for this study**

The researcher had been involved in the administration of the Classroom Survey of Student Engagement (Classe) (see Chapter 1) as part of the Durban University of Technology Siyaphumelela Project, and the questionnaire used for this study drew on the researchers' exposure to the Classe questionnaire.

The questionnaire included two sections (see Appendix E). The first consisted of closed questions where students were asked to respond against a Likert scale. Sekaran and Bougie (2013: 211) describe a Likert scale as a scale designed to examine how strongly respondents agree with a statement (Sekaran and Bougie 2013). Leedy and Ormrod (2005: 185) suggest that when a behaviour or attitude needs to be evaluated on a continuum, a rating scale such as a Likert scale is appropriate (Leedy and Ormrod 2005). The researcher wished to assess the level of student engagement with the subject material in Financial Accounting 1 and so a Likert scale was used to assess the frequency of students participating in activities that required engagement i.e., never, sometimes, often, or very often. This would have reference to the research question asking the level of engagement by students.

The second section of the questionnaire consisted of open-ended questions. Sekaran and Bougie (2013: 150) explain that closed-ended questions ask the respondents to make choices among a set of alternatives given by the researcher while in contrast open-ended questions allow respondents to answer questions in any way they choose. The questions at the end of the questionnaire allowed students to give a written response with their own reasons for why they did or did not do certain activities. Students could give whatever reason was relevant to their personal circumstances. One of the research objectives was to understand the reasons why students were engaging / not engaging with subject material and so open-ended questions were included to gain insight into these reasons.

### **3.3.5 Pre-testing the questionnaire**

Kumar states that:

having constructed your research instrument ... it is important that you test it out before using it for actual data collection. Pre-testing a research instrument entails a critical examination of the understanding of each question and its meaning as understood by



a respondent. A pre-test should be carried out under actual field conditions on a group of people similar to your study population. The purpose is not to collect data but to identify problems that the potential respondents might have in either understanding or interpreting question (Kumar, 2011: 158 – 159)).

A pre-test was conducted using the questionnaire for this study. The ten students who participated in this pre-test were studying Financial Accounting 1 and were registered for National Diploma - Accounting and so matched the type of population for the actual study. The students who participated in the pre-test did not form part of the collected data for the study. The ten responses from the pre-test were used to ensure that the instructions and the questions were clear and understandable. This would allow the questionnaire to be altered to avoid any ambiguous or confusing instructions and questions. The students who participated in the pre-test understood the questions and answered appropriately and so no revisions were made to the questionnaire used for the actual data collection.

### **3.3.6 The distribution and collection of the questionnaire**

A manual questionnaire was used because it would be the quickest and easiest way to get as much information as possible with the highest participation rate. As explained above during 2017, Financial Accounting 1 students were requested to participate in the Classroom Survey of Student Engagement (Classe) that was overseen by the University of the Free State. However, in this instance, students were asked to complete the survey online and in their own time. The response rate was extremely low and so the survey was largely ineffective. It was therefore felt that to request students to complete a manual survey during lecture time would yield a better response rate. The online Classe survey yielded a response of 27 out of the total of approximately 800 students registered for Financial Accounting 1 across all diplomas. This was a response rate of only 3%. The manual questionnaire used in this study had 135 students participate out of a total of 207 students registered for financial accounting 1 in the National Diploma– Accounting. This was a response rate of 65%.

The survey was administered by the Financial Accounting 1 lecturers for the two respective groups. This included the researcher herself and a colleague. The questionnaire was handed

out during lecture time and students were given time to complete it (if they were willing) and then they handed the completed questionnaires in immediately by handing it to the student who was the class representative, who then handed the completed questionnaires to the Financial Accounting Department secretary. The researcher then collected the completed questionnaires from the secretary. This procedure was followed to ensure anonymity.

In order to achieve as high a response rate as possible, the lecture period during which to administer the questionnaire was carefully chosen. The timetable for this group of students includes four Financial Accounting 1 periods per week. One of these periods is a first period at 8am on a Wednesday. Another period is on a Friday. Neither of these periods were used to collect data as they are not usually the best attended periods. Instead the period at 11am on a Tuesday was used to distribute and complete the questionnaires. This is because of the four Financial Accounting 1 periods this period is usually the lecture with the best attendance simply because many students consider this an easy period to attend due to its late morning convenience.

### **3.4 Reliability and validity**

This study used a mixed method strategy with a quantitative method as the main strategy and an element of qualitative research also being used. The reliability and verifiability of the quantitative data is discussed below.

#### **3.4.1 Reliability**

Cohen (2011: 199) defines reliability as “a synonym for dependability, consistency and replicability over time, over instruments and over groups of respondents .... for research to be reliable it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context, then similar results would be found” (Cohen, Manion and Morrison 2011). Sekaran and Bougie (2013: 398) state that reliability confirms the consistency and stability of the measuring instrument (Sekaran and Bougie 2013).

During collection of data for this study, standard conditions were maintained because all the questionnaires were completed during lecture time. No student took the questionnaire home

and returned it later. The collection of data was done in a non-threatening way in that students were aware that the completion of the questionnaire was voluntary. Students were given plenty of time to complete the questionnaire and, when they were finished, they handed it to the class representative who then returned the questionnaires to the department secretary.

The conditions under which the questionnaire was administered indicate that there would be no reason to expect that if the questionnaire was administered at another time that the results would be any different. Furthermore Sekaran and Bougie (2013: 229) state that Cronbach's alpha can be considered an adequate index of reliability (Sekaran and Bougie 2013). The data analysis conducted on the questionnaire revealed that the reliability scores for all sections exceed the recommended Cronbach's alpha value, therefore, indicating a degree of acceptable, consistent scoring for the research.

### **3.4.2 Validity**

Cohen (2011: 179) states that "validity is essentially a demonstration that a particular instrument in fact measures what it purports to measure". Cohen continues by stating that "in quantitative data, validity might be improved through careful sampling, appropriate instrumentation and appropriate statistical treatments of the data" (Cohen, Manion and Morrison 2011). Sekaran and Bougie (2013: 400), as well as Leedy and Ormrod (2005: 92), affirm this by describing validity as the degree to which the data collection instrument measures what it is intended to measure (Leedy and Ormrod 2005; Sekaran and Bougie 2013).

Sekaran and Bougie (2013: 394) refer to face validity as an aspect of validity that items, on the face of it, read as if they indeed measure what they are supposed to measure (Sekaran and Bougie 2013). At face value, the questionnaire used for this study covered the objective of the study by determining the level of engagement of students and the reasons why students engage or do not engage with subject material.

These authors do say that "face validity" is not always deemed as a valid indicator of "content validity" however, and Sekaran and Bougie (2013: 226) refer to content validity as ensuring that the measure includes an adequate and representative set of items that tap the concept.

Further, these authors mention that a panel of judges can attest to the content validity of an instrument. For example, a test can be considered as having validity if it has been evaluated by a group of expert judges (Sekaran and Bougie 2013). The questionnaire used in this research was based on the Classroom Survey of Student Engagement (Classe) developed internationally and it is considered a respected instrument of the measurement of student engagement (Strydom, Kuh and Mentz 2010). Therefore, content validity can be deemed to have been addressed in this study.

### **3.4.3 Integrity of qualitative data**

This study also used an element of a qualitative data in addition to the collection of quantitative data. Given describes the interpretive subjective nature of qualitative work as a defining hallmark of this field of research. The idea that the researcher's background, interests and skills play a role in the framing of the study is embraced. Researchers are seen as a visible, integral part of the process in qualitative research. Rather than seeking to standardise procedures, the unique identities of both the researcher and the participants are transparently identified and purposefully centred. Steps should be taken to support the credibility of qualitative research however such efforts should not compromise the deeper methodological and paradigmatic meanings that underpin the work (Given 2008).

In this study, as has been mentioned above, the data was collected from a questionnaire that was completed by students during lecture time. The questionnaire included five open-ended questions that students were required to provide hand written answers to, along with answering the qualitative element of the questionnaire. No student took the questionnaire home and returned it later and the collection of data was done in an anonymous and non-threatening way. In this way students were able to answer the open-ended questions with their own opinions and so the integrity of the qualitative data was maintained.

## **3.5 Data analysis**

### **3.5.1 Quantitative data**

Sekaran and Bougie (2013: 24) refer to data analysis as the statistical analysis of the data in order to see if the hypotheses that were generated have been supported. Creswell and Plano Clark (2018: 214) add that “analysing the data consists of examining the database to address the research questions or hypotheses...the researcher analyses the data based on the type of questions or hypotheses and uses the appropriate statistical test to address those questions or hypotheses” (Creswell and Plano Clark 2018). Quantitative data for this study was analysed using the Statistical Package for Social Sciences (SPSS) version 25.0. The services of a qualified statistician were employed. Leedy and Ormrod (2005: 257) explain that descriptive statistics describe a body of data. Gupta and Gupta (2011: 32) suggest that descriptive statistics are used to give the researcher a view of that data by providing information about aspects of the data (Gupta and Gupta 2011). Data for this study was presented using descriptive statistics by means of graphs, cross tabulations and other figures for the quantitative data that was collected. This allows, as Leedy and Ormrod (2005: 252) suggest, for there to be a description of what the data looks like, where the central or mid-point is, how the data is spread, and how closely the variables within the data are correlated with one another (Leedy and Ormrod 2005).

In addition to descriptive statistics, inferential statistics were also used in this study. The inferential techniques used include the use of correlations and chi square test values; which are interpreted using the p-values. Leedy and Ormrod (2005: 252) explain that inferential statistics allow inferences to be made about large populations by collecting data on relatively small samples. This then allows the characteristics of the larger population to be estimated by using the smaller sample (Leedy and Ormrod 2005). Cortinhas and Black (2012: 823) concur in that they suggest that inferential statistics are statistics that have been gathered from a sample and used to reach conclusions about the population from which the sample was taken (Cortinhas and Black 2012).

### **3.5.2 Qualitative data**

Creswell and Plano Clark (2018: 215) suggest that the analysis of qualitative data must build a discussion that convinces the reader that the theme or category emerges from the data. These authors further suggest that researchers may represent their findings through visuals such as tables to present the different themes (Creswell and Plano Clark 2018). The qualitative data from the open-ended questions was arranged in themes that are discussed and visually illustrated using bar charts.

### **3.6 Ethical considerations**

Ethical clearance was obtained from the Faculty Research Committee prior to the commencement of the study (see Appendix D). This was to ensure that participants would not be put at risk or harmed during the study. Ethical clearance is important as pointed out by Creswell (2009: 89) who refers to the need for the participants of a research study not to be put at risk, and to be respected, as well as to be informed, regarding the purpose of the research (Creswell 2009). Students were informed regarding the purpose of the questionnaire. They were not in any way forced to participate in the questionnaire. They were allowed to complete it during lecture time without having to use their own electronic devices or pay for their own data, as the questionnaire was manually completed with a pen.

Kumar (2011: 246) refers to how it is unethical to identify an individual respondent and the information provided by them (Kumar 2011). Students were informed on the questionnaire that the information gathered would be anonymous, would be kept confidential and would be used for academic purposes only. The questionnaire did not ask for student names or student numbers to be entered. In this way the researcher was not able to link any answers to particular students. The researcher then entered the data onto a spreadsheet at the statistician's request and then the data was analysed by this independent statistician. The hand-written answers to the open-ended questions were recorded and the original questionnaires were kept as proof of the students' answers.

Leedy and Ormrod (2005: 101 – 102) advise that when a research study involves human beings then it is important that ethical issues surrounding the study are considered. They

suggest that the research participants be protected from harm, that there is voluntary and informed participation, that participants right to privacy be protected and that there is honesty with professionalism (Leedy and Ormrod 2005). These considerations were borne in mind during this study. As has been described above, students who participated were not harmed in anyway, they were informed of the details of the research, their participation was voluntary, their participation was anonymous and therefore privacy was maintained and the findings of the research reported in a truthful way.

### **3.7 Conclusion**

In this chapter the research methodology was discussed. The research design was explored as well as the data collection and the methods of data analysis were discussed. The validity and reliability of the study and the ethical considerations of the study were considered.

The following chapter will focus on the presentation, interpretation and discussion of the research findings by focusing on the data that was collected during the study.

## **Chapter 4 – Data Analysis**

### **4.1 Introduction**

This chapter presents the results and discusses the findings obtained from the questionnaires used in the study. The questionnaire was the primary tool that was used to collect data and was distributed to Financial Accounting 1 students registered for the National Diploma: Accounting at DUT.

The data collected from the responses was analysed with SPSS version 25.0. The results will present the descriptive statistics in the form of graphs, cross tabulations and other figures for the quantitative data that was collected. Inferential techniques include the use of correlations and chi square test values; which are interpreted using the p-values.

The open-ended questions from the questionnaire will also be discussed. These will be divided into themes and analysed as such.

### **4.2 The sample**

In total, 207 students are registered for Financial Accounting 1 in the National Diploma: Accounting in 2018. Questionnaires were distributed during the Financial Accounting 1 lectures and 135 were returned which resulted in a 65% response rate.

### **4.3 The research instrument**

The research instrument consisted of 21 items, with a level of measurement at a nominal or an ordinal level. The questionnaire first required students to state their gender and thereafter the questionnaire was divided into 2 sections. The first section used a Likert scale and required students to rate how often they had participated in various tasks in Financial Accounting 1, ranking their participation as – never, sometimes, often or very often. There were 15 questions in this section and these questions were designed to investigate the student's level of engagement. The final section of the questionnaire consisted of 5 open-ended questions



allowing students to give their own written explanation regarding their reasons for, or for not, participating in activities in Financial Accounting 1 (See Appendix E).

#### 4.4 Reliability statistics

The two most important aspects of precision are reliability and validity. Reliability is computed by taking several measurements on the same subjects. A reliability coefficient of 0.70 or higher is considered as acceptable.

The table below reflects the Cronbach's alpha score for all the items that constituted the questionnaire.

Table 4.1 Cronbach's Alpha Score

Case Processing Summary			
		N	%
Cases	Valid	121	89.6
	Excluded <sup>a</sup>	14	10.4
	Total	135	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.744	15

The reliability scores for all sections exceed the recommended Cronbach's alpha value. This indicates a degree of acceptable, consistent scoring for these sections of the research.

#### 4.5 Factor analysis

Factor analysis was used to extract meaningful data that accurately represents the underlying nature of the data. It is a statistical technique whose main goal is data reduction. It is a way

to take a mass of data and reduce it so that it is more manageable and understandable. This helps to find hidden patterns, how these patterns overlap and what characteristics are seen in the patterns. It is also used to create a set of variables for similar items. A factor is considered to be a set of observed variables that have similar response patterns. Factors are listed according to factor loadings, or how much variation in the data they can explain (Brody 2018).

The matrix table in factor analysis is preceded by a summarised table that reflects the results of the Kaiser-Meyer-Olkin (KMO) test and the Bartlett's test. The KMO measure of sample adequacy is a test to measure how suitable the data is for factor analysis (Pett, Lackey and Sullivan 2011). The requirement is that Kaiser-Meyer-Olkin Measure of Sampling Adequacy should be greater than 0.50. The Bartlett's test for sphericity is used in factor analysis to determine whether the correlations between the variables, examined simultaneously, exist. Factor analysis is usually conducted when the test is significant indicating that the correlations do differ from zero (Cramer and Howitt 2011). The Bartlett's test of sphericity requirement is less than 0.05.

In both the KMO measure of sample adequacy and the Bartlett's test for sphericity the conditions are satisfied which allows for the factor analysis procedure.

*Table 4.2 Kaiser-Meyer- Olkin Test and Bartlett's Test*

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.716
Bartlett's Test of Sphericity	Approx. Chi-Square	404.704
	Df	105
	Sig.	0.000

All of the conditions are satisfied for factor analysis. That is, the KMO measure of sampling adequacy value should be greater than 0.500 and the Bartlett's test of sphericity sig. value should be less than 0.05.

### 4.5.1 Rotated component matrix

Factor analysis is done for the Likert scale items. Certain components are divided into finer components. The rotated component matrix contains estimates of the correlations between each of the variables. The lower the score the more trivial are the correlations (Brody 2018). In the rotated component matrix shown below the higher scores have been colour coded to show which variables can be grouped together because they correlate.

Table 4.3 Rotated Component Matrix

A1 - A15	Component				
	1	2	3	4	5
Do you attend lectures for this subject?	0.090	0.029	0.043	-0.018	0.690
Do you ask questions in class?	-0.171	0.019	0.363	0.593	-0.190
Do you review work from the previous lecture before the next lecture?	0.428	0.096	0.163	0.195	-0.562
Do you complete all the homework exercises set within the required time?	0.250	0.590	0.399	-0.065	-0.179
Do you rely on memorisation of facts for this subject?	0.304	-0.054	0.079	0.685	-0.168
Do you try and understand the concepts in this subject rather than rely only on memory?	0.155	0.078	-0.014	0.621	0.230
Do you take notes in class for this subject?	-0.011	0.259	0.307	0.305	-0.014
Do you attend tutorials for this subject?	-0.156	0.781	-0.016	-0.031	0.078
Do you seek out extra work in this subject eg, attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?	0.077	-0.158	0.686	0.302	0.123
Do you work on homework exercises and test preparation with other students?	0.241	0.144	0.800	0.002	-0.030
Do you feel motivated to attend lectures in this subject?	0.303	0.455	0.151	0.332	0.520
Do you feel motivated to work hard in this subject?	0.573	0.420	0.033	0.237	0.371
Do you work harder than you thought you could to meet the standards of the subject?	0.849	-0.050	0.123	0.024	0.098
Do you work harder than you thought you could to meet the expectations of the lecturer?	0.793	0.045	0.142	0.132	-0.072
Do you receive motivation and engaging interaction from the lecturer of this subject?	0.416	0.556	-0.330	0.231	0.084
Extraction Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations.	Principal Component Analysis.				

Factor analysis was used in this data analysis in order to represent a number of questions with a small number of hypothetical factors. With reference to the table above:

- The principle component analysis was used as the extraction method, and the rotation method was Varimax with Kaiser Normalization. This is an orthogonal

rotation method that minimizes the number of variables that have high loadings on each factor. It simplifies the interpretation of the factors.

- Factor analysis/loading show inter-correlations between variables.
- Items of questions that loaded similarly imply measurement along a similar factor. An examination of the content of items loading at or above 0.5 (and using the higher or highest loading in instances where items cross-loaded at greater than this value) effectively measured along the various components.

It is noted that the variables that constituted Section A loaded along 5 components (themes). This means that respondents identified different trends within the section. Within the section, the splits are colour coded and these themes will be identified and discussed in 4.7, discussion of results, below.

## 4.6 Biographical data

This section summarises the biographical characteristics of the respondents in order to provide an analysis of the respondents.

The pie chart below describes the overall gender distribution.

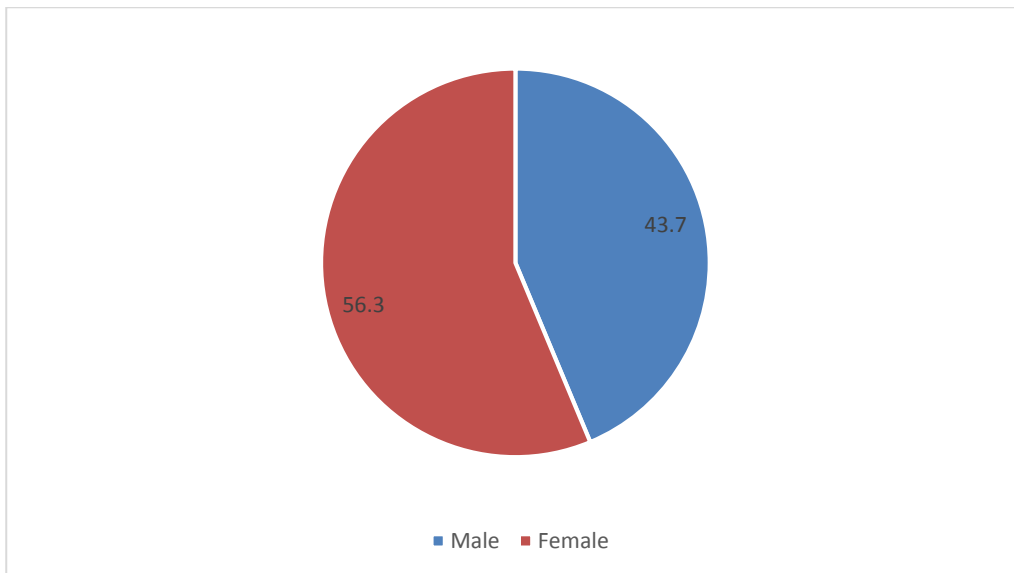


Figure 4.1 Gender distribution

Overall, the ratio of males to females was approximately 2:3 (43.7% : 56.3%) ( $p = 0.143$ ). This implies that there was no significant difference in the constitution of the sample by gender.

## 4.7 Discussion of results

The section that follows analyses the scoring patterns of the respondents per variable per section. The results are first presented using summarised percentages for the variables that constitute each section. Results are then further analysed according to the importance of the statements. A discussion of the results follows.

### 4.7.1 Section A of the questionnaire - Factor analysis and Likert scale questions

This section deals with how students responded to the Likert scale questions.

The table below summarises the scoring patterns.

Table 4.4 Likert scale analysis

		Never		Sometimes		Often		Very often		Chi Square p-value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Do you attend lectures for this subject?	A1	1	0.7 %	4	3.0 %	21	15.6 %	109	80.7 %	0.000
Do you ask questions in class?	A2	56	41.8 %	62	46.3 %	8	6.0 %	8	6.0 %	0.000
Do you review work from the previous lecture before the next lecture?	A3	10	7.5 %	59	44.0 %	43	32.1 %	22	16.4 %	0.000
Do you complete all the homework exercises set within the required time?	A4	2	1.5 %	40	29.6 %	53	39.3 %	40	29.6 %	0.000
Do you rely on memorisation of facts for this subject?	A5	10	7.6 %	52	39.4 %	44	33.3 %	26	19.7 %	0.000
Do you try and understand the concepts in this subject rather than rely only on memory?	A6	0	0.0 %	20	14.8 %	66	48.9 %	49	36.3 %	0.000
Do you take notes in class for this subject?	A7	3	2.2 %	23	17.2 %	35	26.1 %	73	54.5 %	0.000
Do you attend tutorials for this subject?	A8	10	7.5 %	26	19.5 %	22	16.5 %	75	56.4 %	0.000
Do you seek out extra work in this subject eg, attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?	A9	17	12.6 %	36	26.7 %	39	28.9 %	43	31.9 %	0.008
Do you work on homework exercises and test preparation with other students?	A10	16	11.9 %	38	28.4 %	44	32.8 %	36	26.9 %	0.004
Do you feel motivated to attend lectures in this subject?	A11	2	1.5 %	17	12.7 %	37	27.6 %	78	58.2 %	0.000
Do you feel motivated to work hard in this subject?	A12	0	0.0 %	10	7.5 %	35	26.3 %	88	66.2 %	0.000
Do you work harder than you thought you could to meet the standards of the subject?	A13	4	3.0 %	20	15.2 %	56	42.4 %	52	39.4 %	0.000
Do you work harder than you thought you could to meet the expectations of the lecturer?	A14	8	6.0 %	27	20.3 %	61	45.9 %	37	27.8 %	0.000
Do you receive motivation and engaging interaction from the lecturer of this subject?	A15	7	5.3 %	18	13.5 %	45	33.8 %	63	47.4 %	0.000

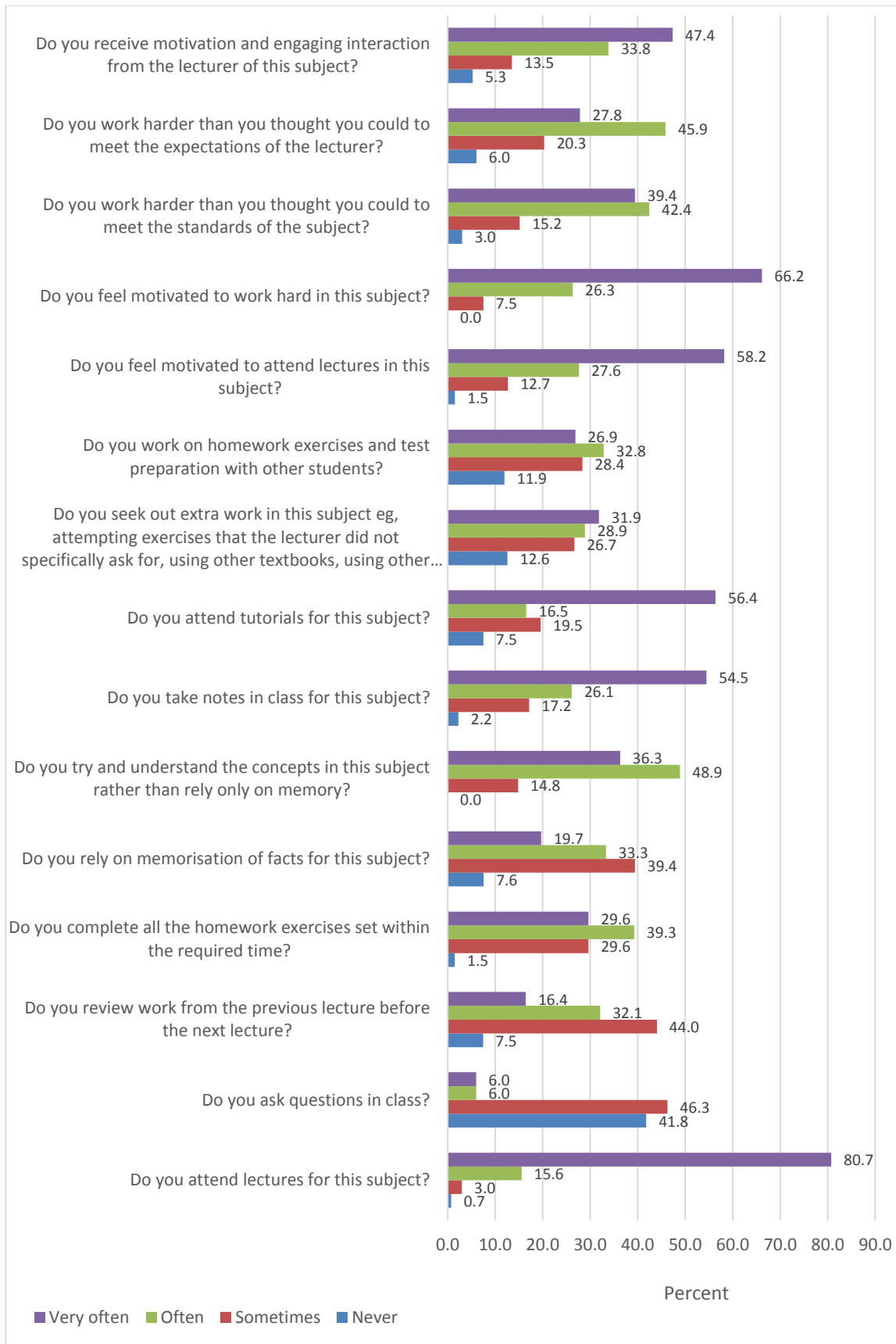


Figure 4.2 Graphical representation of Likert scale results

The above analysis of the Likert scale questions together with the factor analysis will now be discussed within the themes identified from the factor analysis.

The five themes identified are shown below.

### 1. Engagement by lecture attendance

The following two statements formed this theme and are depicted by pie charts:

- Do you attend lectures for this subject?
- Do you feel motivated to attend lectures in this subject?

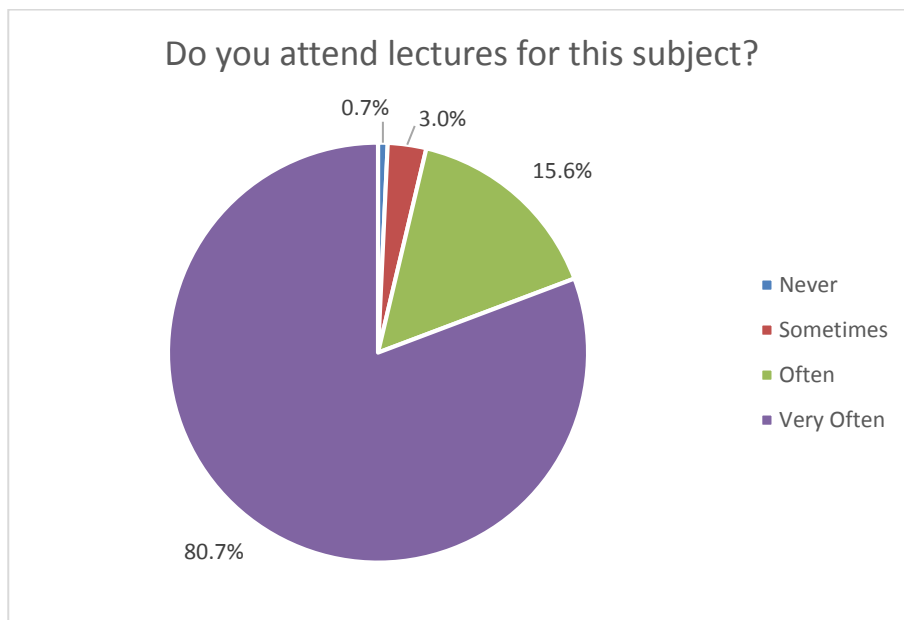


Figure 4.3 Pie Chart - Do you attend lectures for this subject?

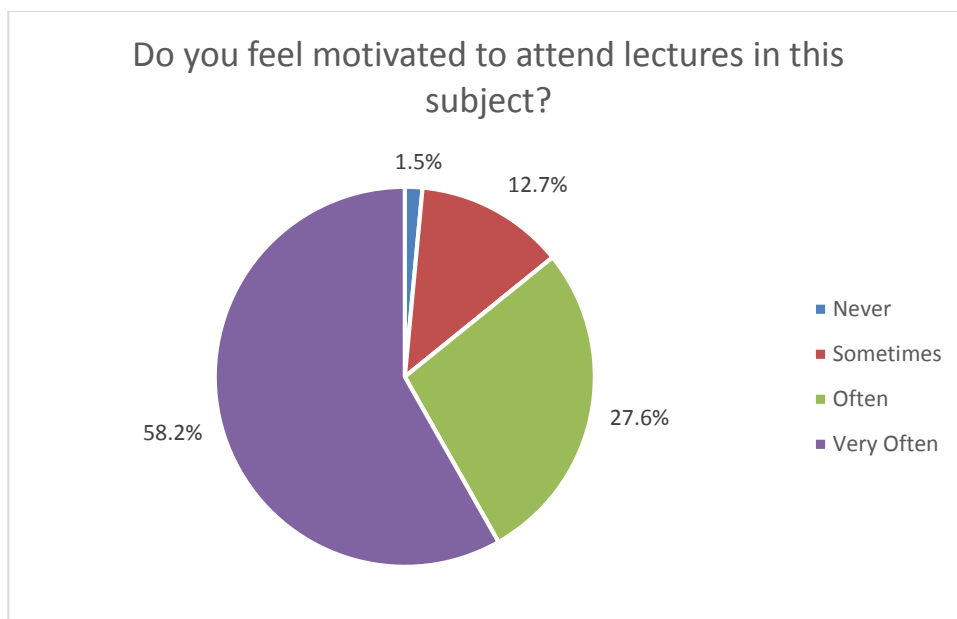


Figure 4.4 Pie Chart - Do you feel motivated to attend lectures in this subject?

The majority of students, 80.7%, answered that they attended lectures very often. This indicates an acknowledgement by students that lecture attendance was important and they did prioritise it. The literature review revealed a link between engagement and success (Astin 1984, 1993; Parker 2006; Wawrzynski, Heck and Remley 2012; Gerber, Mans-Kemp and Schlechter 2013). The more time and effort put into working with the subject material the greater the chance of success in the subject. Students in this study prioritise lecture attendance therefore, acknowledging this to be at least the first step in engagement. Further, students were motivated to attend lectures with 58,2% saying they “very often” felt motivated and 27.6% saying they “often” felt motivated. The data reveals that, even if perhaps they did not always feel like it, they nevertheless did attend lectures as there was motivation driving attendance. Students seem aware of the link between lecture attendance / engagement and success in a subject and so make the effort to attend lectures.

The literature review showed motivation as playing a role in whether students engaged with material or not (Agar and Knopfmacher 1995; Byrne and Flood 2005; Prinsloo and Muller 2010; Sawon, Pembroke and Wille 2012; Masui *et al.* 2014). Interestingly, the literature review revealed a South African study from 1995 by Agar and Knopfmacher that showed students lacked motivation as they were anxious and intimidated (Agar and Knopfmacher



1995). The data analysis for the DUT students showed that 85.8% (58.2% + 27.6%) of students said they were very often / often motivated to attend lectures. The Agar and Knopfmacher study is 23 years old and so it appears that South African students, certainly those studying at DUT, have become more motivated to succeed in recent years. The reasons for this motivation are likely to be largely linked to the desire to improve their lives and escape from socio-economic problems. These seem to have been spotlighted in recent times due to the increasing unemployment rate in South Africa and the frustration with low economic growth.

## 2. Engagement due to self-motivation of students

The following three statements formed this theme and the responses by students are depicted below as pie charts:

- Do you feel motivated to work hard in this subject?
- Do you work harder than you thought you could to meet the standards of the subject?
- Do you work harder than you thought you could to meet the expectations of the lecturer ?

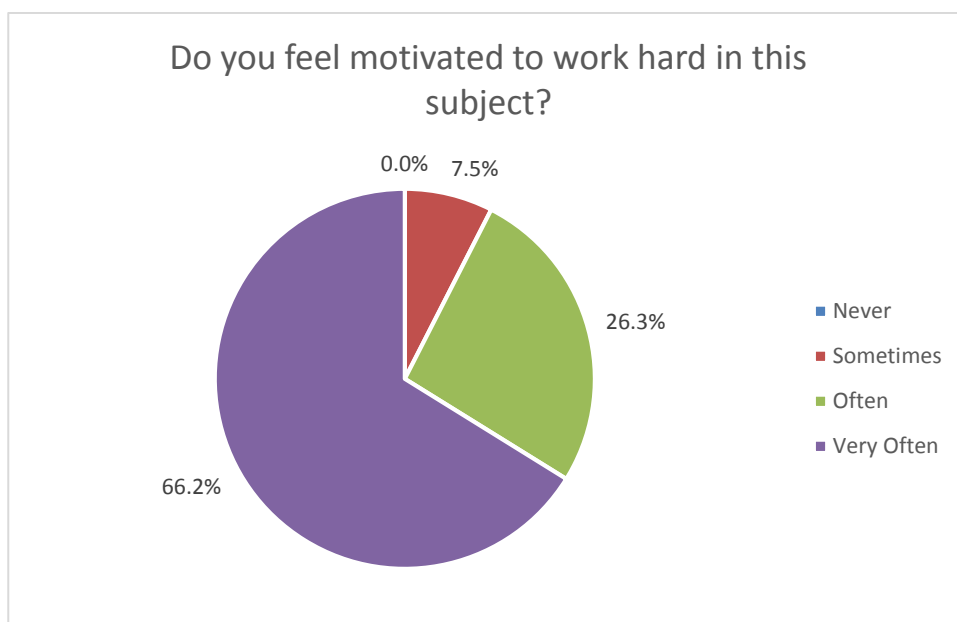


Figure 4.5 Pie Chart - Do you feel motivated to work hard in this subject?

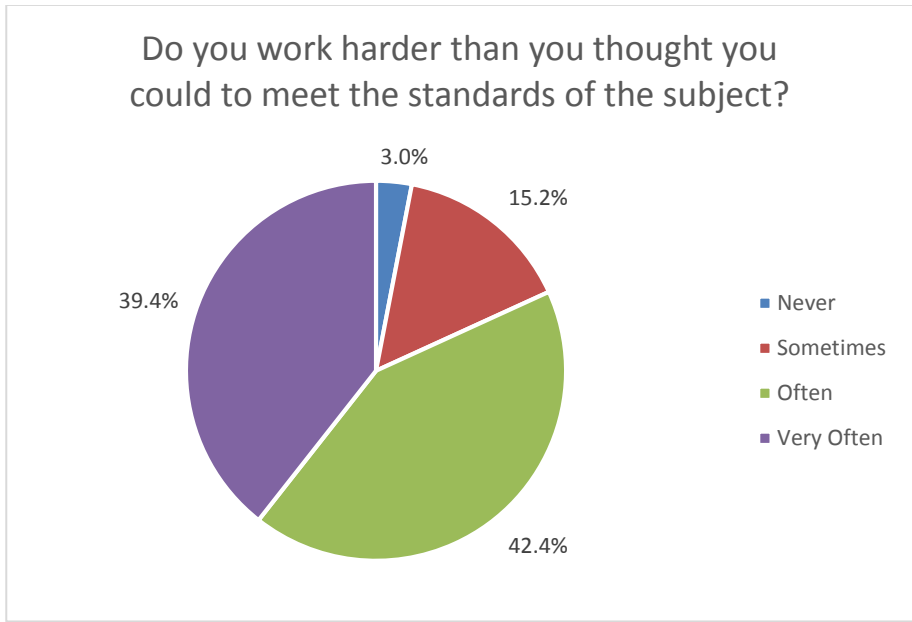


Figure 4.6 Pie Chart - Do you work harder than you thought you could to meet the standards of the subject?

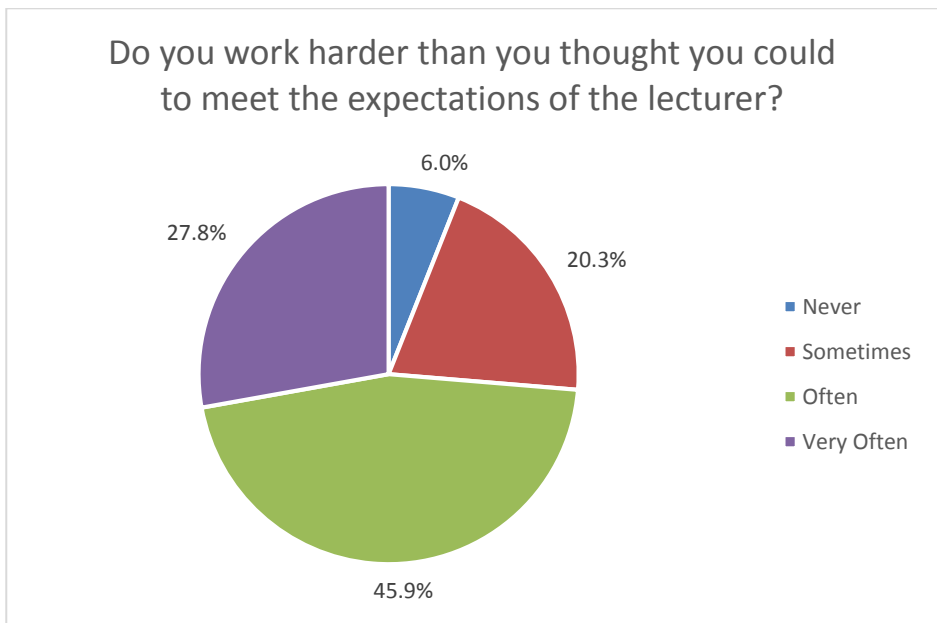


Figure 4.7 Pie Chart - Do you work harder than you thought you could to meet the expectations of the lecturer?

All of these three questions regarding motivation and working hard scored highest in the responses “often” or “very often”. There was only a minority of students that responded that they only “sometimes” or “never” felt motivated to work hard. This indicates that students in

Financial Accounting 1 at DUT do indeed feel motivated and therefore work hard in this subject.

This is an extremely positive finding for Financial Accounting 1 as in the literature review, as has already been discussed in theme 1, Prinsloo and Muller identified that motivation was a key determinant of success (Prinsloo and Muller 2010). Further Masui concurred in that the more motivated a student was, the more likely they would spend more time engaging with the subject and this in turn should lead to academic achievement (Masui *et al.* 2014). Motivated students in turn work hard and this should lead to successful students.

Motivation to work hard is linked to theme 1 above regarding students' motivation to attend lectures. The reasons for students feeling motivated are significant and this motivation should be harnessed and used in a positive way to further encourage and expand on engagement. This will be discussed in section 4.7.2 of this chapter below, namely the section on open-ended questions and also in Chapter 5.

### **3. Engagement by completion of work outside formal lectures**

The following three statements formed this theme and are depicted by pie charts:

- Do you complete all the homework exercises set within the required time?
- Do you attend tutorials for this subject?
- Do you receive motivation and engaging interaction from the lecturer in this subject?

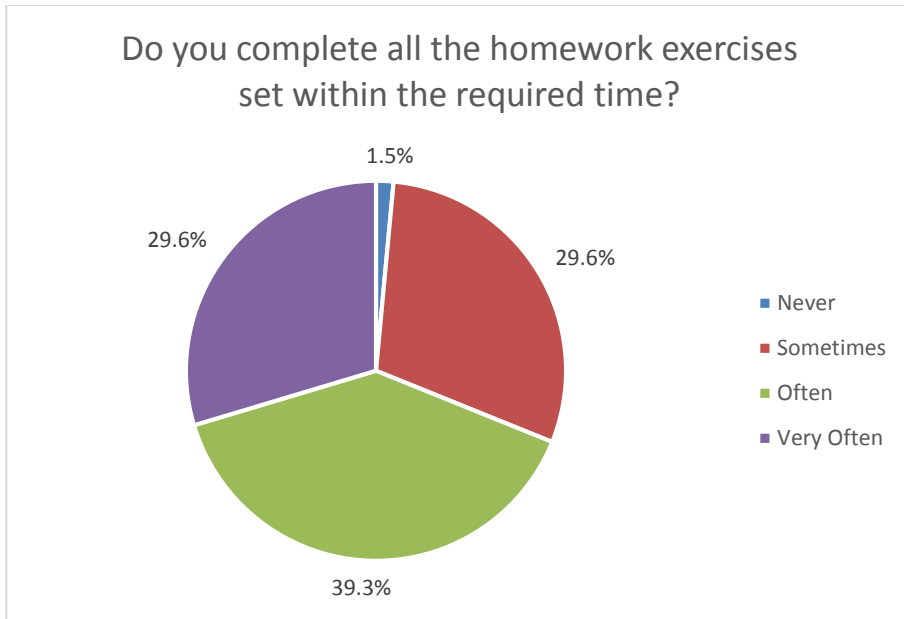


Figure 4.8 Pie Chart - Do you complete all the homework exercises set within the required time?

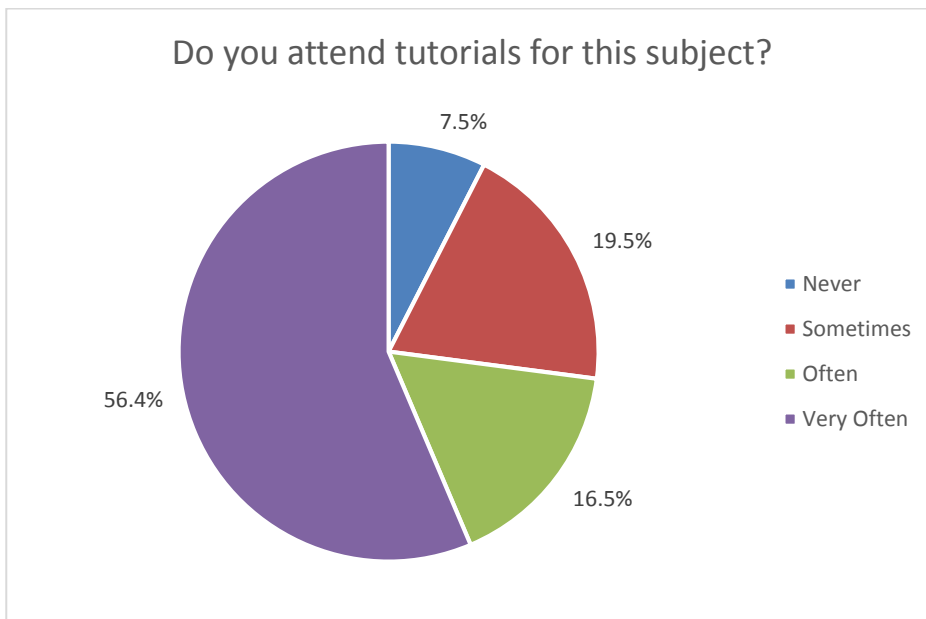


Figure 4.9 Pie Chart - Do you attend tutorials for this subject?

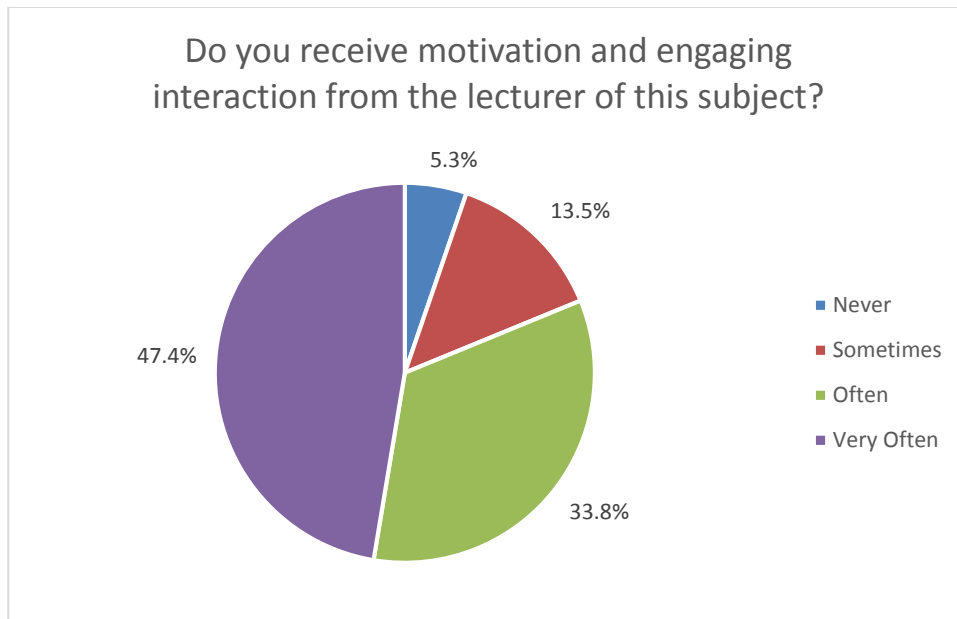


Figure 4.10 Pie Chart - Do you receive motivation and engaging interaction from the lecturer of this subject?

All of these three questions scored highest in the response “often” or “very often” indicating that students are attending tutorials and attempting homework exercises.

The literature review revealed that the lecturer plays an important role in encouraging students to engage with subject material. Wadesango and Machingambi found that if the lecturer was motivated and enthusiastic then this would influence the motivation and therefore the engagement by students (Wadesango and Machingambi 2011). Teixeira and Gomes concurred in that lecturers played a significant role in inspiring students (Teixeira and Gomes 2016).

It stands to reason that a lecturer who is enthusiastic about their own subject will inspire the students to also be enthusiastic, which will lead students to want to engage with the subject material and want to succeed. The Likert scale questions reveal that a large percentage of students very often / often receive engaging motivation from the lecturer and it makes sense that from this that students have answered that they also very often / often complete homework exercises and attend tutorials.

It is, however, interesting to note that attending tutorials scored highest in the “very often” category (56.4%), while completion of homework exercises scored highest in the lower category of “often” (39.3%) with only 29.6% in the “very often” category. This may indicate some sort of hierarchy that students place on work outside of formal lectures. In other words, tutorials are prioritised above at home homework exercises. This can be taken further, and noted that lecture attendance is a very high 80.7% in the “very often” category (see theme 1 above). This indicates that students prioritise lectures, followed by tutorials, followed by homework exercises. The reason for this could be identified by research mentioned in the literature review by Hornsby and Osman. These authors pointed out that the large classes do have challenges when it comes to engagement with subject material and commitment to courses. Students can get away with engaging less when they are in a large lecture with large numbers of other students (Hornsby and Osman 2014). In large classes students find themselves lost in the crowd and the lecturer may not notice them as there are just too many students in one lecture. This may be a more comfortable and a less threatening environment for many students as they feel they can hide among the crowd. The chance of being singled out and asked to participate are less likely when there are approximately 120 other students in the venue. However, when it comes to tutorials the groups are smaller and so individual students become more noticeable. Further, attempting a homework exercise could feel threatening as weaknesses are exposed and this is uncomfortable. Besides, if students do not do homework exercises when they arrive at the large lecture venue, the lecturer will not be able to easily notice if homework is not done and so it is easier to just not do it.

In addition, the literature review showed that one of the factors that inhibited student engagement was poor time management. Both Sekhukhane and Chen identified the challenge that students were easily distracted by other demands on their time (Sekhukhane 2008; Chen *et al.* 2016). Sekhukhane further identified that many students lacked confidence (Sekhukhane 2008). The Sekhukhane study as well as a more recent study by Mpofu mentioned South African students facing significant socio economic challenges such as student fee issues and accommodation challenges that impacted their studies (Sekhukhane 2008; Mpofu 2017). Poor time management, lack of confidence and socio economic problems may all cause students to prioritise on campus tutorials above homework exercises. Since the tutorials are timetabled and are more formal, students fit them in better. However, once they get home they are distracted by other demands on their time, they do not feel confident

to manage the exercise alone and the impact of socio economic issues take their toll. The lack of confidence to tackle an exercise alone at home further indicates a reluctance to take responsibility and truly engage with the subject material. This leads students to be unwilling to complete a homework exercise as this will make them feel vulnerable as they lack confidence to expose their lack of understanding.

#### 4. Engagement without being asked

The following three statements formed this theme and are depicted by pie charts:

- Do you take notes in class for this subject?
- Do you seek out extra work in this subject e.g., attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?
- Do you work on homework exercises and test preparation with other students?

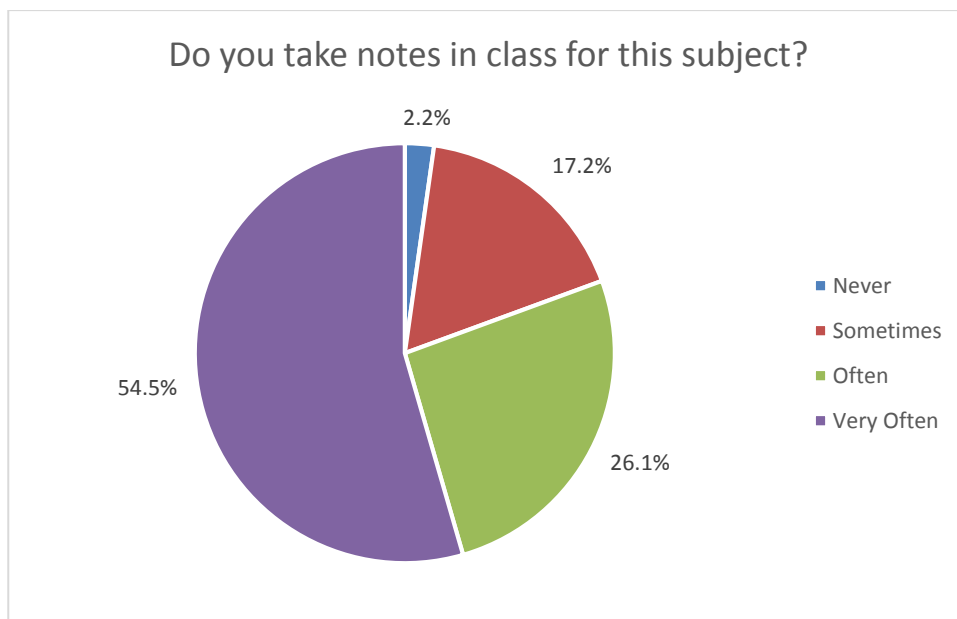


Figure 4.11 Pie Chart - Do you take notes in class for this subject?

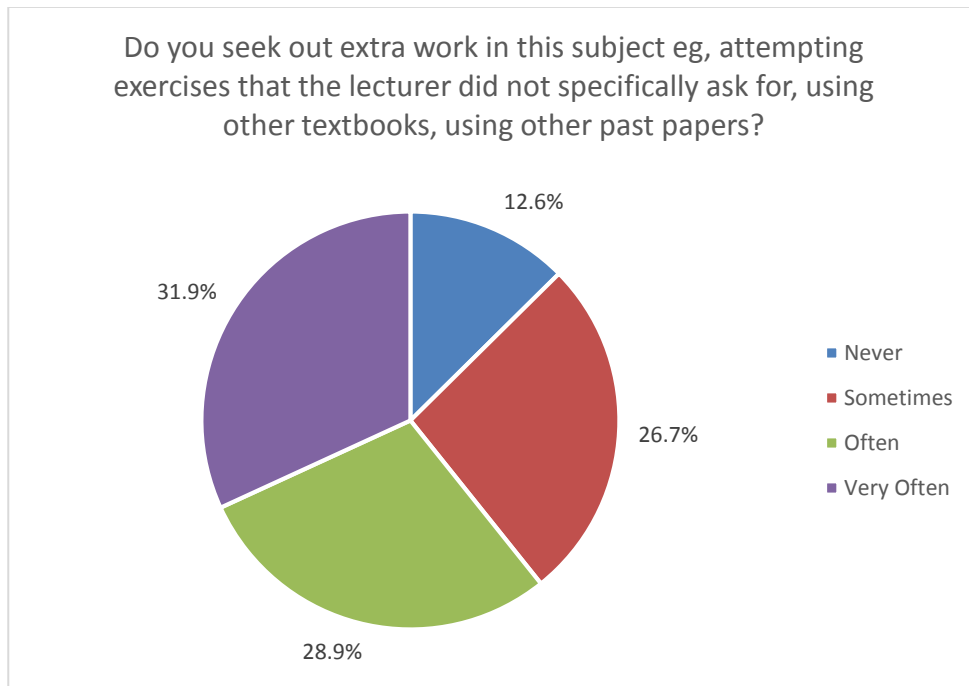


Figure 4.32 Pie Chart - Do you seek out extra work in this subject e.g. attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?

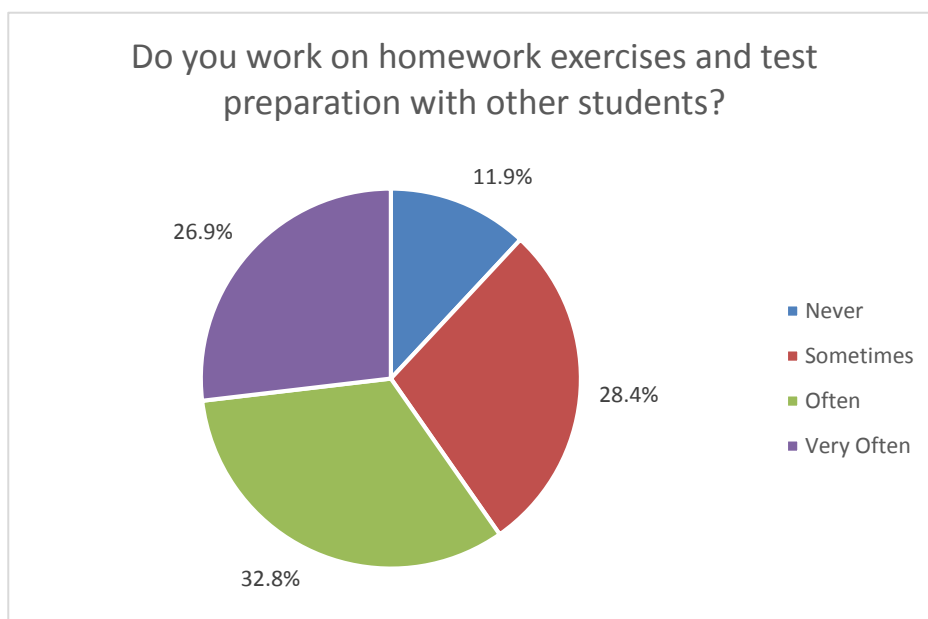


Figure 4.43 Pie Chart - Do you work on homework exercises and test preparation with other students?

All of these three questions scored highest in the response “often” or “very often”. The question regarding taking notes in class scored 54.5% for “very often”. Other responses for this question were: often 26.1%, sometimes 17.2% and never 2.2%. This means that 80.6%



(54.5% + 26.1%) of students very often / often take notes indicating that students seem aware of the practical nature of Financial Accounting 1. They actively participate in lectures by taking notes which would include completion of exercises on the subject material during lectures.

De Villiers and Werner suggested that student engagement should be discussed by lecturers and the importance of it kept in the minds of staff so that this in turn can rub off onto students (De Villiers and Werner 2016). Emphasising the practical nature of Financial Accounting 1 can make students aware that engagement is necessary for success in this subject and could result in lecture attendance (as has been seen in theme 1 above) and active note taking.

The responses to the other two questions in this theme - firstly, do you seek out extra work in this subject e.g., attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers? had over 60% of students responding that they very often / often did this. The other question, "do you work on homework exercises and test preparation with other students?", had just under 60% of students responding that they very often / often did this. The response by students is therefore less than the response to taking notes in lectures. This could be due to student's lack of confidence and reluctance to work with other people. Ways to improve this will be discussed in Chapter 5.

## **5. Engagement by questioning and memorising**

The following three statements formed this theme and are depicted in pie charts:

- Do you ask questions in class?
- Do you rely on memorisation of facts for this subject?
- Do you try and understand the concepts in this subject rather than rely on memory?

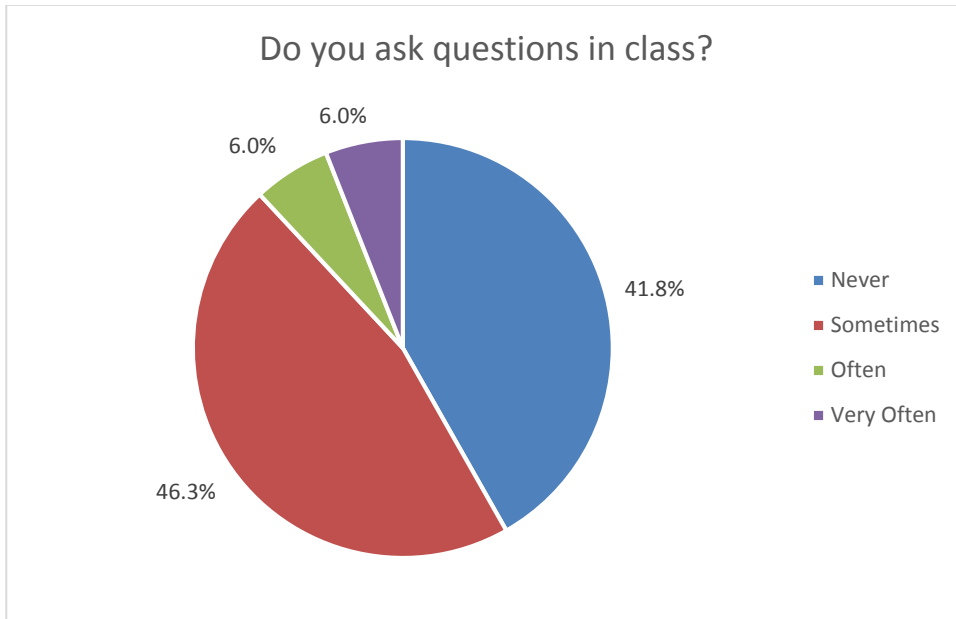


Figure 4.54 Pie Chart - Do you ask questions in class?

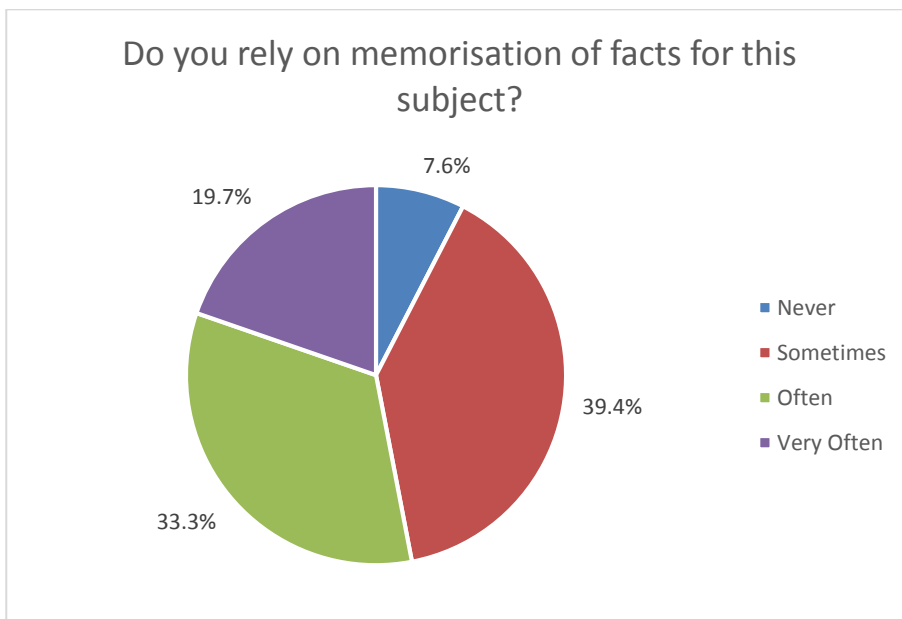


Figure 4.65 Pie Chart - Do you rely on memorisation of facts for this subject?

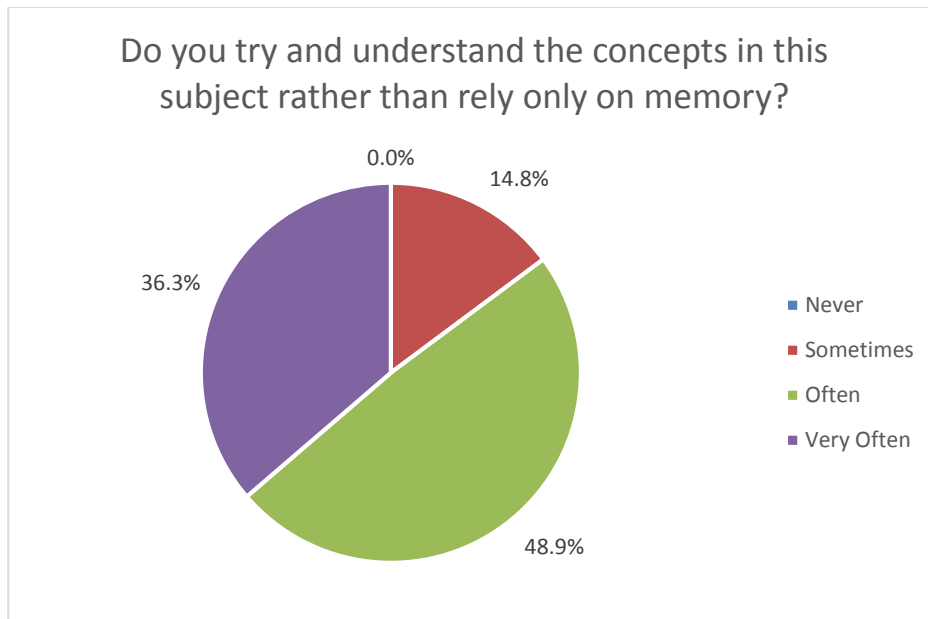


Figure 4.76 Pie Chart - Do you try and understand the concepts in this subject rather than rely only on memory?

The questions regarding asking questions in class and relying on memorisation of facts are two of only three questions in the questionnaire that scored highest in the category of “sometimes”.

Students seem reluctant to ask questions in class. Although “sometimes” scored the highest response of 46.3%, it is also worth noting that the response of “never” scored 41.8%. Only 12% of students claim to very often / often ask questions in class.

It takes some courage to ask a question in front of a class of approximately 120 other students and this is highly likely to be the reason for students answering that they do not ask questions in class. Byrne, Flood and Griffin identified that many students lacked confidence in their studies (Byrne, Flood and Griffin 2014). Sekhukhane’s South African study concurred with this but added that for many South African students they were taught in English, which is not their home language (Sekhukhane 2008). Ivala and Kioko also identified lack of confidence in English as a barrier to engagement (Ivala and Kioko 2013).

It seems that in the Financial Accounting 1 lectures there is a reluctance to ask questions in class however, this does not mean that students are never asking questions. The students

are encouraged and many use the opportunity to ask questions one on one after the lecture or else they come to the office with their questions. The tutorials also provide a less intimidating environment as the class is divided into smaller groups for tutorials. This will be further discussed in Chapter 5.

Within this theme, it is encouraging to see that students try not to rely on memorisation of facts. The category “sometimes” scored highest for this question. At least the majority of students did not answer that they often or very often relied on memory. In contrast the question regarding do students try and understand concepts in this subject scored highest in the very often category. This indicates acknowledgement of the practical nature of Financial Accounting 1 and the desire for a deeper approach to learning even though this takes some effort. However, 39.4% of students do admit to “sometimes” relying on memory indicating that when there is a lack of understanding students will try and memorise to overcome this lack of basic understanding.

Biggs and Tang compare surface and deep approaches to learning. The surface approach includes rote learning with the intention to get the subject passed with minimum trouble. In contrast, a deep approach includes students trying to understand the underlying meanings of the subject material and achieving an appreciation of the big picture (Biggs and Tang 2011). The researcher is aware of the practical nature and importance of understanding the accounting concepts within Financial Accounting 1. This is also important as the students registered for National Diploma: Accounting are continuing with Financial Accounting 2 and 3. A good foundation is therefore essential. As a result understanding is emphasised and students are encouraged not to rely on memory. Memorising is harder work as once you understand, the work starts to come naturally. This approach is emphasised in the lectures and the students’ responses indicate that many try this approach.

Of the 15 Likert scale questions asked, there was one question that the factor analysis did not classify into a theme and so it stood alone. That question was – Do you review work from the previous lecture before the next lecture? The responses to this question are depicted in a pie chart.

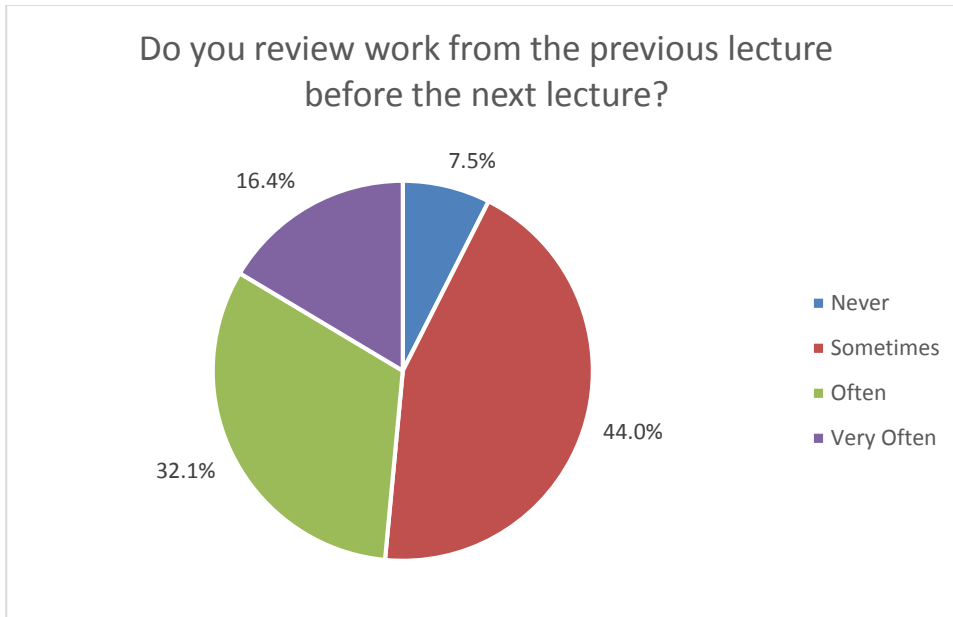


Figure 4.8 Pie Chart - Do you review work from the previous lecture before the next lecture?

The highest response to this question was 44% of students saying that they only “sometimes” reviewed work. Only 16.4% said they did “very often” review work while 32.1% said they “often” reviewed work while 7.5% of students said they “never” reviewed work. This means that 51.5% (44% + 7.5%) of students are only sometimes or never reviewing work from a previous lecture before the next lecture.

A study by Heiner noted that students can follow material better, ask deeper questions and participate in class more readily if they have engaged the material before the lecture. Further, this same study found that that pre-reading helped students to feel more prepared for class and helped them to keep pace with the material (Heiner, Banet and Wieman 2014). This means that pre-reading, and this must include reviewing work already covered, does help students to feel more prepared and with that more confident. Pre-reading / going over work does appear from the results of the questionnaire to be rather low and so there is a need for this area of engagement to be improved.

### **Summary of themes**

The overall analysis of the data reveals that the level of student engagement by simply attending Financial Accounting 1 lectures is good. However, when it comes to areas where a

deeper level of engagement is required such as, tutorials, homework exercises, reviewing work, working in groups and asking questions in class, students are engaging less. Chapter 5 will include suggestions of how the areas where engagement is less can be improved.

#### 4.7.2 Section B of the questionnaire – Open-ended questions

Section B of the questionnaire consisted of five open-ended statements that allowed students to comment in their own words to give more details regarding why or why not they were engaging with material in Financial Accounting 1. The Likert scale questions provide an overview of student behaviour when it comes to engagement but the open-ended questions provide more insight into the reasons behind the individual behaviour of students.

The responses from students are illustrated below in the form of bar graphs but each will be discussed below.

#### If you do not attend lectures regularly, what is the reason?

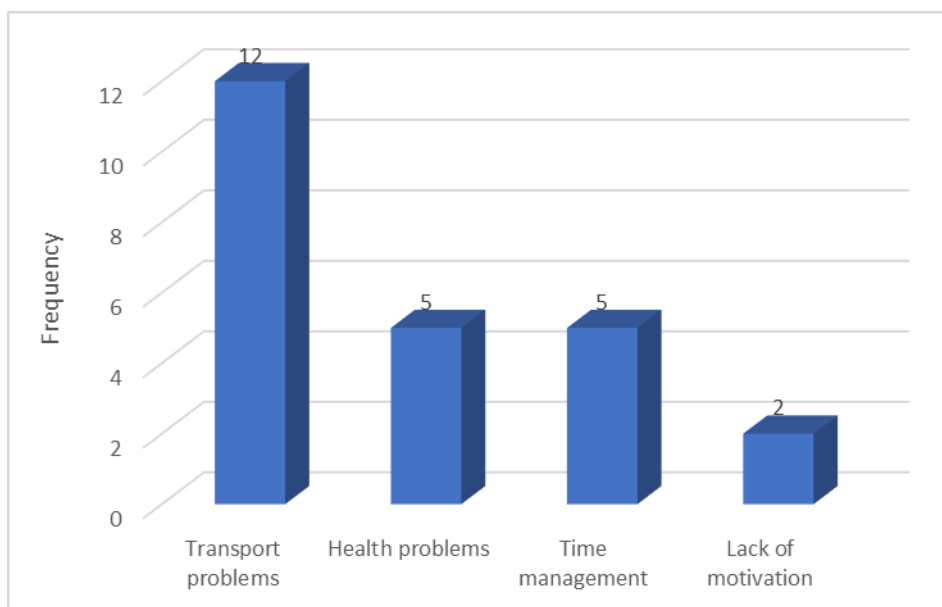


Figure 4.9 Bar Graph - If you do not attend lectures regularly, what is the reason?

Although the Likert scale questions revealed a large percentage of students, (80.7%) actually do very often attend formal lectures there are some students who cannot claim that they attend regularly. The reasons why some students do not attend are summarised in the table above.

Transport is a major challenge for students as can be seen from the responses illustrated in the above table. The current ever-increasing cost of petrol in South Africa poses a challenge to all South Africans. Students are not exempt and if they are not able to live in a campus residence or cannot source accommodation close to campus then a daily commute becomes necessary. However, transport has become a significant expense that has to be considered. In addition to the cost of travel, travelling time also affects students as they arrive late for lectures or have to leave early to catch public transport. Even lift clubs can be a challenge as students are dependent on the movements of other lift club members. Students had the following comments regarding their transport challenges:

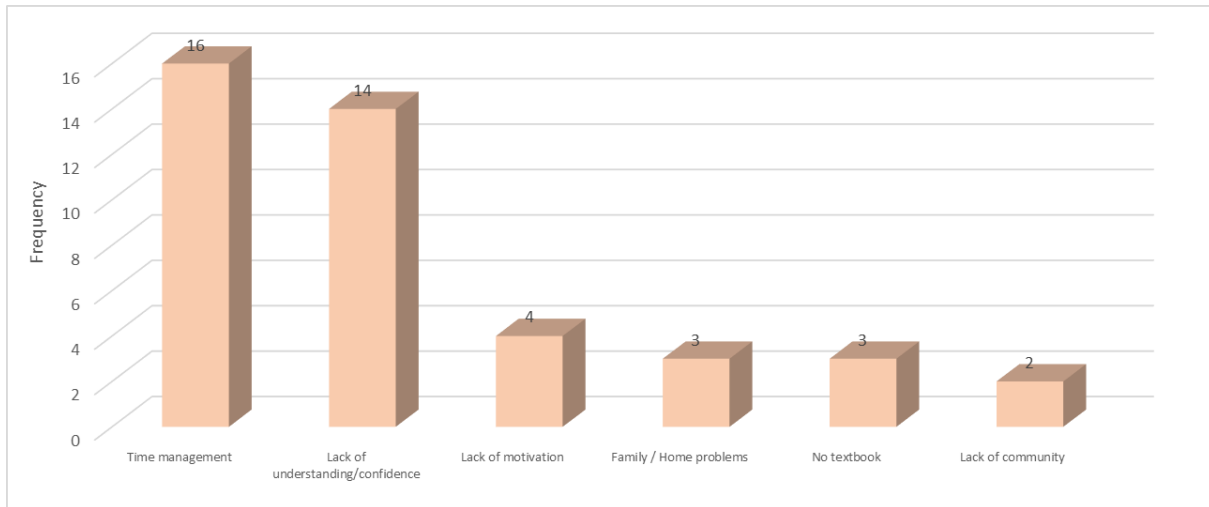
“I am late because of traffic”, “Long distance to travel”, “Money”.

This issue is one that therefore prevents some students from being able to attend lectures regularly.

Although less frequent than transport challenges, there are some students that have health issues which interfere with regular lecture attendance. It was identified in the literature review that absenteeism was a challenge for student engagement and some students are absent from lectures due to family commitments, health challenges and other socio-economic challenges (Wadesango and Machingambi, 2011). As one student wrote “Sometimes I am sick or there is a family crisis.”

Other challenges faced by a few students are poor time management and lack of motivation, which affects their ability to attend lectures consistently. Wadesango’s study identified these as an issue for students saying that sometimes students had to catch up on other subjects, displaying poor time management when it came to their studies across different subjects (Wadesango and Machingambi 2011). Both a study by Sekukhane and one by Chen concurred with this in that students were easily distracted with other commitments and displayed poor time management skills (Sekhukhune 2008; Chen *et al.* 2016). Examples of students’ answers follow: “Don’t feel like attending”, “Distracted with another subject”, therefore, corroborating what studies in the literature review had revealed.

## **If you do not complete homework exercises regularly, what is the reason?**



*Figure 4.10 Bar Graph - If you do not complete homework exercises regularly, what is the reason?*

Poor time management is cited as the biggest reason for the lack of completion of homework exercises. Students complained: “Busy schedule. Run out of time”, “I forget sometimes because of workload and pressure”, “Not enough time”, “Poor time management”.

Poor time management is closely followed by students lacking in confidence. This means they are reluctant to try the homework exercises as they feel they will not be able to get it correct. The literature review revealed that lack of confidence was an issue for students. Byrne, Flood and Griffen as well as Sekhukhane and also Ivala all identified this as an issue that hinders students from engaging with subject material (Sekhukhane 2008; Ivala and Kioko 2013; Byrne, Flood and Griffen 2014). Students are cautious when they feel they will not be able to do the exercise and need constant reassurance that it is in the homework exercises that mistakes can be made and learnt from. Students revealed their lack of confidence by saying, “I am lazy and not confident”, “Sometimes I don’t understand when I am on my own”, “Sometimes I try to complete homework, then I struggle so leave it”. Research by Hornsby and Osman further identifies another important consideration when it comes to completion of homework and the confidence of students. These authors say that when there are large classes, there is generally less engagement as students tend to be able to hide among the crowd of other students in the venue (Hornsby and Osman 2014). However, attempting a



homework exercise alone at home exposes a student's lack of understanding which is an uncomfortable feeling for many students.

Other comments by students were: "I like to sleep", "I am tired", "Sometimes my home doesn't have electricity", "I don't have a textbook due to financial problems", "I find it hard to tackle questions when I am alone". These comments reveal a lack of motivation, family problems, having no textbook and lack of a sense of community as other challenges facing students. Although they are not a frequently mentioned as time management and lack of confidence, they nevertheless are an issue for some students and so are worth noting especially if it is considered that excuses could conceal a lack of real understanding leading to students taking the seemingly easier route of just not trying.

**If you do not attend tutorials regularly, what is the reason?**

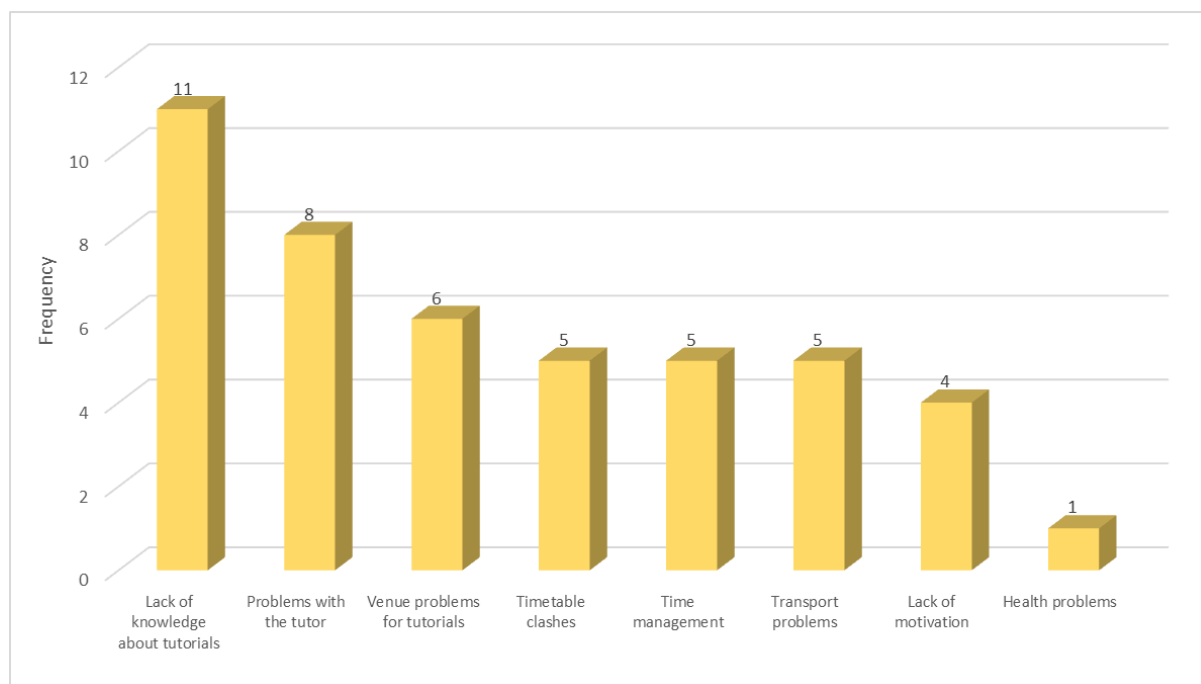


Figure 4.11 Bar Graph - If you do not attend tutorials regularly, what is the reason?

Student's reasons for not attending tutorials were numerous. There were students that experienced difficulties with the logistics of the tutorials. They complained that they did not know about the tutorials, there were venue problems, they experienced challenges with the

tutor assigned to take the tutorials, and some complained of clashes on the timetable preventing them from attending. Students said, “I don’t have knowledge about the days and times of the tutorials”, “We aren’t informed and the tutor doesn’t come”, “Tut room is small and is always packed”, “The venue is sometimes full and noisy”, “Timetable clashes with tutorials”. These issues are frustrating as they are problems that should not occur. This will be further discussed in Chapter 5.

Other issues preventing students from regular tutorial attendance were time management, lack of motivation, transport problems and health issues. These are recurring challenges faced by students as they are also mentioned as reasons for not attending lectures, not completing homework exercises and now again when it comes to tutorial attendance. Students said, “Lots of commitments”, “Being tired”, “The cost of transport”, “Sick”.

**If you do not work on this subject together with other students, what is the reason?**

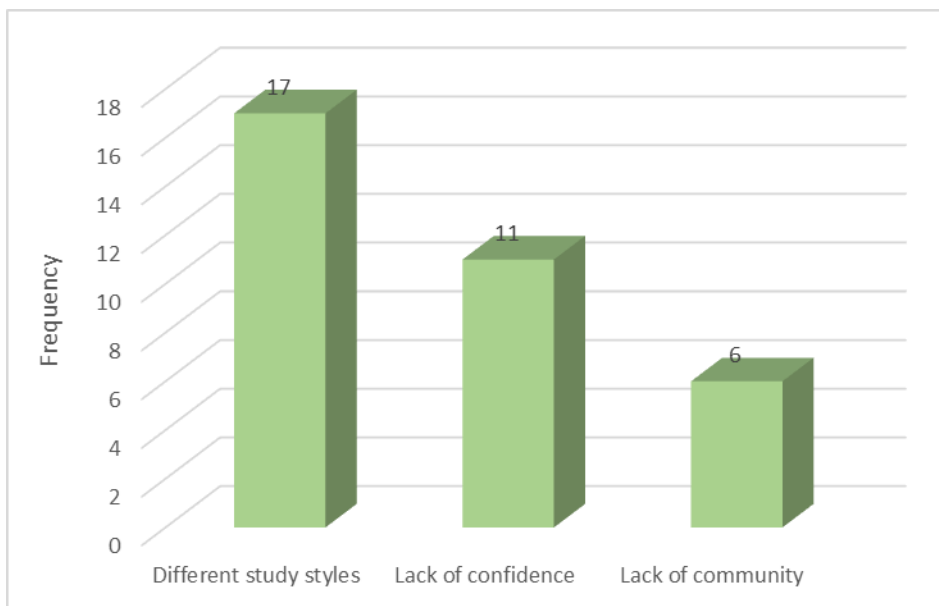


Figure 4.12 Bar Graph - If you do not work on this subject together with other students, what is the reason?

Students were mainly unwilling to work with other students on the subject material due to differing study styles. Some students said they preferred to work alone and said, “I concentrate better when working alone”, “I prefer working alone in my own time and at my own pace”, “I understand better when I am quiet and focussing”.

Other students felt judged by others and their lack of confidence prevented them from working together with other students. They said, “I am not good at engaging with other people, I’m shy”, “I have a low self-esteem so don’t want to work with other”, “Other students are judgemental”.

To a lesser extent some students felt that they did not fit in and so a sense of community was lacking. This meant they felt excluded and not able to join a study group. They said, “I don’t know the other students. They had already formed study groups”, “I don’t know anyone”, “Others do not have time”.

The literature review identified group work as having an important role in stimulating engagement. Astin found that working in groups generally had a positive effect academically (Astin 1993). This view was also found to be the opinion of McInnis, Visser, Vreken and McChlery as well as Kuh (McInnis 2003; Visser, McChlery and Vreken 2006; Kuh 2008a). The students indicated significant concerns and fears regarding group work and this is an area that would need to be encouraged.

**If you do attend lectures, complete homework exercises, attend tutorials and generally engage actively in Financial Accounting 1, what has been your motivation?**

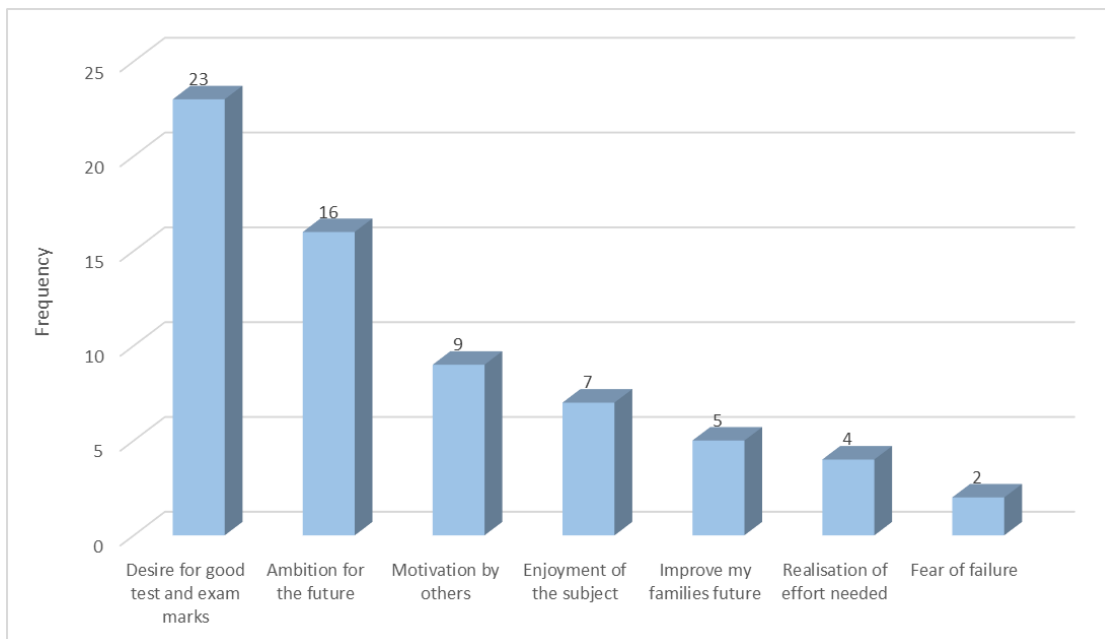


Figure 4.13 Bar Graph - If you do attend lectures, complete homework, attend tutorials and generally engage actively in Financial Accounting 1, what has been your motivation?

The Likert scale questions showed students to be aware of the link between student engagement and success. The responses to this open-ended question indicate that a large proportion of students want to get good results and therefore they attend lectures and attempt to engage as they see the link between engagement and success. Students comments are as follows: "I have a goal to achieve better marks in accounting", "I need to pass to get my diploma", "I want to pass with a distinction", "I want to perform my best in this subject". There are also a few students who are motivated to engage simply because they fear failure and so would rather put themselves in a position where success is more likely. These students wrote, "I don't want to have to come back to repeat financial accounting", "I don't want to repeat".

There are also students who are ambitious and want to succeed in order to make a better life for themselves and their families and this is an important motivator. They see engaging as a means to this upliftment. Both the South African studies by Strydom and also Sekukhane identified South African students facing significant socio-economic challenges (Sekhukhune 2008; Strydom, Kuh and Mentz 2010). The current economic climate in South Africa and the high unemployment rate mean that it is no surprise that students commented as follows : "I want to finish my studies and change my families life", "I want to know that I have done my best so that I can get a nice job and help my family", "I know what I want in life", "I want to be proud of myself and make others proud of me", "I want to make my parents proud and make my dreams come true".

Recommendations for ways to assist with the issues identified in the responses to the open-ended questions will be discussed in Chapter 5.

## **4.8 Crosstabulations**

The traditional approach to reporting a result requires a statement of statistical significance. A p-value is generated from a test statistic. A significant result is indicated with " $p < 0.05$ ".

A second Chi square test was performed to determine whether there was a statistically significant relationship between the variables (rows vs columns) (See Appendix F). The null hypothesis states that there is no association between the two. The alternate hypothesis indicates that there is an association.

The table in Appendix F summarises the results of the chi square tests and there is no relationship between the variables. For example, the p-value between “Gender” and each of the statements in section A is greater than 0.05. This means that there is no significant relationship between the variables. That is, the gender of the respondent did not play a significant role in terms of how respondents viewed each of the statements.

## 4.9 Correlations

Correlation generally describes the effect that two or more phenomena occur together and therefore they are linked. It is a statistical technique used to determine the existence of relationships between two variables. The strength of the linkage or relationship is expressed in a value between -1 and 1. A positive value expresses a positive relationship between two variables i.e. the larger the one variable, the larger the other variable. A negative variable indicates a negative relationship i.e. the larger the one variable, the smaller the other variable will be (Carpenter 2018). Bivariate correlation was performed on the (ordinal) data for this study. The results are found in appendix G. There are a number of directly proportional relationships identified which are discussed below.

The correlation value between “Do you attend lectures for this subject?” and “Do you feel motivated to work hard in this subject?” is 0.234. Further, the correlation value between “Do you attend lectures for this subject?” and “Do you feel motivated to attend lectures in this subject?” is 0,345. This is a directly related proportionality. Students indicate that the more they attend lectures, the more motivated they are to work harder, and vice versa and furthermore the more they attend lectures the more motivated they feel to continue attending lectures.

Further, a positive correlation is identified between the statement “Do you review work from the previous lecture before the next lecture?” and the following statements:-

Do you complete all homework exercises in the required time?

Do you work on homework exercises and test preparation with other students?

Do you work harder than you thought you could to meet the standards of the subject?

Do you work harder than you thought you could to meet the expectations of the lecturer?

This indicates that the more students review work, the more likely they will complete homework exercises and the more likely they will work harder than they thought to meet both the standards of the subject and the expectations of the lecturer. This reveals that when students engage with the subject in a positive way such as reviewing work, then the more likely it becomes that they will engage in other activities that enhance their engagement such as completing homework exercises. In other words, one activity that causes positive engagement with the subject has the effect of leading to further activities that promote engagement.

There are numerous other positive directly proportional relationships identified such as:

- Students who try and understand the concepts rather than relying on memory also feel motivated to attend lectures.
- Students who attend tutorials also feel that they are motivated and receive engaging interaction with the lecturer.
- Students who seek out extra work in the subject also work on homework exercises and test preparation with other students.

This further indicates that activities that result in a student engaging with the subject will be self-perpetuating in that they will lead to further activities that cause positive engagement.

On the other hand, there are also negative values implying an inverse relationship between some statements. This means that the variables have an opposite effect on each other so as the one increases the other decreases. For example, the correlation value between “Do you attend tutorials for this subject?” and “Do you seek out extra work in this subject?” is -0,041. This implies that the more a student attends tutorials the less likely they would be to seek out extra work and vice versa. This indicates if a student attends tutorials they tend to feel that this is sufficient and they then do not need to seek out extra work. Alternatively, the more they seek out extra work the less they feel the need to attend tutorials. Students who truly wish to engage would actually seek out every opportunity to do so. Students should not be feeling that they have done enough and therefore feel it is unnecessary to engage further. This

indicates that the true desire to engage is not really present. Suggestions are made in Chapter 5 of ways that can encourage as much engagement as possible.

#### **4.10 Conclusion**

In this chapter, the data acquired from the research questionnaire was presented. Descriptive statistics were used to define the findings from the questionnaire completed by Financial Accounting 1 students registered for the National Diploma: Accounting. Tables and graphs were used to illustrate the findings. Both the results of the Likert scale questions and the open-ended questions were analysed and discussed in relation to what the data revealed and how it linked back to the literature review in Chapter 2.

Underlying themes and trends observed from the data analysis were that students appear to be engaging by attending lectures. However, the data further revealed that students' were not asking questions in lectures and further, attendance at tutorials was not as good as lecture attendance. In addition to this, attempting homework exercises was not prioritised by students. This indicates that engagement was therefore not truly present as students were willing to attend a large lecture but once they were exposed in the smaller tutorials or were required to attempt homework alone then they tended to withdraw their willingness to participate.

The chapter that follows will discuss how the findings from the data achieved the objectives of the study. In addition, patterns observed from the data can be used to identify high impact practices that can be implemented to improve the quality teaching and learning in Financial Accounting 1 as a subject.

# Chapter 5 – Conclusions and Recommendations

## 5.1 Introduction

The study included the following three objectives:

- To investigate to what extent the National Diploma – Accounting students are engaging with the Financial Accounting 1 subject material.
- To investigate the reasons why / why not students were / were not engaging with the subject material.
- To identify ways that engagement could be maintained in areas where it was good and improved in areas where engagement was not satisfactory.

This chapter will include a discussion of each of the three above objectives for the study and how they were met. The data allowed insight into student engagement in Financial Accounting 1 and, from this, recommendations can be made. These recommendations to improve student engagement are presented in section 5.4 of this chapter. The chapter will also include a section on the limitations of the study as well as suggesting areas for further research.

## 5.2 Objective 1 – To what extent are students engaging with the subject material?

The questionnaire used in the study was designed to be able to identify to what extent students are engaging with the Financial Accounting 1 subject material. The first part of the questionnaire included questions that required students to rate their participation in various activities such as attending lectures, attending tutorials, completing homework exercises, working with other students, asking questions in class and seeking out extra work, against a Likert scale. This allowed the first objective of the study to be met as after the data was analysed it gave an indication of the levels of students' engagement in such activities.

A pattern can be identified from the data analysis, in that, based on the responses by students it can be observed that students prioritise lecture attendance with 80.7% saying that they “very often” attended lectures. This is achieved even though lecture attendance is not compulsory and there is no penalty if students do not attend. However, when it came to attendance at



tutorials this decreased to 56.4% of students saying that they “very often” attended tutorials. Regarding the completion of homework exercises the highest response was 39.3% saying they only “often” completed homework while 29.6% said they “very often” completed homework exercises. Students seem to have placed a hierarchy of importance with lectures being the most important and homework being the least important. The engagement with the subject decreased the further the activity moved away from a formal lecture and the more students felt exposed as individuals.

The majority of students saw the need to attend lectures and responded as such. Students had registered at DUT which is an institution where lectures are regularly held. They had not registered at an institution that just offered correspondence classes and so students took advantage of the opportunity to attend lectures with a lecturer available to ask questions. This was further observed when the open-ended questions were analysed. Students indicated in the open-ended questions that they are motivated as they want to succeed. Students said, “I realise you have to put in effort”, “I want to improve my marks”, “I need to know everything for the tests and exams so I can pass”. There is also a strong motivation coming from the desire to succeed to overcome socio-economic challenges that many are facing. Students want to make their families proud. They want to succeed to get a good job and improve the financial situation of themselves and their families. One student responded – “I want to finish my studies and change my families life”. This motivation translates into 80.7% of the students saying they attend lectures very often.

In contrast, attendance at tutorials decreases to 56.4% of students saying that they “very often” attend tutorials. Although lectures are timetabled and the same timetable also includes tutorial periods, students’ attendance at tutorials is not as good as it is for lectures. The responses to the open-ended questions revealed a variety of reasons for this decrease in attendance. Some of the reasons are logistical issues with students complaining of not knowing about the tutorials and there being venue problems. When it came to the completion of homework exercises, only 29.6% of students responded saying that they “very often” complete homework exercises. The data therefore revealed that students are placing great importance on the lectures and not as much on other activities with many not prioritising homework exercises. In a subject of such a practical nature such as Financial Accounting 1, the need to practice examples to enhance the understanding of concepts is very important.

Further, when a student attempts an exercise on their own, they may be forced to face the reality that they do not understand the work properly. One student commented in the open-ended questions – “Sometimes I don’t understand when I am on my own”. If a student realises they do not understand the concepts they will be reluctant to try an exercise at home as this will place them in an exposed and vulnerable position having to face up to their own lack of understanding. However, when the exercise being attempted is still simply a homework one and does not count as a formal assessment, then at least they still have time to rectify this by approaching the lecturer for assistance. However, if they leave it too late, or if the reality of their lack of understanding is realised when they are sitting in the exam venue attempting to answer the test or exam questions, then they have given themselves no opportunity to seek help. It is also worth noting that research by Hornsby and Osman regarding large classes shows that engagement tends to be less in a large class environment (Hornsby and Osman 2014). However, the lack of real engagement is exposed when the students move from the large class to smaller tutorial groups and having to attempt work on their own.

In contrast to the high percentage (80.7%) of students that “very often” attend lectures, the data revealed that other engagement such as working with other students showed only 26.9% of students who said that they “very often” did this. In addition, seeking out extra work had only 31.9% of students saying that they “very often” engaged in this manner. While only 6% of students responded that they “very often” asked questions in class.

Section 5.4 of this chapter deals with recommendations to improve student engagement and these recommendations will include high impact practices that could assist with the areas of engagement, identified from the data analysis, that need to be improved.

### **5.3 Objective 2 – Investigate the reasons why / why not the students were / were not engaging with the subject material**

The second part of the questionnaire used in this study consisted of open-ended questions. This would allow students the opportunity to explain in their own words what were the reasons why / why not they were / were not engaging with Financial Accounting 1. The insight gained from the answers to the open-ended questions allowed objective 2 to be met.

An analysis of the answers to the open-ended questions revealed that students face numerous challenges and in some cases this inhibits their willingness and ability to engage in the subject material. Some of the issues raised are arising from socio-economic and personal challenges that students face. These issues are issues challenging South Africa as a nation and would be extremely difficult to solve easily. However, the analysis of the answers received from students did include problems that can be more easily solved and suggestions to assist with these are made in section 5.4 of this chapter below.

Even though the data revealed that lecture attendance was good, there are some students who do not attend on a consistent basis. Students complained that they faced challenges when it came to transport. Not all students are living close to campus and it is time consuming and expensive to make a daily commute to and from campus. Students comments included: "I travel with a train and there can be issues", "Transport delays me", "Transport money". To a lesser extent, students complained of health problems, lack of motivation and poor time management. They said "I have health problems", "Don't feel like attending", "Wake up late", "Time".

The data revealed that students do not attend tutorials to the same extent as they attend lectures. They complained that they did not know about tutorials, that there were venue problems or that they did not like the tutor: "I didn't know about tutorials", "The venue is full with no desks free", "The tutor is not easy". Other complaints were timetable clashes, feeling unmotivated to attend the tutorial and then, once again, transport, health and time management issues.

Students' responses as to why they did not complete homework showed a similar trend with time management again being identified as a challenge. Students also identified lack of understanding / confidence as reason for not attempting homework exercises – "I don't do it if I don't understand", "I am lazy and not confident", "Sometimes I try to complete the homework, then I struggle so I leave it". Some students were just not motivated to try – "I like to sleep", "I am tired and then don't have enough time". Another complaint was a lack of a sense of community with one student saying "I don't live in res" as an excuse for not attempting homework therefore expressing a desire to work with others but not being able to as not being in a campus residence. Other socio-economic issues were also mentioned such as family /

home problems and having not textbook – “I have family problems”, “I don’t have the textbook due to financial problems”.

Students did not work with other students mainly due to feeling that they had a different study style. Students commented as such – “I prefer working alone in my own time and at my own pace”, “I understand better when I am quiet and focussing”, “I concentrate better when working alone”. In addition to differing study styles, students also identified lack of confidence as a significant reason for not working with others. Comments included, “I have a low self-esteem so don’t want to work with others”, “I’m shy”, “I don’t feel comfortable doing work with others”. Lack of community was also mentioned as a reason for not working with other students. Students said, “I don’t know anyone”, “Others do not have time”, “I live far away”. However, if students are lacking in confidence due to a lack of understanding of basic concepts then they will naturally not be willing to reveal their lack of understanding to other students. Students will then make excuses to not work with others in order to avoid the uncomfortable feeling of others being aware of their weaknesses.

The final open-ended question that was asked was if it was assumed that students were participating i.e., attending lectures, attending tutorials, attempting homework exercises, then what had been the motivation. Students’ responses revealed them to be motivated by the desire to succeed in the subject and ambitions that they aspired to. Students responses included, “I want to get a distinction”, “I want to pass with a high mark”, “I want to pass with cum laude and a deans merit”, “I want to understand for tests but also for my career”, “I have drive and ambition and nothing will hold me back”. There are also students who love accounting – “Accounting is my favourite subject”, “I have passion for the subject”. Other students felt they wanted to engage as they felt motivated by other people: “I want to get 100% for a test like another student did”, “Our lecturer works very hard”. Other students admitted that effort was required for success: “I realise you have to put effort in” while others were simply afraid of failure: “I don’t want to have to come back to repeat financial accounting”. The desire for success and ambitions felt by students is further reflected in the responses of some students who admitted that overcoming their economic backgrounds was driving them: “I want to finish my studies and change my families life”, “I want to know that I have done my best so that I can get a nice job and help my family”, “To change my life and my background”.

Trends identified from the responses received to the five open-ended questions were therefore that students are indeed motivated however they lack confidence. There are also issues regarding the running of the tutorials. Issues such as transport, health and family problems were also included in the responses to the various questions. The trends identified are now used in section 5.4 of this chapter in order to suggest ways engagement in Financial Accounting 1 could be maintained / improved.

## **5.4 Objective 3 - Investigate ways where engagement can be maintained / improved**

Once the level of engagement of students in Financial Accounting 1 was determined as well as the reasons for why / why not students were / were not engaging, the third objective of the study sought to investigate ways that student engagement could then be maintained / improved. Kuh suggests that there are certain high impact practices that can be used to enhance student engagement with a subject (Kuh, 2008b). These high impact practices can be used to encourage student engagement with the subject material and raise the importance in the minds of students so that it is not only lecture attendance that is prioritised but also tutorials and completion of homework exercises. High impact practices that can be used in Financial Accounting 1 at DUT are discussed below.

### **5.4.1 Motivation of students**

Masui concluded that the relationship between study time investment and academic achievement is undeniable and that motivation was linked to this investment (Masui *et al.* 2014)

The data from the study as well as the answers to the open-ended questions showed that students are motivated by a number of factors namely, the desire for good exam results, fear of failure, their own ambitions, the achievement of others, enjoyment of the subject and a desire to improve their lives and that of their families. This motivation is translated into 80.7% of students saying they “very often” attend lectures. The students see success in Financial Accounting 1 as a step towards graduating with a diploma and this in turn is a step towards employment and economic freedom.

### Significance of lecturers

This motivation needs to be nurtured within the students as many are arriving with the desire and motivation to succeed and so the lecturers need to be aware of this and keep it alive. Although in this study no student indicated that they found lectures too long or boring, the research by Wadesango and Machingambi found that students blamed their absenteeism from lectures on their dislike of the lecturer. They found students were not motivated to attend lectures if they felt that the lectures were boring, the lecturers came late or the lectures were too long (Wadesango and Machingambi 2011). Kottasz, De Villiers and Werner as well as Teixeira and Gomes all concur with this saying that the lecturer plays a significant role in inspiring students to engage with their subject (Kottasz 2005; Axelson and Flick 2010, De Villiers and Werner 2016; Teixeira and Gomes 2016). It is important for the Financial Accounting 1 lecturers to bear in mind their responsibility to ensure that they continue to play their role by delivering high quality lectures, that they arrive on time for lectures, that they do not regularly cancel and that they are enthusiastic about their subject material so that this enthusiasm rubs off onto students and so the high level of motivation among the majority of Financial Accounting 1 students is maintained.

### Subject choice

It is also worth considering that some students were motivated because they enjoyed the subject. Some students said, "Accounting is my favourite subject", "I love accounting and it is essential to business". The data for this study revealed that engagement activities were self-perpetuating and the following comment testifies to this: "Accounting needs to be practiced every day and it is enjoyable". The more a student enjoys a subject the more they will engage, the more they succeed, the more they will engage and the more they will enjoy the subject etc.

Enjoyment of the subject and the choice of the right area of study is therefore important and Stipanovic, Stringfield and Witherell's study testifies to the idea that suitable career choices, that suit the personality and aptitude of a student, lead to successful studies (Stipanovic, Stringfield and Witherell 2017). Although not mentioned in the responses received from students in this study, the researcher has encountered a number of students in the past whose attendance was irregular and results were poor. In some cases these students eventually admitted that they were not registered for a diploma that suited their interests and aptitudes.

Some have said they chose accounting for the potential of a well-paid job or because their family forced them to register for accounting. One particular student has said to the researcher: "I like you but I hate your subject. I wanted to register for fashion design". Another has said they wanted to study marketing but parents said they must choose accounting. While yet another felt they were good at working with their hands and towards the end of first year, after a dismal performance in Financial Accounting 1, decided that a career in Dental Technology was more suitable for their abilities.

Unfortunately, once a student has registered for the National Diploma – Accounting, they then attend Financial Accounting 1 lectures, one has to assume they want to be there. It is extremely difficult to motivate a student who does not enjoy the subject material. Career guidance at school and assistance by DUT student counselling is important to avoid students making a costly mistake that takes a lot of time and money before a student admits they have registered for the wrong diploma. Unfortunately, many schools do not have career guidance counsellors and so students are largely left to find out for themselves from friends and family regarding careers and study options. The DUT Open Week is significant as it provides vital information to school pupils. This initiative by the institution should continue and grow if possible to include as much marketing of all that is on offer at DUT to assist as many school pupils as possible to make the right choices.

#### **5.4.2 Confidence of students**

The literature review referred to research by Hornsby and Osman who identified the challenge of large classes and how students tend to be able to disengage as they find themselves able to hide among their fellow students (Hornsby and Osman 2014). The data for this study has shown that most students do actually attend lectures regularly. However it was also revealed that students expressed a lack of confidence to ask questions with only 6% saying that they often asked questions in class and 41.8% saying that they never ask questions in class. The intimidation of a large class can be overcome to some extent by allowing students to ask one-on-one questions of the lecturer at the end of the lecture or in the department offices. However, a study by Browne, Rex and Bouzat found that a question-oriented classroom would encourage active learning and that would always promote positive teaching and learning

(Browne, Rex and Bouzat 2018). The lectures can be enhanced greatly when there are questions and interaction during the lecture time creating a positive engagement experience.

The reluctance by students to ask questions could be assisted by considering the comments of Biggs and Tang. These authors refer to two climates in the classroom – a strict environment versus a more free and trusting environment. They suggest that a balance should be found between these two environments to get the most out of the students (Biggs and Tang 2011). The researcher has found that this mix of two climates is the way to get the most from students. The Financial Accounting 1 groups are usually approximately 120 students. If a lecturer is too casual the discipline in the class can become chaotic leading to students being distracted by cell phones and conversations starting among students. A certain amount of discipline is definitely required so that order can be maintained and students are able to concentrate on the lecture material. However, if a lecturer is too strict they risk the chance that students will feel intimidated, they will not ask questions and they will not participate as the lecturer has created a feeling of being unapproachable. A good mix of being strict but also kind seems to bring out the best in many students and this kind of practice should be encouraged among lecturers in order to encourage and promote engagement among students.

A further suggestion to promote engagement in the large lecture and encourage questions and participation is to use group work or work in pairs. Visser, Vreken and McChlery identified group work as a tool to promote engagement (Visser, McChlery and Vreken 2006). Students could be asked to discuss in small groups within the lecture and then give feedback. This approach is less intimidating than one-on-one interaction with the lecturer in front of the other students as the response is seen as a group response and not the response of an individual.

Sekhukhane as well as Ivala and Kioko found that in South Africa, confidence of students was challenged as many studied in English but this was not their home language (Ivala and Kioko 2013; Sekaran and Bougie 2013). There are many students in Financial Accounting 1 whose home language is isiZulu. A possible solution that would assist students would be to offer some tutorials in isiZulu. This would allow students an opportunity to engage in an environment that felt less threatening to them and that is more conducive to asking questions without the fear of a language barrier. It is also likely that students would improve their learning in this way. This is supported by a number of studies involving what is referred to as



“code-switching” which is the practice of alternating between two or more languages. A study by Ahmad and Jusoff in Malaysia found that code-switching is significantly associated with learners’ learning success (Ahmad and Jusoff 2009). Studies by Okal in Kenya as well as Iqbal in Pakistan also suggests multilingualism in education should be embraced as having positive impacts on teaching and learning (Iqbal 2011; Okal 2014). A study by Rose and van Dulm conducted in South Africa echoed the international studies as it was found that code-switching was able to clarify, confirm and expand students’ grasp of concepts (Rose and van Dulm 2006). Studies therefore, do support the suggestion of offering some tutorials in isiZulu as there would be numerous benefits for students.

Further, students expressed in the open-ended questions of the questionnaire that some lacked confidence to work alone and were disorganised. Some students said “I am lazy and not confident”, “I find it hard to tackle questions when I am alone”, “I am distracted with other subjects”, “I forget”. Byrne, Flood and Griffin identified lack of confidence as a challenge for students as student’s needed to be able to, take notes, attempt questions in advance and approach their studies in an organised manner. Some students lacked confidence to do this (Byrne, Flood and Griffin 2014).

It has been the researcher’s experience that some students are unsure regarding some very basic practical issues. Some students ask if they should use a book or a file for notes. They are unsure how to organise a system for note taking and how to file their papers. There has been an observation of how some students make use of one book and their notes for all different subjects simply flow from one into the other with no separate system to organise each subject. This would pose a significant challenge for students when it comes to studying for a test as their notes are unorganised leading to the possibility that important work can be overlooked. A possible practical solution to assist students who face this challenge is to include suggestions for a note taking and filing system at first year orientation.

### **5.4.3 Tutorial management**

Tutorials are currently offered for Financial Accounting 1 students. These tutorials are timetabled, the lecture group is split into smaller groups and the tutorial is taken by a senior

student. However, the data for this study revealed that attendance at tutorials was not as good as attendance at lectures: 56.4% versus 80.7% saying they “very often” attended. This indicates that students are not attending tutorials to the same extent as lectures. In a subject that is as practical as Financial Accounting 1, this is a concern as practice exercises are very important to grasp a good understanding of concepts. However, many of the issues raised in the open-ended questions regarding tutorials are logistical in nature. This means that with some changes in the way the tutorials are run there should be an increase in attendance.

Students complained by saying: “I didn’t know about tutorials”, “Lack of information about time and venues” and “There is no tutor”. Some students are unaware of tutorials even though tutorials are formally being timetabled, but some students are ignoring this. It has already been mentioned that the lecturers play a significant role in student motivation. The Financial Accounting 1 lecturers need to draw the attention of students to the timetabled tutorial periods and emphasise that they are very important.

Some students knew about the tutorials but complained: “The class is full and noisy”, “Tut room is small and always packed” and “, “The venue is full with no desks free”. Currently, each National Diploma: Accounting Financial Accounting 1 group of approximately 120 students for lectures is divided into two tutorial groups of approximately 60 students in each tutorial. In order to alleviate the lack of space in the venues as well as the noise during the tutorials, these groups need to be smaller. This would allow the tutorials to be more comfortable for students and therefore encourage attendance. This suggestion is confirmed in a study by Hesketh which suggested that tutorials ideally should be limited to 20 – 25 students. Smaller groups would also make better use of the tutorials as Hesketh further indicates that tutorials should not be a re-teach of lectures but a means of engaging students in making sense of concepts that were previously introduced in lectures (Hesketh 2011).

Further issues were with the tutors themselves. Students commented: “I can’t hear the tutor easily”, “The tutor can be mean and doesn’t like to be corrected”, “The tutor comes late”. Currently, senior students who wish to be tutors must apply and need to show that they are capable as they have achieved academically themselves. Tutors have to attend tutor training at the beginning of their period as a tutor. The tutor training needs to cover the issues that students are experiencing and the role of the tutor should be expanded. Hesketh suggests

that the tutors need to spend time preparing for tutorials and they need to be involved as far as possible with the development of the tutorial material. The increased effort by tutors would need to be financially rewarded but Hesketh proposes that the increased costs of expanding the tutorial programme would benefit the University by improving the retention of students as well as the through-put and pass rates (Hesketh 2011).

In addition to the above changes, lecturers need to link the tutorials very clearly into the lectures in an attempt to raise the tutorial attendance to the same level as the lecture attendance. Reference to exercises completed in tutorials could be brought into the lectures. In this way students realise that they are missing out if they do not attend the tutorials. Tutorials should not be seen as a “nice to have” extra. They should be viewed by students as an extension of the lectures where concepts are reinforced. Communication between tutor and lecturer is vitally important and students should be made aware of this communication so that the importance of the tutorials is elevated.

A further consideration for tutorials is for them to incorporate group work. Hall, Ramsey and Raven suggested that working in groups in tutorials led to increased learning and promoted a higher level of understanding (Hall, Ramsay and Raven 2004). Visser, Vreken and McChlery further identified group work as an interactive method of promoting engagement and problem-solving skills required by Accounting and this was encouraged during group work (Visser, McChlery and Vreken 2006). Tutorials could be used to promote group work and allow students to benefit from listening and learning from others in the environment of the tutorial.

#### **5.4.4 Formative assessments**

Formative assessments are not currently used in Financial Accounting 1. However, the literature review for this study showed that formative assessments are a tool that can be included in both lectures and tutorials. Biggs and Tang suggest that deep learning can be encouraged through formative assessments with the emphasis on feedback from these assessments. This should take place while the course is still in progress so that corrective action can then be taken (Biggs and Tang 2011). Curtis concurs with this in that formative

assessments can direct the students' attention to gaps in their knowledge allowing them to seek assistance before the summative assessment takes place and it is too late (Curtis 2011). In line with the research of Biggs and Tang as well as Curtis, there is scope for formative assessments to be used in Financial Accounting 1. Exercises could be given during tutorials and then taken in by the tutor and marked. In this way the importance of attempting practical exercises in Financial Accounting 1 would be emphasised and students' attention would be drawn to areas where they lack understanding. Students would then have the opportunity to seek help from the lecturer or the tutor before the formal tests and examinations take place. It should however, be noted that this further emphasises the need for smaller tutorial groups and better trained tutors.

#### **5.4.5 Encouraging pre-reading / review of material**

The data analysis revealed that there is a lack of reviewing of work that was covered in lectures by students prior to the next lecture. Students responded with only 16.4% saying they "very often" reviewed work that had been covered. A study by Heiner found that if pre-reading was specific and linked directly to material to be covered immediately in lectures this will promote the value of it. This study found that if lecturers frequently referred to the pre-reading material during lectures this would assist students to increase their understanding of the value of pre-reading and as a result many students acknowledged that pre-reading helped them to feel more prepared for class and helped them to keep pace with the material (Heiner, Banet and Wieman 2014). Pre-reading of material could also include reviewing of material. If the importance of this could be emphasised by lecturers and incorporated into lectures this would assist to encourage this beneficial practice.

#### **5.4.6 General support for students**

Sekhukhane identified socio-economic challenges as an issue faced by South African students (Sekhukhane 2008). Mpfu's study conducted in 2017 echoed this sentiment in that students face issues of lack of ability to pay students fees, accommodation issues and general socio-economic challenges. It is these issues that have fuelled the student protests experienced in South Africa in recent years (Mpfu 2017).

From the responses to the open-ended questions in this study, DUT students face challenges that are no different to what Sekhukhane and Mpofu identified. Students said, “I don’t have a textbook due to financial problems”, “Sometimes my home doesn’t have electricity, “Sometimes I am sick or there is a family crisis”. In addition, students indicated that they desire to improve their situations that they and their families find themselves in. They wish to get a qualification to improve their own lives and assist their families. Students comments included, “I want to make my parents proud and make my dreams come true”, “I want to know that I have done my best so that I can get a nice job and help my family”, “I want to finish my studies and change my families life”. In order to be able to achieve this and overcome their personal circumstances many students would require assistance of an academic nature as well as counselling support.

Ilsever and Leung found that some students needed academic support to assist them with engaging the subject material (Ilsever and Leung 2015). The DUT offers various support mechanisms for students such as courses on study skills, note taking and time management. These courses are offered within the FYSE (First Year Student Experience) which is a timetabled period on the first-year timetable. Currently these periods are not compulsory and are not well attended. In addition, the student counselling department at DUT offers free counselling to students when faced with issues of a personal nature many of which arise from socio-economic circumstances that students find themselves in. The student counselling department frequently has awareness campaigns in strategic areas on campus so that students are encouraged to make use of their services. Health clinics are also provided for students to go to if the need arises. These facilities are readily available for students.

Both the First Year Student Experience as well as the student counselling facilities should be promoted by the Financial Accounting 1 lecturers. If the First Year Students Experience offering could be integrated within the Financial Accounting 1 material then students would realise the importance of attending. Further, reminders regarding the availability of student counselling and health services should be encouraged by the lecturers so that any student facing challenges of either an academic or personal nature feel supported.

## **5.5 Conclusion**

This study was conducted to assess and improve, where necessary, the level of engagement in a financial accounting first year course. It explored the current level of engagement by students in Financial Accounting 1 at the Durban University of Technology and also considered the reasons why students were engaging / not engaging with subject material. The data obtained showed that many students do attend lectures and are motivated to succeed. However, attendance at tutorials is not given priority by students and attempting homework exercises even less so. It was found that students are motivated, but they face challenges such as overcoming and socio-economic problems as well as transport issues, lack of confidence, poor time management skills and some logistical challenges associated with tutorials. Their lack of confidence is shown as they are less willing to engage in an environment where they may feel more vulnerable, for example attending tutorials and attempting homework exercises. There is scope for high impact practices to be used in Financial Accounting 1 at DUT such as improved tutorial management, use of group work and formative assessments as well as increased awareness of support which may be offered to students.

## **5.6 Limitations of the study**

The study was limited to students registered for Financial Accounting 1 but within the National Diploma: Accounting only. The findings and recommendations made in this study would however, not be limited to the National Diploma: Accounting. Recommendations would have application to any students studying Financial Accounting 1 for any of the other diplomas. A further limitation of the study was that no questions were asked in the research questionnaire regarding engagement and the use of technology and social media. Currently, students are not required to engage with Financial Accounting 1 by making extensive use of technology and so this was not covered in this study.

## **5.7 Further research**

The suggestions made in this study could be presented at a Financial Accounting 1 subject meeting and then further research could be conducted investigating how the suggestions are implemented and how effective these suggestions actually are in improving student engagement in the subject. In addition the use of technology as a tool in Financial Accounting 1 could be researched especially with a view to improving engagement.

This study has shown that engagement by students is lacking in some areas and yet the pass rate for Financial Accounting 1 is consistently over 80%. This may indicate a lack of alignment between the level of engagement required and the level of assessments. Further research could be conducted on this lack of alignment and the understanding of accounting concepts by students.

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## Appendix A



### LETTER OF INFORMATION

**Title of the Research Study :**

Improving student engagement in a financial accounting first year course.

**Principal Investigator / Researcher :**

Mrs Suanne Dix, B Comm (Hons), towards Masters in Accounting

**Co-investigator/supervisor:**

Dr J Skinner (Supervisor)

**Brief Introduction and Purpose of the Study:**

The purpose of the study is to investigate the level of engagement by students with the subject material in financial accounting I. The extent that students are attending lectures, attending tutorials, completing homework exercises and generally engaging in academically purposeful activities will be determined. The reasons for engagement / lack of engagement will be investigated and ways to improve engagement will be sought in order to improve the potential for success in financial accounting I.

**Outline of the Procedures:**

A mixed methods approach will be used with a questionnaire as well as focus groups being used. The questionnaire will be completed by first year students registered for the ND – Accounting (approximately 200 students). The questionnaire will take 10 – 15 minutes to complete and will be completed during financial accounting I lecture time. Should the questionnaire not yield sufficient insight into the reasons for engagement / lack of engagement by students then focus groups will be used.

**Risks or Discomforts to the Participant:**

There will be no risk or discomfort to the respondents and they will participate on a voluntary and anonymous basis.

**Benefits:**

Students registered for financial accounting I may benefit as methods to engage more closely with the financial accounting I subject material will be investigated, possibly leading to greater success in the subject.

**Reason/s why the Participant May Be Withdrawn from the Study:**

Participation will be voluntary and respondents may withdraw if desired.

**Remuneration:**

No remuneration will be received by the respondents.

**Costs of the Study:**

There will be no cost to respondents for their participation.

**Confidentiality:**

Participation in this study will be anonymous.

**Research-related Injury:**

No injury is expected in this study.

**Persons to Contact in the Event of Any Problems or Queries:**

Please contact the researcher (031-373 5619), my supervisor (Dr J Skinner 031 – 373 5621) or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support, Prof S Moyo on 031 373 2577 or [moyos@dut.ac.za](mailto:moyos@dut.ac.za)



## Appendix B



### CONSENT

#### Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Mrs S Dix, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number:.....
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

\_\_\_\_\_  
**Full Name of Participant**                      **Date**                      **Time**                      **Signature / Right**  
**Thumbprint**

I, Mrs S Dix herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_  
**Full Name of Researcher**                      **Date**                      **Signature**

\_\_\_\_\_  
**Full Name of Witness (If applicable)**                      **Date**                      **Signature**

\_\_\_\_\_  
**Full Name of Legal Guardian (If applicable)**                      **Date**                      **Signature**

## Appendix C



*Directorate for Research and Postgraduate Support  
Durban University of Technology  
Tromso Annexe, Steve Biko Campus  
P.O. Box 1334, Durban 4000  
Tel.: 031-3732576/7  
Fax: 031-3732946*

14<sup>th</sup> December 2017

Ms Suanne Dix  
c/o Faculty of Accounting and Informatics  
Durban University of Technology

Dear Ms Dix

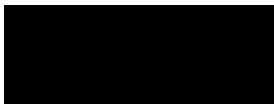
### **PERMISSION TO CONDUCT RESEARCH AT THE DUT**

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research Committee (IRC) has granted full permission for you to conduct your research "Improving student engagement in a Financial Accounting first year course" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

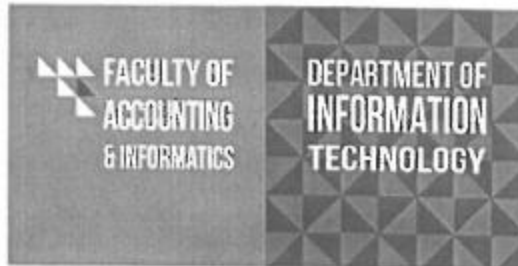
We would be grateful if a summary of your key research findings can be submitted to the IRC on completion of your studies.

Kindest regards.  
Yours sincerely



PROF CARIN NAPIER  
DIRECTOR (ACTING): RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

## Appendix D



Faculty Research Office  
Durban University of Technology  
16 October 2017

**Mrs S C Dix**  
Student Number: 20722168  
Masters in Accounting  
Email: [suanned@dut.ac.za](mailto:suanned@dut.ac.za)

Dear Mrs Dix

### PROVISIONAL ETHICS CLEARANCE:

I am pleased to inform you that the Faculty Research Committee (FRC) at its meeting in August 2017, has granted Provisional Ethics Clearance on:

*"Improving Students Engagement in a Financial Accounting First year Course "*

We would be grateful if a summary of your key research findings can be submitted to the FRC on completion of your studies.

Kindest regards.  
Yours sincerely



Dr Delene Heukelman  
Faculty Research Coordinator (Acting)

Tel +27 31 373 5562/63  
Fax +27 31 373 5598  
Email: [deleneh@dut.ac.za](mailto:deleneh@dut.ac.za)

## Appendix E

Dear Participant,

Thank you for agreeing to participate in this research study entitled “Improving student engagement in a Financial Accounting first year course.”.

This study aims to assess what students are actually doing ie, are they attending lectures, going to tutorials, completing homework exercises etc in financial accounting 1. The study then aims to understand with what and why students are engaging or not engaging and then to improve the level of engagement by students with financial accounting 1 subject material in order to improve student success in this subject.

The information gathered is anonymous, will be kept confidential and will be used for academic purposes only.

Please tick where applicable.

### **Section A**

Please give your gender.

<b><u>Male</u></b>	<b><u>Female</u></b>
--------------------	----------------------

Please read the following questions and answer as honestly as possible.

How often have you done or experienced the following in <b>Financial Accounting 1</b> ?	Never	Sometimes	Often	Very often
1. Do you attend lectures for this subject?				
2. Do you ask questions in class?				
3. Do you review work from the previous lecture before the next lecture?				
4. Do you complete all the homework exercises set within the required time?				
5. Do you rely on memorisation of facts for this subject?				
6. Do you try and understand the concepts in this subject rather than rely only on memory?				
7. Do you take notes in class for this subject?				
8. Do you attend tutorials for this subject?				

9. Do you seek out extra work in this subject eg, attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?				
10. Do you work on homework exercises and test preparation with other students?				
11. Do you feel motivated to attend lectures in this subject?				
12. Do you feel motivated to work hard in this subject?				
13. Do you work harder than you thought you could to meet the standards of the subject?				
14. Do you work harder than you thought you could to meet the expectations of the lecturer?				
15. Do you receive motivation and engaging interaction from the lecturer of this subject?				

**Section B**

Please answer the following questions.

1) If you <u>do not</u> attend lectures regularly, what is the reason?

2) If you <u>do not</u> complete homework exercises regularly, what is the reason?

3) If you <u>do not</u> attend tutorials regularly, what is the reason?

4) If you <u>do not</u> work on this subject together with other students, what is the reason?

5) If you <u>do</u> attend lectures, complete homework, attend tutorials and generally engage actively in financial accounting 1, what has been your motivation?

**Thank you for taking the time to complete this survey.**

## Appendix F

### Chi Square tests

Test Statistics																
	Gender	Do you attend lectures for this subject?	Do you ask questions in class?	Do you review work from the previous lecture before the next lecture?	Do you complete all the homework exercises set within the required time?	Do you rely on memorisation of facts for this subject?	Do you try and understand the concepts in this subject rather than rely only on memory?	Do you take notes in class for this subject?	Do you attend tutorials for this subject?	Do you seek out extra work in this subject eg, attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?	Do you work on homework exercises and test preparation with other students?	Do you feel motivated to attend lectures in this subject?	Do you feel motivated to work hard in this subject?	Do you work harder than you thought you could to meet the standards of the subject?	Do you work harder than you thought you could to meet the expectations of the lecturer?	Do you receive motivation and engaging interaction from the lecturer of this subject?
Chi-Square	2.141 <sup>a</sup>	230.600 <sup>b</sup>	78.179 <sup>c</sup>	42.537 <sup>c</sup>	43.163 <sup>b</sup>	32.121 <sup>d</sup>	24.044 <sup>e</sup>	77.701 <sup>c</sup>	74.068 <sup>f</sup>	11.815 <sup>b</sup>	13.224 <sup>c</sup>	97.224 <sup>c</sup>	71.564 <sup>g</sup>	57.576 <sup>d</sup>	43.932 <sup>f</sup>	58.489 <sup>f</sup>
df	1	3	3	3	3	3	2	3	3	3	3	3	2	3	3	3
Asymp. Sig.	0.143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.004	0.000	0.000	0.000	0.000	0.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 67.5.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.8.

c. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.5.

d. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.0.

e. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 45.0.

f. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 33.3.

g. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 44.3.

# Appendix G

		Correlations														
		Do you attend lectures for this subject?	Do you ask questions in class?	Do you review work from the previous lecture before the next lecture?	Do you complete all the homework exercises set within the required time?	Do you rely on memorisation of facts for this subject?	Do you try and understand the concepts in this subject rather than rely only on memory?	Do you take notes in class for this subject?	Do you attend tutorials for this subject?	Do you seek out extra work in this subject eg, attempting exercises that the lecturer did not specifically ask for, using other textbooks, using other past papers?	Do you work on homework exercises and test preparation with other students?	Do you feel motivated to attend lectures in this subject?	Do you feel motivated to work hard in this subject?	Do you work harder than you thought you could to meet the standards of the subject?	Do you work harder than you thought you could to meet the expectations of the lecturer?	Do you receive motivation and engaging interaction from the lecturer of this subject?
	Correlation Coefficient	1.000														
	Sig. (2-tailed)															
	N	135														
	Correlation Coefficient	-0.137	1.000													
	Sig. (2-tailed)	0.113														
	N	134	134													
	Correlation Coefficient	-0.003	0.145	1.000												
	Sig. (2-tailed)	0.973	0.095													
	N	134	133	134												
	Correlation Coefficient	0.083	0.121	.297**	1.000											
	Sig. (2-tailed)	0.338	0.165	0.000												
	N	135	134	134	135											
	Correlation Coefficient	0.068	.183*	.295**	0.084	1.000										
	Sig. (2-tailed)	0.437	0.036	0.001	0.338											
	N	132	131	131	132	132										
	Correlation Coefficient	0.095	0.105	0.131	0.129	.275**	1.000									
	Sig. (2-tailed)	0.272	0.228	0.131	0.137	0.001										
	N	135	134	134	135	132	135									
	Correlation Coefficient	0.037	0.144	0.107	.181*	.192*	.194*	1.000								
	Sig. (2-tailed)	0.668	0.098	0.222	0.036	0.028	0.025									
	N	134	133	133	134	131	134	134								
	Correlation Coefficient	0.111	-0.058	-0.078	.209*	-0.016	0.131	0.066	1.000							
	Sig. (2-tailed)	0.205	0.507	0.372	0.016	0.858	0.133	0.455								
	N	133	132	132	133	130	133	132	133							
Spearman	Do you attend tutorials for this subject?	0.025	.245**	0.151	0.131	.314**	.195*	.220*	-0.041	1.000						
	Sig. (2-tailed)	0.772	0.004	0.081	0.130	0.000	0.024	0.011	0.643							
	N	135	134	134	135	132	135	134	133	135						
	Correlation Coefficient	0.071	.264**	.261**	.330**	.239**	0.159	.208*	0.145	.443**	1.000					
	Sig. (2-tailed)	0.415	0.002	0.002	0.000	0.006	0.066	0.017	0.097	0.000						
	N	134	133	133	134	131	134	133	132	134	134					
	Correlation Coefficient	.345**	0.073	-0.009	.243**	.212*	.354**	.210*	.247**	.180*	.321**	1.000				
	Sig. (2-tailed)	0.000	0.403	0.918	0.005	0.015	0.000	0.015	0.004	0.037	0.000					
	N	134	133	133	134	131	134	133	132	134	133	134				
	Correlation Coefficient	.234**	-0.037	0.129	.245**	0.170	.348**	.241**	.220*	.171*	.186*	.559**	1.000			
	Sig. (2-tailed)	0.007	0.671	0.140	0.004	0.053	0.000	0.005	0.012	0.049	0.032	0.000				
	N	133	132	133	133	130	133	132	131	133	132	133	133			
	Correlation Coefficient	0.079	-0.044	.214*	0.153	0.172	.236**	0.148	-0.003	0.120	.236**	.181*	.416**	1.000		
	Sig. (2-tailed)	0.369	0.621	0.014	0.080	0.051	0.007	0.091	0.976	0.169	0.007	0.038	0.000			
	N	132	131	131	132	129	132	131	130	132	131	132	131	132		
	Correlation Coefficient	0.054	.171*	.274**	.251**	.306**	.220*	.180*	0.011	0.091	.337**	.353**	.415**	.599**	1.000	
	Sig. (2-tailed)	0.540	0.049	0.001	0.004	0.000	0.011	0.039	0.902	0.299	0.000	0.000	0.000	0.000		
	N	133	132	132	133	130	133	132	131	133	132	133	132	131	133	
	Correlation Coefficient	0.145	-0.123	0.142	.191*	0.168	0.108	0.092	.312**	-0.109	0.040	.408**	.485**	.183*	.279**	1.000
	Sig. (2-tailed)	0.096	0.159	0.105	0.028	0.056	0.216	0.292	0.000	0.211	0.652	0.000	0.037	0.001		
	N	133	132	132	133	130	133	132	131	133	132	133	132	131	132	133

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).