



**PRE-ENROLMENT FACTORS INFLUENCING ACADEMIC PERFORMANCE OF
ENTREPRENEURSHIP STUDENTS AT A TERTIARY INSTITUTION IN THE
WESTERN CAPE, SOUTH AFRICA**

by

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DECLARATION

I, **Lucky Sibanda**, declare that the contents of this thesis represent my own unaided work and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.



Signed

10 July 2021

Date

ABSTRACT

A growing dissatisfaction with the poor pass rate and low throughput rate of students of higher education institutions (HEI) necessitates investigation of the factors that bring about these problems and the relevant interventions to manage them. The problem of pass rates and throughput rates has implications for employability of higher education institution graduates. The researcher argues that the choice a student makes with regard to a course or discipline has the capacity to influence the way the student perceives the course. For instance, if a student consciously chooses a course, there is the likelihood that the student will be interested in preparing for lectures, attending lectures, and participating in independent or group study. In doing so, the student will very likely achieve good marks and possibly graduate on time. This study thus looks at ways through which poor pass rates and low throughput rates can be minimised by specifically examining the predictors of academic success among students enrolled in higher education (HE) within the South African context. It is believed that a study of this nature will contribute to the understanding of the factors that persuade students to enrol for particular courses.

Entrepreneurship remains an important contributor to socio-economic development of any nation, and as a result, more and more people are encouraged to take up entrepreneurship as a career. Considering the increasing rate of unemployment especially among the youth, the uptake of entrepreneurship is gaining much attention. Entrepreneurship education is considered an important instrument for job creation. As a consequence, there are implicit expectations of job creation from entrepreneurship graduates. Focusing on students enrolled for the Diploma in Entrepreneurship at a South African university, participants in this study included full-time (first year to third year) students also including those in the Extended Curriculum Programme (ECP). The perceived influence of pre-enrolment factors on students' academic performance was explored quantitatively by means of a self-administered questionnaire designed specifically for this research that was distributed to 204 students. The Statistical Package for Social Sciences (SPSS) version 25 was used to analyse the emergent data.

The factors explored included demographic properties, language proficiency, grade 12 performance, and high school attended. Perceptions on the contribution of high school career guidance, financial resources, study material, family support, family commitment and employment commitment were also explored. The entrepreneurial characteristics of the students were also determined, including confidence, networking ability, adapting to change, creativity, leadership, persistence, and goal-setting. The study also explored the presence and knowledge of available support systems at the university.

The findings underline three critical factors, namely: the lack of career guidance, study material and financial resources. These were found to influence high school academic performance thus affirming previous studies that point to the significance of career guidance, and study materials at basic education level. Family support was also identified as critical throughout the academic life of students. Equally important is the need for students to be aware of support systems that are available to them while in a Higher Education Institution (HEI). Such support systems include academic writing centres, the library services, financial aid and departmental tutorial system. The study notes that the uptake of these services should be encouraged.

Certain interventions aimed at increasing academic performance of students are flagged. These include encouraging the promotion of career guidance at high school level. Specific to the discipline Entrepreneurship, the study suggests a tightening of the student recruitment process by entrepreneurship departments at universities; the promotion of intrapreneurship as a career through curricula offerings; encouraging the uptake of interventions offered; and the continuous monitoring of students' entrepreneurial profile to adapt and apply interventions. The study also flags directions for future research as well as implications (theory and practice) of its findings.

KEYWORDS: Pre-enrolment factors; academic performance; entrepreneurship; entrepreneurship students; motivation; success factors; failure factors.

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LIST OF ACRONYMS AND ABBREVIATIONS

4IR:	Fourth Industrial Revolution
A level:	Advanced Level of Education
BTech:	Bachelor of Technology
CESM:	Classification of Educational Subject Matter
CEE:	Consortium for Entrepreneurship Education
CHERTL:	Centre of Higher Education, Research, Teaching and Learning
CPUT:	Cape Peninsula University of Technology
ECP:	Extended Curriculum Programme
DHET:	Department of Higher Education and Training
FBMS:	Faculty of Business and Management Sciences
FCTL:	Fundani Centre for Teaching and Learning
GEE:	Global Enterprise Experience
GEM:	Global Entrepreneurship Monitor
GPA:	Grade Point Average
GST:	General Systems Theory
GUESSS:	Global University Entrepreneurial Spirit Students' Survey
HE:	Higher Education
HEI:	Higher Education Institutions
HEDA:	Higher Education Data Analyser
NES:	National Expert Survey
NGOs:	Non-Governmental Organisations
NSC:	National Senior Certificate
NSFAS:	National Students Financial Aid Scheme
NSPEE:	National Standards of Practice for Entrepreneurship Education
NYDA:	National Youth Development Agency
O level:	Ordinary Level of Education
OBE:	Outcome-Based Education

SAPSE:	South African Post-Secondary Education
SEDA:	Small Enterprise Development Agency
SEFA:	Small Enterprise Finance Agency
SPSS:	Statistical Package for Social Sciences
TMMA:	Tripartite Model of Motivation for Achievement
UCDP:	University Capacity Development Programme
UCT:	University of Cape Town
UNISA:	University of South Africa
US:	University of Stellenbosch
UWC:	University of Western Cape

CHAPTER ONE: INTRODUCTION

1.1. Introduction

Research indicates that a sizeable proportion of those who complete post-primary education in South Africa is not prepared for higher education. (Fisher, 2011; Leshoro & Jacobs, 2019; DHET, 2020:31-32). Worryingly, they still find their way to tertiary institutions, owing to the calls by the government to improve access, success and throughput rates in tertiary education (Department of Higher Education and Training (DHET), 2013:31). Thus, institutions of higher learning have a challenging role of transforming under-prepared students into graduates (Leshoro & Jacobs, 2019). Consequently, some students take longer to complete their studies often between four to six years (Van Broekhuizen, Van der Berg & Hofmeyr, 2016:4).

A recent study by the DHET (2020:37) reported an improved dropout rate of 35.2% after tracking first-time entering 2009 cohort registered for a three-year diploma nationally for 10 years. The 2000 cohort had 58.0% dropout rate after year 10. Furthermore, the report presents an encouraging throughput rate of 51.3% after seven years on the 2009 cohort. Between 2000 and 2008, the overall throughput rate has been below 50% until 2009 when a 10-year student track showed a throughput rate of 56.1% (DHET, 2020:59). This shows that almost half of the students leave the education system without a qualification (DHET, 2020:12-13). It is every institution's goal to ensure high throughput rates (DHET, 2020:165) hence the call by the DHET through the University Capacity Development Programme (UCDP) for all universities to offer interventions aimed at supporting students. Through the UCDP, institutions should analyse student population variables, design evidence-based interventions that promote student success. HE institutions should enrol students with a reasonable chance of success (DHET, 2020:163).

Identifying pre-enrolment and post-enrolment factors that influence academic performance is essential as this helps to provide the necessary support to students and is in line with the DHET's call to institutions. With access to tertiary education improved, learners then pursue admission into well-known programmes in a science discipline, having been strongly supported in high school, and hope to secure employment (Isaacs, Visser, Friedrich, & Brijlal, 2007:621; Kroon & Meyer, 2001:480). This leaves other less-known disciplines such as entrepreneurship vulnerable to those students who may not have done well in primary and secondary education. This explains why the report (DHET, 2020:162) showed the lowest performance in business studies qualifications. Lowest performance in the DHET report refers to highest dropout rates

and lowest throughput rates. Hence calls by the DHET to take a closer look at the models underlying undergraduate business education and explore ways of improving student success.

The National Development Plan 2030 acknowledges that some high schools produce matriculants who are under-prepared for higher education (Adam, Backhouse, Baloyi & Barnes, 2010). As a result, more resources are set aside for them, leading to increasing costs of turning them into graduates by at least an additional year, at times taking up to seven years (DHET, 2020:37). At tertiary institutions, interventions are offered by both the DHET and individual institutions aimed at increasing the participation and graduation rate. The DHET and other role players have implemented some interventions to address the high dropout and throughput rates in the past (DHET, 2020:164-165) and these are:

- Increased NSFAS funding;
- Student housing;
- Extended programme/foundation programmes;
- Teaching development grants (now directed towards academic success enhancement such as First Year Experience; academic development programmes; and tutorial and mentoring programmes);
- University Capacity Development Grants;
- Supplementary instruction programmes;
- Psycho-social support programmes; and
- Life skills programmes

Most of these interventions such as the First Year Experience, the Extended Curriculum Programme (ECP) have been well received in most South African tertiary institutions (Leshoro & Jacobs, 2019) as well as the tutorial and mentoring system (Matsoso & Iwu, 2017). The ECP, referred to as Foundation Programmes (DHET, 2020:164), prepares students who are under-prepared for the demands of tertiary level studies based on their low high school grades by giving them six months to a year to improve their readiness to take the full academic workload (Scholtz & Allen-Ile, 2007; DHET, 2020:135). After six months or one year of introductory studies, ECP students join the mainstream students. Covering the content of the first year modules in two years improves the academic performance of students (Fisher, 2011:71). Such support structures are indications that efforts are in place to improve academic performance by different institutions. For example, a three-year degree is done in four years under the ECP programme (Fisher, 2011:70). No significant difference has been found in the foundational programmes nationally in terms of dropout and throughput rates when compared to mainstream students (DHET, 2020:139). Thus, it raises a question on whether the foundation

programmes are used as a teaching and learning mechanism to ensure success or as an alternative access route. A study on the 2008 national matric cohort presents the Western Cape Province as a top-performing province with 78% of the students obtaining a pass (Van Broekhuizen *et al.*, 2016:9). This research aims to identify the pre-enrolment factors that influence the academic performance of entrepreneurship students at a tertiary institution in Western Cape Province, South Africa. Thus, this research is directly responding to the call by the DHET on the determination of what constitutes to the factors affecting the retention rates in HE, and will identify interventions that are relevant to entrepreneurship students who form part of the low performing category in terms of dropout rates and throughput rates nationally (DHET, 2020:162).

1.2. Problem statement

Two major problems underly the focus of this study, namely:

- (i) The need to ensure a high level of entrepreneurship development in South Africa (Herrington, Kew & Mwanga, 2017), a country known to have a high failure rate of start-ups in their infancy (Bushe, 2019; Msimango-Galawe, & Hlatshwayo, 2021);
- (ii) There is low student throughput rate in Business Studies in which entrepreneurship falls under (DHET, 2020:162).

Many studies have sought to understand the factors that cause high academic failure rates (Schmelzer, Schmelzer, Figler and Brozo, 1987; Killen, 1994; Campbell & Dickson, 1996; Ditcher & Tetley, 1999; Fraser & Killen, 2003; Karimi, 2009; Harding, 2012; Aturupane, Glewwe & Wisniewski, 2013; Sibanda, Iwu & Benedict, 2015a; Sibanda, Iwu & Benedict, 2015b). There is need to address the high unemployment problems in developing countries (Fatoki & Chindonga, 2011:163; Rauch & Hulsink, 2015; Nchu, Tengeh, & Hassan, 2015; Kerrick, Cumberland, & Choi, 2016). Consequences of high unemployment rate such as crime (Fatoki & Chindonga, 2011:163) may be minimised once these solutions materialise. Entrepreneurship education is an instrument for job creation (Timmons & Spinelli, 2004; Kusmintarti, Thoyib, Maskie, & Ashar, 2016:25). This implies that there are implicit expectations of job creation from entrepreneurship graduates. Considering the high failure rate of tertiary students at South African institutions (Adam *et al.*, 2010), there is a need to understand the pre-enrolment factors that influence entrepreneurship students' academic performance. The university at which this research was conducted attracts applicants who are from the under-represented designations exposed to many challenges in their upbringing.

The entrepreneurship field has received much attention in South Africa (Timmons & Spinelli, 2004; Gwija, 2014) and globally (Kusmintarti *et al.*, 2016:25). This could be attributed to the benefits of entrepreneurial activities within a particular area such as employment creation according to a study conducted in five African developing countries (Malawi, Kenya, Zimbabwe, Botswana and Swaziland) by Mead and Liedhom (1998:71), also mentioned in other studies (Nxopo, 2014:25, Mbinda, 2015:24, & Almeida, 2017:2). Other studies have indicated the benefits of job creation because of entrepreneurship (Nicolaidis, 2011; Chimucheka, 2013; Rauch & Hulsink, 2015; Kerrick *et al.*, 2016:2). In developing countries (such as Zambia, Ethiopia, Uganda, Kenya, Mali, Zimbabwe, South Africa, Cameroon, Angola) there exists a similar challenge of providing graduate employment to its citizens (Nicolaidis, 2011; Szirmai, Gebreeyesus, Guadagno, & Verspagen, 2013; Fatoki, 2014a; Neneh, 2014; Justino, 2015). One of the ways of nurturing entrepreneurship is through entrepreneurial education according to masters' research conducted by Nchu (2015:13) and other studies (Radipere, 2012; Timmons & Spinelli, 2004; Kusmintarti *et al.*, 2016) which found that the number of start-ups might increase which may lead to job creation and economic growth. Most South African tertiary institutions have to embed entrepreneurial education in their curriculum (Radipere, 2012). This ensures graduates are exposed to the entrepreneurial field and possibly will start their own businesses in future (World Economic Forum, 2009; Kilasi, 2013). Entrepreneurship education plays a significant role in awakening entrepreneurial intentions as it helps students to turn vague intentions of starting a business into realities (Zain, Akram, & Ghani, 2010; Claire, & Perryman, 2016; Ndala, 2019).

The researcher argues that, since entrepreneurship is critical to providing solutions to national challenges, research focusing on increasing entrepreneurship students' throughput rates rates is of critical importance. This is in line with the call by the DHET for universities to find ways of increasing retention rates in business studies (DHET, 2020:162).

South Africa faces many challenges, hence there is a need for the following solutions: employment creation, poverty eradication, and increased access to tertiary education (Chimucheka, 2013; Meyer, 2014; Graham & Mlatsheni, 2015). Since entrepreneurship has been identified above as having a considerable impact on solving the above problems, this research will seek to understand some of the factors that influence the academic performance of entrepreneurship students. From the literature reviewed, much research has been conducted on throughput rates at primary, secondary and tertiary level students in both South Africa and internationally (Schmelzer *et al.*, 1987; Killen, 1994; Campbell & Dickson, 1996; Ditcher & Tetley, 1999; Fraser & Killen, 2003; Karimi, 2009; Harding, 2012; Aturupane *et*

al.,2013; Sibanda *et al.*, 2015a; Sibanda *et al.*, 2015b). There is a paucity of research on entrepreneurship students, and this study seeks to contribute to knowledge in this area.

The higher education sector is making efforts to improve throughput rates among students (DHET, 2020:14). Throughput rates are a matter of concern in any educational environment; hence there are measures aimed at improving academic performance at any institution. As a result, students often complete their undergraduate studies within a minimum duration instead of up to six years (Van Broekhuizen *et al.*, 2016; DHET, 2020:156) so that they may contribute to the economy. If the low throughout put rates are not improved, increased access to higher education will be an additional burden to the strained higher education system. Since entrepreneurship students gain knowledge, skills and competencies to become job creators, much focus is placed on entrepreneurship and new firm creation as avenues to combat unemployment (Nicolaides, 2011; Fatoki, 2014b; Maziriri & Madinga, 2016). There is a gap in knowledge that focuses on the journey of entrepreneurship students from the time they are accepted at tertiary institutions until graduation. Therefore, this research focuses on entrepreneurship students as a unit of study considering the expected role they should play in the economy once they graduate.

Inspired by gaps in the literature, the central focus of this research is to understand to what extent enrolment factors influence academic performance of entrepreneurship students. In other words, the central question is: how do enrolment factors influence academic performance of entrepreneurship students? An improved pass rate and improved completion of the study within minimum duration may translate in the ability of graduates to create jobs. It is critical to understand the pre-enrolment factors that influence the academic performance of entrepreneurship diploma students. Therefore, this research proposes to unearth some of the pre-enrolment factors considered to be influencing academic performance of entrepreneurship students in the Western Cape Province.

1.3. Rationale and significance of the research

Entrepreneurship education contributes to job creation in any economy (Kusmintarti *et al.*, 2016). The duration students take to complete a qualification matter and is evident in HE institutions' student support to increase throughput rates (DHET, 2020:165). However, students are becoming more diverse (Jama, Mapesela, & Beylefeld, 2008), which warrant more research on understanding them. These benefits of understanding the student population include interventions to improve the retention of students in HE (DHET, 2020:156).

There is a trend of low throughput rates in HE South African institutions (DHET, 2020). Various reasons lead to low throughput rates, including the under-preparedness of students into HE (Adam et al., 2010; Leshoro & Jacobs, 2019). This trend is evident in many ways, such as lack of career guidance and financial and academic resources. Such students may either change qualifications, drop out or take longer to graduate (DHET, 2020:37). Once students are in HE, they need the motivation to pull to the graduation line through many targeted interventions (DHET, 2020:164-165).

This study partially stems from the researcher's experiences and informal interactions with undergraduate classmates: some events which led to several questions necessitating answers in this research, precisely, on pre-enrolment factors that influence academic performance of entrepreneurship students. The researcher barely received any form of formal career guidance in his childhood until his thirteenth year of studies, which is the final year in high school in the Zimbabwean educational system. At this stage, a student paves the groundwork in preparation for tertiary level studies.

Due to lack of financial resources and lack of career guidance, after completing the A-level, this researcher had to opt for a career in mechanical engineering as an apprentice. In Zimbabwe, an apprenticeship training is a government-funded programme designed to develop critical technical skills either through a private company or parastatal. He dropped out during his third year of training as he was doing a trade that he was not motivated to do. This was after he received a scholarship to pursue studies in a Bachelor of Technology (BTech) degree in Business Administration, at a university in South Africa. Since financial resources were a challenge for the researcher to pursue tertiary studies, he grabbed the opportunity despite this being a change in his career. This became another shift, from mechanical engineering to the business field. This led to one of the research questions of this study, which is in line with access to resources before pursuing tertiary level studies. The researcher believes that the access to resources affords students the chance to prepare for a career, and to be able to study a tertiary qualification of their choice. Students studying for preferred qualifications aligned to their interests tend to be motivated; hence their performance is more likely to be positive leading to the completion of their qualification within minimum expected duration (Sikhwari, Ravhuhali, Lavhelani, & Pataka, 2019:302).

The institution offered the researcher a place to study towards a Diploma in Entrepreneurship, a new field to him even though his first and second choice of qualification were Business Administration and Mechanical Engineering respectively during the application stage. The researcher did commercial subjects at A-level; however, he was rejected in his first option and was given Entrepreneurship, which was not one of the options applied for. Therefore, the final high school grades are critical as tertiary institutions use them as a screening mechanism when selecting potential students since they have a direct effect on the academic performance (Karimi, 2009). This research hence seeks to understand the extent at which high school grades influence academic performance at a higher level. Two key factors significantly influenced the researcher's decision to accept the study offer, namely getting a place at a university and retaining the scholarship. As a result, the researcher had to develop an interest in the new field, pursue the diploma and then completed a BTech degree in Business Administration. Students are influenced mainly by the families from which they come; hence the researcher partly seeks to understand the influence of family background towards the academic performance of the students.

The researcher has experience as a tutor and lecturer as he taught at a college as well at a university on both distance and contact mode respectively. This experience gave him insights into the plight of university students' as they undertake their studies. Some issues that concern students are familiar to the researcher since he was once a student of entrepreneurship at a university. The researcher's primary concern is the generally poor academic performance resulting in low throughput rates (DHET, 2020:162) and eventually, delayed employment creation. Tertiary institutions should be aware of the calibre of students they have; hence the need to develop interventions to improve students' academic performance. One of the objectives of this research is to understand the extent to which these interventions influence the academic performance of students. The researcher also seeks to understand the strategies that can be employed to maximise the academic performance of entrepreneurship students.

This study is significant in that it may benefit both university students and lecturers. The study may reveal useful information to the lecturers in their teaching and learning strategies, hopefully to the advantage of all students. Students would be equipped with the pertinent information that would help adjust their lives at university, eventually improving their academic performance. The research may also benefit the institution by ensuring the enrolment of the right students in the entrepreneurship qualification as well as result in relevant interventions being implemented to improve dropout rates. DHET, non-governmental organisations (NGOs)

and other stakeholders such as the National Students Financial Aid Scheme (NSFAS) might engage in interventions that prepare learners to take up entrepreneurship as a discipline.

1.4. Aim and objectives of the study

The central aim of this study is to understand the pre-enrolment factors influencing the academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa.

To achieve the above research aim, this study has three main objectives:

- (i) To determine the extent to which pre-enrolment factors influence the academic performance of entrepreneurship students;
- (ii) To ascertain existing and implemented institutional interventions to mitigate factors that influence poor success;
- (iii) To recommend strategies that can be employed to maximise the academic success of entrepreneurship students

1.5. Research questions

Based on the aforementioned objectives, the questions addressed in this study include:

- (i) To what extent do pre-enrolment factors influence the academic performance of entrepreneurship students?
- (ii) To what extent do the present interventions such as tutorials mitigate factors that influence poor academic performance of entrepreneurship students?
- (iii) What strategies can be employed in order to maximise the academic success of entrepreneurship students?

1.6. Research design and methods

Questions such as how many or how much are answered using quantitative methods (Bricki & Green, 2007:3). A quantitative approach is followed in this study using a questionnaire developed to understand the students' profiles as well the pre-enrolment factors that influence their academic performance. The questionnaire was administered to all the students undertaking entrepreneurship diploma. A questionnaire was developed, consisting of closed-ended questions aimed at gathering quantitative data.

1.6.1. Delineation of the research

This study only focused on full-time diploma students of entrepreneurship at a university in the Western Cape, South Africa. There were 512 students registered for the qualification. This study used a convenience sampling method to get a better representation of the respondents' views. The entrepreneurship diploma programme has four groups of students, namely: ECP cohort, first year mainstream cohort, and second year and third year students. Data were collected from 204 students. Questionnaires were distributed in lecture rooms; hence only students who were present and willing to participate were part of the target population. Further details will be discussed in Chapter Three.

Data were collected with the use of questionnaires developed by the researcher. The questionnaire was developed in line with the research questions:

- a) Firstly, there is a need to understand the demographics of the research population, which led to the questions in Section A of the questionnaire (see Appendix E – Questionnaire).

- b) To what extent do pre-enrolment factors influence the academic performance of entrepreneurship students? Section B was derived from the need to understand the issues around the choice of students for studying the entrepreneurship qualification. Pre-enrolment factors which were identified from the literature review were contained in a structured questionnaire using a Likert scale with four intervals. Since this research focuses on entrepreneurship students, there is a need to understand the student's basic entrepreneurship profile, and this will seek to answer the question: "To what extent do the present interventions such as tutorials influence the academic performance of entrepreneurship students?"

- c) Section C sought to understand the awareness of learners on the available support structures that are in place. This would help in forging further possible ways on how students can be supported. Likert-type questions were used to unearth the perceptions of what will potentially influence the future performance of the students. This will, in turn, help in devising strategies that can be used to maximise the academic performance of learners, which is the third research question. The strategies were reinforced with the practices identified in the literature. This would, in turn, answer the question "What strategies can be employed in order to maximise the academic performance of the entrepreneurship students?"

There were five cohorts in the entrepreneurship diploma qualification, i.e. two ECP cohorts, first year mainstream, second year and third year students. For each cohort, there was one field officer responsible for administering questionnaires. The researcher briefed the field officers on how they should conduct the questionnaire administration to ensure that there was no bias as well to ensure voluntary participation. This was critical in maintaining the credibility of the research. Field officers distributed the questionnaires in the respective classes they represented.

1.6.2. Data analysis

Data were captured and analysed using the Statistical Package for Social Sciences (SPSS) Version 25. Various statistical tests were performed on the data, such as Cronbach's Alpha to measure the consistency of the variables. Descriptive analysis was carried out to determine the means, standard deviations and medians of the variables of the study. The above helped to better understand the data and thereby answer the research questions.

1.7. Ethical considerations

The study sought to understand the views of students; hence, there was a need to collect data for that research target. A letter of permission to conduct research was sought from the Entrepreneurship department as well consent letters from students in different classes. Participation of the research population was not compulsory and treated confidentially. The questionnaire made it clear to participants that the data would only be used for research purposes while identities remained confidential.

1.8. Limitations of the research

Several factors affected the quality achieved in this piece of research, and these include:

1. The researcher was not able to administer the questionnaire directly to the respondents, as he is a full-time employee at a different private institution. To overcome this, the researcher took leave days and briefed the research assistants (field officers) on the administration of the questionnaire.
2. Academic performance is considered a sensitive issue; hence, some students might not have readily revealed their perceptions on performance.
3. This research used students from one entrepreneurship department at a university in the Western Cape, which limits the generalisation of the research findings in the South African context.

1.9. Structure of the thesis

This chapter provided a blueprint of the study. Aspects included were the problem statement for the research, relevant research questions and research objectives of this research study, the rationale behind the focus of the research, the potential significance of the research, the research objectives as well the research paradigm, which highlighted the theoretical framework used. The chapter concluded with a discussion of the ethical considerations and limitations of the study.

This chapter reviewed the available literature relevant to the pre-enrolment factors influencing the academic performance of the entrepreneurship students. The main focus is on exploring pre-enrolment factors influencing the academic performance of students; and institutional interventions at a university under study and guidelines towards possible strategies. Three main aspects were considered, and these are students' attitudes about their capabilities to succeed, their drive to succeed and the strategies employed to attain the desired outcome. The literature review will be guided by two theories underpinning this study.

This chapter discussed the research methodologies employed in this study. The data collection process was also discussed, together with the questionnaire instrument, which was discussed in detail. This chapter discusses the research design employed in this study, explains how the respondents were selected, the research instrument used to collect data and methods for data collection. The steps followed to get approval for the questionnaire instrument were explained. The chapter concluded with an overview of how the data would be analysed and presented.

This chapter discusses and analyses the data on the opinions of the respondents drawn from a questionnaire survey. Descriptive analysis was made in terms of comparison and ranking of means which helped towards answering the three sub-research questions from the findings. Further, the findings were compared with other studies cited in the literature, which was reviewed in Chapter 2.

This chapter presents the conclusions drawn from the findings which were presented and analysed in Chapter 4, offering recommendations based on them, and evaluates the contribution made by this study towards understanding the academic performance of students in tertiary level.

1.10. Summary of this chapter

Throughput rates are a matter of concern in any educational environment; hence there are measures to improve academic performance at any institution. Entrepreneurship students are potential job creators, and the time they take to complete their tertiary studies is of great concern. This study looks at ways to minimise poor pass rates and improve low throughput rates by explicitly examining variables relating to academic success among students in HE within the South African context. A sample of 204 students participated in the study. This study adhered to the CPUT research ethics policy and analysed data through the SPSS.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The previous chapter explained the motivation of this study. Aspects included were the problem statement for the research, the rationale behind the focus of the research, the potential significance of the research, the research objectives as well the research paradigm, which highlighted the theoretical framework used. This chapter reviews the available literature relevant to the pre-enrolment factors influencing the academic performance of the entrepreneurship students.

The main research question of this study is:

What pre-enrolment factors influence the academic performance of entrepreneurship diploma students at a tertiary institution in the Western Cape, South Africa and the possible solutions?

As a reminder, to achieve the aim specified earlier, this study has three main objectives as shown below:

- (i) To determine the extent to which pre-enrolment factors influence the academic performance of entrepreneurship students;
- (ii) To ascertain existing and implemented institutional interventions to mitigate factors that influence poor success;
- (iii) To recommend strategies that can be employed to maximise the academic success of entrepreneurship students.

In the latest issue of the national cohort studies for the university sector, the DHET expressed concern about the diploma students' poor throughput rate (DHET, 2020:3). As part of its monitoring and evaluation function, the DHET provides an annual study of the throughput rates and dropout, which assist in determining interventions to improve students' success at university. Thus, the DHET calls for all universities to invest in data analytics to understand their student dropout and throughput rates better. There should be a focus on population groups and gender to identify effective evidence-based interventions to improve retention in the HE system.

Various factors influence the academic performance of the students (Fisher, 2011). Such factors have been categorised differently by various studies such as pre-enrolment and post-

enrolment factors (Woods, Woods, & O'Sullivan, 2012; Burger, 2017) and pre-entry academic and non-academic factors (Pather, 2015). Since various studies have focused on the factors that influence academic performance during the post-enrolment stage (Schmelzer *et al.*, 1987; Killen, 1994; Campbell & Dickson, 1996; Ditcher & Tetley, 1999; Fraser & Killen, 2003; Karimi, 2009; Harding, 2012; Aturupane *et al.*, 2013; Sibanda *et al.*, 2015a; Sibanda *et al.*, 2015b), there is a need for more literature on the pre-enrolment stage. Some studies explored the factors that influence the academic performance of high school students. However, some of the students who complete secondary school do not always proceed to the university level of study. Due to varied reasons, some seek employment; some further their academic study in the colleges and some at universities. For example, only 20% of the 2008 national matric cohort gained university access in the first six years after completing matric in 2008 (Van Broekhuizen *et al.*, 2016:6). The Western Cape Province was second highest with a six-year access rate of about 27% for the 2008 matric cohort (Van Broekhuizen *et al.*, 2016:11). Thus, this study will focus on the pre-enrolment stage, i.e. further understanding the factors that influence the academic performance of those who make it to HE, which directly contributes to the call of the DHET.

This research utilises the General Systems Theory (GST) by Von Bertalanffy (1968), together with a Tripartite Model of Motivation for Achievement (TMMA) by Tuckman (1999). The GST consists of three elements, and these are inputs, processes and outputs (Hunter, 2012:24). Similarly, three elements make up the Tripartite Model of Motivation for Achievement, and these are attitudes or “beliefs about one’s capability to attain the outcome, drive or desire to attain the outcome, and strategy or technique employed to attain the outcome”.

Tuckman’s model (Tuckman, 1999) states that:

For students to be motivated, lecturers should make efforts to enhance students’ attitudes or beliefs in their own capability, impel or propel engagement in the learning process, and teach students about relevant strategies that can be used.

The literature review will be guided by the two theories described in the next sub-section, exploring pre-enrolment factors influencing the academic performance of students; and institutional interventions at a university under study and guidelines towards possible strategies. Institutional interventions will then be suggested in Chapter 4 once the perceptions of the students are analysed.

2.1.1. Theoretical frameworks for this study

This research utilises the General Systems Theory and (ii) the Tripartite Model of Motivation for Achievement. A General Systems Theory consists of three elements, and these are inputs, processes, and outputs (Hunter, 2012:24). Similarly, three elements make up the Tripartite Model of Motivation for Achievement by Tuckman, and these “are attitude or beliefs about one’s capability to attain the outcome, drive or desire to attain the outcome and strategy or technique employed to attain the outcome”.

The Tripartite Model of Motivation for Achievement by Tuckman (1999) states that:

For students to be motivated, there should be efforts made by teachers to enhance students’ attitudes or beliefs in their own capability, to impel or propel engagement in the learning process, and to teach students about relevant strategies that can be used.

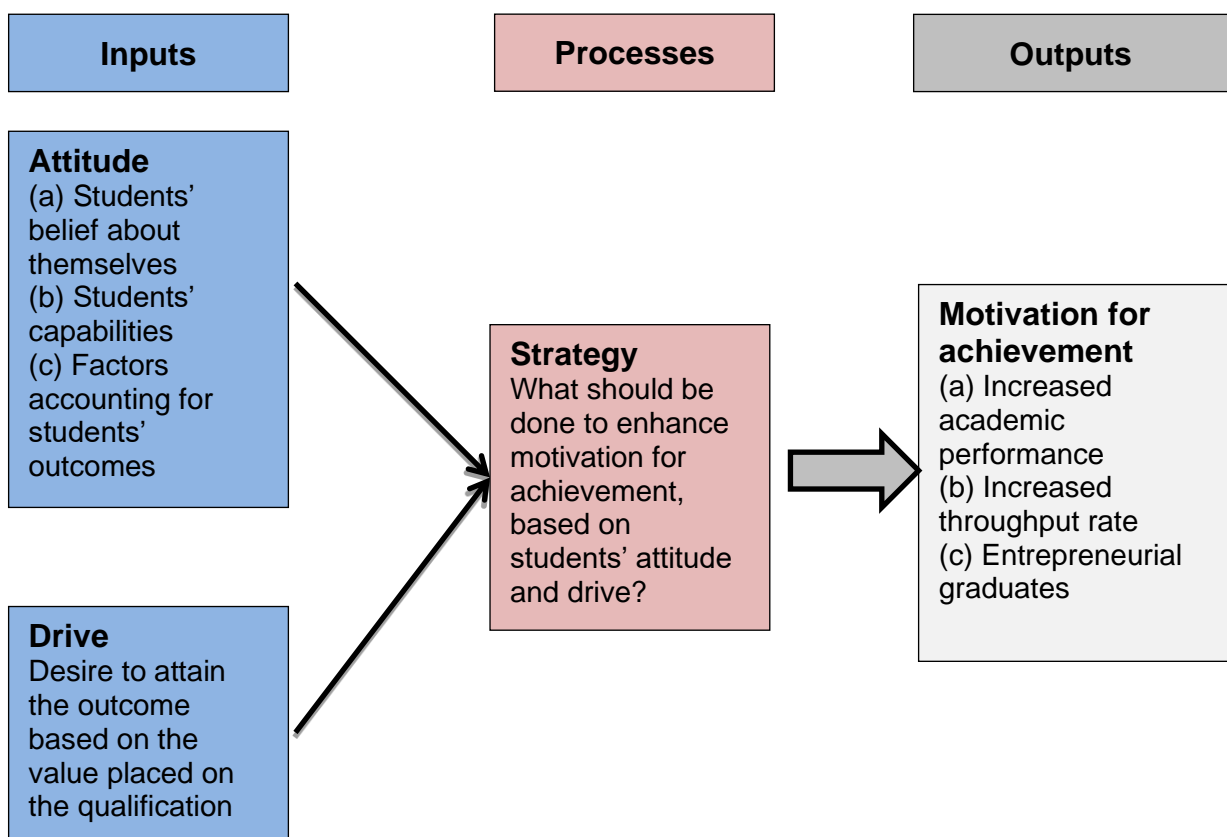


Figure 2. 1: Framework for improving academic performance

Source: Author’s construct based on the Tripartite Model of Motivation for Achievement by Tuckman (1999) and the General Systems Theory by Von Bertalanffy (1968)

According to literature (e.g. Woods et al, 2012; Pather, 2015; Burger, 2017), pre-entry academic factors include high school attended and high school academic performance while pre-entry non-academic factors include demographics, socio-economic, family and community influences. Furthermore, pre-enrolment factors include gender, method of entry at university and high school subject grades on exit. This study focused on selected pre-enrolment factors discussed in the next section. Since part of this research sought to understand the pre-enrolment factors that influence the academic performance of entrepreneurship students, it will reveal the attitudes of the students. Learning interventions applied at different institutions are reviewed, to understand the considerations when selecting appropriate interventions contributing positively towards academic success.

The discussion of the literature for this study follows the diagrammatic presentation in Figure 2. 1. which integrates the General Systems Theory, together with the Tripartite Model of Motivation for Achievement, as explained in the next section.

2.1.2. Literature review overview

For the literature review for this study, sources utilised include secondary sources, relevant entrepreneurship books, government publications, conference proceedings, dissertations, and academic journals in disciplines with a contribution towards the focus area of study (Crowther & Lancaster, 2009:98). The sources consulted were gathered and evaluated based on the methodology, date of publication, their purpose, nature of data and source credibility (Crowther & Lancaster, 2009:102-103).

As mentioned in the previous section, the literature review for this study is underpinned by two theories: the General Systems Theory and the tripartite Model of Motivation for Achievement. Thus, the literature is divided into three major sections according to the General Systems Theory (i) inputs; (ii) processes; and (iii) outputs. As per the graphical presentation of the two theories in Figure 2. 1, there are some similarities identified. The Tripartite Model of Motivation for Achievement process relates to the three components of the General Systems Theory. It states that for the outcome (output) to be achieved in the form of motivated students, the learning process should take place with the inputs being the efforts by the teachers, attitudes or beliefs and drive of students' capabilities. Thus, the flow of the literature review will be as follows:

Table 2. 1: Literature review (GST and TMMA)

	General Systems Theory	Tripartite Model of Motivation for Achievement
Section 2.2.	Inputs	Attitudes and drive
Section 2.3.	Process	Strategy
Section 2.4.	Outputs	Motivation for achievement

Therefore, the sub-sections of the literature review are discussed in line with the three sections identified above according to the two models: inputs (attitudes and drive); processes (strategy); and outputs (motivation for achievement).

2.2. Inputs – students’ attitudes and drive

As explained in the previous section, students’ attitudes before the registration stage and drive to complete the entrepreneurship qualification will be discussed in this section. As per the TMMA, any strategy that should be taken by the lecturers towards motivation for achievement should take into consideration the attitudes and drivers of the students, and these can be viewed as inputs under the General Systems Theory. Thus, literature relevant to inputs will be discussed in the next sections.

2.2.1. Students’ attitudes – perceptions of their own ability

It is critical to establish the perceptions of the students as an input when seeking to understand the strategies that can be suggested towards the improvement of motivation for achievement. Students should voice their opinion to achieve balanced possible strategies. In addition, academic trends in South Africa will be discussed next as it indirectly relates to students’ ability.

2.2.1.1. Academic performance trends in South Africa

In this section, an overview of trends relating to academic performance in HE will be established and pre-enrolment information relating to students reviewed. Later on, students’ attitudes before their registration at university will be discussed.

To understand the trends in HE in South Africa, data from PowerHEDA was analysed, leading to graphs that provide a summary of the trends. PowerHEDA is a tool offered by IDSC, a consulting company providing the Higher Education Management Information System (HEMIS) (PowerHEDA, n.d.). This consulting company provides HEMIS business intelligence

services to 22 universities in South Africa, including the four in the Western Cape Province: (i) Cape Peninsula University of Technology (CPUT); (ii) Stellenbosch University (SU); (iii) University of Cape Town (UCT); and (iv) University of Western Cape (UWC). Prior to the use of HEMIS, the former Department of Education collected data on student graduation and full-time equivalents for analysis (DHET, 2020:13). That data was presented through the South African Post-Secondary Education (SAPSE) system. In 1998, a review of the SAPSE system identified its weakness, namely that it was difficult to access and manipulate data for actionable insights, hence the introduction of the HEMIS in 2000, which is more flexible when analysing data. Universities submit their externally audited data to the DHET by 31st of July on a yearly basis. The data is validated and cleaned until ready for use (DHET, 2020:14). This study summarises trends across the 22 universities and in a selected province (Western Cape Province).

Due to a need to improve access to tertiary education by the South African government, as in Australia (McKenzie & Schweitzer, 2001), institutions of higher learning confront diverse students (Jama, *et al.*, 2008). These students are often under-prepared for higher education (Fisher, 2011; Leshoro & Jacobs, 2019). The National Development Plan 2030 acknowledges that some high schools produce matriculants who are under-prepared for higher education (Adam *et al.*, 2010) and as a result, such students tend to take longer to complete their qualification and some dropout (DHET, 2020:156). Partially because of students being under-prepared, they generally take longer to complete their undergraduate some up to seven years (Van Broekhuizen *et al.*, 2016:4; DHET, 2020:31-32). As a result, increasing throughput rates have been the goal of every institution (Fisher, 2011:12; DHET, 2020); hence the introduction of the ECP. As a result, the above development of increased access as presented in Figure 2. 2 below for the period 2003 to 2018 can be viewed as an achievement by the previously disadvantaged communities while considered as a significant challenge for tertiary institutions in terms of converting students into graduates. During this period, student headcount in South African HE rose from about 700 000 to close to 1 100 000.

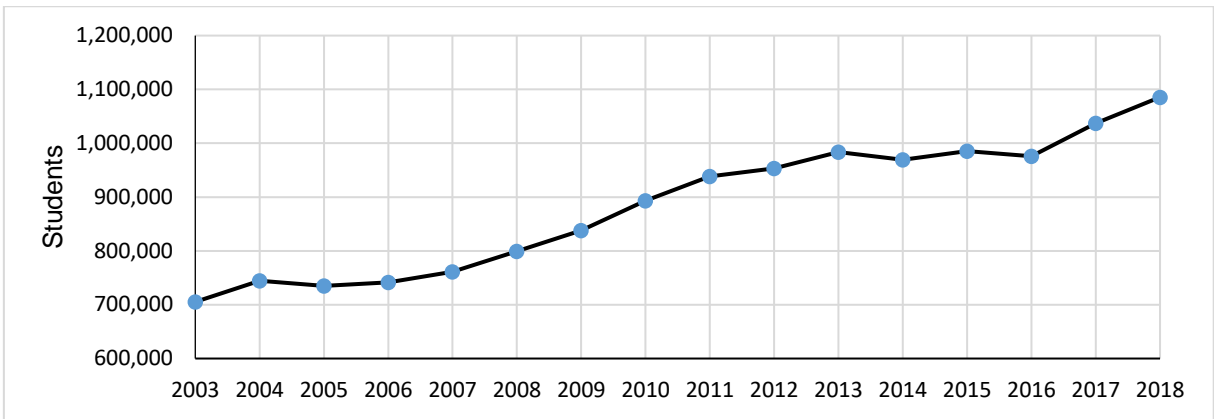


Figure 2. 2: Headcount (All South African Universities from 2003 to 2018)

(Summary of headcount at South African universities, Source: PowerHEDA Website, 2020)

The next figure (Figure 2. 3) presents first-time students who have entered the HE across all universities in South Africa. This confirms the increased access into HE as the numbers gradually rose from above 160 000 in 2003 to close to 270 000 in 2018. This is supported by a DHET report (DHET, 2020:16).

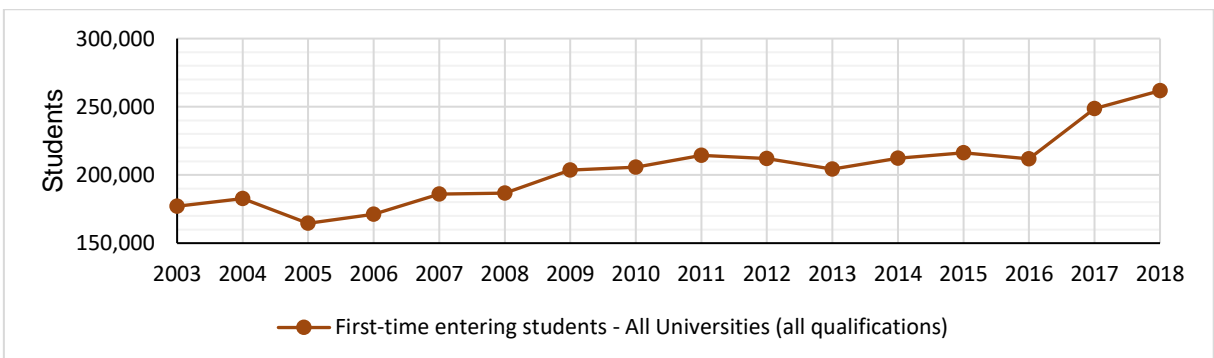


Figure 2. 3: First-time entering students across all South African universities

(Summary of First-time entering students at all universities, Source: PowerHEDA Website, 2020)

The Western Cape Province and the national trend in terms of student headcounts and first-time entering students share a similar trend. The Western Cape was the second-highest province in term of six-year access rates with about 27% of the 2008 matric cohort (Van Broekhuizen *et al.*, 2016:11). This is presented in Figure 2. 4, showing an upward trend. Thus, it can be argued that the Western Cape Province universities share similar challenges associated with increased access and converting students into graduates.

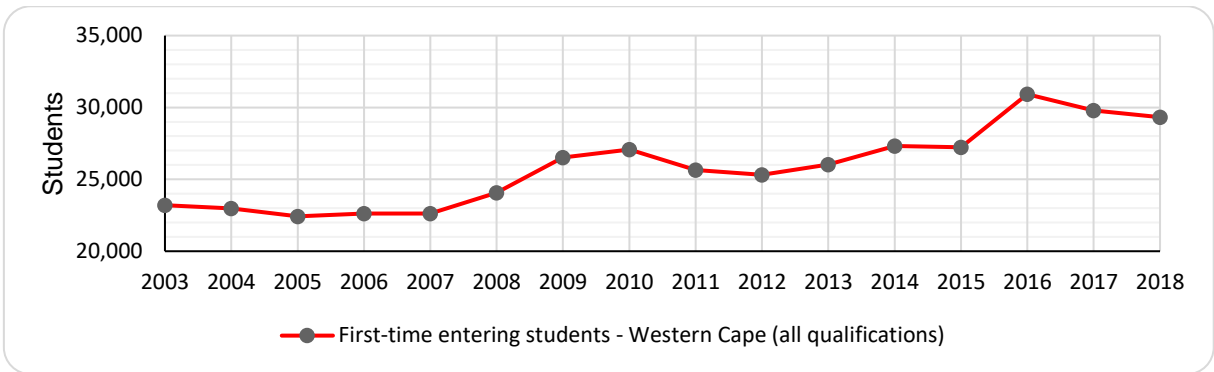


Figure 2. 4: First-time entering students across all universities in Western Cape Province

(Summary of First-time entering students in Western Cape Province, Source: PowerHEDA Website, 2020)

Since this study focuses on one of the universities in the Western Cape Province, the next figure depicts the distribution of first-time entry students among four universities in the Western Cape Province. From 2003 to 2018, between 32% and 46% of the first-time entrants in the Western Cape Province registering with CPUT. This is between almost a third and almost half of the first-time entrants in the province. On the other hand, UWC had the smallest proportion within the period ranging from 5% to 9% of the total first-time entrants in the province per year. With CPUT registering the largest proportion in the province yearly through the period in Figure 2. 5 followed by UCT, this might suggest some challenges of converting students into graduates faced by the former.

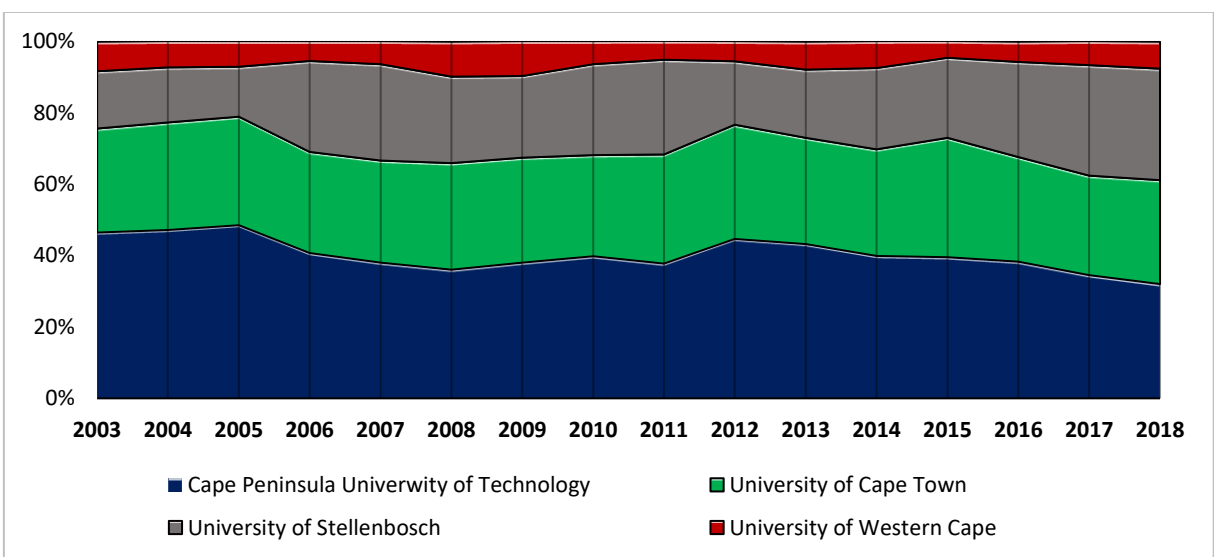


Figure 2. 5: Western Cape Province first-time entrants – contribution per university

(Summary of first-time entrants in the Western Cape Province, Source: PowerHEDA Website, 2020)

The national trends and trends in the Western Cape of access to HE and first-time entrants are discussed as presented in Figure 2. 2 to Figure 2. 5, the next five figures summarise the trends in graduation rates. The period from 2003 to 2018 shows an upward trend in graduation rates from 13% to almost 19%. Despite a positive trend, the highest national graduation rate of about 19% is low. There was also a general (though slight) improvement in the throughput rates when comparing the 2000 cohort to the 2009 cohort (DHET, 2020:31). The 2012 cohort had 56.4% of students who graduated by 2019, thus almost half of the 2012 cohort did not graduate. However, the study by the DHET (DHET, 2020:14) involved South Africans only, with South African national identity numbers used as a criterion to qualify data. This worrisome trend of relatively low throughput rates may suggest that some universities face significant challenges resulting from the increased access to HE noted above.

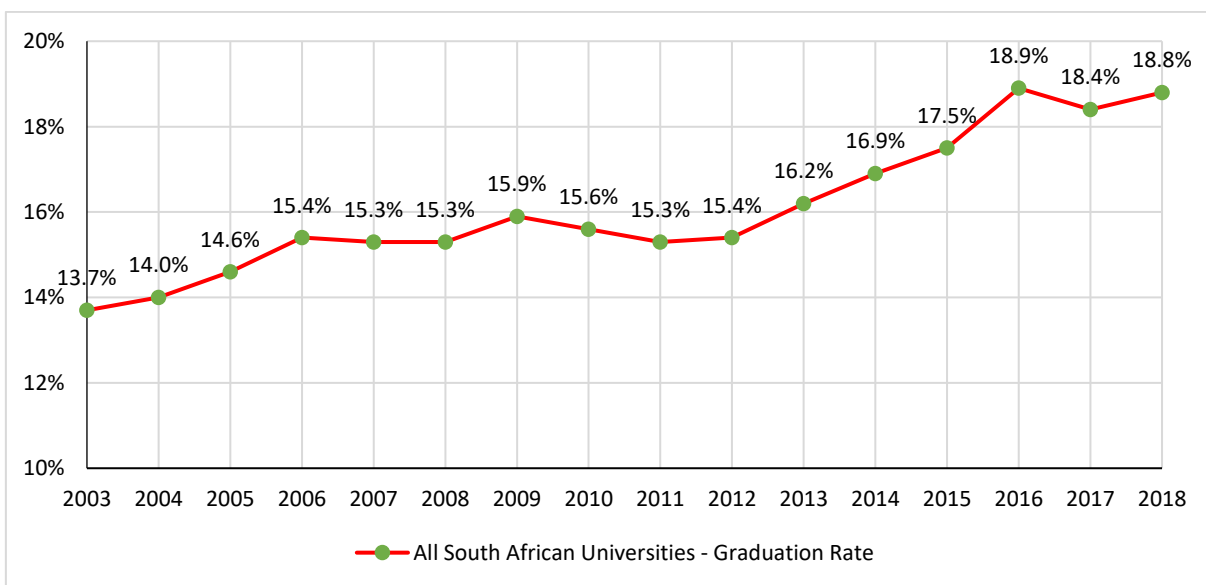


Figure 2. 6: Graduation Rate – All South African Universities

(Summary of Graduation rates of South African universities, Source: PowerHEDA Website, 2020)

Figure 2. 7 shows the contribution of the universities in the Western Cape Province to national graduation figures. The period from 2003 to 2018 shows a negative trend of contribution from the highest in 2003 (16%) to the lowest in 2018 (about 12%). This worrisome trend may suggest that the universities in the Western Cape Province showed lower graduation rates compared to universities in other provinces. However, considering the upward trend in both the student headcounts and the first-time entrants in the Western Cape Province (see Figure 2. 4 and Figure 2. 7), coupled with under-prepared students entering HE (Adam *et al.*, 2010), it may be inferred that universities in the Western Cape Province are experiencing severe

challenges in converting students into graduates. This trend motivated this research that focuses on a university in the Western Cape Province, as presented in the next figure.

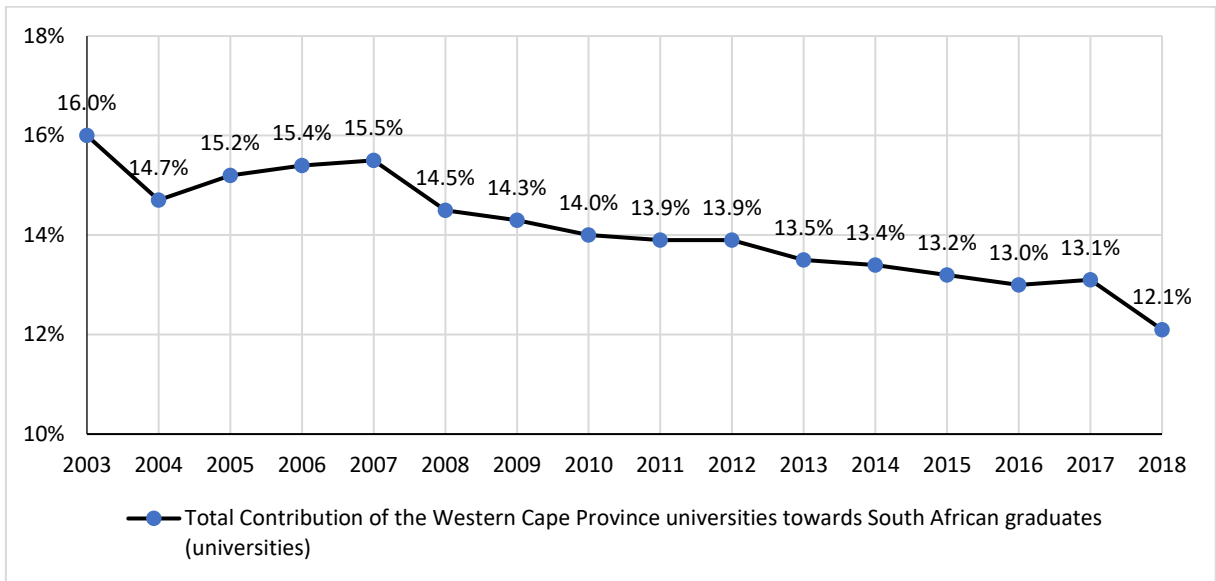


Figure 2. 7: Contribution by Western Cape universities towards national graduation rates
(Summary of Western Cape universities contribution towards national graduation rates, Source: PowerHEDA Website, 2020)

The next two figures drill down into the contribution made by the universities in the Western Cape Province towards the national graduation rate. From Figure 2. 8 and Figure 2. 9, CPUT is the major contributor with a contribution percentage ranging between 5.2% and 6.6%. Despite CPUT being the highest contributor, its contribution generally decreased together with UCT from the year 2003 to 2018. The University of Stellenbosch shows a constant contribution of about 3% on an annual basis with UCT being the smallest contributor with almost 2% yearly. This might confirm the trend pointed out in Figure 2. 5, which suggest that CPUT and UCT might be experiencing challenges in converting students into graduates as a result of increased access to HE by possibly under-prepared students (Adam *et al.*, 2010).

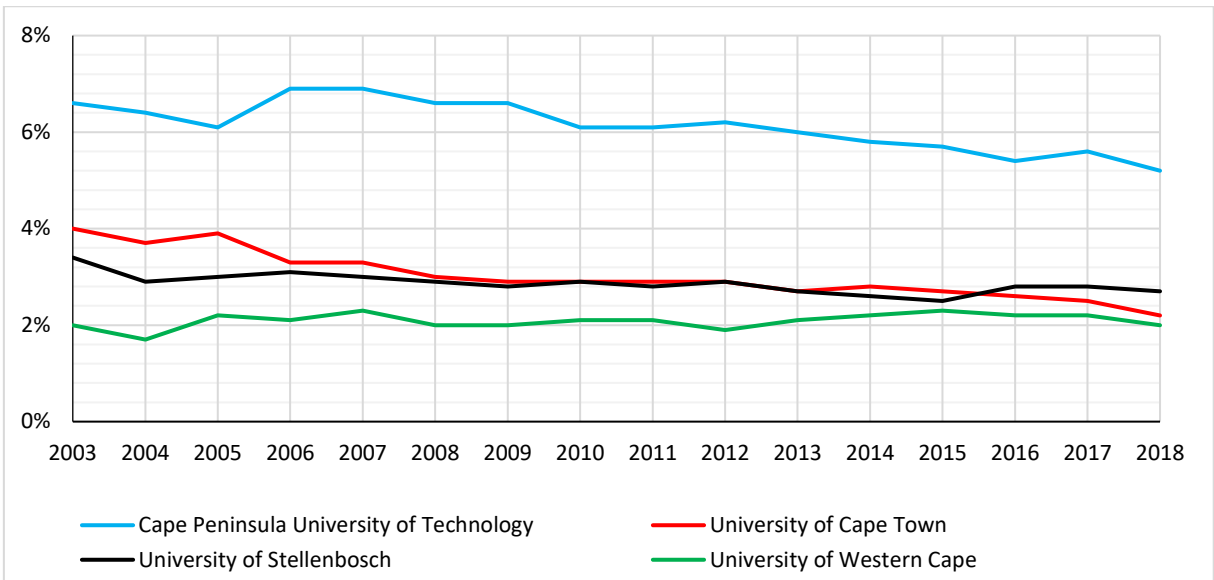


Figure 2. 8: Western Cape Province universities' contribution to national graduation rates
 (Summary of contribution by Western Cape universities towards national graduation rates, Source: PowerHEDA Website, 2020)

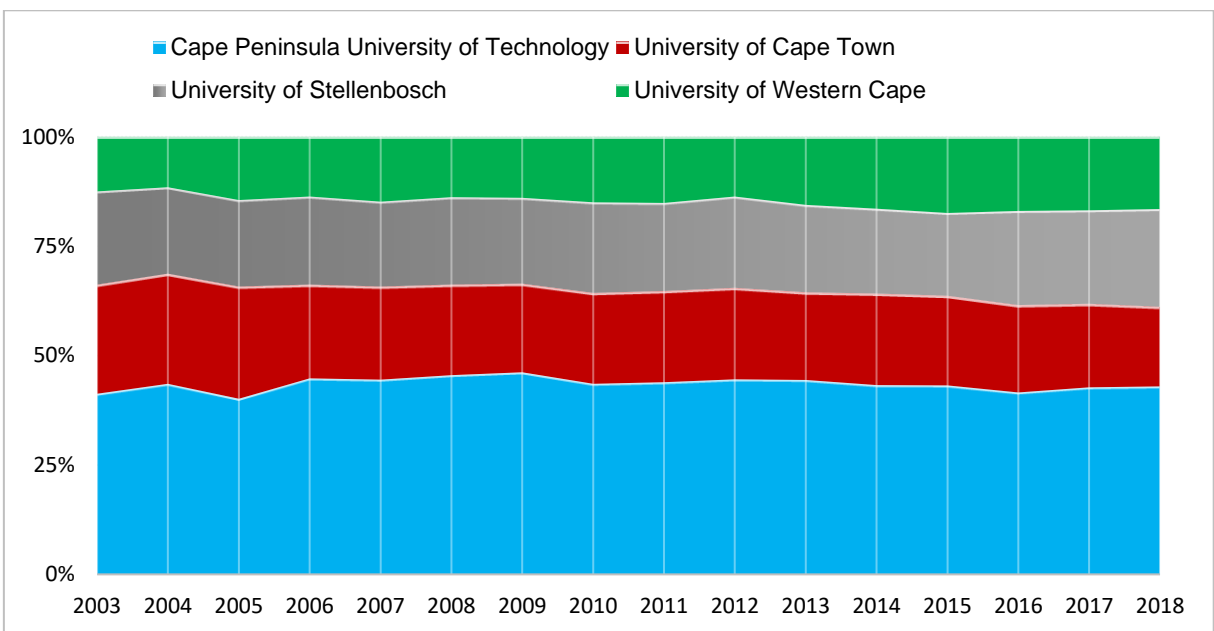


Figure 2. 9: Western Cape Province graduation rates – contribution per university
 (Summary of Western Cape universities contribution to national graduation rates, Source: PowerHEDA Website, 2020)

The next figure compares trends of the four universities in the Western Cape Province and national average graduation rates from the period 2003 to 2018. These trends show that over the period, universities in the Western Cape Province have an upward trend in graduation rates. CPUT had the highest at almost 32% in 2018 from about 20% in 2003. Generally, the University of Stellenbosch and CPUT experienced mostly higher pass rates compared to the

Western Cape Province and national averages. However, the individual institutional averages are generally below 30%, which needs improvement.

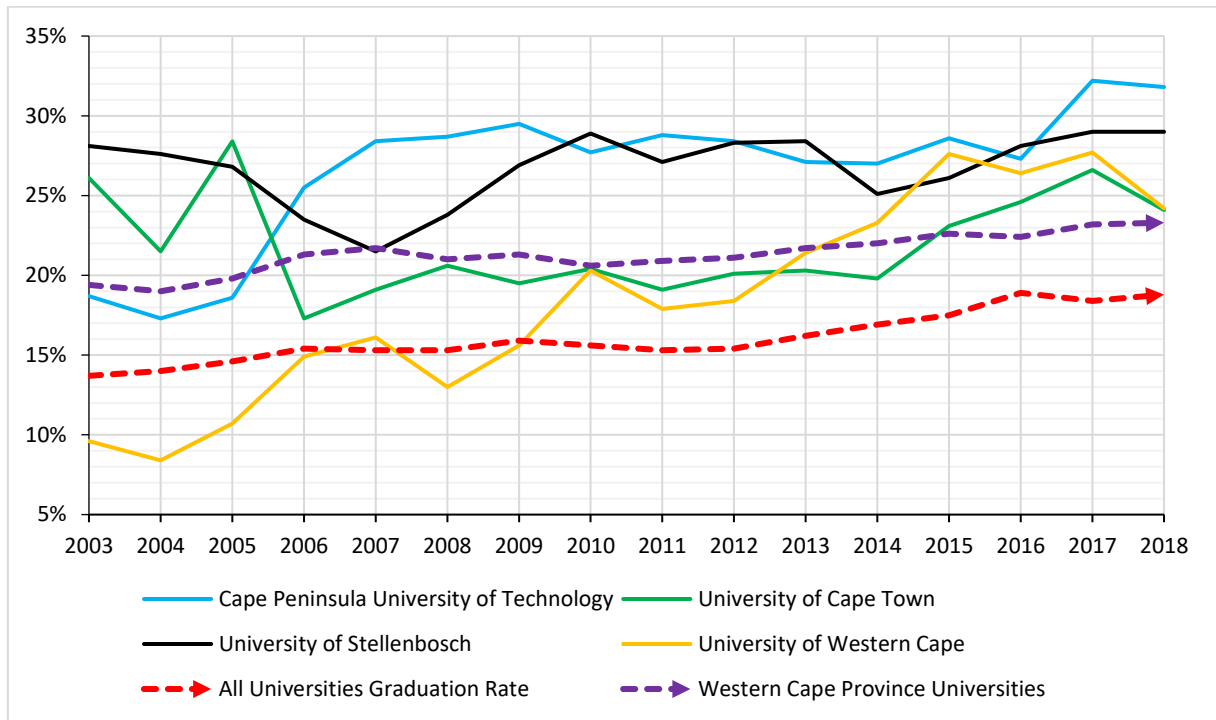


Figure 2. 10: Graduation rates comparison, Western Cape Universities Vs Western Cape average Vs National average

(Summary of graduation rates comparison, Source: PowerHEDA Website, 2020)

2.2.1.1.1. Problem statement – summary

From the literature reviewed, more research has been conducted on throughput rates at primary, secondary and tertiary level students in both South Africa and internationally (Schmelzer *et al.*, 1987; Killen, 1994; Campbell & Dickson, 1996; Ditcher & Tetley, 1999; Fraser & Killen, 2003; Karimi, 2009; Harding, 2012; Aturupane *et al.*, 2013; Sibanda *et al.*, 2015a; Sibanda *et al.*, 2015b). The above studies focused on post-enrolment factors influencing the academic performance of the students. The researcher found a paucity of research directed towards pre-enrolment factors influencing the academic performance of entrepreneurship students.

This study analysed secondary data pertaining to first-time entrants, student headcounts and graduation rates in the period 2003 to 2018, obtained from PowerHEDA, and analysed and presented in the form of graphs. Comparisons were made at the national and institutional level (at the Western Cape Province). It was established that there has been an upward trend in

first-time entrants and student headcounts on the four institutions analysed, in the province and nationally. The graduation rates show an upward trend across all levels of analysis made. However, these are not sufficient as they are below 35%, 25% and 20% individual Western Cape Institutions, aggregated Western Province institutions, and national figures respectively.

Furthermore, the annual contribution of the universities in the Western Cape Province has shown a downward trend despite an increasing contribution from the province in the first-time entrants. A reconciliation of the above two trends shows that students are taking longer to graduate if they persist. This may suggest an investigation of the first-time entrants from the time they enter HE until they graduate. The motivation for academic achievement is influenced by various factors ranging from student attributes and institutional (Sibanda *et al.*, 2015a), which will be interrogated by this research. Considering an increased body of research in post-enrolment factors influencing academic students, as discussed in Chapter 1, this study pays more attention to the pre-enrolment factors influencing the motivation for achievement.

2.2.1.2. Students' pre-enrolment information

The study of the pre-enrolment factors influencing academic performance spans some decades. Young (1989:322) notes that some researchers in developed countries have been researching the characteristics of students which influence their academic performance as early as the 1960s, due to high failure rates at university. Young (1989:338) admits that factors other than pre-entry demographic factors and family backgrounds such as study habits, motivation, personality traits, counselling, and school background could contribute to accurate identification of students at risk of failing. In developing countries like South Africa, studies have been conducted to pin down the problem of academic performance and attrition (Mead & Liedhom, 1998:71). Van Zyl, Gravett, and De Bruin (2012) classified 33 pre-entry attributes into six categories, and these are demographic, academic, socio-economic, the certainty of choice, study attitude, and support. Student retention is a longitudinal process with various interacting variables leading to a decision to continue or terminate studies (Tinto, 1993:112-116). This study focuses on the predisposing factors, identified in Tinto's model, which influence academic goals and commitment, namely individual attributes, pre-college schooling, and family background.

As students transition from high school into higher education, they take a set of characteristics they have inherited from secondary school into the new environment. A study that focused on post-graduate students conducted by Beneke and Beeming (2011) suggests the following

demographic variables influence students' academic performance: age, culture group, employment status, English language proficiency, and gender. Potgieter and Van Schoor (2011:603-606) similarly discussed the students' entry characteristics, and the following are relevant to this study: gender, occupation status, school performance in English, and general school performance. As part of the circles of progression, Jama *et al.* (2008:999) classified family background, school background, language and finance as pre-entry factors influencing student success. A study that was done by Van Zyl *et al.* (2012) with almost 7800 participants indicates that 30 of the 33 pre-entry attributes of first year studies are strong predictors of students' success in the South African context. Burger (2017) did a more recent study that investigated the contribution of pre-enrolment and post-enrolment factors towards students' academic success. This study focused on the influence of the following towards the academic performance of the students: financial resources, study material, family support, family commitment, job commitment and pre-enrolment attributes of the participants. Students may dropout due to under-preparedness, financial difficulties, incorrect qualification choices, unresponsive teaching and/or poor living conditions (DHET, 2020:156).

Due to increased access to tertiary education, students' age tends to vary per new cohort per institution (McKenzie & Schweitzer, 2001). As a result, late teenagers and adults are commonly found in South African tertiary institutions. Understanding if their age is critical to their success is important. For example, Young (1989:337) found that students in the early twenties were at high risk of failure. However, Burger (2017:179) found a higher score for academic success on students younger than 23 years compared to those older than 23 in a Science and Educational faculty. However, his study did not include a Business faculty.

Gender is one of the predictors of academic performance (Van Zyl *et al.*, 2012). Potgieter and Van Schoor (2011:603-604) found out that more female students than males cancelled their studies which could be attributed to their often multiple life roles. However, Bass (2019) found that female students were more likely to be successful than males at a university. A most recent study by the DHET suggests the need for institutions to investigate reasons why male students performed at lower levels than females (DHET, 2020:32).

2.2.1.2.1. Variables for the questionnaire: Pre-enrolment factors

Based on the literature reviewed above, the importance of the following variables will be investigated in this study:

- Career guidance

- Financial resources
- Study material
- Family support
- Family commitment
- Job commitment

Thrikawala (2011:457) and Shambare (2013:450) found out that graduates studying in different fields do not favour entrepreneurship career choice, thus favouring premium qualifications such as law (Viviers, Solomon & Venter, 2013). A study by Kabengele (2019:108) revealed that most of the entrepreneurs who participated in their study did not see value in entrepreneurship education. However, entrepreneurship education can increase students' interest in choosing entrepreneurship as a viable career choice, apart from enhancing their levels of self-efficacy (Herrington & Kew, 2016:53). Such was a recommendation in the Global Entrepreneurship Monitor (GEM) 2015-2016 (Herrington & Kew, 2016:53) report for schools to actively promote entrepreneurship as a career path, which would considerably help when introduced in primary or secondary school level.

A study conducted by Young (1989:337) links academic success and good achievers with high matriculation results. This study considers the number of subjects passed in certified grade twelve exit assessments such as the National Senior Certificate (NSC). Potgieter and Van Schoor (2011:606) noted that students who cancel their studies are those who performed slightly above a grade 12 E symbol on some subjects, implying that they cancel after being confronted with academic demands in courses for which they are not adequately prepared.

Apart from generally having better grades in high school, students who pursue a qualification linked to specialisation high school subjects tend to be in a better position in tertiary education. Studying towards a qualification at university with exposure to a high school speciality subject provides a better foundation. Young (1989:337) identified matriculants performance on specialisation subject assessments as a pre-eminent predictor of success among the other factors investigated. A similar finding was also made in Australia by McKenzie and Schweitzer (2001). Thus, students who have done Business Studies at high school have a better understanding of business terminology such as a business plan, as well as some entrepreneurship terminology.

In South Africa, the medium of communication in most tertiary institutions is English (Boughey, 2002) hence, post-primary learners need to have a good grasp of the language for them to be able to comprehend content during their studies. Potgieter and Van Schoor (2011:605) found that 60% of students who cancelled their first-year studies had English as their second language at school.

2.2.1.2.2. Variables for the questionnaire: Students' Pre-enrolment Profile

From the literature discussed the following variables will be investigated in the questionnaire:

- Subjects passed in high school (English; Mathematics; Business Studies):
- Where high school was completed – rural or urban area
- Students' qualification choice during application stage (Entrepreneurship or other qualification)
- Persistence in pursuing the given qualification
- University choice during application stage

2.2.2. What drives entrepreneurship students?

Typically, entrepreneurship students should be driven by gaining knowledge associated with the completion of an entrepreneurship qualification (Nicolaidis, 2011:1044). However, a central pattern observed by the Global University Entrepreneurial Spirit Students Survey (GUESSS) in its 2018 survey revealed that most students prefer to find employment before venturing into entrepreneurship (Sieger, Fueglistaller, Zellweger & Braun, 2018:3). Similarly, South Africans prefer to seek a job with financial security rather than to establish own businesses (Kroon & Meyer, 2001:480). Since entrepreneurship is favoured as a career five years after graduation (Viviers *et al.*, 2013), employment after graduation can be argued as a driver for students to complete their qualifications.

High academic failure rates are ordinary in tertiary institutions in both South Africa and other countries as highlighted in the following studies (Schmelzer *et al.*, 1987; Killen, 1994; Campbell & Dickson, 1996; Ditcher & Tetley, 1999; Fraser & Killen, 2003; Karimi, 2009; Harding, 2012; Aturupane *et al.*, 2013; DHET, 2020). With this awareness, students should source their motivation from the well documented high failure rates and work hard to complete their qualifications. Thus, by reflecting on the consequences associated with taking longer to complete their qualifications, they should find a source of motivation to work hard.

2.2.2.1. Definitions: entrepreneurship and entrepreneur

This section defines entrepreneurship with a consideration of the views by various scholars and discusses the importance of entrepreneurship in South Africa. Entrepreneurship is a broad discipline that has been widely researched across the globe due to its benefits. This literature review is limited to issues around students as potential entrepreneurs. Thus, this section provides a comprehensive definition of entrepreneurship, the background of the entrepreneurship discipline and its importance towards the economy. Furthermore, this study suggests a definition of an entrepreneur most appropriate for this study, which emphasises the characteristics of an entrepreneur. The focus on such an entrepreneur definition based on characteristics is motivated by the theoretical framework used for this research, which provides room for the development of entrepreneurship characteristics.

Different scholars define “entrepreneur” and “entrepreneurship” based on different perspectives. The available definitions of the term entrepreneurship provided by different authors are not comprehensive enough on their own hence the need to weave more than one into a more comprehensive definition below. Entrepreneurship is as a process (Stokes, Wilson & Mador, 2010:7) of creating something new to achieve rewards through the commitment of resources while enduring risks (Booyesen, 2014a:7) within or outside an organisation (Stevenson & Jarillo, 1990:23). From this definition, entrepreneurship is an act continuously done by an individual with a set of characteristics to achieve the desired rewards. Since this research aims to determine the pre-enrolment factors influencing the academic performance of the entrepreneurship diploma students at a university, characteristics of individuals matter in this study. Therefore, the researcher adopted a definition of entrepreneurship, focusing on the characteristics of an entrepreneur by Timmons (1997) and Sharma & Chrisman (1999) summarised by Hitt, Ireland, Camp and Sexton (2012) in Herrington, Kew, Kew (2010:12):

Entrepreneurship is process of thinking, reasoning and acting that is opportunity obsessed, holistic in approach, and leadership balanced towards an organisational creation, renewal, or innovation that occur within or outside an existing organisation.

According to Herrington et al. (2010:11), “entrepreneur” is a French term, which has been in use since 1700. The definition of an entrepreneur is associated with some individual characteristics and behaviour shown Table 2.2.

Table 2. 2: Entrepreneurship definitions

Author	Definition
Schumpeter (1934)	Entrepreneurship is seen as new combinations, including the doing of new things that are already being done in a new way. New combinations include the following: 1. Introduction of new goods; 2. A new method of production; 3. Opening of new markets; 4. A new source of supply and 5. New organisations
Kirzner (1973)	Entrepreneurship is the ability to perceive new opportunities. This recognition and seizing of the opportunity will tend to “correct” the market and bring it back to equilibrium.
Drucker (1985)	Entrepreneurship is the act of innovation that involves endowing existing resources with new wealth capacity.
Stevenson, Roberts & Grousbeck (1985)	Entrepreneurship is the pursuit of an opportunity without concern for current resources or capabilities.
Rumelt (1987)	Entrepreneurship is the creation of new business: new business meaning that they do not exactly duplicate existing business but have some element of novelty.
Low & MacMillan (1988)	Entrepreneurship is the creation of a new enterprise.
Gartner (1988)	Entrepreneurship is the creation of organisations: the process by which new organisations come into existence.
Timmons (1997)	Entrepreneurship is a way of thinking, reasoning and acting that is opportunity obsessed, holistic in approach, and leadership balanced.
Venkataraman (1997)	Entrepreneurship research seeks to understand how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom and with what consequences.
Morris (1998)	Entrepreneurship is the process through which individuals and teams put together resource inputs to exploit opportunities in the environment. It can occur in any organisational context leading to a variety of possible outcomes, including new ventures, products, services, processes, markets, and technologies.
Sharma & Chrisman (1999)	Entrepreneurship encompasses acts of organisational creation, renewal, or innovation that occur within or outside an existing organisation.

Source: Hitt et al. (2012) in Herrington et al. (2010:12)

2.2.2.2. Profile of a South African entrepreneur

Thrikawala (2011:457) found that personal demographic variables influence entrepreneurial intentions. The variables identified are gender, family business experience, a field of study, family business experience and year of the study programme. Variables such as work history, education, family and professional contacts, family environment (inspiration from family) and age are cited in Booyesen (2014b:32) as bearing an influence on entrepreneurial success.

Gender and entrepreneurial activity – Gender was pointed out as having a moderating effect towards starting one’s own business (Thrikawala, 2011:457). Booyesen (2014b:32) also identifies gender as a background factor influencing entrepreneurs. South Africa has seen an increased gap between men and women involved in early-stage entrepreneurial activity (Herrington & Kew, 2016:5). More men are involved than women are. This has been further confirmed by a study consisting of university students from 54 countries done by Sieger et al. (2018:28).

Age and entrepreneurial activity – Booyesen (2014b:32) identify age as a background factor influencing entrepreneurs. It is essential to consider the perceptions of the youth in any context towards designing more effective policy mechanisms for example by local authorities and government since the youth are the potential entrepreneurs of the future (Adjei, Broni-Pinkrah, & Denanyoh, 2014:34). In the category of ages between 18 to 24, South Africa has recorded low levels of entrepreneurial activity in the 2015-2016 GEM report (Herrington & Kew, 2016:5). However, the category of 25 to 44 years, increased levels of early-stage activity has been noted. According to Sieger et al. (2018:28), about 56% of the 208 000 students who participated in the GUESSS survey were aged between 18 and 23.

Education and entrepreneurial activity –The level of education is a background factor influencing entrepreneurs (Booyesen, 2014b:32). A high percentage (60%) of early-stage entrepreneurs has at least a secondary qualification with an increasing number of entrepreneurs with a tertiary level qualification (Herrington & Kew, 2016:6). Mamabolo, Kerrin and Kele (2017:9) support the view that entrepreneurship education increases the entrepreneurial intention of students even in a weak education system. A tertiary qualification helps towards analysing the trends for potential ideas, narrowing down potential ideas and putting together the requirements towards the establishment of a business.

Nationality and entrepreneurial activity – South African entrepreneurs are more entrepreneurial than their African counterparts (Herrington & Kew, 2016:5). However, their early-stage entrepreneurial activity is lower than the African counterparts in the categories of 18 to 24 and 25 to 34 years.

Location and entrepreneurial activity – It has been reported that individuals located in urban areas are far more likely to be involved in entrepreneurial activity than those in rural areas (Herrington et al., 2010:42).

2.2.2.2.1. Variables for the questionnaire: Demographic profile

The literature above indicates the need to pay attention to the following elements when profiling entrepreneurs:

- Gender,
- Age,
- Education,
- Nationality, and
- Level of education.

Therefore, this study will suggest strategies that can be implemented to mitigate high dropout and low throughput rate to consider gender, age, and study level of the participants. Thus, the research instrument for data collection (Chapter 3) gathers data considering the above, and the analysis (Chapter 4) also takes into consideration the above-identified elements when profiling entrepreneurs.

2.3. Processes – strategies by lecturers and institutions

In an open system, components interact to achieve an output. Similarly, various aspects of the students and lecturers' environment should be considered to improve the academic performance of the students. Some of these can be controlled, and some cannot be controlled. The following sub-sections will articulate in more detail what is possible in the entrepreneurship education domain.

2.3.1. Practice versus possibilities

According to Booyesen (2014b:28), entrepreneurial characteristics help individuals to think entrepreneurially. Kuratko (2014) and Mayhew, Simonoff, Baumol, Selznick, and Vassallo (2016:427) suggest that entrepreneurship can be taught in all educational settings. Nicolaidis (2011:1044) argues that education greatly enhances the prospects of success to entrepreneurs even though it does not enable budding entrepreneurs to become successful business owners. Entrepreneurship education has been identified as being significant for skills

development of entrepreneurs, hence teaching of entrepreneurship should be emphasised (Mamabolo, 2017).

The need to escalate youth entrepreneurship and thereby arrest unemployment has led to the establishment of small business agencies in South Africa such the Small Enterprise Finance Agency (SEFA), Small Enterprise Development Agency (SEDA) and National Youth Development Agency (NYDA) (Shambare, 2013:449; Fatoki, 2014a:517). The government has been identified as an obstacle of small business creation due to bureaucratic burdens that need to be passed through by an entrepreneur (Herrington & Kew, 2016:48). With this in mind, an enabling environment can be created by devising policies that enhance entrepreneurial activity. Therefore, this study supports the teaching of entrepreneurship, thereby developing entrepreneurial characteristics of the students. Entrepreneurs are made by exposing students to an environment that will change their attitudes and behaviours.

The next section provides a detailed review of entrepreneurship education in South Africa in general and will draw insights on what can be done in the education space to bridge with industry.

2.3.2. Entrepreneurship practice in South Africa

One of the significant contributions of entrepreneurs is employment creation. South Africa has an increasing unemployment rate standing at 30.1% in the first quarter of 2020 (Stats SA, 2020:2). With an increased unemployment rate in seven out of nine provinces to a national average of 29% (Stats SA, 2019), South Africa should enhance the efforts towards entrepreneurship development. Entrepreneurship is critical in any society and country at large due to the benefits it presents. Herrington et al. (2010:14) and Choto (2015:20-23) discussed the following benefits of entrepreneurship: new markets, employment creation, new products, competitiveness, equitable income distribution, and poverty reduction. South Africa may benefit from this, as well.

From the literature reviewed, it has been noted that employment creation (Altman, 2013:185) and poverty reduction are significant issues calling for entrepreneurial activity. This could be due to the immediate effects of these, such as a reduction in crime rates. South Africa has an alarming crime rate in the world with most of these areas in the Western Cape. The army has been deployment in hotspots to improve on security, yet there are still between 30 and 40

murders per weekend in the province (Mlamla, 2019). Creating employment would keep most people busy and able to earn income; hence, such people would probably find no reason for crime-related activities. A study by Kolvereid and Moen (1997:159) shows that graduates who have taken a major in entrepreneurship act more entrepreneurially and have stronger entrepreneurial intentions than other graduates. South Africa faces many challenges; hence there is a need for the following solutions: employment creation and poverty eradication (Chimucheka, 2013; Meyer, 2014; Graham & Mlatsheni, 2015). Therefore, this research will focus on the following benefits: employment creation and poverty reduction as they are directly solved by increased entrepreneurial activity.

Unemployment remains one of the main social problems in South Africa. It is attributed to a weak job-creating capacity in the country, according to the GEM report South Africa (Herrington, *et al.*, 2017:6). The unemployment rate has been identified to be at its highest ever, 30.1% with an expanded rate of over 39.7% (Stats SA, 2020:10) while youth unemployment is over 65% (Herrington *et al.*, 2017:6). The expanded definition of unemployed persons refers to individuals who are aged between 15 to 64 years, are officially unemployed and are available for work. However, these persons may be discouraged work-seekers or have other reasons for not searching (Stats SA, 2019:17). During South Africa's 16th participation in the GEM, one of the key patterns noted is the insistent low levels of entrepreneurial activity relative to other participating countries (Herrington & Kew, 2016:4; Herrington *et al.*, 2017:7). As such, there seems to be a critical need to promote policy reforms aimed at addressing this through employment creation. From 2018 to 2019, the unemployment rate increased in seven out of the nine provinces (Stats SA, 2019:7). With such levels of unemployment, there is a need to look at different approaches, which will help towards creating jobs to the growing levels of unemployment, and small businesses have been identified to be a critical contributor of jobs in South Africa. Musetsho and Lethoko (2017:86) suggest that the South African education system should be oriented to emphasise and value entrepreneurship towards the promotion of enterprise culture.

Booyesen (2014a:7) states that entrepreneurship is critical for the economic growth of any country (cited in Nieman & Nieuwenhuizen, 2009:3). Thus, many countries placing concentrated emphasis on employment creation, such as Ireland and South African. This has been emphasised in HE as most qualifications and programs include a module in entrepreneurship. This is aimed at stimulating the entrepreneurial flair of the graduates who might consider starting their own business if they fail to secure employment in the job market considering the expanded unemployment rate of 39.7% (Stats SA, 2020:10).

There are four factors of production, and these are labour, land, capital and entrepreneurial ability (Papava, 2017:147). Among these, Nieuwenhuizen, Groenewald, Davids, Rensburg and Schachtebeck (2016:528) suggest entrepreneurship be considered the most important factor of production that enables an economy to grow, by enabling other factors of production to be applied within business and the economy. Booysen (2014a:8) states that as entrepreneurs strive to grow their businesses, they create jobs (cited in Nieman & Nieuwenhuizen, 2009:3). Entrepreneurship education develops entrepreneurial ability, an essential factor of production.

Entrepreneurship education was identified as a critical factor in enabling other economic factors as well as critical for entrepreneurial activity (Maas and Herrington, 2006:12). This is very important in any country as it contributes towards the improvement of the country's standard of living (Nieuwenhuizen *et al.*, 2016:528). Tenge (2013:352) argues that survivalist entrepreneurs reduce the country's level of poverty by creating their employment even though they may not employ many people. In the formal sector, an increase in job losses was recorded in seven out of ten industries with the construction industry being the most affected (Stats SA, 2019:3) during the second quarter in 2019. This study also looks into the contribution of entrepreneurs towards poverty reduction. Once an increased number of people have jobs, their disposable income tends to increase, hence their ability to spend on goods and services previously not afforded. There is therefore a need to continuously find solutions to high unemployment rates in developing countries (Fatoki & Chindonga, 2011:163; Rauch & Hulsink, 2015; Nchu *et al.*, 2015; Kerrick *et al.*, 2016).

The GEM has documented a more detailed focus of entrepreneurship activity in South Africa. Since South Africa participated in GEM in 2001, education and training have been identified as one of three critical factors which constrain entrepreneurial activity in the country, hence the need to explore entrepreneurship education (Herrington & Kew, 2016; Herrington *et al.*, 2017:43). The other two factors are government policies and access to finance. South Africa is characterised by male early-stage activity entrepreneurs in the 25 to 44-year old age group (Herrington & Kew, 2016:5). However, in the 18 to 24-year old age group, South Africa has recorded lower levels of entrepreneurial activity in the 2015-2016 GEM report.

It is critical to understand the profile of entrepreneurship students at the South African university at which this study is focused, and this is one of the objectives of this study. One of the categories of factors that predict the academic performance of students by Mthimunya and Daniels (2019:209) is a profile of student characteristics. Understanding the profile is a first step towards identifying the instruments required to moderate the behaviour of students towards desirable behaviours, which will eventually lead to increased academic performance and entrepreneurial intentions.

The Western Cape Province has a better unemployment rate compared to the national statistics. Both the unemployment rate and the expanded unemployment rate is lower at 20.4% and 23.8% respectively (Stats SA, 2019:18). This is low when compared to the national statistics standing 29.0% and 38.5% for the unemployment rate and expanded unemployment rate respectively.

Since the high dropout and low throughput rates do not only affect students, there should be collective efforts from society, parents and the government as well. It has been reported that about a third of students who have received NSFAS never graduate (DHET, 2020:155). Further, if students take an additional year or more to complete their studies, more resources are spent by various student stakeholders on turning them into graduates. Therefore this study also aims to understand the uptake of the interventions available to university students. Recommendations will be made from the perceived value of support interventions drawn from the data analysed in Chapter 4.

2.3.3. Entrepreneurship education – theory

This section seeks to provide an overview of entrepreneurship education. Ozaralli and Rivenburgh (2016:3) state that efforts to foster entrepreneurship through education and training were initiated in the 1940s when the Harvard Business School introduced the first entrepreneurship course. In South Africa, Isaacs *et al.* (2007) note that entrepreneurship in high school is not prioritised as it should be. Further, teachers are not trained in entrepreneurship despite entrepreneurship being one of the learning outcomes from Grade R to 12. Nchu (2015:90) notes the lack of resources for high school entrepreneurship teachers. Teachers do not have prescribed textbooks, hence they rely on past grade 12 examination papers. Furthermore, Nchu (2015:94) notes that entrepreneurship is not taught adequately in high school, which influences students to seek employment rather.

At the tertiary level, Botha and Bignotti (2016) conducted a study which included all 23 South African institutions and suggested the need to include internships as part of the entrepreneurship programmes. The recommendation was a result of the positive influence of internship found on entrepreneurial self-efficacy and entrepreneurial intent. Similarly, Mamabolo (2017:227) suggests training institutions should incorporate entrepreneurship development in the curriculum as early as a primary school, and throughout secondary and tertiary institutions. Furthermore, Herrington et al. (2017:73) suggest a need for an increased investment in training programmes outside of traditional higher education institutions to replicate privately sponsored models such as Tsiba, the Fast Track programme at Sasol and SAB's KickStart programme. Challenges leading to the lack of inclusion of internships as part of entrepreneurship programs are mainly lack of mentoring capacity, curriculum redesign and administrative issues (Botha & Bignotti, 2016). Access to mentoring and coaching has been identified as a challenge for entrepreneurs (Mamabolo, 2017:227).

One of the ways of nurturing entrepreneurship is through entrepreneurial education, according to masters' research conducted by Nchu (2015:13) and other studies (Radipere, 2012; Timmons & Spinelli, 2004; Kusmintarti *et al.*, 2016) which found that the number of start-ups might increase which may lead to job creation and economic growth. Most South African tertiary institutions should embed entrepreneurial education in their curriculum (Radipere, 2012). This would ensure that graduates are exposed to the entrepreneurial field and might possibly start their own business in future (World Economic Forum, 2009; Kilasi, 2013). Entrepreneurship education plays a significant role in awakening entrepreneurial intentions as it helps students to turn vague intentions of starting a business into realities (Zain *et al.*, 2010; Claire, & Perryman, 2016; Ndala, 2019). The researcher is of the view that, since entrepreneurship is critical in providing solutions for national challenges, research focusing on increasing entrepreneurship students' throughput rates should be encouraged.

2.3.3.1. Stages of entrepreneurship training

Entrepreneurship education is considered a life-long learning process consisting of five stages, namely basics, competency awareness, creative applications, start-up, and growth (Consortium for Entrepreneurship Education [CEE], 2004), as depicted in Figure 2. 11.

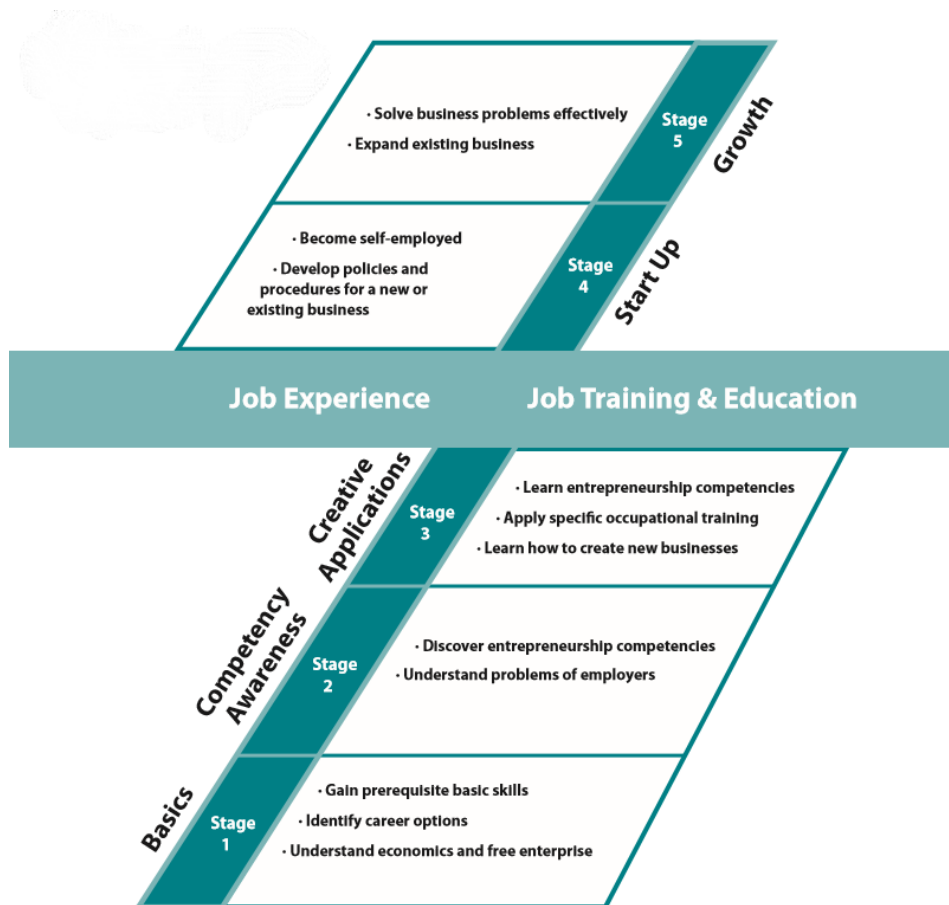


Figure 2. 11: Stages of entrepreneurship training

Source: Consortium for Entrepreneurship Education (2004)

According to the CEE, everyone should be exposed to entrepreneurship from an early stage, such as in primary school. This is also supported by Mamabolo (2017:227). With time, individuals would gain work experience and eventually decide to establish their businesses. Kroon, De Klerk & Dippenaar (2003:319) propose a lifelong entrepreneurship education model when pursuing an entrepreneurship career. Thus, students should be exposed to entrepreneurship education from primary school level, secondary school and tertiary level as well once they get into the job market.

2.3.4. Development of entrepreneurial attributes

A Global Entrepreneurship Monitor (GEM) report that focused on South Africa has suggested an association between educational levels and success in entrepreneurial ventures (Herrington et al., 2017:46). Herrington and Kew (2016:4) link the influence of entrepreneurship education to the development of entrepreneurship abilities to establish businesses. Findings

by Ekpoh and Edet (2011) as well by Ndala (2019) concur with Herrington and Kew (2016:4). Thus, entrepreneurship graduates are most likely characterised by higher entrepreneurial intentions when compared to graduates from other disciplines or individuals without tertiary qualifications. Entrepreneurship has been identified as a function of factors that can be altered to some extent, and this is the emphasis placed in entrepreneurship education by universities and business schools (Kolvereid & Moen, 1997:159). Nicolaides (2011:1044) indicates that entrepreneurship education influences an individual's perception of entrepreneurship.

The South African university at which this research was conducted attracts applicants who are from the under-represented designations exposed to challenges in their upbringing. With more access to tertiary education, learners then pursue admission into well-known programmes in science disciplines with strong support in high school (Isaacs *et al.*, 2007:621). Thus, they leave other less-known disciplines such as entrepreneurship vulnerable to students who might not have done well in primary education. Therefore, there is a critical need to motivate individuals to take entrepreneurship as a career despite the common pattern of engaging in entrepreneurial activities some few years after graduation. GUESSS has measured the entrepreneurial intentions of university students since 2003. The 3 000 universities which participated in 2018 had about 208 000 student participants from 54 countries across the globe (Sieger *et al.*, 2018). Generally, students from all countries indicated positive benefits of attending entrepreneurial courses such as the development of business networks and the identification of business ideas (Sieger *et al.*, 2018:14).

After the Apartheid era (after 1994), many researchers have focused on access to education at tertiary institutions, explicitly focusing on economically marginalised communities. This is similar to a trend of mass education in the late 1980s in Australia (McKenzie & Schweitzer, 2001). Due to imbalances that existed in South Africa, blacks were disadvantaged in many ways, one of the areas being education. The post-1994 saw an increased need for enhanced access to education for these disadvantaged groups. This increased access has brought challenges to institutions such as accommodating a myriad of needs for such people, including preparatory courses.

South Africa's low score for the quality of entrepreneurship education and training in primary and secondary schools is attributed to deficiencies in the basic education system (Herrington *et al.*, 2017:42). This was also identified in the 2016 National Experts' Survey (NES), which captures expert judgements to evaluate specific national conditions that are influential in

creating unique business and entrepreneurial contexts (Herrington *et al.*, 2017:41). Thus, a suggestion for a complete overhaul has been made for the South African education system to teach competencies that are relevant to the modern economy at every level of schooling. Viviers *et al.* (2013) reported a higher level of awareness of theoretically based offerings of entrepreneurship than more practical offerings among students. Grecu and Denes (2017:5) pointed out that entrepreneurial education and training develops individuals through the development of self-esteem, ability to recognise commercial opportunities, as well knowledge and skills to act on them.

The concern for the low level of entrepreneurship education and training can be attributed to the issue of student attrition from primary, secondary, vocational and tertiary levels. Anyone who drops out of education would probably look for employment; hence, if such individuals have achieved entrepreneurial competencies before dropping out, they might somehow consider starting a business after failing to get employment. Some educational institutions have thus far started to respond to the government call to encourage individuals to become entrepreneurs. Musetsho and Lethoko (2017:86) report that some institutions respond by embedding concepts such as business plan development and networking in their courses, which stimulates entrepreneurial intention. Mamabolo (2017:227) suggests that educators adopt experimental and action teaching methods that help entrepreneurs to learn skills from simulating experiences.

2.3.5. Support and strategies for improving academic performance

Globally, numerous studies have been carried out to understand what influences the academic performance of students, and attempts have been made to find solutions towards improved academic performance. The prediction of academic success has been described as complex, suggesting a combination of pre-enrolment and post-enrolment factors rather than factors in isolation (Burger, 2017). The fact that this problem is complex and evident across the world should lead scholars to further investigate this research area.

The DHET and other role players have implemented some interventions to address the high dropout and throughput rates in the past (DHET, 2020:164-165) and these are:

- Increased NSFAS funding;
- Student housing;
- Extended programme/Foundation Programmes;

- Teaching development grants (now directed towards academic success enhancement such as first year experience; academic development programmes and tutorial and mentoring programmes);
- University Capacity Development Grants;
- Supplementary instruction programmes;
- Psycho-social support programmes; and
- Life skills programmes.

As noted in Chapter 1, most of these interventions such as the First Year Experience and the Extended Curriculum Programme (ECP) have been well received in most South African tertiary institutions (Leshoro & Jacobs, 2019) and the tutorial and mentoring system (Matsoso & Iwu, 2017), which have been well received in most South African tertiary institutions. Clarence (2018:204) reports the presence of teaching and learning centres. Examples of these are the Fundani Centre for Teaching and Learning (FCTL) and the Centre of Higher Education, Research Teaching and Learning (CHERTL) at CPUT and Rhodes University, respectively. ECP prepares students who are under-prepared for the demands of tertiary level studies based on their low high school grades by giving them a year to improve their readiness to take the full academic workload (Scholtz & Allen-Ile, 2007). After one year of introductory studies, ECP students join the mainstream students. Covering the content of the first year modules in two years improves the academic performance of students (Fisher, 2011:71). According to Leshoro and Jacobs (2019:176), the CPUT FBMS recorded an increase in the number of students registered for the ECP over three years 2013 to 2015. All departments in the FBMS registered some students under the ECP. Such support structures are indications that efforts are in place to improve academic performance by different institutions. McKenzie and Schweitzer (2001) identified previous academic performance as a predictor of university performance. However, the ill-preparedness of students is a result of a poor education system in high school (Scholtz & Allen-Ile, 2007:177).

Gouws (2002:45) links up an outcome-based education (OBE) approach with entrepreneurship education. This learner-centred approach focuses on what learners should be able to achieve at the end of the training event. In a study conducted by Jones and English (2004) which aimed at describing the design and introduction of a new entrepreneurship program at the University of Tasmania in Australia, a suggestion was made for an action-oriented teaching style. This style should be supportive of experiential learning, and should focus on problem-solving, project-based learning, creativity, and peer evaluation. Herrington and Kew (2016:63) made a recommendation for the quality and relevance of entrepreneurial curricula to be addressed to

be in line with the expected industry skills and what schools, colleges and universities provide. Mamabolo (2017) found out a mismatch between the education offered to students and industry expectations.

There is much value in understanding the entry characteristics of every new student cohort. Understanding the pre-enrolment student factors provides a basis for an early warning system for students at risk of failure (Young, 1989:337). As pointed out by Potgieter and Van Schoor, (2011:611) insights can be drawn towards an understanding of pre-enrolment factors that influence academic performance, such as the introduction of flags in a student tracking system which aims to identify students in danger of failing or dropping out. As a result, such students can be more intensively counselled (Young, 1989:337). Herrington and Kew (2016:48) pointed out South Africa's low score for education and training in primary and secondary school, which affects some of the economic problems experienced by the country. These benefits of understanding the population of students include of interventions aimed at improving retention of students in HE (DHET, 2020:156).

Entrepreneurship education can be summarised as all the activities aimed at developing and improving the entrepreneurial abilities and skills for the successful establishment and running of entrepreneurial ventures (Ozaralli & Rivenburgh, 2016:3). Part of the aim of entrepreneurship education is to develop students to consider an entrepreneurship career (Shambare, 2013:450). This can be done by building their critical thinking, problem-solving, taking advantage of new technologies (Herrington *et al.*, 2017:47) and building their management skills. One of the recommendations made by Lekoko, Rankhumise and Ras (2012:12031) as well by Ozaralli and Rivenburgh (2016:27) is a practical approach towards entrepreneurship education (Herrington *et al.*, 2017:73). Thus, students may prepare a business plan, present it to a panel of financial experts and receive some form of financial rewards to start the business. At the University of Pretoria, South Africa, a practical teaching approach in an entrepreneurship module was used, and a positive outcome was achieved (Strydom & Adams, 2009). As a result, a practical teaching approach to entrepreneurial learning was suggested. Such was also suggested by Musetsho and Lethoko (2017:86) and Mamabolo (2017:227). Another study by Botha and Bignotti (2016) suggests an internship component be included in entrepreneurship education programmes due to its influence on entrepreneurship intention and entrepreneurial self-efficacy.

Farrington, Gray and Sharp (2011:11) highlighted the importance of exposing students to entrepreneurial experiences more often than once-off events. The authors indicated the presence of many ways in which educational institutions can continue to expose students to the real world of entrepreneurship. These include having student entrepreneur mentors, job shadowing in an entrepreneurial setup, structuring interviews with entrepreneurs, inviting role models as guest speakers, giving practical assignments to students, and structuring qualifications to include internships. Viviers et al. (2013) recommend universities to continuously review and align their entrepreneurship offering targeting specific areas of business requirements. However, the challenge pointed out is time and the opportunity to implement the practice in a traditional academic setup. Botha and Bignotti (2016:9) highlighted the importance of embedding internships as part of university entrepreneurship offerings. They cited the difficulties ranging from the lack of capacity of small business owners to mentor interns, curriculum redesign and the implementation of internship programmes.

A suggestion by Thrikawala (2011:457) is for entrepreneurship to be taught by role models. Herrington et al. (2017:72) and Fatoki (2014b:517) suggest a need to continually invite young, successful entrepreneurs to participate in educational programmes, thus introducing young people to positive entrepreneurial role models. This would likely to be more meaningful to students who would thus derive inspiration from the role models.

Shambare (2013) argues that tertiary institutions in business and entrepreneurship training lack a practical component. This has been identified as the case in most South African institutions (Botha & Bignotti, 2016). Adjei et al. (2014:34) suggest a combination of practical business and incubation support based on the needs of students for the development of entrepreneurial intentions. A study done by Mamabolo (2017:227) suggests entrepreneurship education as it has been found to have a positive impact on the development of entrepreneurship skills.

One of the best practices in entrepreneurship education unearthed in research conducted by Nieuwenhuizen et al. (2016) is that in entrepreneurship teaching practical assignments and teaching tend to be favoured over traditional classroom approaches. In this research, 12 higher education institutions made up the sample from highly ranked universities and business schools globally. A similar suggestion was made by Ekpoh and Edet (2011).

Herrington et al. (2017:72) indicate that entrepreneurship in South Africa is seldom taught by entrepreneurs, hence the recommendation for the field to be taught by people with actual business experience. This has been identified as leading to few practical entrepreneurship exercises offered in such contexts, hence, fewer innovative entrepreneurs are created. Ozaralli and Rivenburgh (2016:27) criticise the restriction of entrepreneurship education to classes and suggest the need to follow an integrated approach that links classroom teaching with real-life experiences.

A further suggestion was made for universities to design their programmes to promote creative thinking and experimentation, thus addressing emotions and attitudes through experiential learning and creative thinking. Creative thinking would help students to be more innovative, thus exploiting change as an opportunity for different services or businesses (Booyesen, 2014a:6). Fatoki (2014a:517) however suggests both traditional and non-traditional methods of teaching entrepreneurship.

2.3.5.1. Variables for the questionnaire: Student support and Development

From the literature reviewed, among the interventions at the university under study, the Fundani teaching and learning centre, the ECP and the tutorial system have been identified as part of the support offered. This study will investigate the following variables:

- Family support
- Fundani (academic writing support)
- Tutorial system
- Industry leader motivational talks
- Practical projects integrated in teaching strategies
- Relevance of knowledge offered by the entrepreneurship qualification
- Goals related to the entrepreneurship qualification
- Group assignments

2.4. Outputs – student motivation for achievement

A process has an output as its result. Thus, inputs should be systematically combined in a defined process. The ultimate aim of this study is to establish the inputs necessary towards the suggestion of strategies that should be implemented by lecturers in HE to increase motivation for achievement. Motivated students would result in increased academic performance leading to students finishing their qualifications in minimum time (improved throughput rates). The DHET expects institutions to produce quality graduates from the HE

system with the skills required for economic development (DHET, 2020:156). These will be explained in the following sections.

2.4.1. Increased academic performance and throughput rates

Considering the literature review which showed low graduation rates despite an upward trend from the period 2003 and 2018, this study is justified by its potential contribution to improving graduation rates. Motivated students are more likely to engage in their studies, completing their assignments, preparing for their assessments and passing them. An improved pass rate and improved completion of qualifications to some extent enhance the ability of graduates to create jobs once they graduate from tertiary institutions. Consequences of high unemployment rate such as crime (Fatoki & Chindonga, 2011:163) may be minimised once these solutions materialise.

Since entrepreneurship falls under the Classification of Educational Subject Matter (CESM) system, data from PowerHEDA was analysed and presented in the next four figures with particular focus on the insights drawn from the relevant CESM category. Figure 2. 12, Figure 2. 13 and Figure 2. 14 show upward trends of numbers of students in the CESM category who entered university for the first time across South African institutions, Western Cape Province universities, and the institution in which this investigation was done respectively. Since entrepreneurship qualifications fall under the Business Management CESM category, data within this category were extracted and present in the form of graphs.

The next figure indicates an upward trend in the first-time university entrants from 2003 to 2018 in the Business Management category nationally. This increase has been also noted in a recent report (DHET, 2020:34).

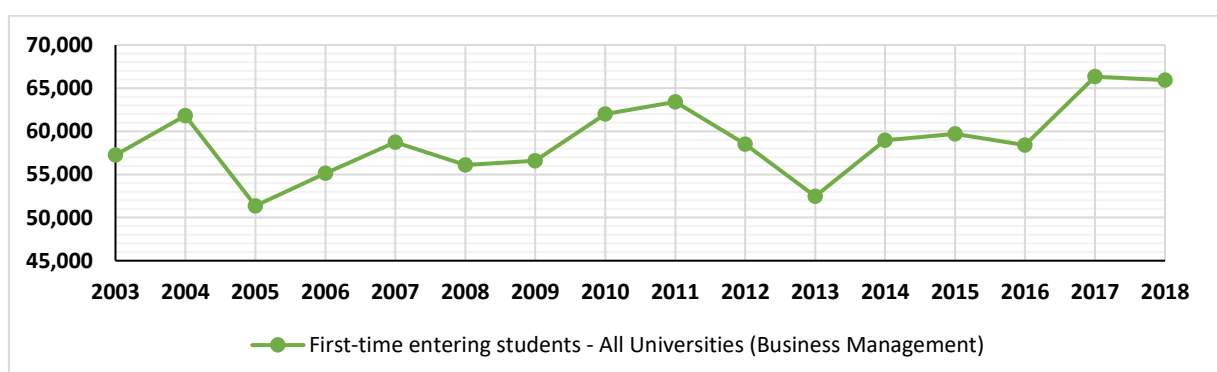


Figure 2. 12: First-time students entering the business management discipline nationally

(Summary of business management first-time entering students, Source: PowerHEDA Website, 2020)

The next figure indicates an upward trend in the first-time university entrants from 2003 to 2018 under the Business Management category in Western Cape Province universities.

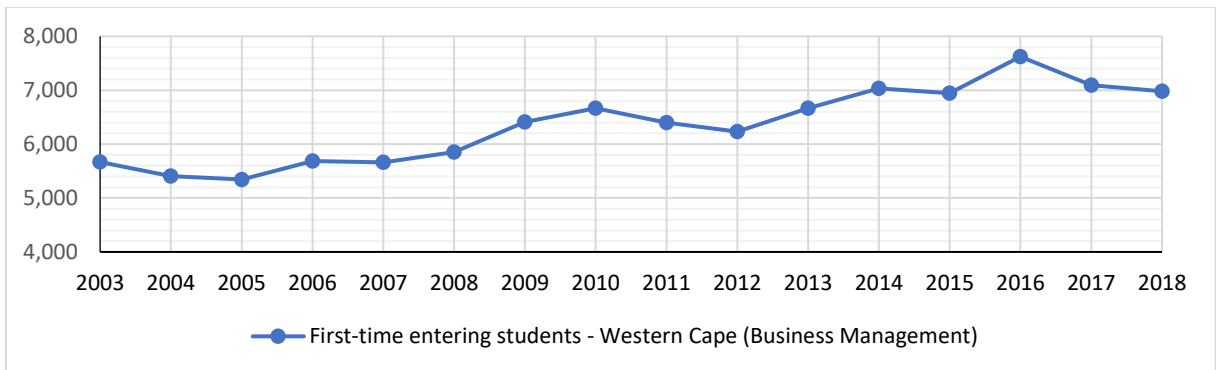


Figure 2. 13: First-time students entering the business management discipline in the Western Cape Province universities

(Summary of Western Cape province first-time entering business management students, Source: PowerHEDA Website, 2020)

The next figure indicates an upward trend in the first-time university entrants from 2003 to 2018 under the Business Management category at the university where is study is being conducted.

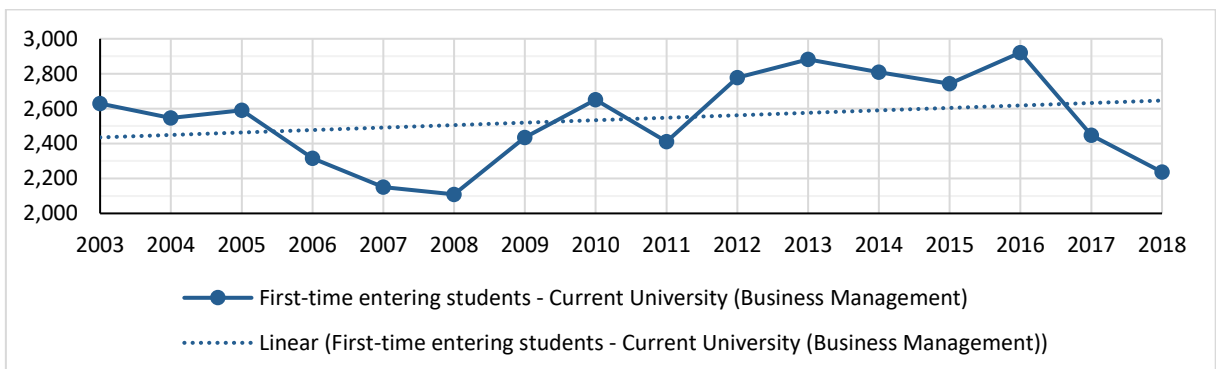


Figure 2. 14: First-time students entering the business management discipline at a university where this research is conducted

(Summary of first-time entering students at the current university, Source: PowerHEDA Website, 2020)

The next figure shows the graduation rates at a university where this study is conducted. The education category has a downward trend, though higher throughout than the other three

categories. Even though the Business Management category shows an upward trend in line with the other three categories in the graduation rates, the graduation rates are meagre. The graduation rate increased from 10.8% in 2003 to 18.7% in 2018.

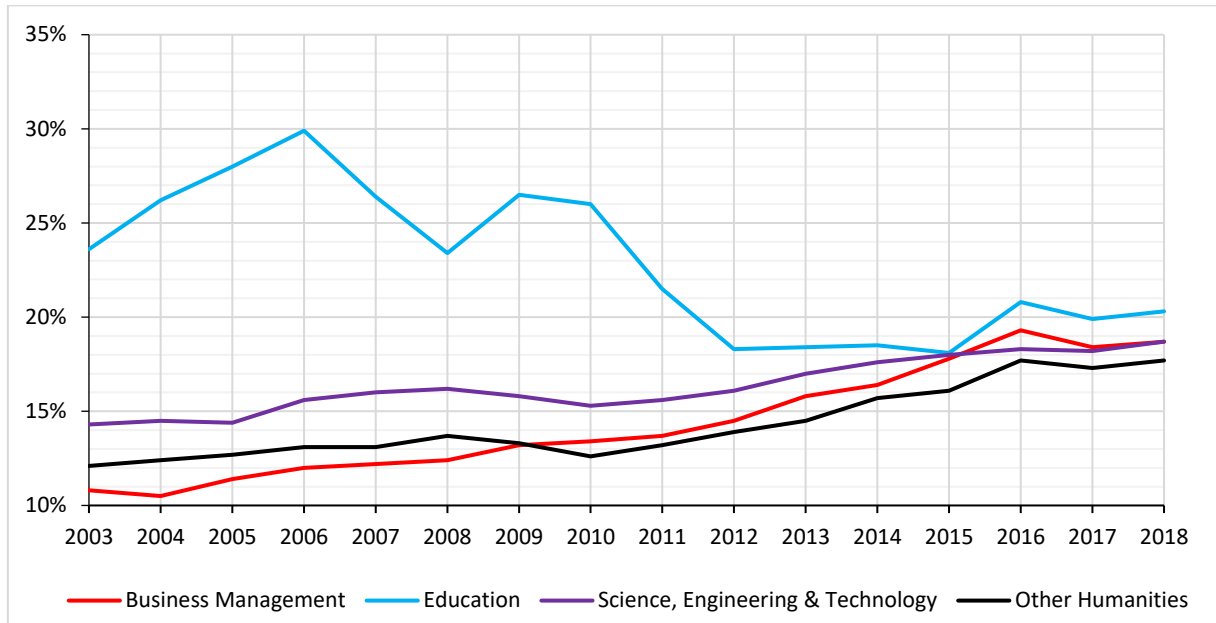


Figure 2. 15: Graduation rates compared among CESM categories at a university where this research is conducted

(Summary of CESM categories graduation rates, Source: PowerHEDA Website, 2020)

The increasing numbers enrolling in the Business Management category together with low graduation rates necessitates this study to focus on entrepreneurship students at a university in the Western Cape. As highlighted in the literature review above, studies in entrepreneurship have gained traction due to the benefits associated with having entrepreneurial graduates. Thus this study sought to explore the following question:

What pre-enrolment factors influence the academic performance of entrepreneurship diploma students at a tertiary institution in the Western Cape, South Africa and the possible solutions?

2.4.2. Entrepreneurial graduates

The DHET reports the need for universities to ensure quality graduates from the system to match the skills requirements for the country’s economic development (DHET, 2020:156). Thus, entrepreneurship students should develop entrepreneurial capabilities and be able to create employment once they graduate. Considering the different list of attributes for

successful entrepreneurs by different authors, there is no universal list. Booyesen (2014b:28-29) provides a list of entrepreneurship characteristics as “passion, belief, courage, determination, instinct, calculated risk-taking, vision, discipline, resiliency, adaptability, inspiration; willingness to learn, internal locus of control, the need to achieve, and the need for autonomy” (cited in Duffy, 2012). Nicolaidis (2011:1044) highlighted several entrepreneurial characteristics, including the following: innovativeness; risk-taking, pro-activeness, creativity and innovation, networking, and learning from failure. Booyesen (2014b:33) further provides a list of traits of successful entrepreneurs, and these are persistence; strong drive to achieve; innovative; self-confident; calculated risk-taker; creative; goal-oriented behaviour; commitment; personal initiative; problem-solving skills; tolerance of ambiguity; strong integrity; inquisitiveness; tolerance of failure; vision; and desire to work hard (cited in Bienkowski, 2013).

Booyesen (2015:8) further categorised the success factors for successful entrepreneurs as (i) skills, expertise, and aptitudes; (ii) personal qualities; management skills; and (iii) external factors. Skills refer to manual work that can be learned, while expertise refers to knowledge acquired through studying or experience, and aptitudes as inherent characteristics. Despite the skills, expertise and aptitudes being essential for consideration when starting a business, personal characteristics should be considered as equally important (Booyesen, 2015:9-10). In the late 1980s, Young (1989:338) admitted the influence of personality traits on academic performance. However, these personality traits tend not to be readily available during the entry stage. This research will focus on the personal characteristics of students in the population of this study.

Despite the skills and characteristics of entrepreneurs identified above, this research will focus strongly on attributes relevant to the academic success of the confidence of the participants, ability to engage with others in discussions such as group work, ability to learn from mistakes and the ability to adapt to change. Van Aardt and Massyn (2014) describe creativity as closing a gap in the market by coming up and implementing a new idea. Entrepreneurs use innovation to exploit change for business opportunities (Booyesen, 2014a:6). Thus, for the students to succeed in the current Fourth Industrial Revolution (4IR), they need to be innovative. Nicolaidis (2011:1044) describes entrepreneurs as risk-takers who pursue opportunities failed to be recognised by others. In the 2015-2016 GEM report, Herrington and Kew (2016) indicate that the social norm for encouraging entrepreneurial risk-taking is low for South Africans. Therefore, part of the motivation that should be done is to encourage students for them to be accustomed to risk-taking; hence, it should be embedded in some of the activities they do, such as assignments.

From this section, it is evident that there is no exhaustive list of the characteristics and skill sets of entrepreneurs as contributed by various factors. Therefore, the study will explore some of the characteristics and skills that are relevant to the academic performance of the students in Chapter 3. Below are some of the above-identified individual characteristics critical towards an understanding of the entrepreneurial behaviour of students discussed. Once explored, the study will then recommend relevant strategies for the improvement of academic performance. In summary, the characteristics are listed below:

- Confidence,
- Networking,
- Ability to adapt to change,
- Learning from mistakes,
- Awareness of abilities, preference and behaviour,
- Creativity,
- Persistence.

2.4.2.1. Variables for the questionnaire: Entrepreneurship Characteristics

From the literature discussed the following variables will be investigated in the questionnaire:

- Confidence
- Networking
- Learning from mistakes
- Awareness of abilities, preference and behaviour
- Persistence
- Raise opinion in discussions
- Ability to adapt to change
- Creativity
- Writing down goals
- Leadership

2.5. Chapter summary

Two theories which underpin this study were presented. These are the Tripartite Model of Motivation Achievement by Tuckson (1999) and the General Systems Theory by Von Bertalanffy (1968). The link between these two was explained, and literature relevant to these two theories was discussed. Regarding the Tripartite Model of Motivation for Achievement by Tuckman (1999) underpinning this study, three aspects were considered, and these are

students' attitudes about their capabilities to succeed, their drive to succeed and the strategies employed to attain the desired outcome.

In the next chapter, a questionnaire is described with elements revealed in the literature review. It considers the importance of understanding the characteristics and capabilities of every cohort of students to determine suitable departmental interventions to improve academic performance. The questionnaire also highlights the importance of understanding the entrepreneurial characteristics of the students, which serves as a starting point for intervention strategies.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

Chapter 2 presented a literature review in respect of the identified research problem. This chapter discusses the research design employed in this study, explains how the respondents were selected, the research instrument used to collect data, methods for data collection, how the data was analysed and reported. As explained in the introductory chapter, the primary objective of this study is to determine the pre-enrolment factors influencing the academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa and suggest possible solutions.

3.2. Research design

The research design will be discussed using the research onion framework (Saunders & Lewis, 2012) (see Figure 3.1).

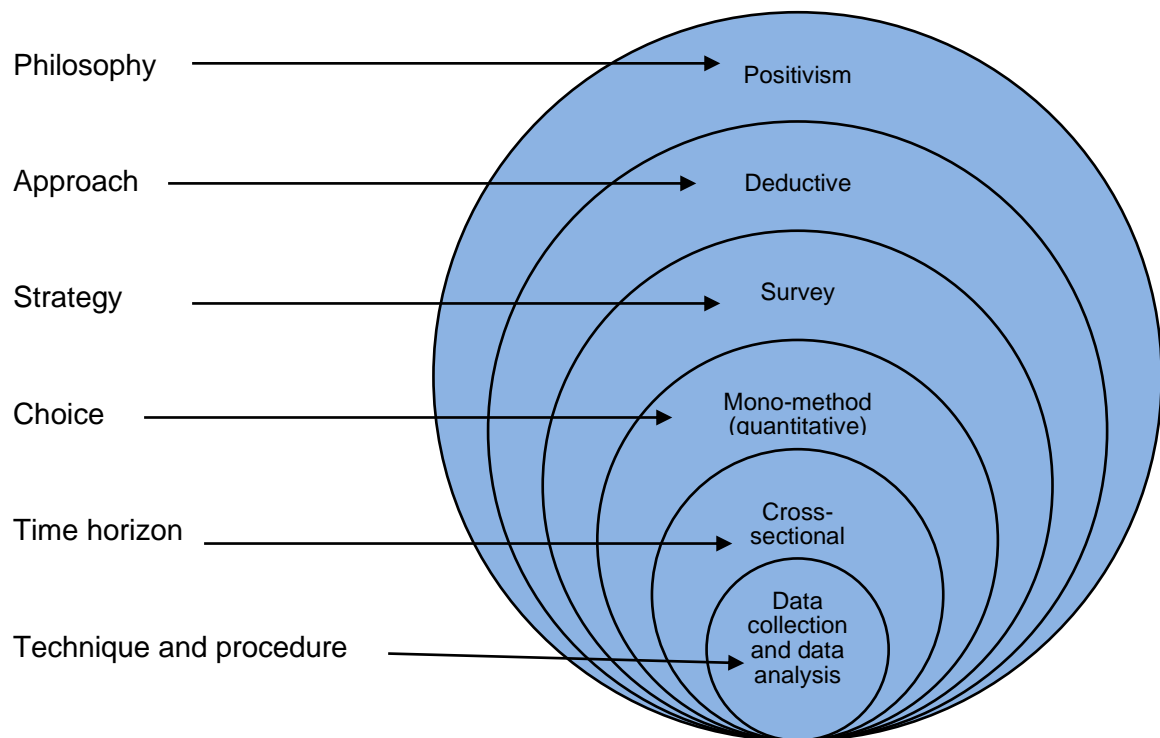


Figure 3. 1: Research Onion Framework
(Adapted from Saunders & Lewis, 2012)

3.3. Research philosophy

Research philosophy is an overall term that refers to the development of knowledge and the nature of the knowledge concerning research (Saunders & Lewis, 2012:104). This study follows a positivist research philosophy which is the outermost layer of the research onion (Figure 3.1) based on the rationale that it makes use of highly structured methods to facilitate replication, resulting in certain generalisations (Saunders & Lewis, 2012:104). This study sought to measure the influence of the pre-enrolment factors influencing their academic performance based on the perceptions of the respondents. Therefore, this research philosophy resonates well with what this study aims to achieve. Positivism is suitable when the research aims to study measurable variables that can be controlled in the future to predict the outcome. Since the aim of this study is to identify a set of pre-enrolment factors perceived to be contributing to academic performance, a positivist approach is the most appropriate philosophy for this study. Saunders and Lewis (2012:104-107) discuss the alternative approaches, and these are realism, interpretivism and pragmatism, which are not discussed in this study.

3.4. Research approach

The research approach refers to the researcher's reasoning about the importance of throughput rates in entrepreneurship education. There are three research approaches, namely: inductive, deductive and hypothetico-deductive. This study follows a deductive research approach which fits with the positivist research philosophy and is defined by Saunders and Lewis (2012:108) as involving "the testing of a theoretical proposition by using a research strategy specifically designed for its testing". This study aims to validate if the pre-enrolment factors identified in the literature review influence the academic performance of entrepreneurship students. The deductive research approach will provide a summary of the views needed to address the research objectives. Two of the critical characteristics of the deductive approach are that it helps to explain the causal relationships between variables; and secondly, there is a need to collect and analyse data to answer the research questions.

3.5. Research strategy

A research strategy refers to how a researcher proposes to answer the research questions under investigation and the implementation of the methodology. A survey is a method used to collect, analyse, and interpret the sample population's opinion, attitude, and view. Several research strategies can be used for gathering data, and these include case study, experiment, action research, grounded theory, ethnography and archival research (Saunders & Lewis, 2012). Since this research will make use of a large population, a survey questionnaire is best suited as it allows the collection of data from a large population and assists towards getting

answers to questions such as who, what, where and how for this study (Bricki & Green, 2007:3). This study aims to include all the students fitting the criteria of the unit of analysis described in section 3.8.1, which will prepare the ground for the validity of the results.

3.6. Research choice

In the research onion, following the research strategy is the research choice. The available options listed in this onion layer are mono-, mixed- and multi-methods. This study employed one approach i.e. quantitative. Thus, this study adopted a mono-method, utilising a quantitative approach which is consistent with both the positivist and deductive research philosophy. Questions such as 'how many' or 'how much' are answered using quantitative methods (Bricki & Green, 2007:3). The process involves the use of primary research, hence the use of a structured questionnaire to gather the perceptions of students who are expected to answer based on experiences and perceptions.

3.7. Time horizon

In the research onion, the time horizon follows the research choice. Time horizon can be either longitudinal or cross-sectional. This study uses cross-sectional timing for data collection over two consecutive days. The questionnaire was distributed to the respondents on 7 and 8 May 2018 during their lectures. Another possible time horizon is a longitudinal approach; however, this was not used in this study as it did not focus on analysis over a period.

3.8. Techniques and procedures

Primary and secondary methods were employed in this study. The literature surveyed (Chapter 2) made use of secondary research of relevant literature in peer-reviewed journal articles, conference papers, reports, textbooks and theses (Crowther & Lancaster, 2009:98). The literature review precedes the questionnaire instrument used in this study (Crowther & Lancaster, 2009:85). The questionnaire instrument groups the statements identified in the literature review in terms of demographic information, respondents' pre-enrolment profile, pre-enrolment factors influencing student academic performance, entrepreneurship characteristics and the institutional academic support available. This study gathered primary data from the respondents through a self-administered structured questionnaire.

3.8.1. Sampling methods and population

As previously mentioned in Chapter 1, the target population of this research study consisted of students registered for a Diploma in Entrepreneurship at a tertiary institution in the Western Cape Province, South Africa. This study used a convenience sampling method to get a better representation of the respondents' views. As a result, this study targeted all students who attended lectures and were willing to participate in the research study. Despite this method being discouraged for use, maximising the number of participants in a quantitative study increases the chances of getting better results. There were two categories, namely ECP and mainstream. ECP students complete modules that mainstream students would complete in one year over two years. The following delineation criteria supported the sample for this study:

- Lectures targeted were for ECP classes and first year to third year mainstream full-time students.
- Respondents were full-time registered students

The sample population excluded students studying towards an entrepreneurship diploma on a part-time basis as well those studying higher qualifications, i.e. the study excluded Bachelor of Technology and Master of Technology degrees in Entrepreneurship. The researcher selected a sample of students who were available during the targeted lectures meeting the above delineation criteria. The ECP streams and first year to third year mainstream full-time students had 510 registered students according to data obtained from the department's administrative assistant.

3.8.2. Data measurement

The data collected from respondents were mostly ordinal since this study sought to understand the perceptions of entrepreneurship students.

3.8.3. Preliminary study

The questionnaire was preliminarily tested with eight class representatives who completed the self-administered questionnaire, and these participants later helped as field officers. As a result, some items identified as ambiguous were revised, and some were removed.

3.8.4. Questionnaire validity and reliability

As stated earlier in this chapter, a questionnaire instrument comprising three sections (A to C) was used to collect data from participants. The questionnaire instrument was derived from the

literature review discussed in Chapter 2. This questionnaire mostly comprised closed-ended questions which responded to the purpose of the study (Crowther & Lancaster, 2009:80). The questionnaire consists of statements that answered the sub-research questions of this study which eventually answered the main research question, i.e. what are the pre-enrolment factors influencing the academic performance of the entrepreneurship students at a tertiary institution in the Western Cape, South Africa. The questionnaire consisted of 38 statements with various constructs including five reversed items. Apart from the demographics, the measurement instrument tests on the pre-enrolment variables that influenced students, entrepreneurial characteristics, and academic interventions variables. The supervisor revised the research questionnaire before submitting it to the CPUT's Faculty of Business and Management Sciences Research Ethics Committee (FREC) for approval.

3.8.4.1. Ethics considerations

Before conducting the research, the researcher was required to get approval in the form of an ethical clearance certificate. This involved a rigorous process that ensured that the research instrument specified that participation in the study was entirely voluntarily. Documents required included the research proposal, proof of registration, questionnaire (see Appendix E – Questionnaire), consent letters (see Appendix C – Consent letters) from the participants and a Turnitin report for the proposal. The consent letter gave the participants the option to optout should they wish. Their privacy was guaranteed because their participation was anonymous, and no names or identity numbers were required. They were also given an assurance that the data collected would only be used for research purposes. The instrument indicated that the study did not pose any form of harm to the participants. The ethical clearance certificate (See Appendix D – Ethical clearance letter) was then granted confirming that all the regulatory requirements for collecting data were met.

Each of the questionnaire sections is discussed at length below:

3.8.4.2. Section A: Demographics

This section consists of questions about the demographics of respondents, i.e. gender, study level, nationality and age.

Table 3. 1: Demographics of the respondents

Number	Question type	Question / Statement
1.1	Dichotomous	Gender
1.2	Nominal	What level of study are you in?
1.3	Dichotomous	Nationality
1.4	Interval	Age

3.8.4.3. Section B: Respondents' profile, pre-enrolment factors and entrepreneurial profile

This section consists of three sub-categories: respondents pre-enrolment profile, pre-enrolment factors and entrepreneurial profile of the respondents.

3.8.4.3.1. Respondents' pre-enrolment profile

There is a need to better understand the pre-enrolment profile of the respondents in terms of their background that could have shaped their choices, leading to what they are currently studying. This section comprised questions relating to participants' pre-enrolment factors and their profile. Respondents have two options, i.e. Yes and No. The two options were coded for easy data capturing before analysis as follows: (1 = No or 2 = Yes) (Welman & Kruger, 1999:208; Babbie & Mouton, 2001:412).

Table 3. 2: Respondents pre-enrolment profile

Number	Type	Statement
2.1.	Dichotomous	I had more than three subjects which I achieved more than 50%
2.2.	Dichotomous	I passed Business Studies with more than 50%
2.3.	Dichotomous	I passed Mathematics rating of 2 / Mathematical Literacy with 50%
2.4.	Dichotomous	I passed English at a rate of more than 50%
2.5.	Dichotomous	I completed my high school in rural areas
2.6.	Dichotomous	I wanted to study for a qualification that will help me get a job
2.7.	Dichotomous	I wanted to study at another university
2.8.	Dichotomous	Entrepreneurship was not my preferred qualification when I applied
2.9.	Dichotomous	Given a chance to study a different qualification, I would change

3.8.4.3.2. Pre-enrolment factors influencing academic performance

The below section is a list of factors that influenced the high school performance of the respondents. Responses from this section are central towards answering the research objective, i.e. to determine the pre-enrolment factors influencing the academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa. For every statement, a four-point Likert scale was used (SD = Strongly Disagree, A = Agree, D = Disagree, and SA = Strongly Agree). These (SD, D, A, SA) were then assigned numbers

from 1 to 4 respectively, to facilitate the capturing of the participant's responses enabling data analysis (Zikmund, Babin, Carr & Griffin, 2010:303). The same was done to all 25 statements involving Likert-type questions, i.e. statements 2.10 to 3.9.

Table 3. 3: Pre-enrolment factors influencing academic performance

Number	Type	Statement
2.10.	Ordinal – Likert scale	The career guidance support during high school
2.11.	Ordinal – Likert scale	Lack of financial resources negatively influenced my performance
2.12.	Ordinal – Likert scale	Lack of study material negatively influenced my performance
2.13.	Ordinal – Likert scale	Lack of family support negatively influenced my performance
2.14.	Ordinal – Likert scale	Family commitment negatively affected my performance
2.15.	Ordinal – Likert scale	Job commitment negatively affected my performance

3.8.4.3.3. Respondents' entrepreneurial profile

The next table lists entrepreneurship characteristics of the respondents. The statements under this section follow the four-point Likert type questioning, as explained in section 3.8.4.3.2. This section helped the researcher to understand the entrepreneurial flair of the respondents, which was then be used as a basis to predict if the entrepreneurship students would persist to completion of the qualification. Also, suggestions on strategies to maximise academic success could greatly benefit from this section.

Table 3. 4: Respondents' entrepreneurship profile

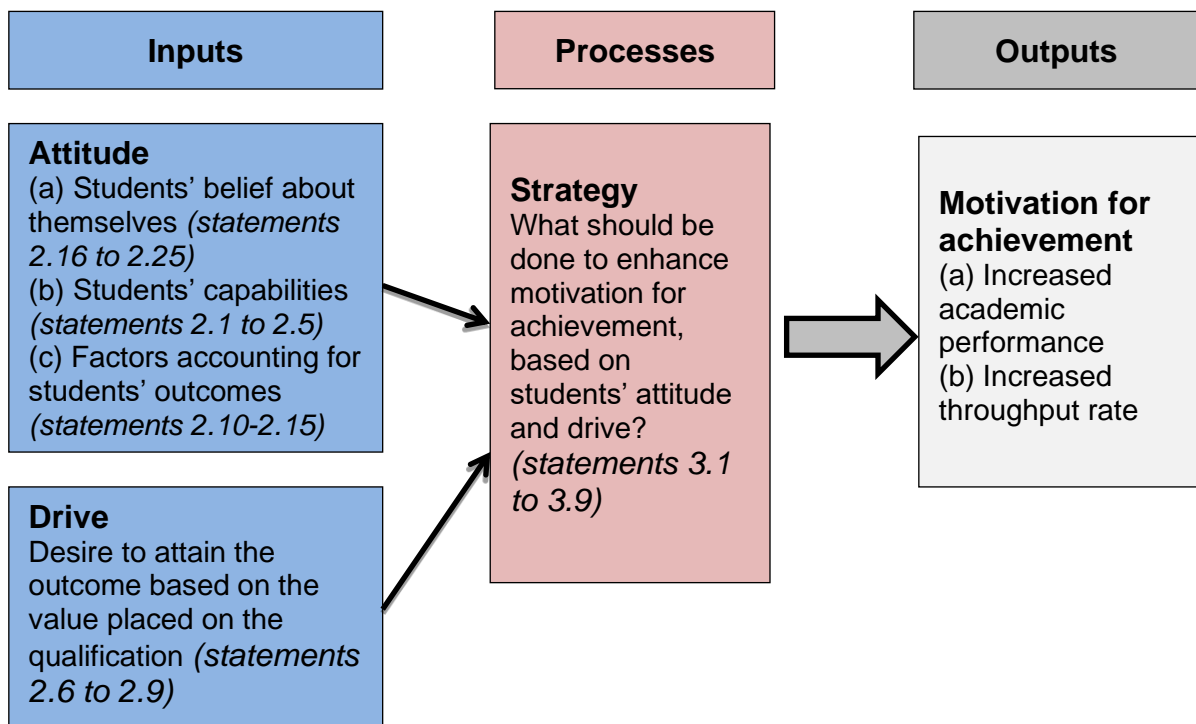
Number	Type	Statement
2.16.	Ordinal – Likert scale	I am confident in my ability to succeed
2.17.	Ordinal – Likert scale	I find it difficult to raise my opinion in discussions
2.18.	Ordinal – Likert scale	I enjoy making new friends, maintaining good relationships with them
2.19.	Ordinal – Likert scale	I find it difficult to adapt to change
2.20.	Ordinal – Likert scale	I believe in learning from my mistakes
2.21.	Ordinal – Likert scale	I prefer using proven ways of doing things than trying new ways
2.22.	Ordinal – Likert scale	I am aware of my abilities, preferences and behaviour
2.23.	Ordinal – Likert scale	Writing down goals is not necessary as long I know what I want to achieve
2.24.	Ordinal – Likert scale	I am not frustrated by disappointments, and I keep on trying
2.25.	Ordinal – Likert scale	I am comfortable when someone leads me to do some tasks

3.8.4.4. Section C: Student support and development

The section below provides a list of current student support and development offered by institutions. The statements under this section also used four-point Likert-scale questions, as explained in section 3.8.4.3.2. This section revealed awareness of some of the identified institutional measures aimed at enhancing academic performance. Institutional strategies at the university under study were analysed and appropriate recommendations were made.

Table 3. 5: Student support and development

Number	Type	Statement
3.1.	Ordinal – Likert scale	The support from my family will help me pass
3.2.	Ordinal – Likert scale	The academic support from my Fundani will help me pass
3.3.	Ordinal – Likert scale	I often attend the departmental tutorial sessions
3.4.	Ordinal – Likert scale	The tutorial support from the department will help me pass
3.5.	Ordinal – Likert scale	The motivational talks from industry leaders motivate me
3.6.	Ordinal – Likert scale	Practical projects help me understand the course content
3.7.	Ordinal – Likert scale	I believe what I am learning is useful for me to know
3.8.	Ordinal – Likert scale	My future goals are related to what I am studying
3.9.	Ordinal – Likert scale	Group assignments help me learn more from others



**Figure 3. 2: Improving academic performance (questionnaire design)
(Author's compilation)**

3.8.5. Data analysis and presentation

The data for this study were composed mainly of numerical and non-numerical data. This study collected numerical data, coded for the computer to process the statistical analysis (Welman & Kruger, 1999:208; Babbie & Mouton, 2001:412). This study used SPSS V25 software to analyse the data gathered to determine the results of descriptive statistics that summarised the data obtained from the respondents (Welman & Kruger, 1999:213). Since this study followed a quantitative approach, data analysis focused on statistical measurements to answer the sub-research questions of the study, i.e. to determine the pre-enrolment factors that influenced the academic performance of the students. The final objective this study sought to understand was how the existing institutional learning interventions were perceived, which would then inform a proposal of measures to mitigate the factors influencing low success rates. To achieve the above objectives, this study analysed the frequencies per questionnaire statement, and compared the means of the different factors that constituted the questionnaire.

3.9. Chapter summary

This chapter discussed the research methodologies employed in this study. The data collection process was also discussed, together with the questionnaire instrument, which was discussed in detail. The steps followed to get approval for the questionnaire instrument through the FREC procedures were explained. The chapter concluded with an overview of how the data would be analysed and presented.

CHAPTER FOUR: DATA PRESENTATION, DISCUSSION AND ANALYSIS

4.1. Introduction

The previous chapter described methodological approach for this study. This current chapter (4) describes the analytical approach followed in answering the main research question of this study:

What pre-enrolment factors influence the academic performance of entrepreneurship diploma students at a tertiary institution in the Western Cape, South Africa, and the possible solutions? In answering the above research question, this study sought to address the following objectives:

- (i) To determine the extent to which pre-enrolment factors influence the academic performance of entrepreneurship students;
- (ii) To ascertain existing and implemented institutional interventions to mitigate factors that influence poor success;
- (iii) To recommend strategies that can be employed to maximise the academic success of entrepreneurship students.

4.2. Analysis of research results

The questionnaire used to gather data contains three sections. Section A captures the demographic information to understand the respondents' demographic profile. Section B aimed to profile selected pre-enrolment factors influencing the entrepreneurship students. Section C aimed to understand possible student support and development. The three sections mentioned above helped the researcher to gather enough data to achieve the study objectives. The data gathered was captured in SPSS V25, an established statistics package (Welman & Kruger, 1999:225). The questions and responses were assigned numbers to enable the SPSS software to make sense of relevant collected data for further investigation (Welman & Kruger, 1999:208; Babbie & Mouton, 2001:412).

4.3. Response rate

The study had a population size of 512 consisting of full-time students registered for the Diploma in Entrepreneurship registered as either mainstream or extended programme students. Questionnaires were distributed to respondents face-to-face during class with the help of class representatives. To increase the response rate, the researcher gave the respondents ample time to complete the questionnaire by requesting them to hand it back to their class representatives who were the field officers for the research. Among the 300 questionnaires distributed to the respondents, only 204 usable questionnaires were returned,

thus 68%. The questionnaire consisted of 38 statements with various constructs including five reversed items, resulting in Cronbach's alpha of 0.689, almost identical to the widely accepted ratio of 0.7 (Foxcroft & Roodt, 2009). The 25 statements which utilised Likert-scale questions had a Cronbach's alpha of 0.756 inclusive of the five reversed statements. Questionnaires were distributed during the last classes before the semester final assessments on 7 and 8 May 2018. An increased number of students was expected to attend classes just before the assessments in an attempt to get guidance for the assessments. However, this is also a period when most students are time-conscious, saving every moment for examination preparation, which could potentially negatively affect the participation rate. Nevertheless, the timing was deemed appropriate to maximise the number of questionnaires returned. Besides, the first year students would have a better understanding of the entrepreneurship qualification as they were already almost one semester into their studies.

The research findings are presented according to the questionnaire structure with the following sub-sections:

- Section A: Demographics
- Section B: Pre-enrolment profile, pre-enrolment factors and entrepreneurship profile
- Section C: Student support and development

4.4.1. Section A: Respondents' demographics

This section reports respondents' demographic information relating to gender, level of study, nationality and age. The results of this section serve as a basis for comparison of students' opinion captured in the remaining sections.

Table 4. 1: Respondents' general information (author's own)

Gender	Frequency	Percentage
Male	81	39.9%
Female	122	60.1%
Study level	Frequency	Percentage
Extended Year 1	21	10.3%
Extended Year 2	19	9.3%
Mainstream Year 1	68	33.3%
Mainstream Year 2	54	26.5%
Mainstream Year 3	42	20.6%
Nationality	Frequency	Percentage
South African	178	89.9%
Non-South African	20	10.1%
Age group	Frequency	Percentage
16-20 years	94	47.7%
21-25 years	92	46.7%
26-30 years	9	4.6%
31 years and above	2	1.0%

Table 4.1 above shows a high number of females (60.1%) than males (39.9%). A higher proportion of female students than males is common in most tertiary institutions. The above finding is supported by a study by Van Zyl et al. (2012:1097) and the Global University Entrepreneurial Spirit Students' Survey (GUESSS) conducted in 2011 by Viviers et al. (2013) which had some insights relevant to the current study. University students from various countries, including South Africa, participated, yielding a gender composition of 55% of the 697 South African participants being female. This pattern was noted in the 2018 GUESSS survey, which also had about 55% female students of the 208 000 participants (Sieger *et al.*, 2018:28).

This study involved students at different levels of study, i.e. from ECP first year to mainstream third year. The biggest group was the first year, which made up 33% of the 204 respondents. The second and third biggest groups of participants were second year and third year mainstream students, with 26.5% and 20.6% respectively (see figure 4.1). One of the reasons could be that some students might have dropped out along the way, especially during the first semester of their studies (Van Zyl *et al.*, 2012:1107). These findings are in line with an earlier study on entrepreneurship students, which posit that throughput rates progressively decrease per successive year (Sibanda *et al.*, 2015a:269). This pattern is also observed in the number of respondents registered on the ECP, namely 10.3% and 9.3% for the first year and second year respectively, showing a slight decrease in the successive year.

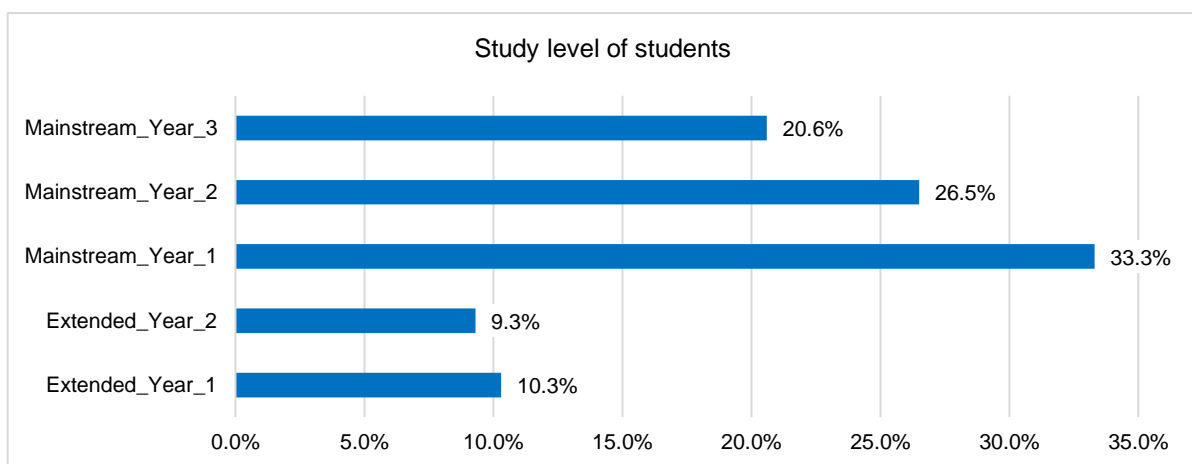


Figure 4. 1: Study level of respondents

The institution also attracts foreign nationals, as 10.1% of those who participated in this study were non-South African.

Of the 197 respondents who responded to the age statement, their age ranged from 17 to 37 years. Figure 4.2 shows two major age groups which are 16-20 and 21-25, 47.7% and 46.7% respectively. Thus about half of the respondents are below 21 years old and 95% of the respondents are below 26 years.

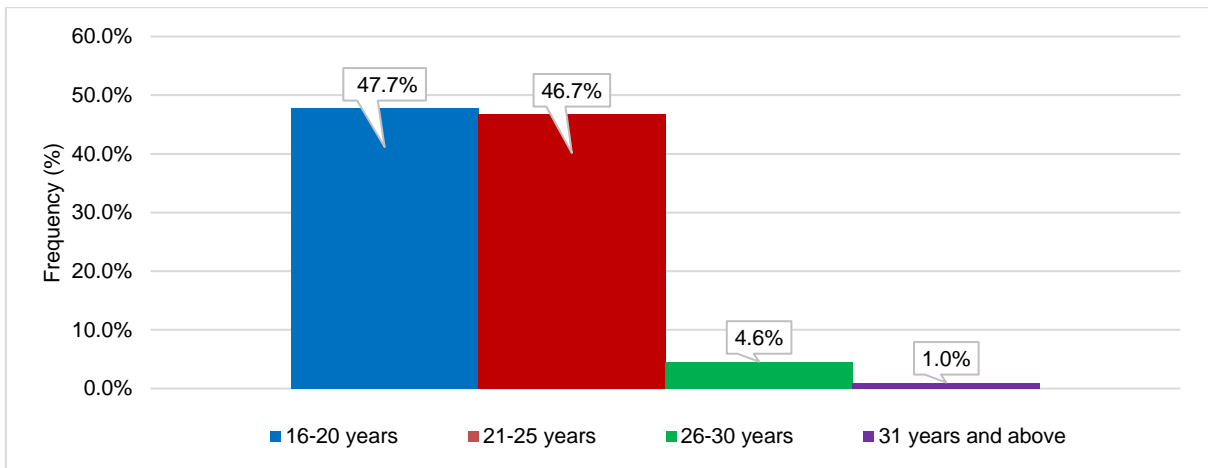


Figure 4. 2: Respondents' age

Figure 4.3 provides a closer look at the age distribution of the participants. The mode for age is 20 years, having 46 respondents followed by the ages 19 and 21 years, both with a frequency of 34 respondents.

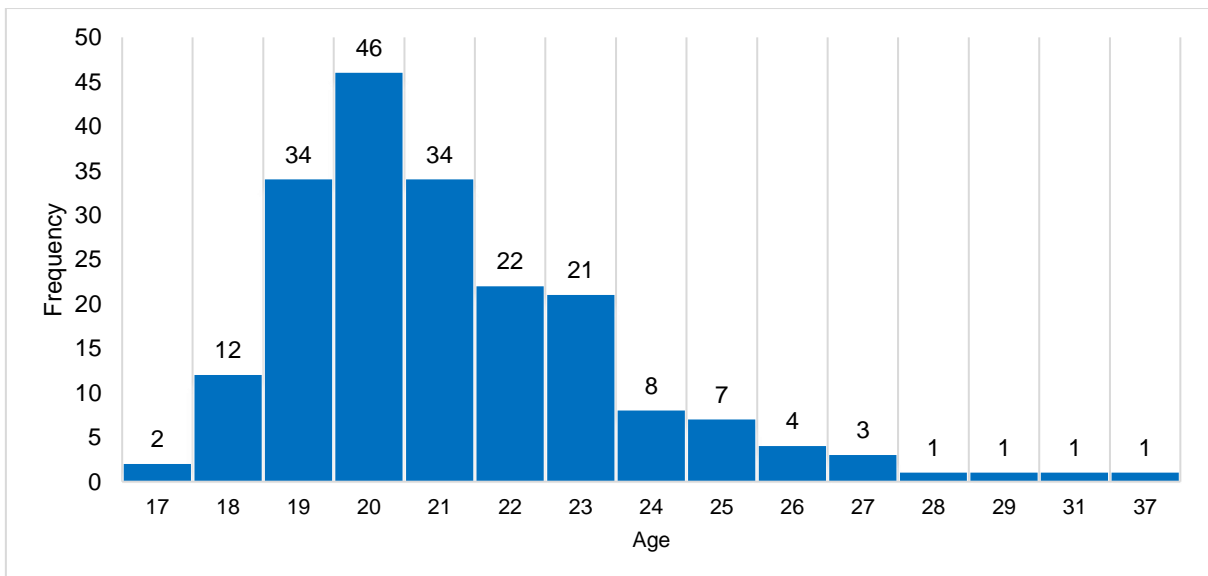


Figure 4. 3: Age distribution of respondents

4.5.1. Section B: Pre-enrolment profile, pre-enrolment factors and entrepreneurial profile

This section consists of three sub-sections, namely respondents' pre-enrolment profiles, factors which influenced high school academic performance, and their entrepreneurial profile.

4.5.2. Pre-enrolment profile of students

Figure 4.4 presents a summary of statements that aim to provide a profile of students before enrolling for the entrepreneurship diploma qualification. The pre-enrolment profile of the participants identifies young individuals perceiving themselves to be qualified for many higher education qualifications other than an entrepreneurship diploma. These individuals aimed to study for a qualification leading to a job after graduation, and thus are currently not studying their preferred qualification. Nchu (2015:94) notes that high school students are not prepared to take entrepreneurship as employment in the short term.

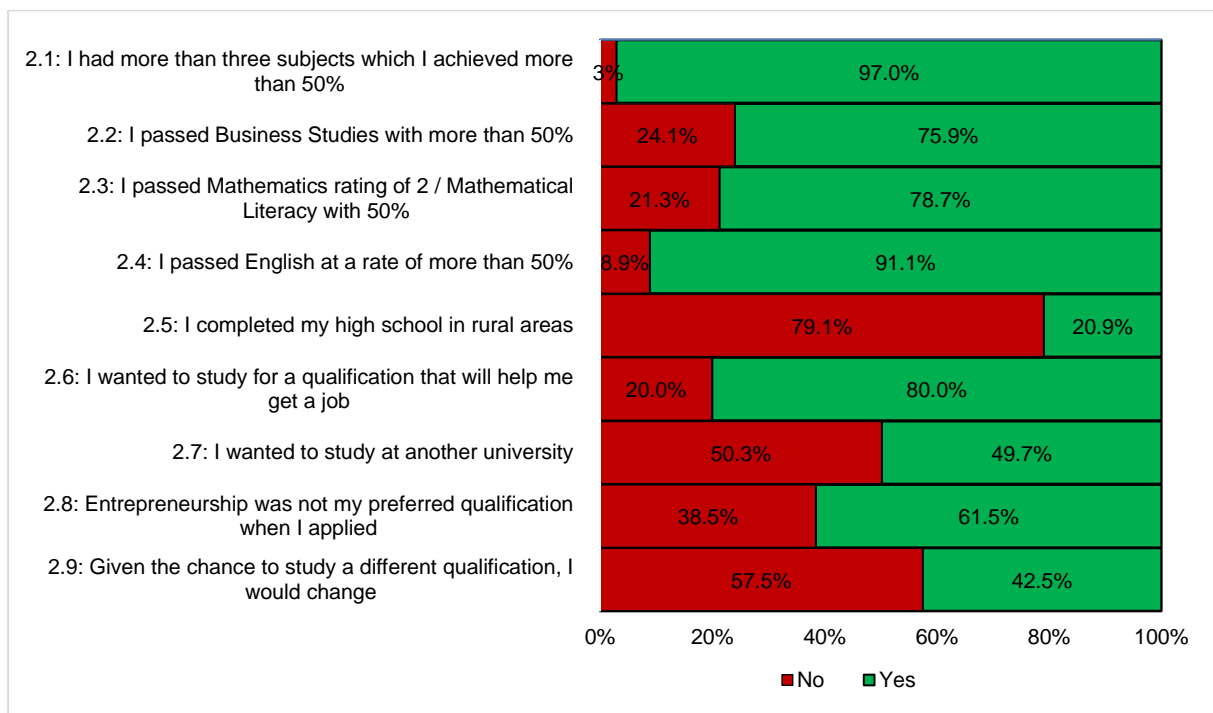


Figure 4. 4: Pre-enrolment profile of students (summary)

Figure 4.4 shows a summarised pre-enrolment profile of the nine statements under this section and presents the results for each statement:

Statement 2.1 shows that the majority (97%) of the respondents indicated that they passed at least three subjects at high school level with at least a 50% mark. Figure 4. 5presents a breakdown of the above in terms of study level. About 10% and 7% of the Extended Year 1 and Extended Year 2 cohorts respectively indicated that they passed three or fewer subjects in high school with more than 50%.

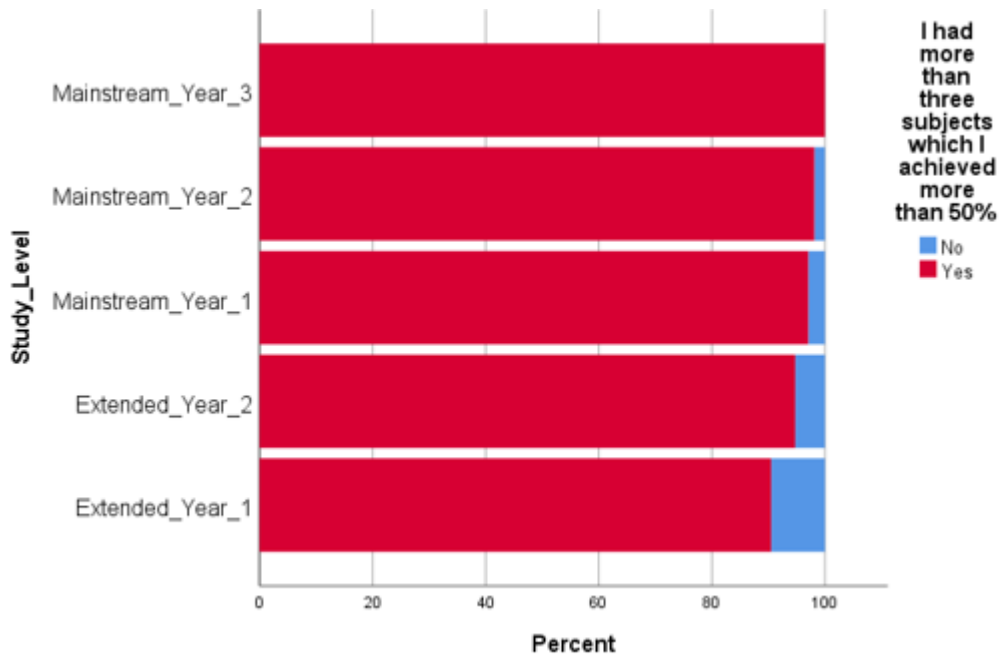


Figure 4. 5: I had more than three subjects which I achieved more than 50%

Figure 4. 6 presents a breakdown of the results of statement 2.2 which indicates that slightly over 20% of the respondents in all study levels indicated that they had not passed Business studies with a mark of 50% or more. As Figure 4. 4 shows, 75.9% of the respondents indicated having passed the high school Business Studies subject with a mark of at least 50%. Therefore, the majority of the students have a basic knowledge of the business field.

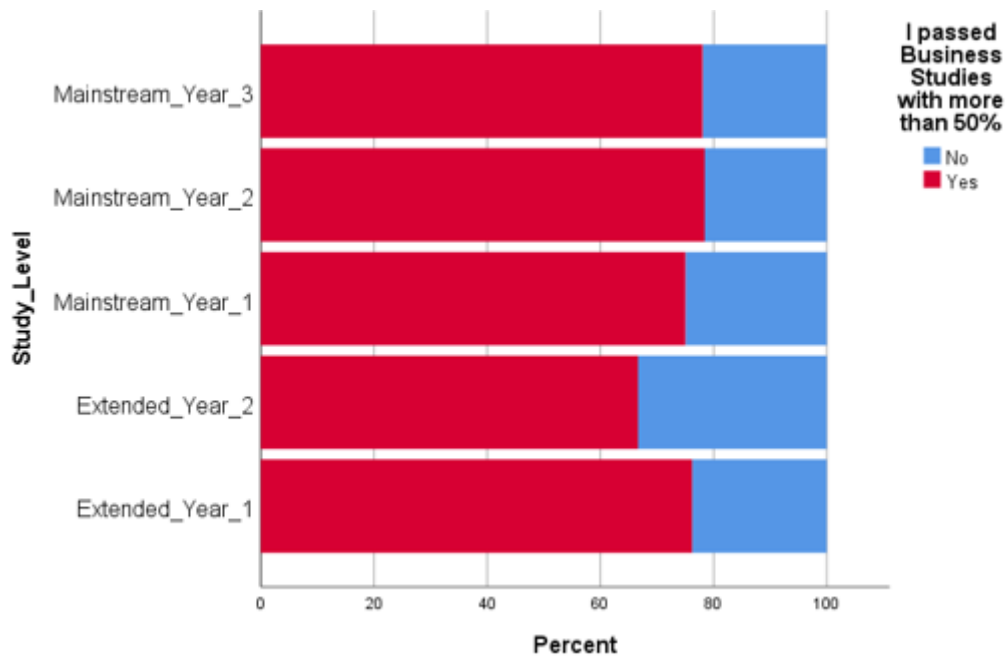


Figure 4. 6: I passed Business Studies with more than 50%

Also, as shown in the next figure, Figure 4. 7, most of the students have the fundamentals at least in basic mathematical calculations, as 78.7% indicated having passed Mathematics with a rating of two or passed Mathematics Literacy with a mark of at least 50% at high school (statement 2.3).

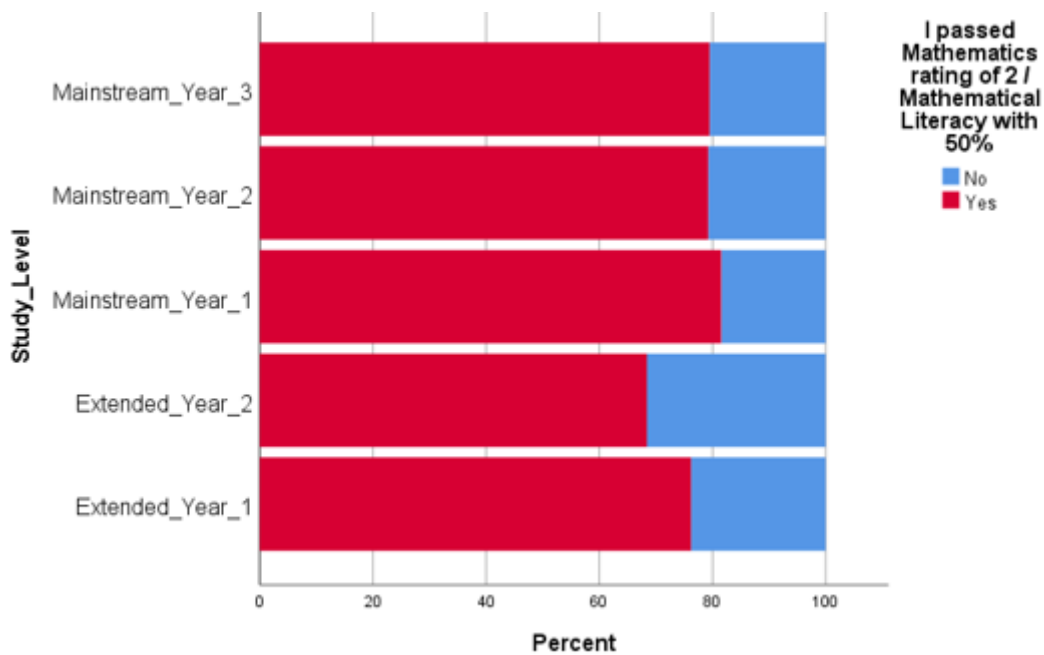


Figure 4. 7: I passed Mathematics rating of 2 / Mathematical Literacy with 50%

In the next figure, the results show that 91.1% of respondents indicated having passed the subject English with a mark of at least 50% (statement 2.4) (see Figure 4. 8). However, the Extended Year 1 class had about 55% who passed the subject with a mark of at least 50%.

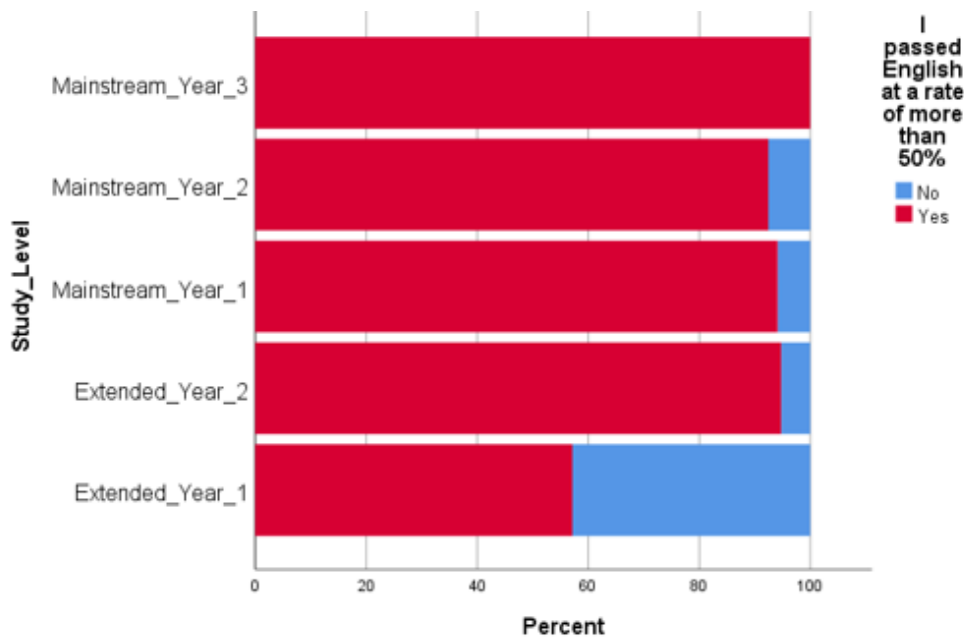


Figure 4. 8: I passed English at a rate of more than 50%

As Figure 4. 9 shows, the majority of the respondents (80%) completed their high school studies in urban areas (statement 2.5). A comparison between mainstream and extended programme enrolments shows that there is a higher proportion (almost 30%) of students in the extended programme who completed their high school in rural areas. In the mainstream enrolment category, the proportion of students who completed their high school in rural areas is slightly less than 20%. Perhaps this could be the reason why students in the extended programme have a higher proportion of students who achieved a mark of below 50% in English and Mathematics.

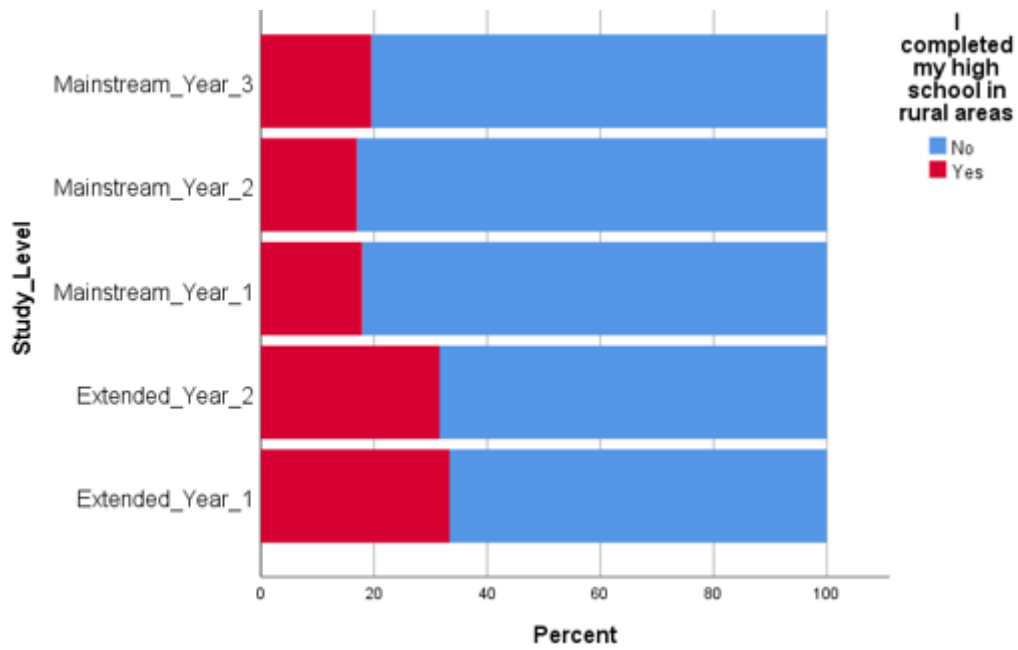


Figure 4. 9: I completed my high school in rural areas

Figure 4. 10 shows a figure of 80% of students who wanted to study for a qualification that helps towards getting a job (statement 2.6).

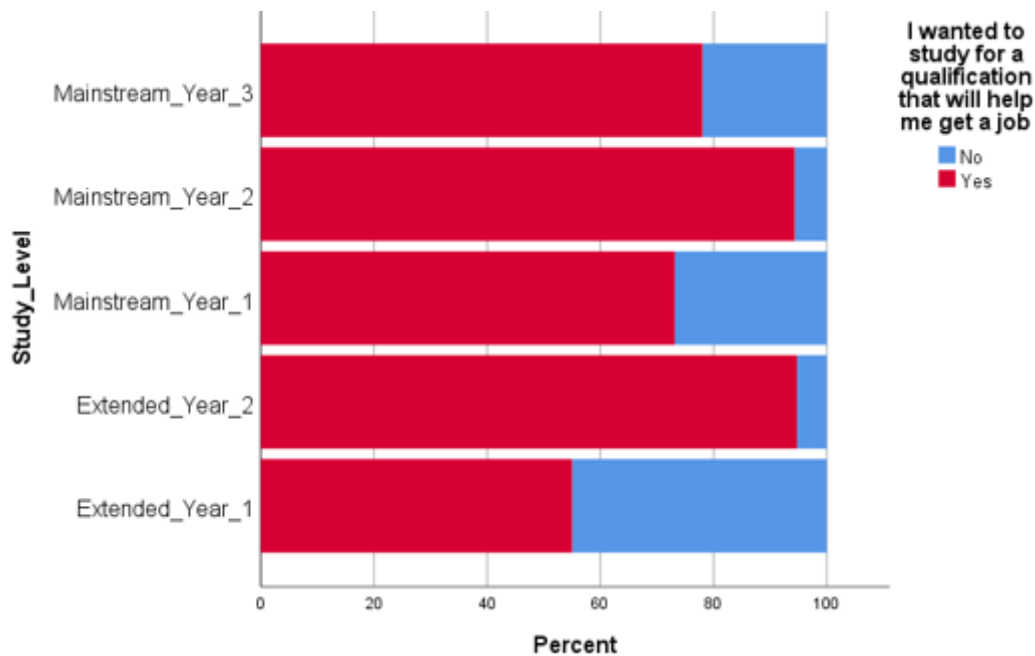


Figure 4. 10: I wanted to study for a qualification that will help me get a job

Figure 4. 11 shows that about 50% of the respondents indicating that they wanted to study at a different university (statement 2.7).

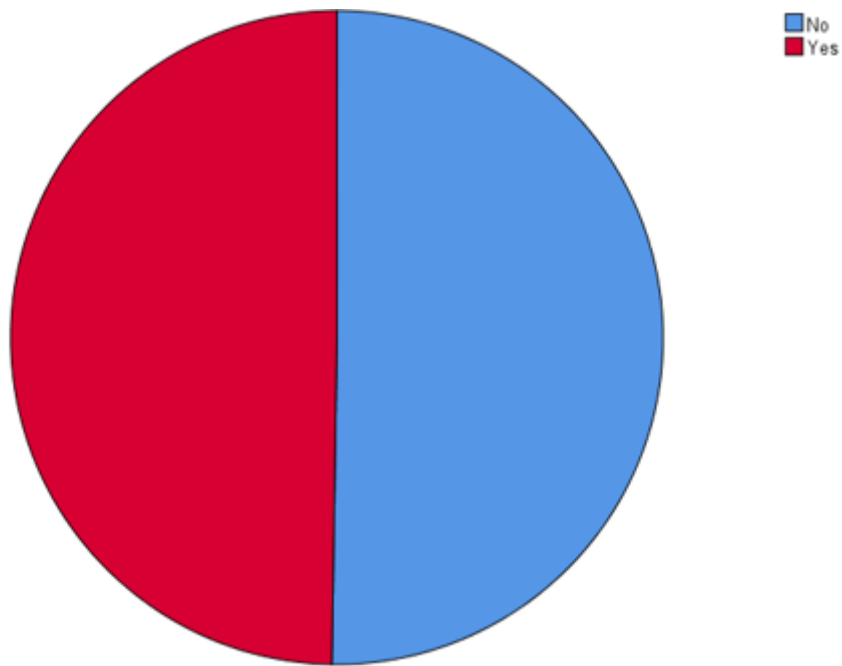


Figure 4. 11: I wanted to study at another university (pie chart)

Figure 4. 12 presents the opinions of the participants per study level. The Extended Year 2 group had the highest number, with over 70% of the group of those who wanted to study at another university.

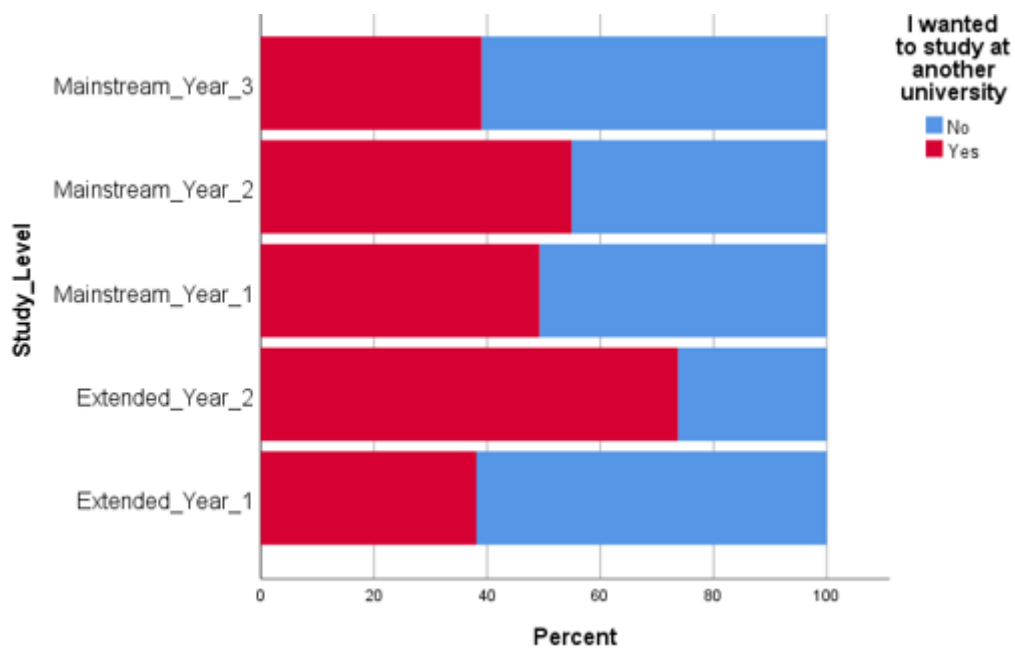


Figure 4. 12: I wanted to study at another university (per study level)

It was found that about 60% of the 200 respondents indicated that entrepreneurship was not their preferred qualification when they applied (statement 2.8, see Figure 4. 4). In the next figure, it is clear that the Extended Year 2 group has the highest contribution to this finding, with over 70% of the group.

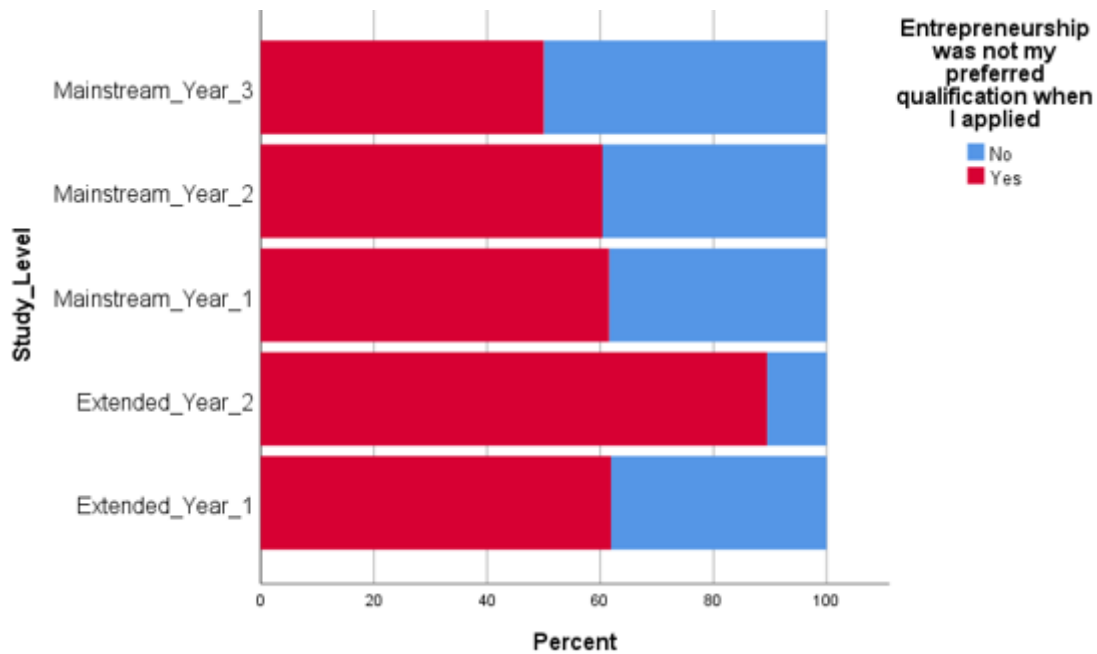


Figure 4. 13: Entrepreneurship was not my preferred qualification when I applied

About 58% of the respondents would continue to study entrepreneurship, even given a chance to study towards a different qualification (statement 2.9). The remaining 42% would consider changing to a different qualification.

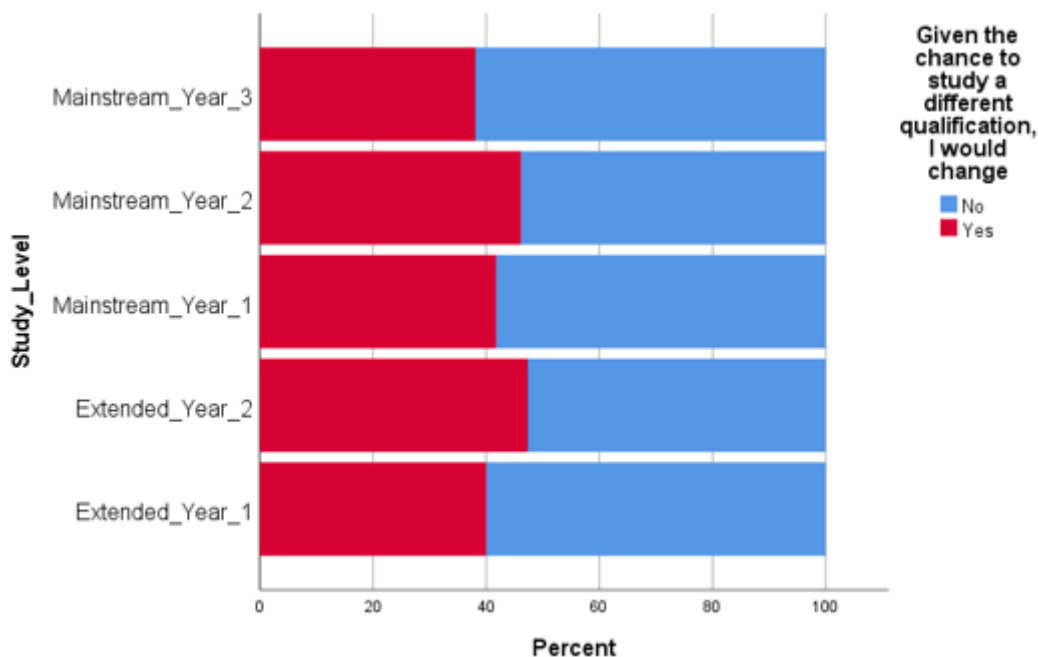


Figure 4. 14: Given the chance to study a different qualification, I would change

Two themes emerged from items in Figure 4.4. Statements 2.1 to 2.9 are related to Grade Point Average (GPA) and career aspirations, discussed below.

4.5.3. Analysis of GPA-related findings

Statements 2.1 to 2.9 sought to establish a pre-enrolment profile of the participants. This study had 204 respondents, of which 80% of the students registered for the mainstream, and 20% registered for the ECP. In response to statements 2.1, 2.2, 2.3 and 2.4, most participants reported that they had met the higher education entry requirements, specifically including the entrepreneurship diploma. Despite the above, the participants also included a few who indicated that they barely met the entry requirements, thus confirming the presence of the students registered for the extended degree program for this qualification. This is evident in Statement 2.1 as 97% of the respondents highlighted having passed at least three subjects at high school. Since the ECP caters for students with lower high school grades, statement 2.1 confirms the population distribution in terms of registration category reflects the 40 respondents who were registered under the ECP. Statements 2.2; 2.3; and 2.4 confirms the findings from statement 2.1 that over 75% passed each the three subjects.

4.5.4. Respondents' career aspirations

Results from statements 2.6, 2.7, 2.8 and 2.9 describe students who sought to have applied to study at multiple institutions. These students wanted to study for a qualification leading to

getting a job soon after graduation, i.e. not entrepreneurship, and some would still consider changing a qualification given a chance to do so. Nchu (2015:94) maintains that students in high school are prepared for employment, not for taking entrepreneurship as a career. The above insight has been noted in all five categories of study level: at least 55% per each group wanted to pursue a qualification leading to a job after graduation. The highest percentages of 94% and 95% were recorded in the second year mainstream and second year ECP groups respectively. Statement 2.8 confirms that the entrepreneurship qualification was not a preferred choice of qualification to the respondents as about 60% indicated entrepreneurship as not their preferred qualification. A study conducted by Sikhwari et al. (2019) found that students are more motivated to work hard in their preferred degree. In this study, students seem to be demotivated in studying entrepreneurship, especially those who had chosen it as their second or third choice.

This is supported by Viviers et al. (2013) finding of a tendency for students to enter a professional career in disciplines cultured as premium, such as engineering, education, law, health and finance after the advent of South African democracy in 1994. Statement 2.6 may confirm this, in which 80% of the respondents indicated that they wanted to study a qualification that would help them to get a job upon graduation. This may suggest that these students might lack motivation for the completion of the qualification. Also, this might be an explanation for the decreased number of students every consecutive year.

The findings of Viviers et al. (2013) that both the international and South African students favour entrepreneurship as a career five years after graduation might suggest that students in the current study aim to achieve a qualification in another discipline, and then venture into entrepreneurship in future. Kroon and Meyer (2001:480) maintain that South Africans tend to seek employment rather than starting their businesses. Additionally, this is in line with a central pattern observed by the GUESSS in its 2018 survey that most students prefer to get employment before venturing into entrepreneurship (Sieger *et al.*, 2018:3). This study found that only 9% of over 208000 participants from 54 countries intended to become entrepreneurs directly after graduation with about 35% intending to become entrepreneurs after five years of completing their studies. This could be the case with other professionals who pursue the option to establish their businesses. For example, some medical doctors and pharmacists establish their practices. To further confirm this, a considerable number of 40% indicated that they would consider studying for a different qualification given a chance to change as per statement 2.9, one that comes with job security. This supports the findings of Viviers et al. (2013). However, this pattern is in line with the lifelong entrepreneurship education model according to the

Consortium for Entrepreneurship Education (2004), which suggests that individuals should be exposed to entrepreneurship education and with time, they will eventually establish their own businesses.

A group of students doing second year on the ECP poses a serious concern (see Figure 4. 12, Figure 4. 13 and Figure 4. 14). About 90% (in statement 2.8) indicated their first choice as other than the entrepreneurship diploma, while 74% wanted to study at a different institution. These results relate to the lower entry requirements of the ECP entry mode. From the above, it can be noted that students in the ECP students pose a high risk of dropping out or changing qualifications, as they also believe that they meet the entry requirements to pursue other qualifications, probably in the foundation programmes. In summary, most of these students see themselves as being in the wrong department pursuing a qualification that is not their first preference.

Table 4. 2: Entrepreneurship was not my preferred qualification when I applied

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	77	37.7	38.5	38.5
	Yes	123	60.3	61.5	100.0
	Total	200	98.0	100.0	
Missing	99	4	2.0		
Total		204	100.0		

Figure 4. 15 below shows that more than half of the participants did not choose entrepreneurship as their first choice of qualification. Although entrepreneurship is a qualification that prepares students to be job creators, most of these students wanted to pursue a qualification that leads to employment.

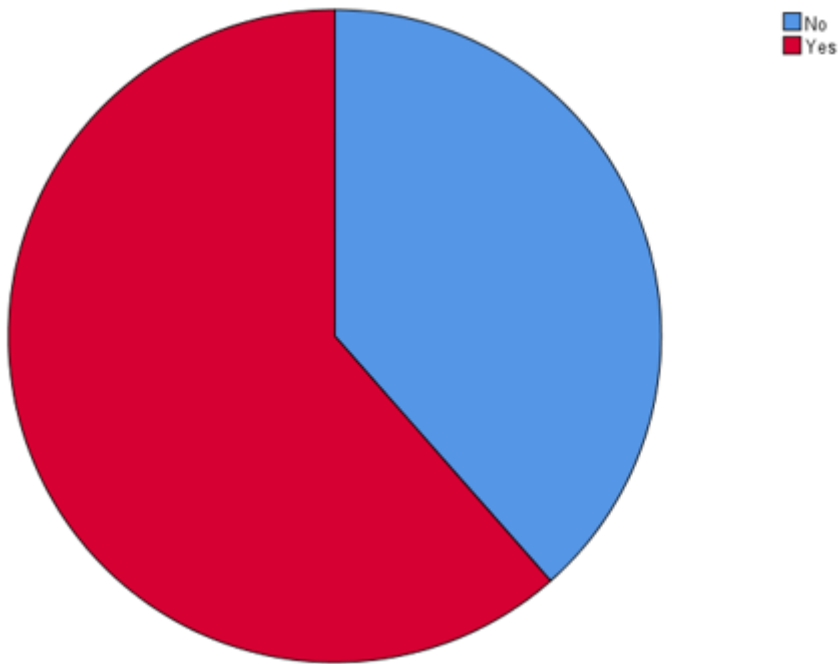


Figure 4. 15: Entrepreneurship was not my preferred qualification when I applied

The next table and graph confirms the above insight as almost 80% wanted to study a qualification that would help them get a job.

Table 4. 3: I wanted to study for a qualification that will help me get a job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	40	19.6	20.0	20.0
	Yes	160	78.4	80.0	100.0
	Total	200	98.0	100.0	
Missing		4	2.0		
Total		204	100.0		

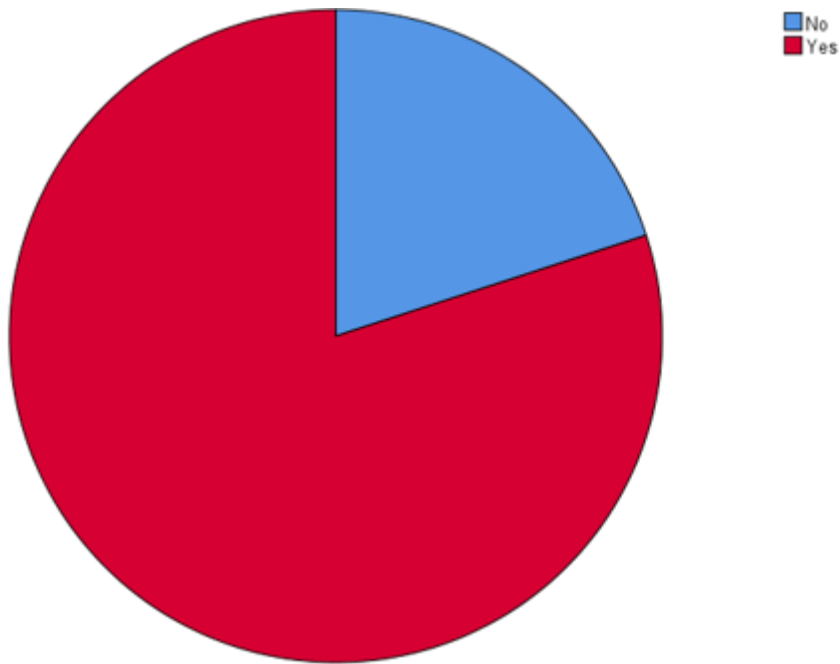


Figure 4. 16: I wanted to study for a qualification that will help me get a job

The above insight is similar for the ECP students, as 75% of the students enrolled for the extended programme wanted to study for a qualification that would help them get a job.

4.6.1. Factors influencing high school academic performance

Figure 4. 17 presents a summary of the opinions of the participants on the factors that influenced their high school academic performance. The internal consistency of the six statements had a Cronbach's alpha of 0.736 above the widely accepted ratio of 0.7 (Foxcroft & Roodt, 2009).

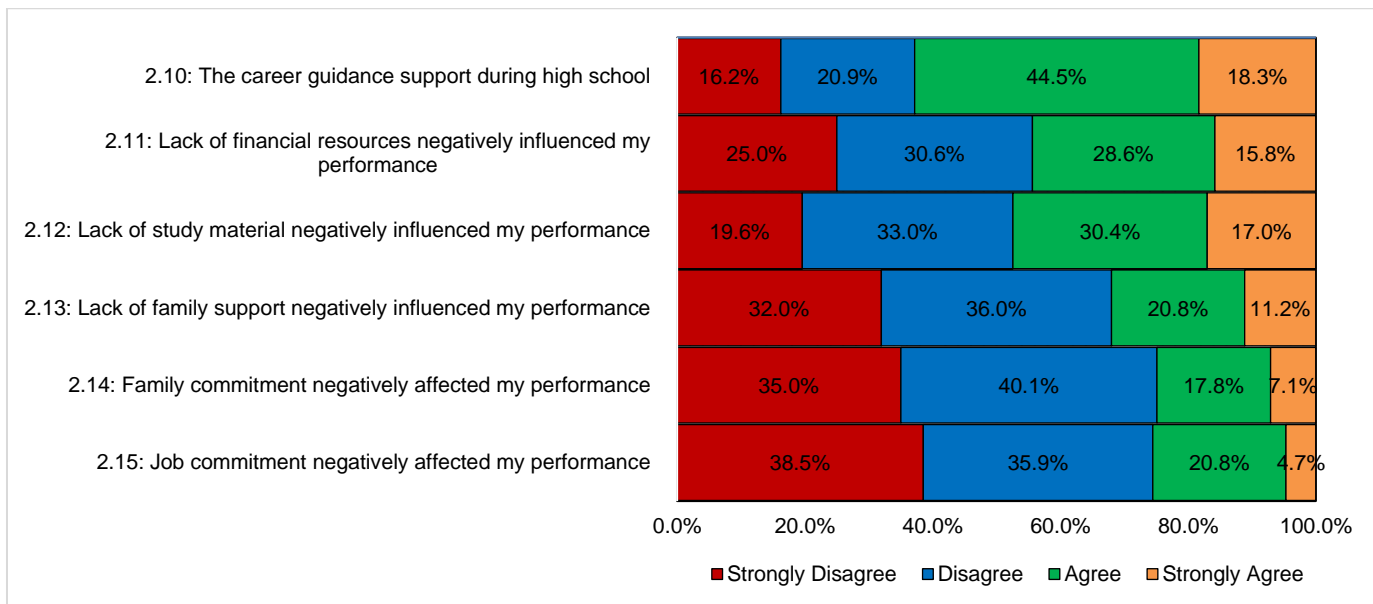


Figure 4. 17: High school academic performance factors (summary)

Table 4. 4: Ranked pre-enrolment factors influencing high school performance

		Ex-Yr 1	Ex-Yr 2	Main-Yr 1	Main-Yr 2	Main-Yr 3	Overall
1	The career guidance support during high school	2.60	2.89	2.35	2.96	2.63	2.65
2	Lack of study material negatively influenced my performance	2.24	2.61	2.19	2.75	2.53	2.45
3	Lack of financial resources negatively influenced my performance	2.33	2.78	2.03	2.56	2.39	2.35
4	Lack of family support negatively influenced my performance	2.57	2.39	1.73	2.17	2.28	2.11
5	Family commitment negatively affected my performance	2.43	2.11	1.75	2.02	1.95	1.97
6	Job commitment negatively affected my performance	2.33	1.89	1.63	2.04	2.00	1.92

4.6.2. Top three factors affecting high school performance

From the six statements directly questioning the influence of the pre-enrolment factors towards the participants' high school academic performance, the top three factors with highest means relate to lack of career guidance, study material and financial resources (see table above and Figure 4. 17).

The following was found regarding respondents' perception of the factors that influenced their high school academic performance. Of the six pre-enrolment factors, three of them were identified as having made a slightly negative contribution towards participants' high school academic performance, namely job commitment, family commitment and family support.

(a) *Career guidance* (statement 2.10) – about 63% of the respondents agree and strongly agree that the career guidance received during high school influenced their high school academic performance. The above table shows that participants from all groups pointed out a lack of career guidance as a major negative contributor to their high school academic performance. Kroon et al. (2003) recommend that career guidance should be provided for all high school students. Its absence meant that students were not clear on what to pay much attention to in preparation for tertiary education. The means for different levels ranged from 2.35 to 2.96, with an average of 2.65.

Table 4. 5: The career guidance support during high school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	31	15.2	16.2	16.2
	Disagree	40	19.6	20.9	37.2
	Agree	85	41.7	44.5	81.7
	Strongly Agree	35	17.2	18.3	100.0
Total		191	93.6	100.0	
Missing		13	6.4		
Total		204	100.0		

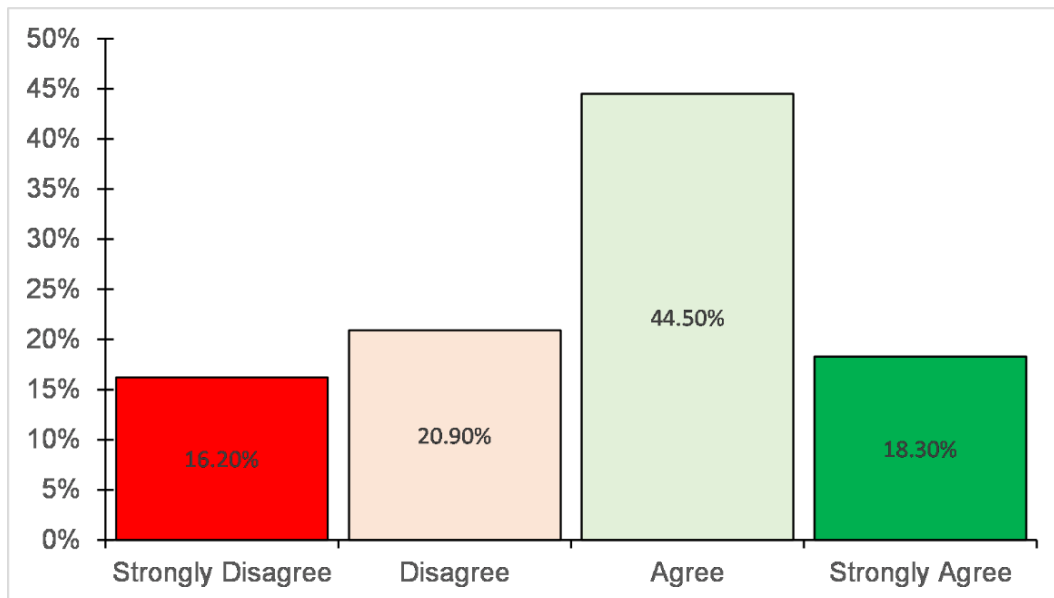


Figure 4. 18: The career guidance support during high school

(b) *Study material* (statement 2.12) - almost half (47%) of respondents highlighted the negative influence of the lack of study material on their high school academic performance. The mean for all levels of study is 2.45. This could point out to the social-economic backgrounds of some

of the participants despite about 80% of them having completed their high school studies in urban areas (2.5).

Table 4. 6: Lack of study material negatively influenced my performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	38	18.6	19.6	19.6
	Disagree	64	31.4	33.0	52.6
	Agree	59	28.9	30.4	83.0
	Strongly Agree	33	16.2	17.0	100.0
	Total	194	95.1	100.0	
Missing		10	4.9		
Total		204	100.0		

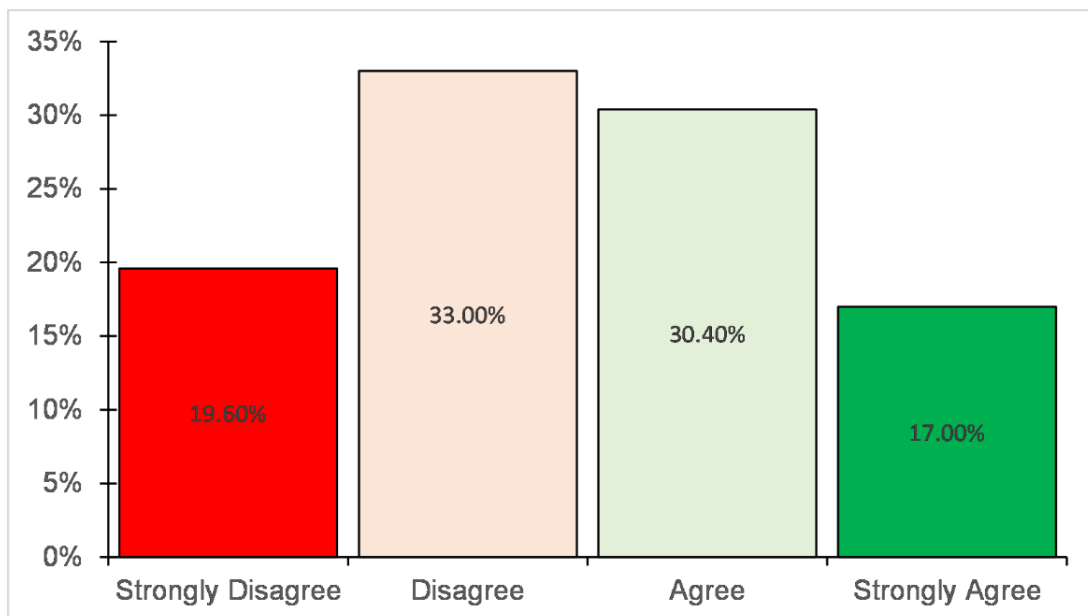


Figure 4. 19: Lack of study material negatively influenced my performance

(c) *Financial resources* (statement 2.11) – close to half (44%) of the participants indicated that the lack of financial resources had a negative influence on their high school academic performance. The mean for all study levels is 2.35 for this factor, the third-highest. It could also imply that students were not able to supplement their study material resources and could not afford to attend the much-needed career fairs. At tertiary level, financial funding positively influences academic performance. Students who were funded by NSFAS had lower dropout and higher throughput rates compared with the national cohort (DHET, 2020:154-155).

Table 4. 7: Lack of financial resources negatively influenced my performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	49	24.0	25.0	25.0
	Disagree	60	29.4	30.6	55.6
	Agree	56	27.5	28.6	84.2
	Strongly Agree	31	15.2	15.8	100.0
Total		196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

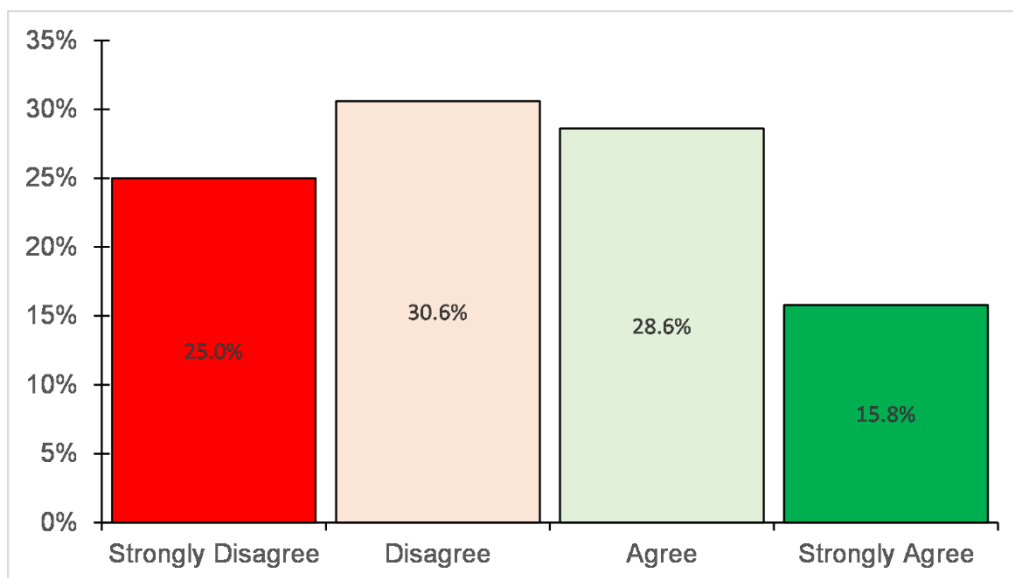


Figure 4. 20: Lack of financial resources negatively influenced my performance

Apart from the above, the following has been noted as well, though less significant: about 32% of the respondents (statement 2.13) indicated the lack of family support as having a negative influence on their high school academic performance. This could mean that family support is critical towards academic success. This supports findings by Gaffoor (2018) that parent and family support contributed positively towards the completion of a qualification.

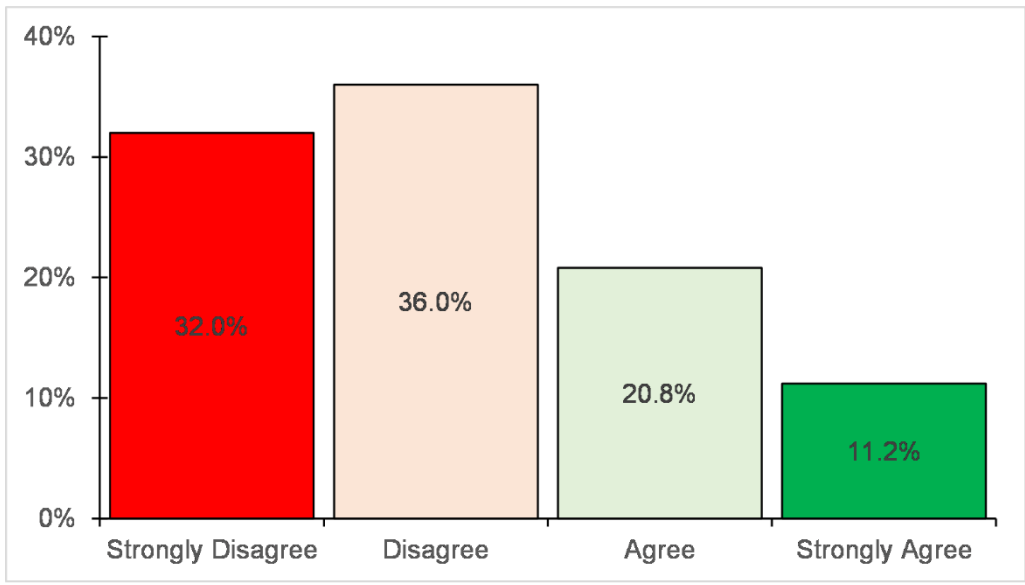


Figure 4. 21: Lack of family support negatively influenced my performance

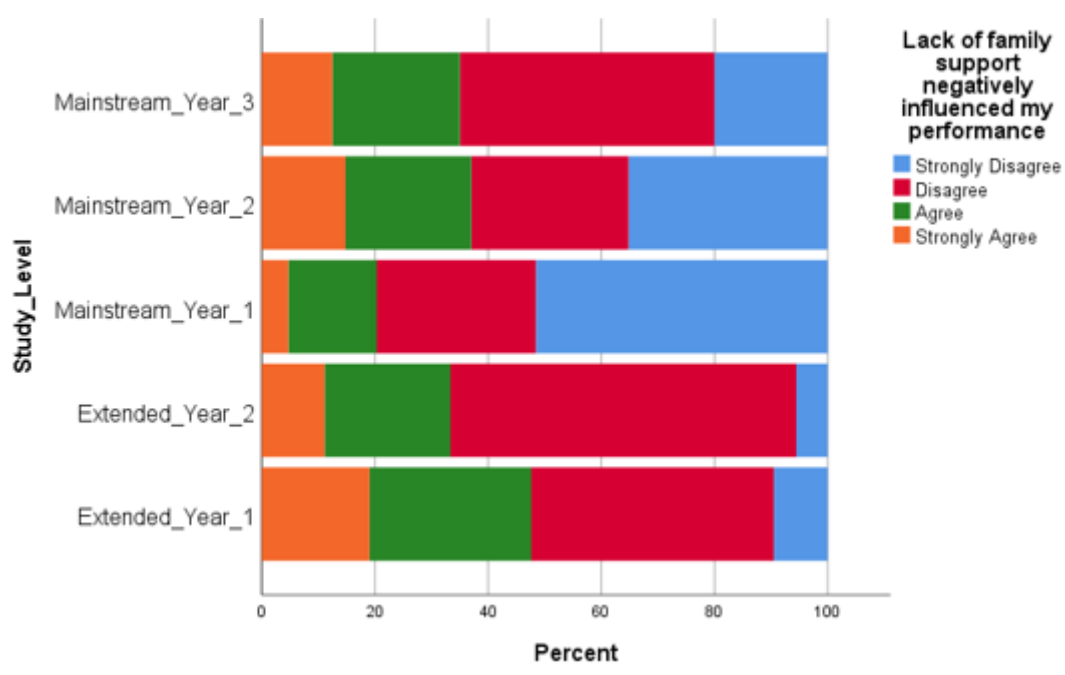


Figure 4. 22: Lack of family support negatively influenced my performance (per study level)

About 25% of the respondents (statement 2.14) agreed that their academic performance had been negatively influenced by family commitment. Considering the age distribution of almost half of the respondents being below 21 years, this suggests that most are yet to start their own families.

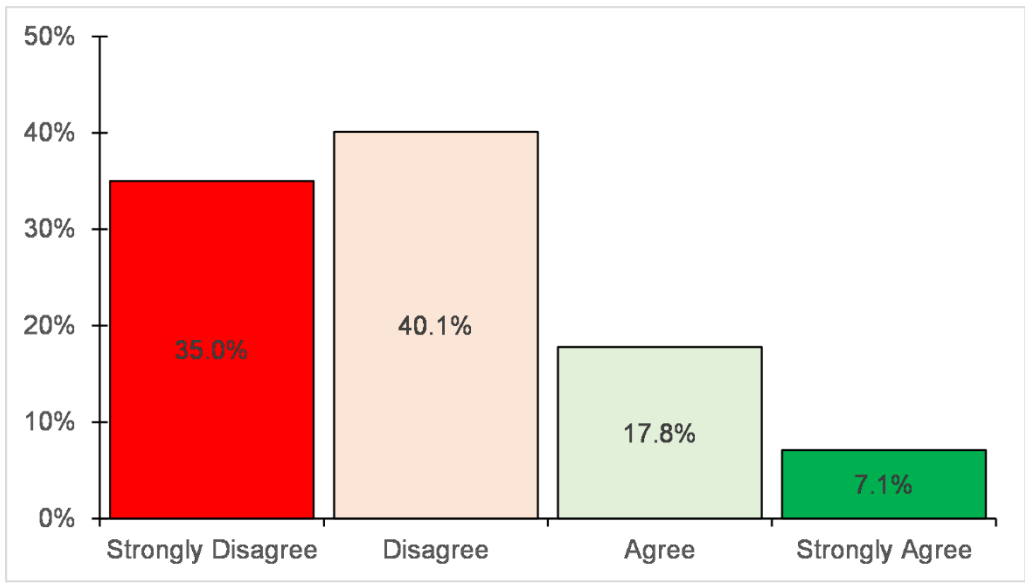


Figure 4. 23: Family commitment negatively affected my performance

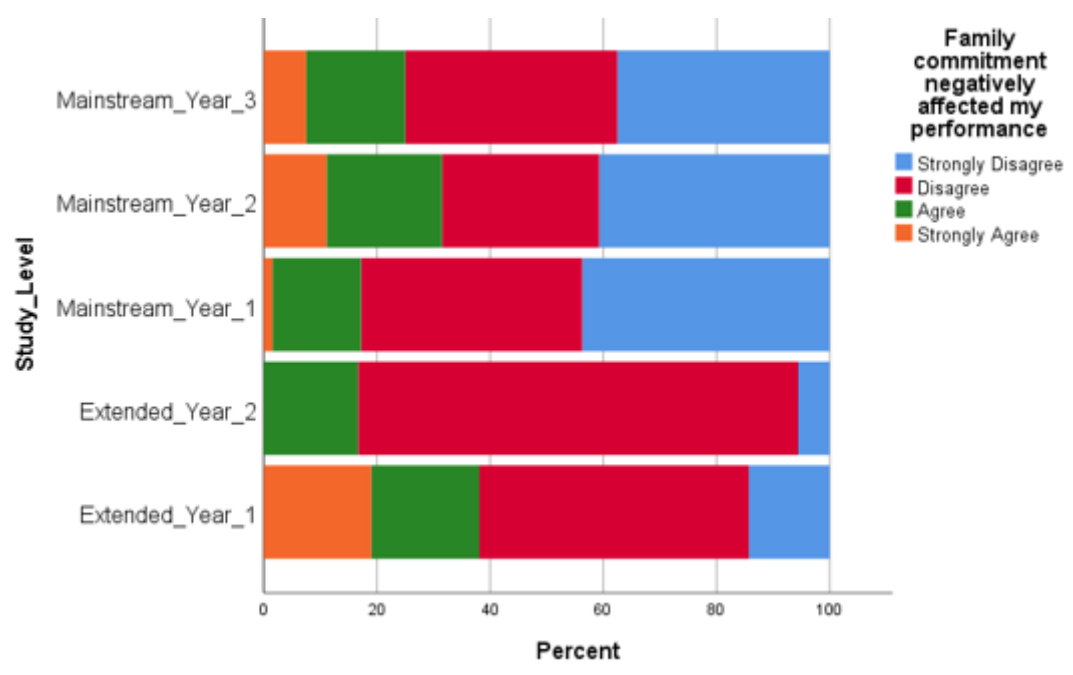


Figure 4. 24: Family commitment negatively affected my performance (per study level)

About 26% of the respondents (statement 2.15 and the next two figures) highlighted the negative influence of job commitment on their high school performance. This suggests that most respondents completed high school on a full-time basis.

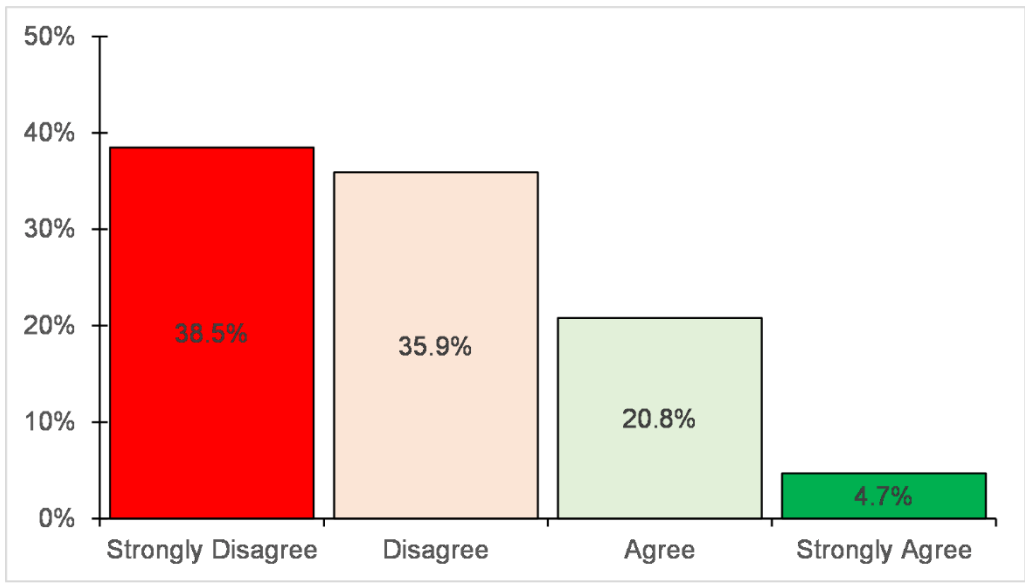


Figure 4. 25: Job commitment negatively affected my performance

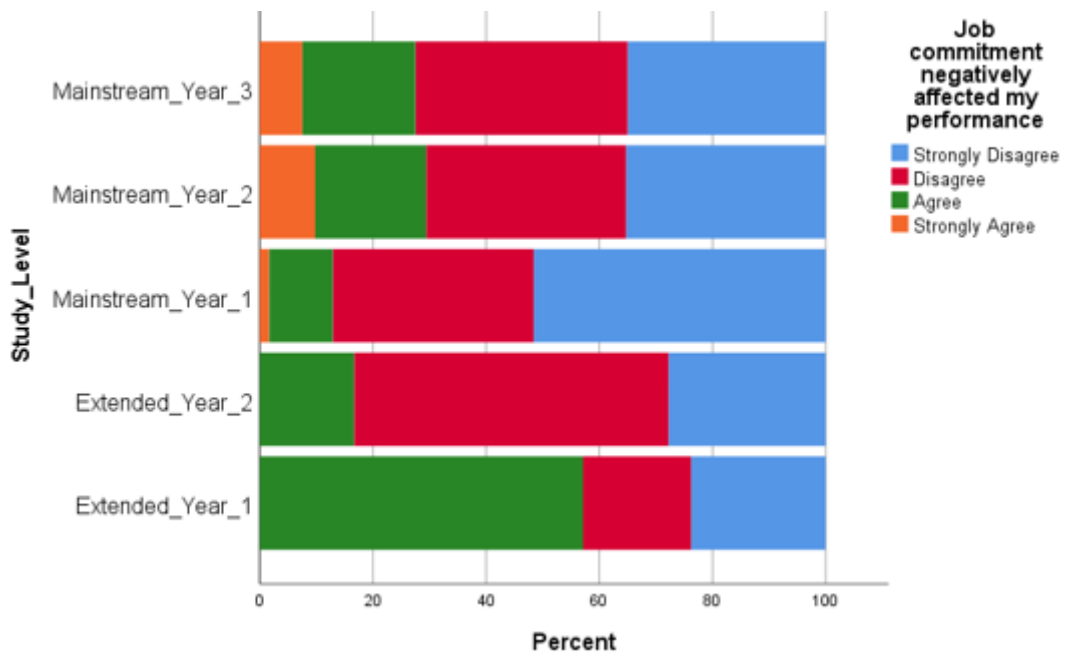


Figure 4. 26: Job commitment negatively affected my performance (per study level)

4.7.1. Students' entrepreneurial profile

Figure 4. 27 presents a summary of the opinions of the participants on the characteristics that describe their entrepreneurial profile.

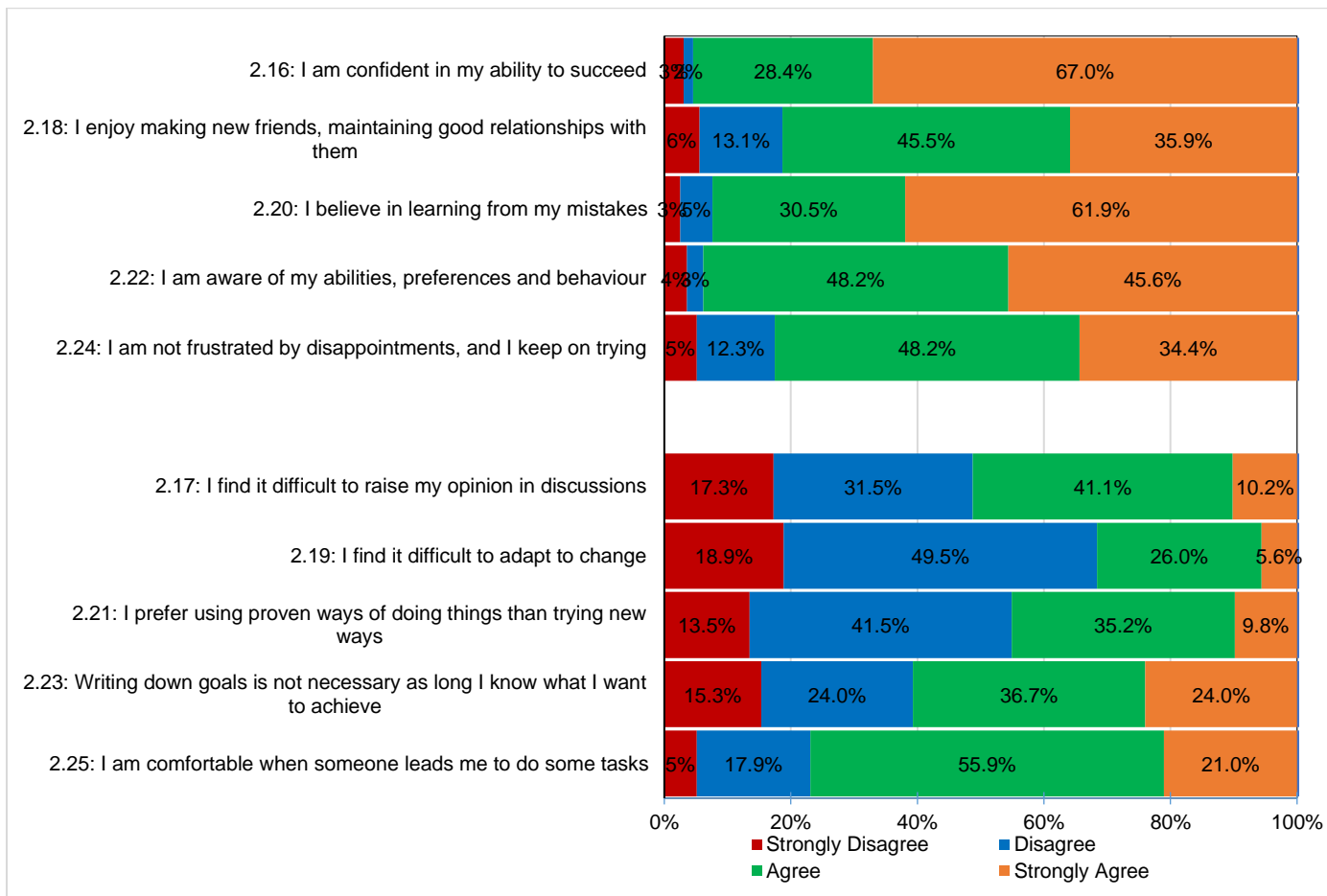


Figure 4. 27: Students' Entrepreneurial profile (summary)

From Figure 4. 27, the following was noted: statements 2.16, 2.18, 2.20, 2.22 and 2.24 were positively worded and revealed the entrepreneurial characteristics of the respondents. In all the statements, respondents revealed that they exhibited the entrepreneurial characteristics tested as detailed below:

Over 80% of the respondents agreed that they were confident (statement 2.16 with 95.6%), networkers (statement 2.18 with 81.33%), learned from mistakes (statement 2.20 with 92.4%), not frustrated by disappointments (statement 2.24 with 82.6%), and are aware of their abilities, preferences and behaviour (statement 2.22 with 93.8%).

This is presented in Figure 4. 28 to Figure 4. 37.

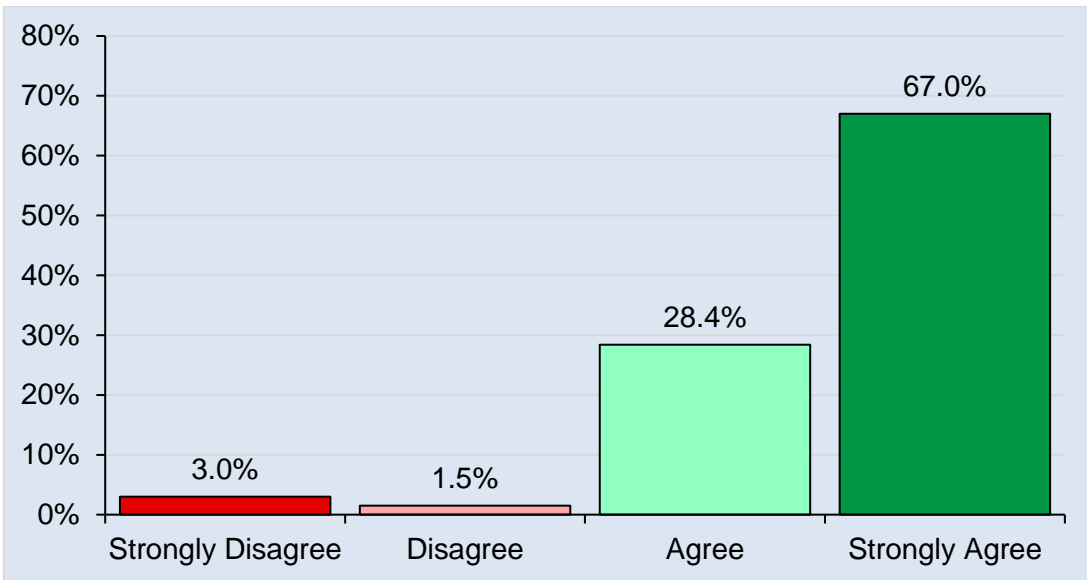


Figure 4. 28: I am confident in my ability to succeed

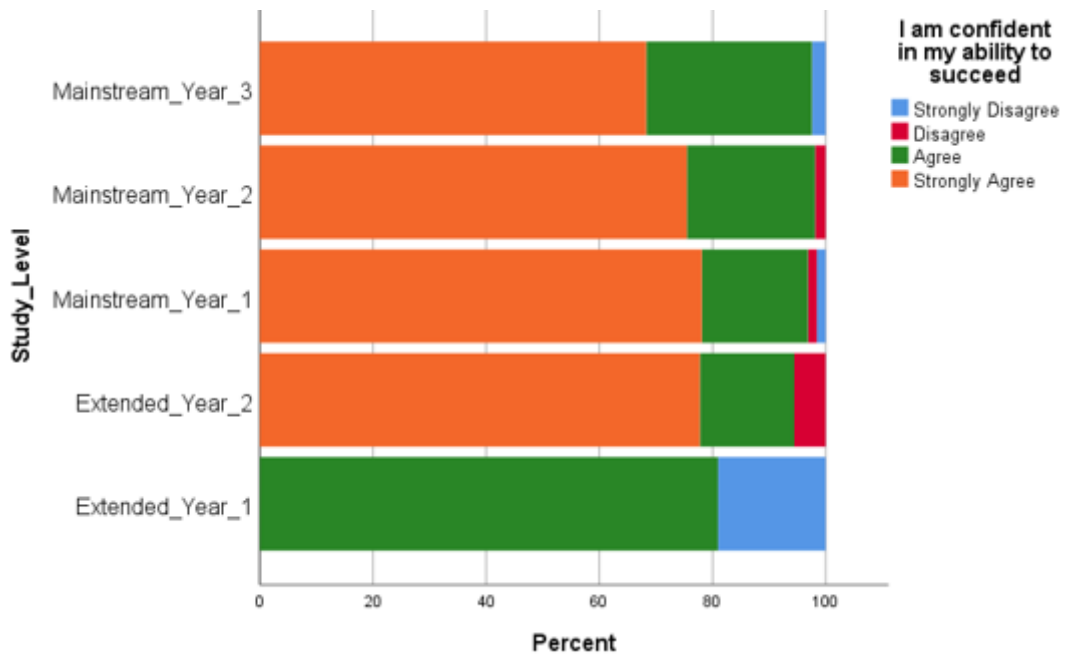


Figure 4. 29: I am confident in my ability to succeed (per study level)

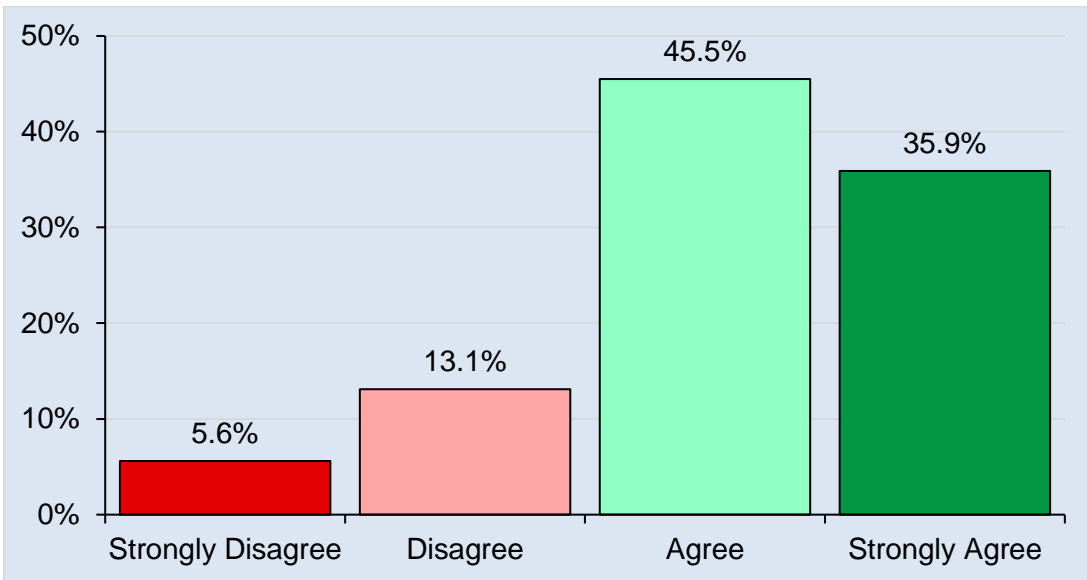


Figure 4. 30: I enjoy making new friends, maintaining good relationships with them

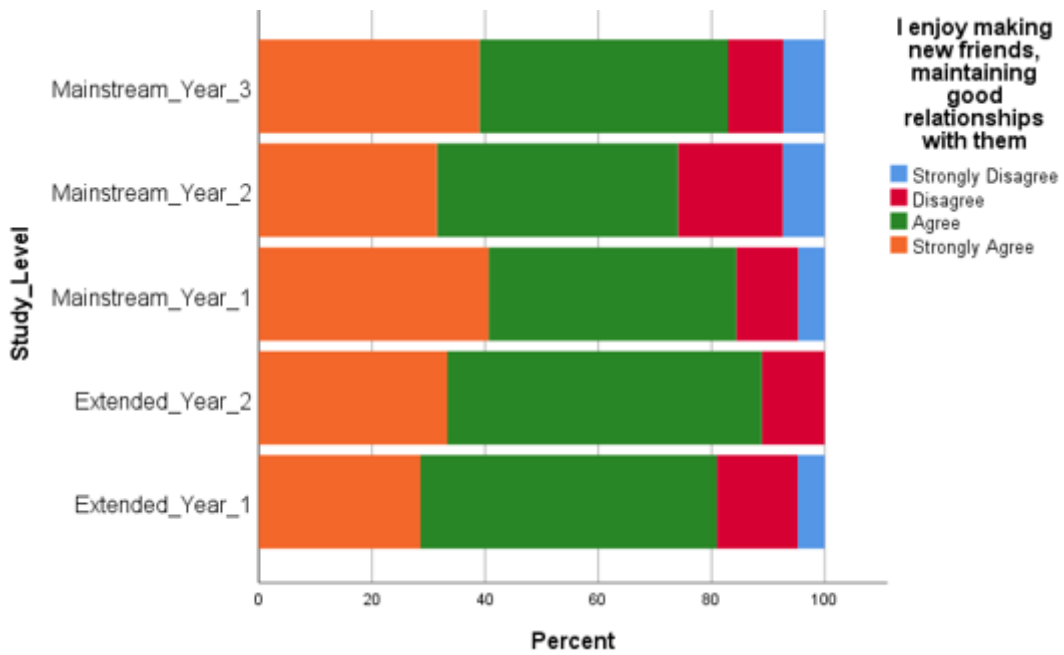


Figure 4. 31: I enjoy making new friends, maintaining good relationships with them (per study level)

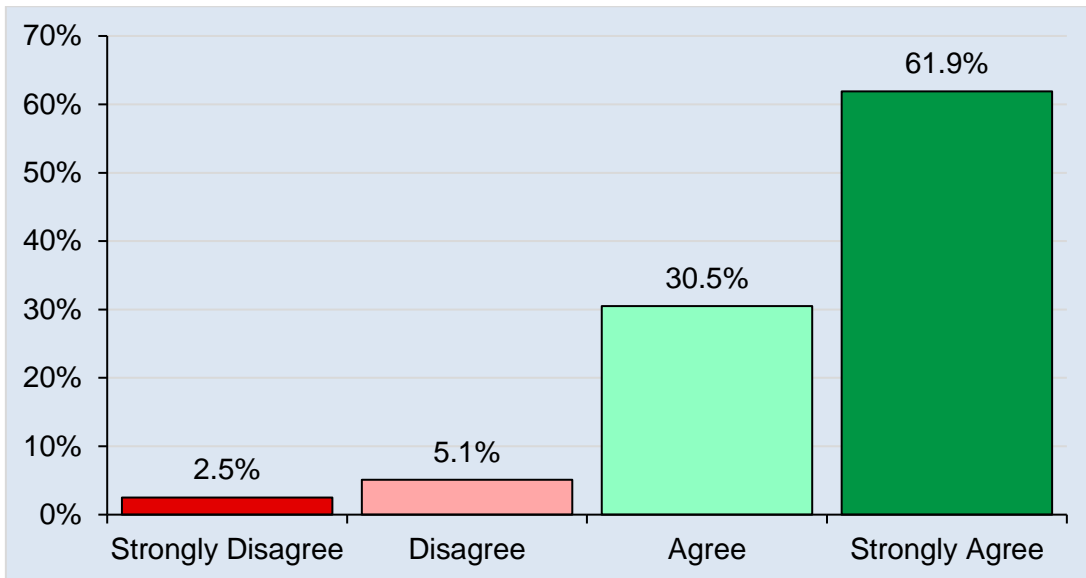


Figure 4. 32: I believe in learning from my mistakes

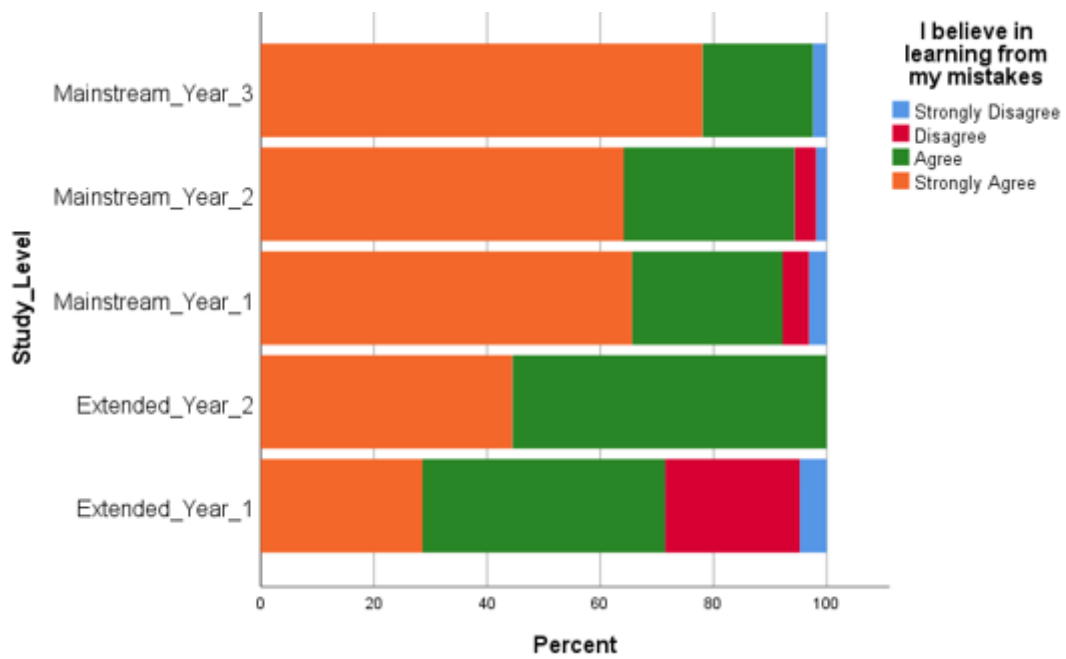


Figure 4. 33: I believe in learning from my mistakes (per study level)

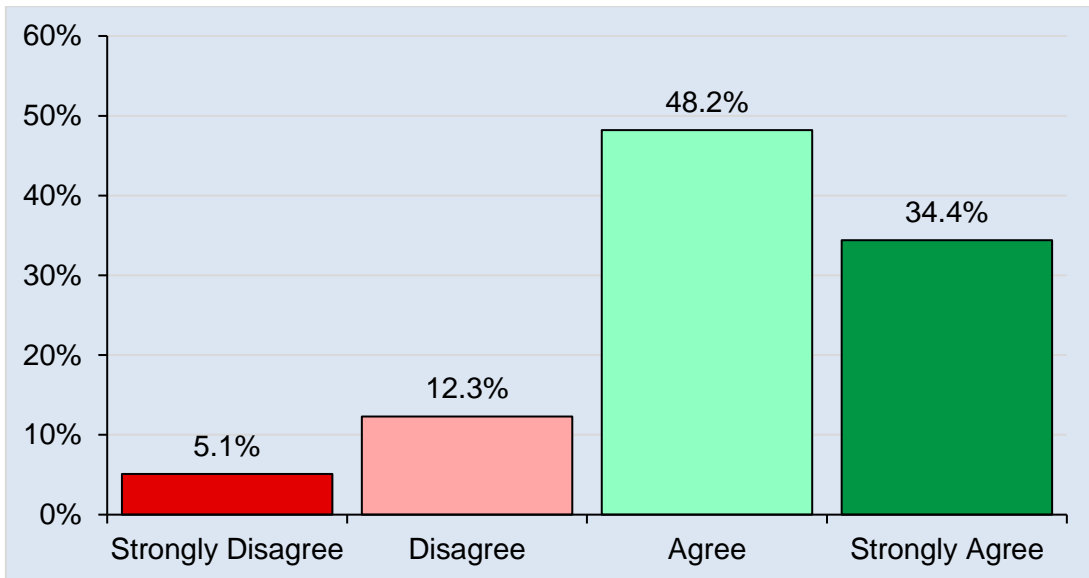


Figure 4. 34: I am not frustrated by disappointments, and I keep on trying

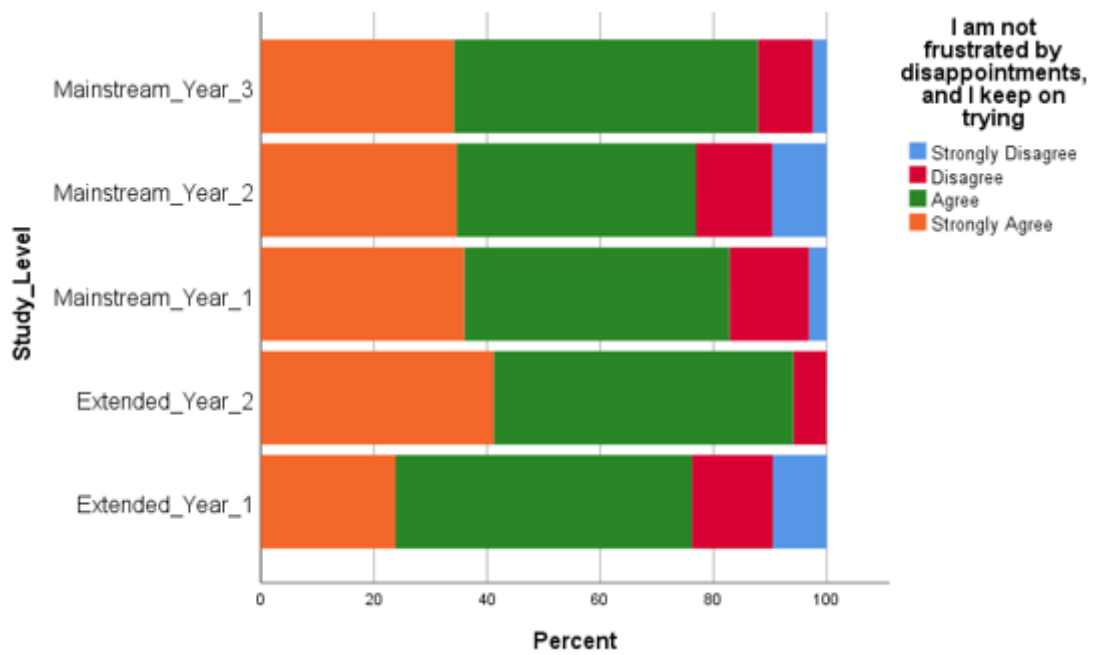


Figure 4. 35: I am not frustrated by disappointments, and I keep on trying (per study level)

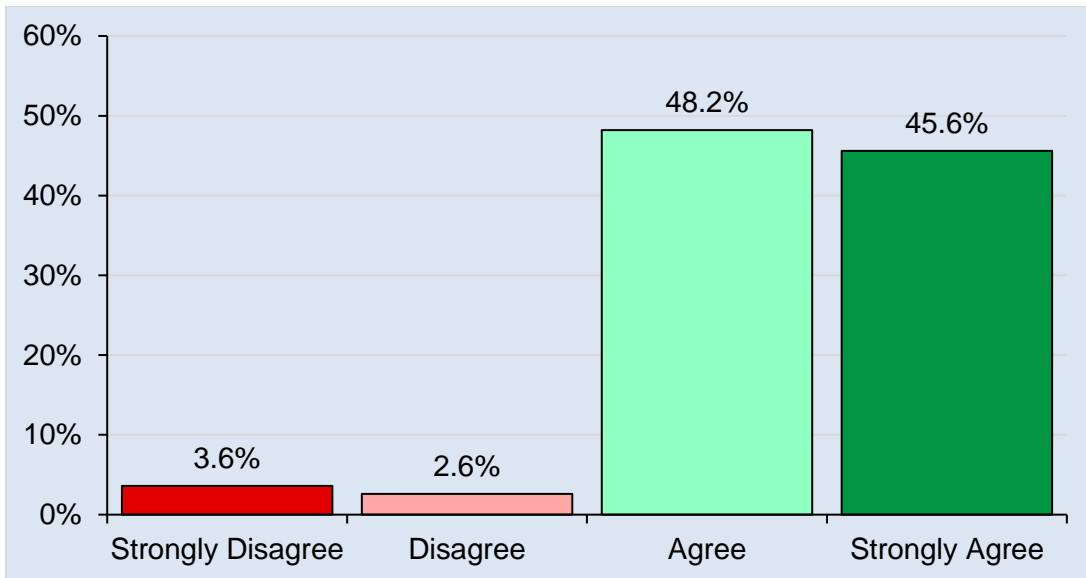


Figure 4. 36: I am aware of my abilities, preferences and behaviour

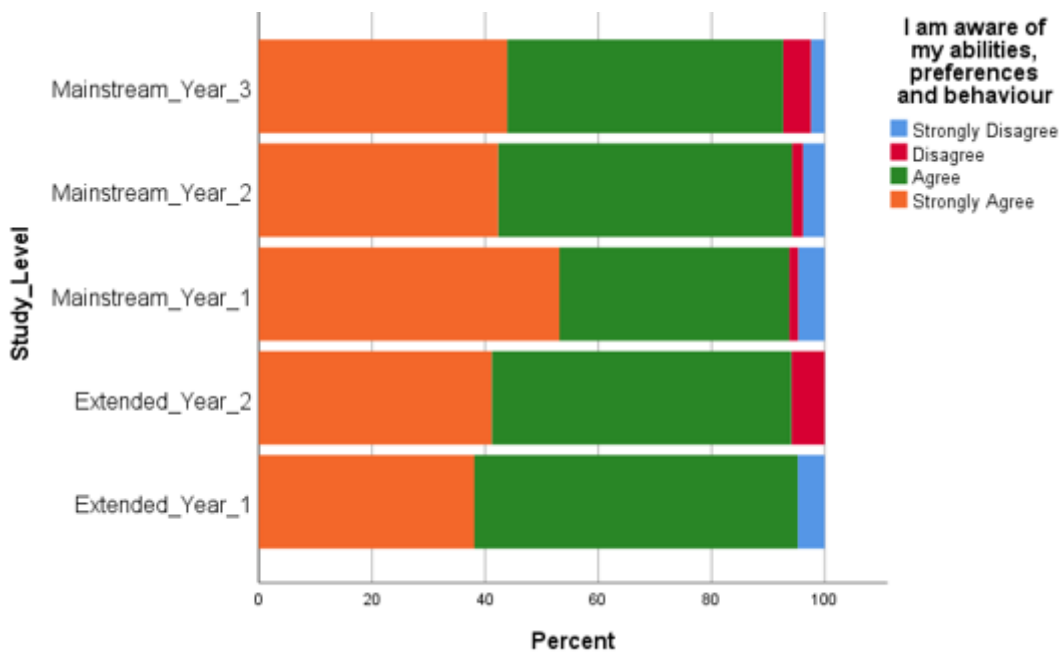


Figure 4. 37: I am aware of my abilities, preferences and behaviour (per study level)

To strengthen the questionnaire and ensure respondents avoided just ticking the boxes, statements 2.17, 2.19, 2.21, 2.23 and 2.25 were reverse coded (Zikmund *et al.*, 2010:304). For example, statement 2.1 would typically be worded as 'I am comfortable raising my opinion in discussions'. However, it was reverse coded to 'I find it difficult to raise my opinion in discussions'. Among the negated statements, respondents reveal that they exhibited two entrepreneurial characteristics, i.e. "ability to adapt to change" and "trying new ways of doing

things". This eventually lowered Cronbach's alpha (Foxcroft & Roodt, 2009) to 0.360 for the statements 2.16 to 2.25.

Below is a summary of the results for the above mentioned negated statements:

Slightly less than half (48.8%) of the respondents were comfortable raising opinions in discussions (statement 2.17)

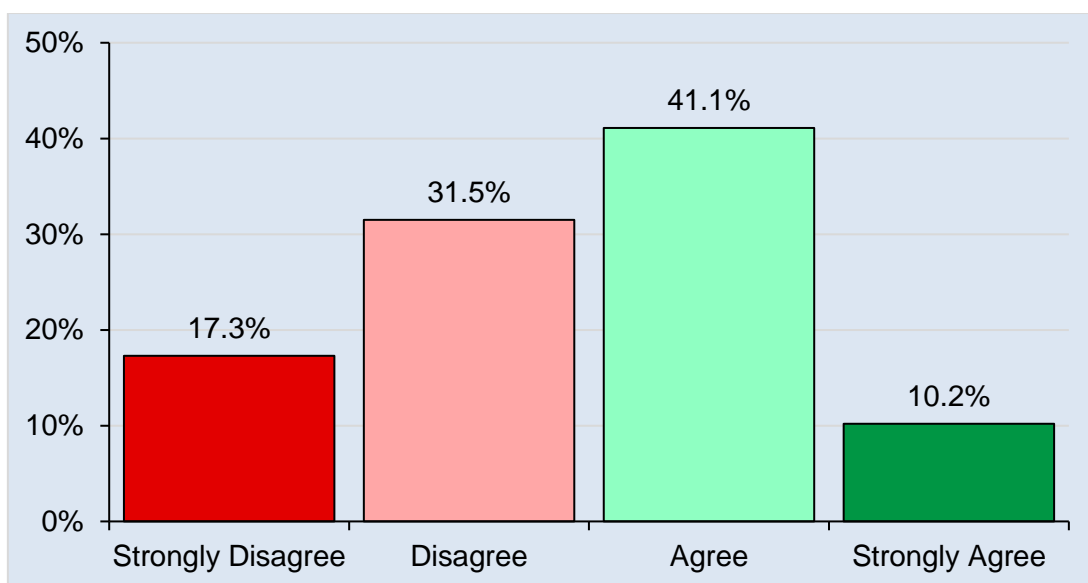


Figure 4. 38: I find it difficult to raise my opinion in discussions

About 68.4% of the respondents revealed that they did not find it challenging to adapt to change (statement 2.19)

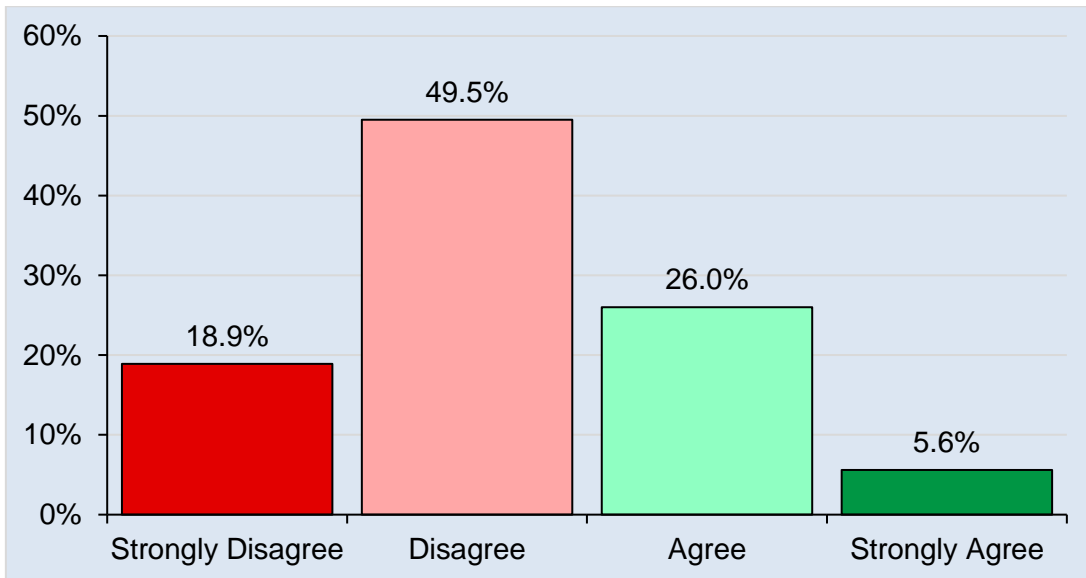


Figure 4. 39: I find it difficult to adapt to change

About 55% of the respondents were comfortable trying new ways of doing things (statement 2.21)

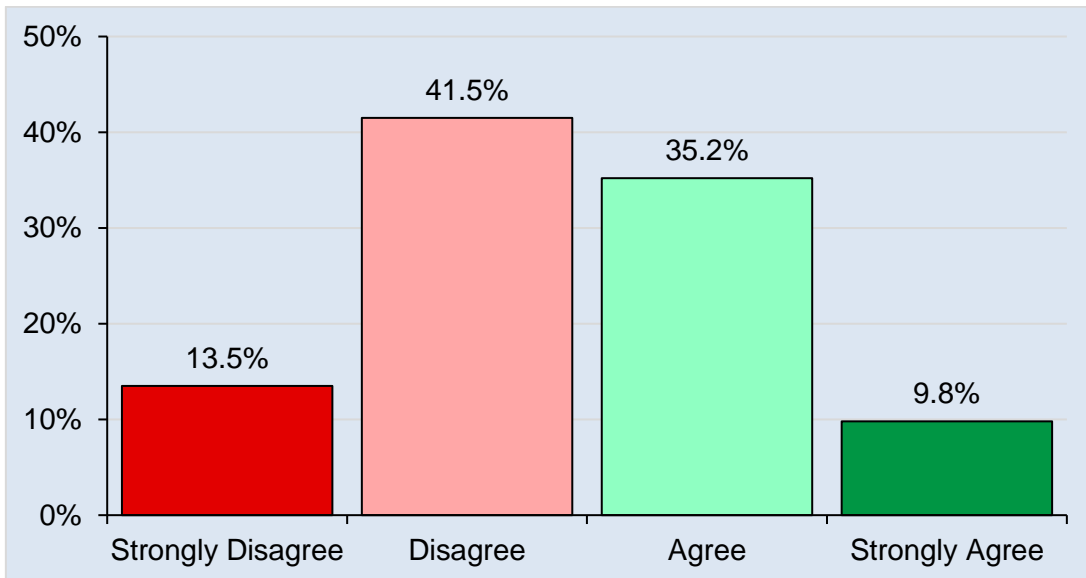


Figure 4. 40: I prefer using proven ways of doing things than trying new ways

Only 39.3% of the respondents found value in writing down their goals as opposed to knowing what they want to achieve (statement 2.23)

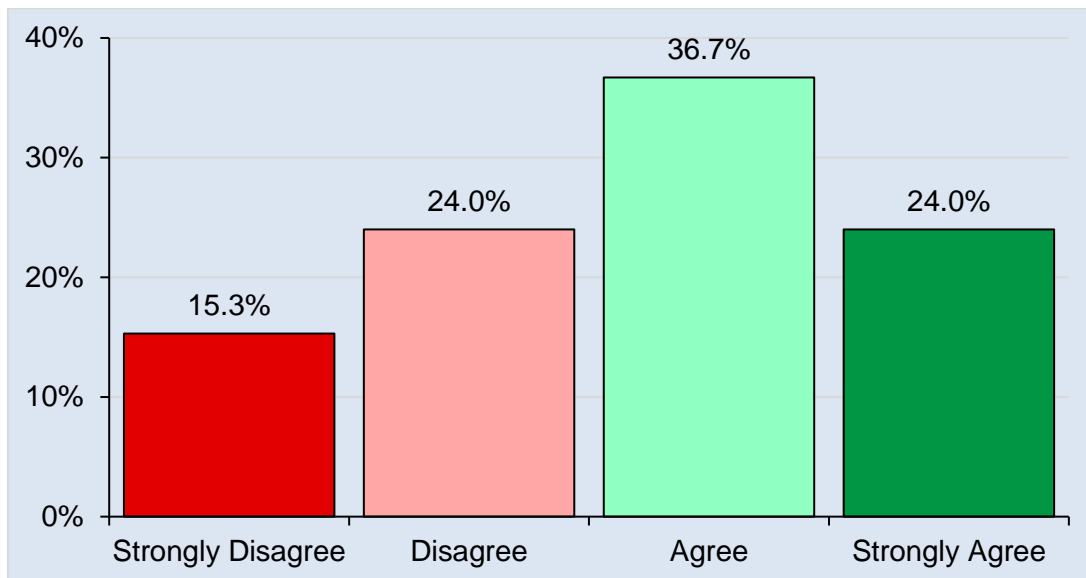


Figure 4. 41: Writing down goals is not necessary as long I know what I want to achieve

About 23.3% of the respondents preferred to be led by others when doing tasks to being leaders (statement 2.25).

4.7.2. Analysis of the entrepreneurial profile

Considering that this study focused on participants studying a qualification in entrepreneurship, it was essential to profile their entrepreneurial attributes. This section measured ten entrepreneurial attributes of individuals. From the results, the participants exhibited seven out of ten attributes.

Table 4. 8: Ranked entrepreneurial attributes

	Study Level	Ex-Yr 1	Ex-Yr 2	Main-Yr 1	Main-Yr 2	Main-Yr 3	Overall
1	I am confident in my ability to succeed	2.62	3.72	3.73	3.74	3.63	3.59
2	I believe in learning from my mistakes	2.95	3.44	3.55	3.57	3.73	3.52
3	I am aware of my abilities, preferences and behaviour	3.29	3.35	3.42	3.33	3.34	3.36
4	I am not frustrated by disappointments, and I keep on trying	2.90	3.35	3.16	3.02	3.20	3.12
5	I enjoy making new friends, maintaining good relationships with them	3.05	3.22	3.20	2.98	3.15	3.12

(a) *Confidence in their own ability to succeed* – it is not surprising that this characteristic emerged first with a mean of 3.59 as participants were confident in their ability to succeed.

Regarding the pre-enrolment profile, it has been already noted that these students believed that they qualified for qualifications other than entrepreneurship as shown by statements 2.1 to 2.4. All the study levels showed high confidence levels with the lowest being first year students registered for extended year one.

(b) Learning from their own mistakes – this entrepreneurial characteristic recorded a mean of 3.52, the second highest. Such an outcome may suggest that students were more likely to correct any negative experiences under their control. Based on the pre-enrolment profile of the participants, they ended up pursuing a qualification that was not their first choice. It would mean that these students made peace with the qualification and the negative influence of lack of career guidance before their tertiary studies.

(c) Awareness of abilities, preference and behaviours – this considered the description of the participants who believed they qualified for higher education qualifications other than entrepreneurship. It would suggest that the participants have conducted self-introspection to understand their abilities compared to their preferences leading, to the current pattern of behaviour. Thus, the results of statement 2.22 describe the participants who were clear about their abilities, their preferences and their behaviours.

(d) Persistence (not frustrated by disappointments) – from the results of statement 2.8 show that most of the participants wanted to pursue a qualification that could lead to getting a job, which is in line with the findings of Viviers et al. (2013). It may suggest that these students were frustrated from the outset. However, results from statement 2.24 show that participants had inbuilt shock absorbers and made peace with what they were offered to study, namely the entrepreneurship qualification. However, the decreasing number of students in successive years might mean that some dropped out or changed qualification.

(5) Networking – results of statement 2.18 suggest that the participants had strong networking abilities. The means for all levels of study were close to 3.0, showing that students possessed the networking attribute.

The lowest means found in most entrepreneurial characteristics were recorded among ECP first year participants. However, in the top five attributes mentioned above, the means were

still higher as the least was 2.90, confirming that the students agreed with the given statements pertaining to entrepreneurship characteristics. This would suggest that ECP students were yet to be fully exposed to entrepreneurial characteristics, considering that data was collected in May 2018 when these students had barely completed their first semester into the qualification. Also, the curriculum covered over a year in the mainstream is covered over two years in the ECP programme. A comparison of the averages in terms of gender and nationality shows that the averages are in the same range across study level categories. Thus, it might suggest that strategies should be applied to all students regardless of gender or nationality when the entrepreneurial profile dimension is considered. However, the DHET in a recent report suggested the need to investigate the low performance of male students compared to females (DHET, 2020:32). It is noteworthy indicating that this study is based on perceptions, thus does not give the actual performance of the students.

4.7.3. Conclusion on the entrepreneurial profile

This sub-section consisted of ten items, of which five were positively worded and five were reverse coded. On all the positively worded statements, most students agreed on possessing the characteristics, and these were: confidence, networking, persistence, learning from mistakes, awareness of abilities, preferences and behaviours. From the reverse coded items, participants were shown to be strong in the following characteristics: quickly adapting to new challenges and creativity.

4.8.1. Section C: Institutional support and development at university under study

This section will focus on Figure 4. 42 below, specifically on items relating to the institutional interventions and support currently offered to the students. The internal consistency of the nine statements had a Cronbach's alpha of 0.752 above the widely accepted ratio of 0.7 (Foxcroft & Roodt, 2009).

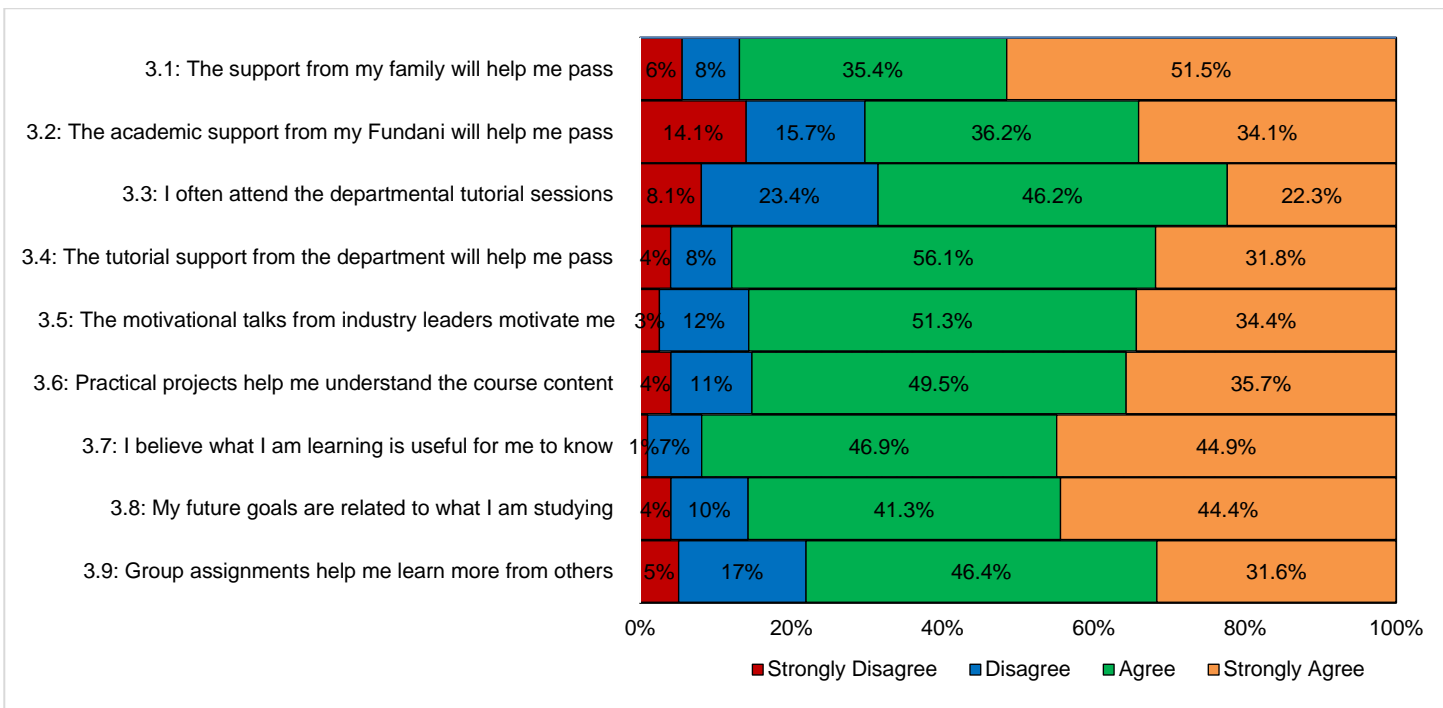


Figure 4. 42: Students' support and development (summary)

Figure 4. 42 shows that respondents agreed to all the statements presented as detailed below: about 87% of the respondents indicated that the support from their families would help them pass in their studies (statement 3.1).

Table 4. 9: The support from my family will help me pass

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	5.4	5.6	5.6
	Disagree	15	7.4	7.6	13.1
	Agree	70	34.3	35.4	48.5
	Strongly Agree	102	50.0	51.5	100.0
	Total	198	97.1	100.0	
Missing		6	2.9		
Total		204	100.0		

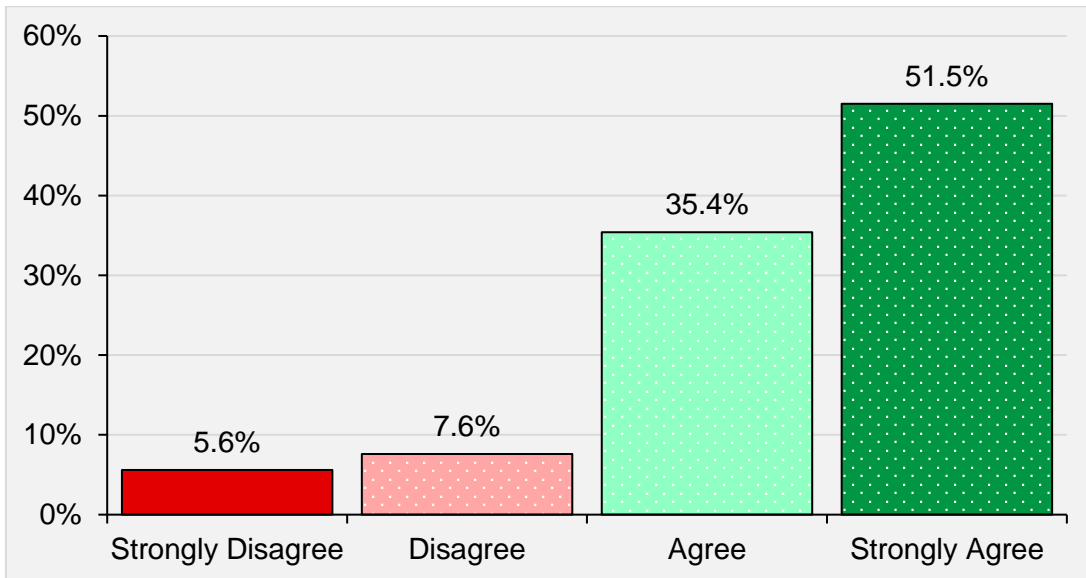


Figure 4. 43: The support from my family will help me pass

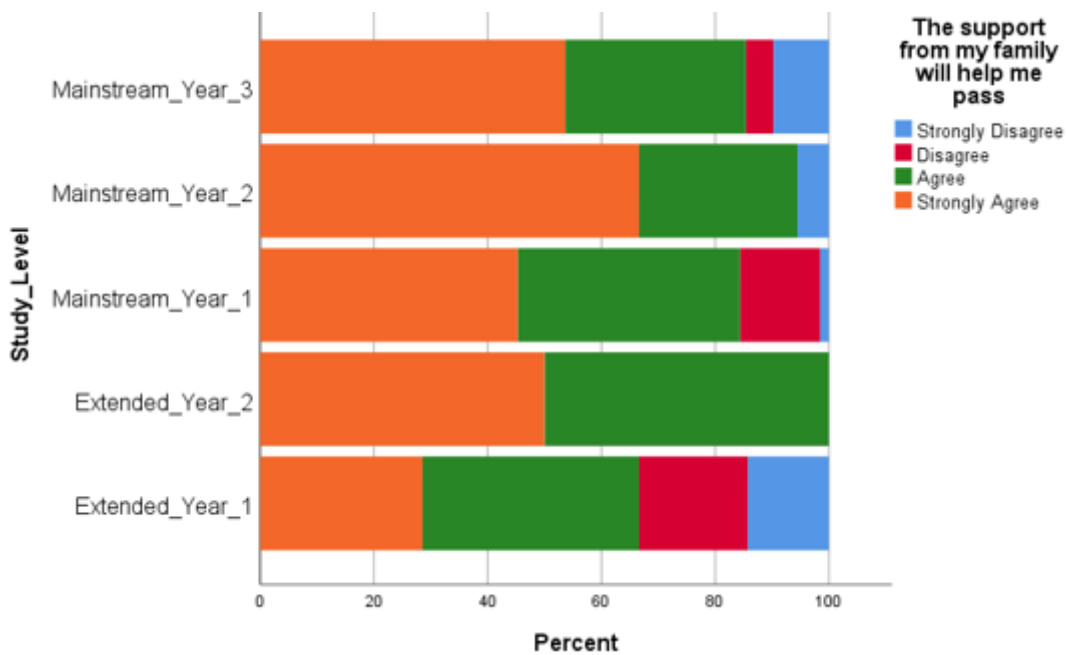


Figure 4. 44: The support from my family will help me pass (per study level)

Academic literacy services – there is a significant proportion of the participants who alluded to the positive influence of the academic literacy support offered by the Fundani support services. Slightly over 70% of the respondents agreed that institutional academic support from Fundani would help them pass in their studies (statement 3.2).

Table 4. 10: The academic support from my Fundani will help me pass

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	26	12.7	14.1	14.1
	Disagree	29	14.2	15.7	29.7
	Agree	67	32.8	36.2	65.9
	Strongly Agree	63	30.9	34.1	100.0
	Total	185	90.7	100.0	
Missing		19	9.3		
Total		204	100.0		

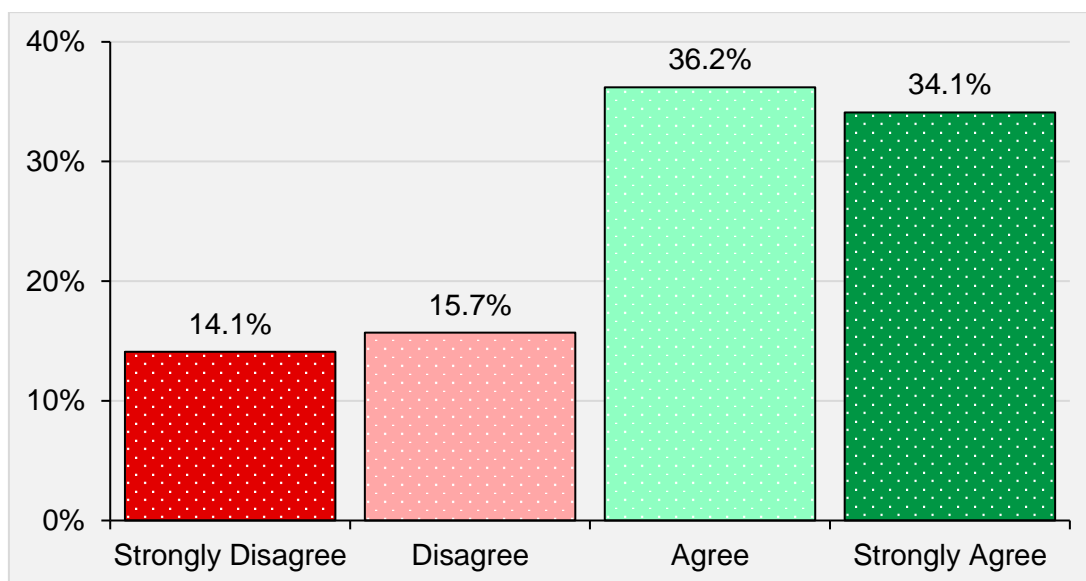


Figure 4. 45: The academic support from my Fundani will help me pass

Tutorial and system – About 69% of the respondents often attend departmental tutorial system sessions (statement 3.3). The department in which this study was conducted offers tutorial sessions whereby senior students tutor juniors in areas already covered by lecturers. Almost 88% of the respondents highlighted the positive influence of the tutorial sessions on their studies (statement 3.4). Among the benefits of tutorials are a relaxed environment and peer-engaged atmosphere (Matsoso & Iwu, 2017:36). The first year ECP students showed the lowest mean on both the attendance and perceived value of the tutorial system. However, Fouche (2007) found out that attending tutorials does not automatically improve the student's academic literacy. Similarly, Matsoso and Iwu (2017) found out that tutorials alone do not result in improved academic performance but should instead be structured to supplement the lectures.

Table 4. 11: I often attend the departmental tutorial sessions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	7.8	8.1	8.1
	Disagree	46	22.5	23.4	31.5
	Agree	91	44.6	46.2	77.7
	Strongly Agree	44	21.6	22.3	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

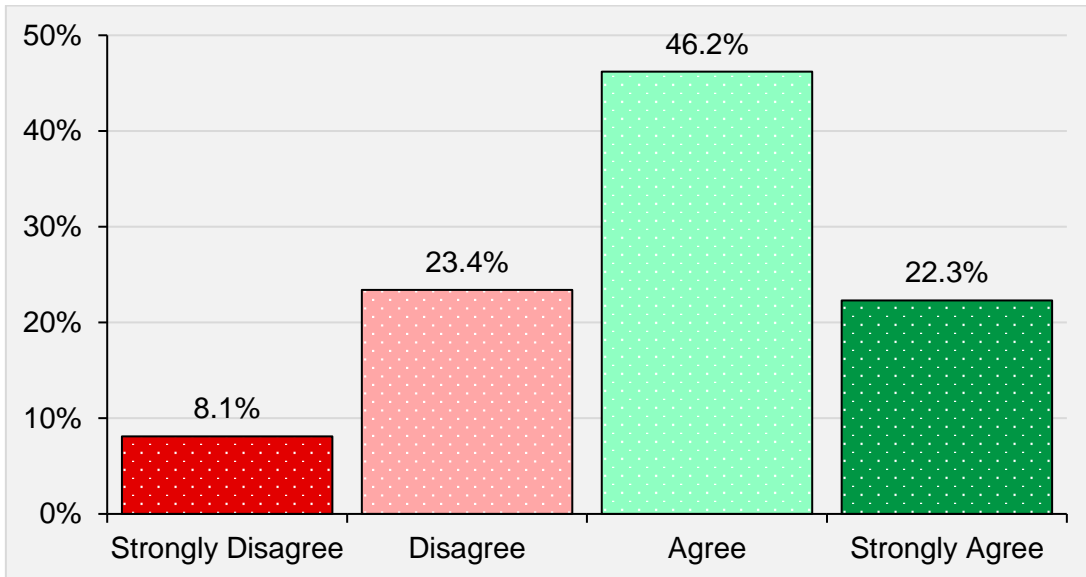


Figure 4. 46: I often attend the departmental tutorial sessions

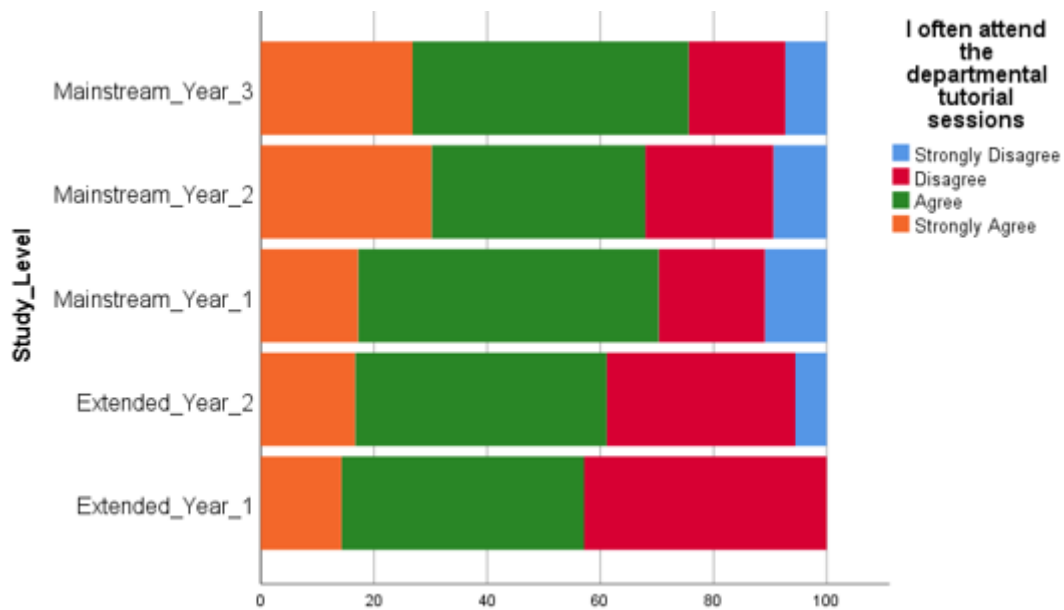


Figure 4. 47: I often attend the departmental tutorial sessions (per study level)

Students highly value of the tutorial system as per the next two figures.

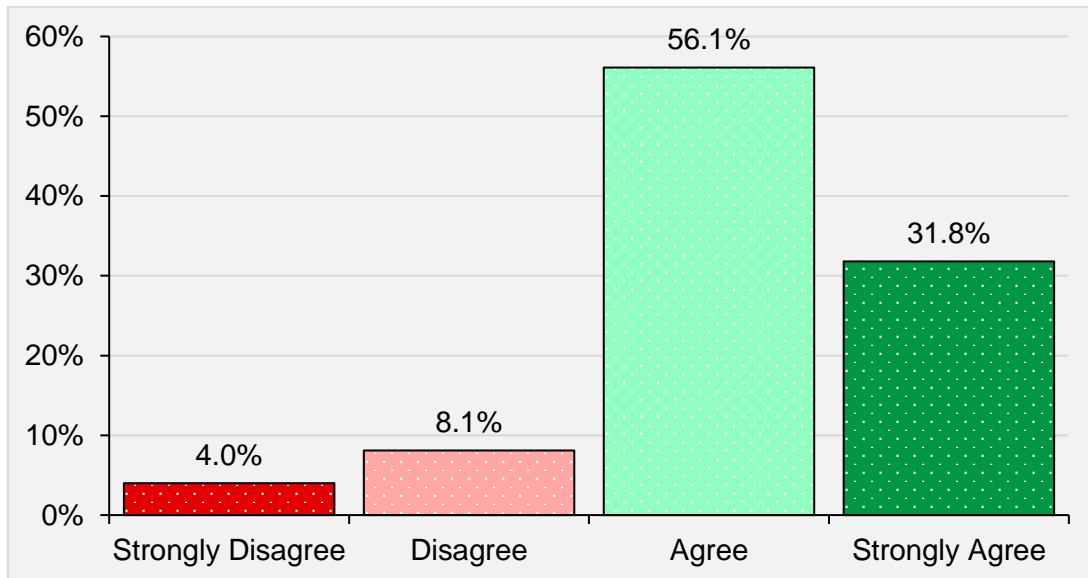


Figure 4. 48: The tutorial support from the department will help me pass

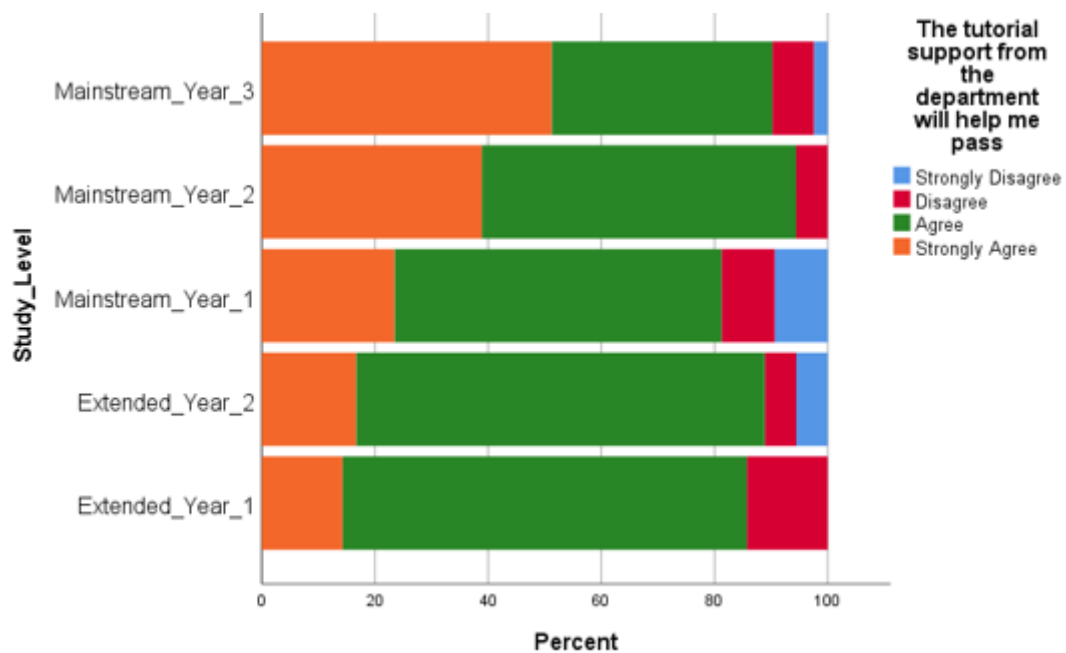


Figure 4. 49: The tutorial support from the department will help me pass (per study level)

About 85.6% of the respondents agree that motivational talks from industry leaders motivate them (statement 3.5)

Table 4. 12: The motivational talks from industry leaders motivate me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.5	2.6	2.6
	Disagree	23	11.3	11.8	14.4
	Agree	100	49.0	51.3	65.6
	Strongly Agree	67	32.8	34.4	100.0
	Total	195	95.6	100.0	
Missing		9	4.4		
Total		204	100.0		

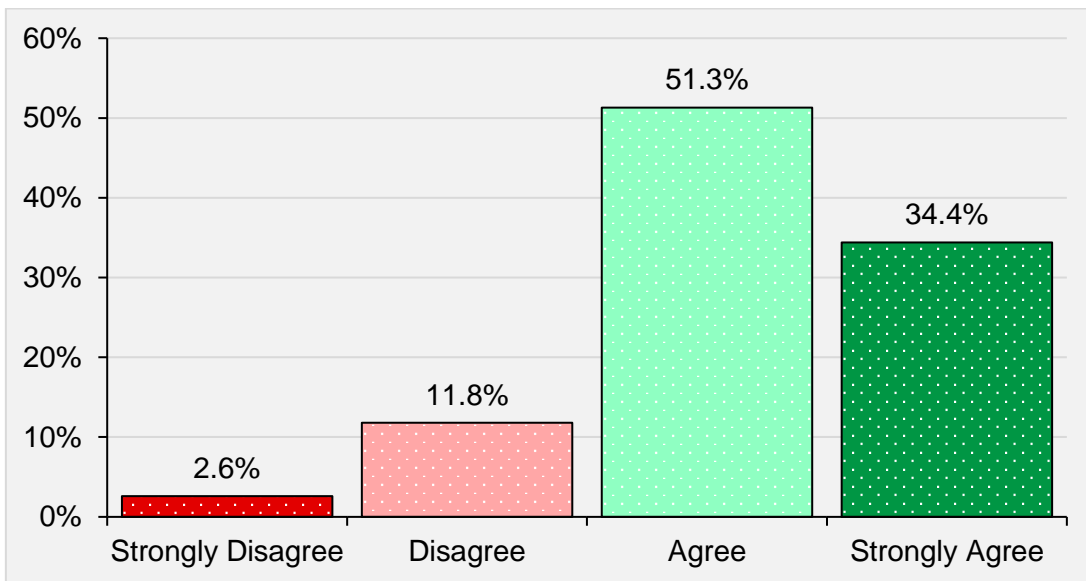


Figure 4. 50: The motivational talks from industry leaders motivate me

About 85% of the respondents agree that practical projects aid their understanding of course content (statement 3.6). Such a finding supports a suggestion that lecturers should adopt experiential and action teaching methods (Mamabolo, 2017:227).

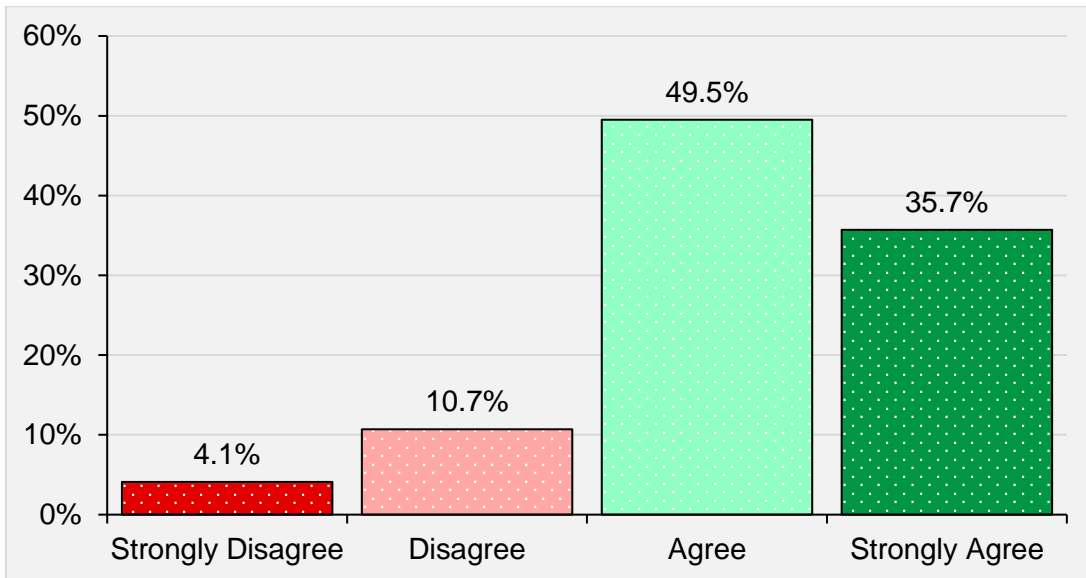


Figure 4. 51: Practical projects help me understand the course content

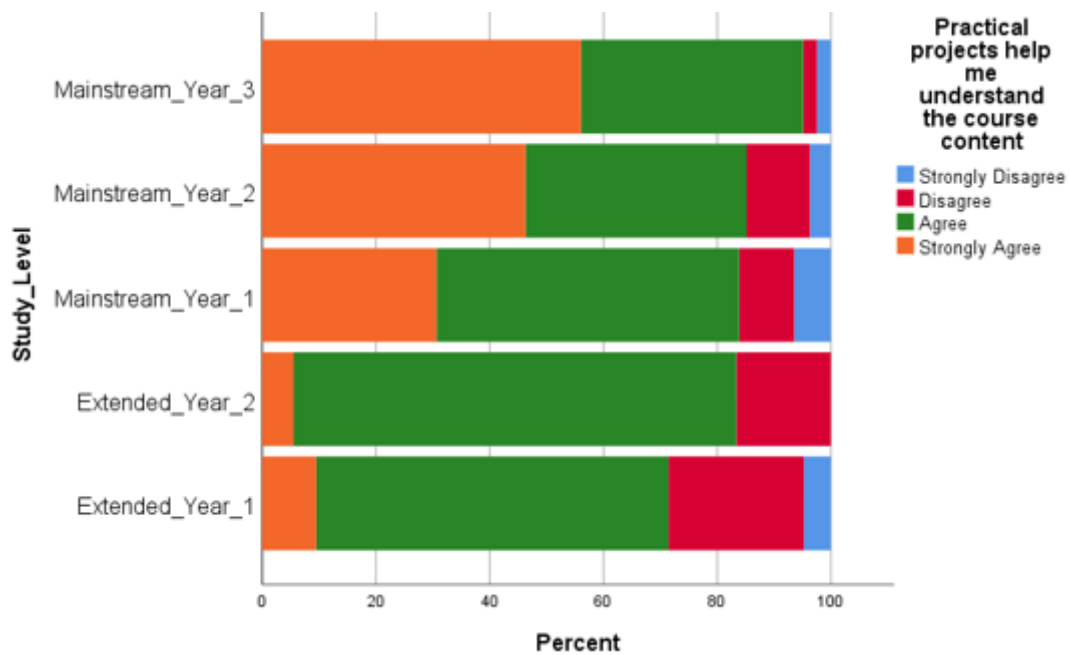


Figure 4. 52: Practical projects help me understand the course content (per study level)

A resounding agreement of the value of the course content was found. Almost 92% of the respondents valued the content of the course as useful (statement 3.7)

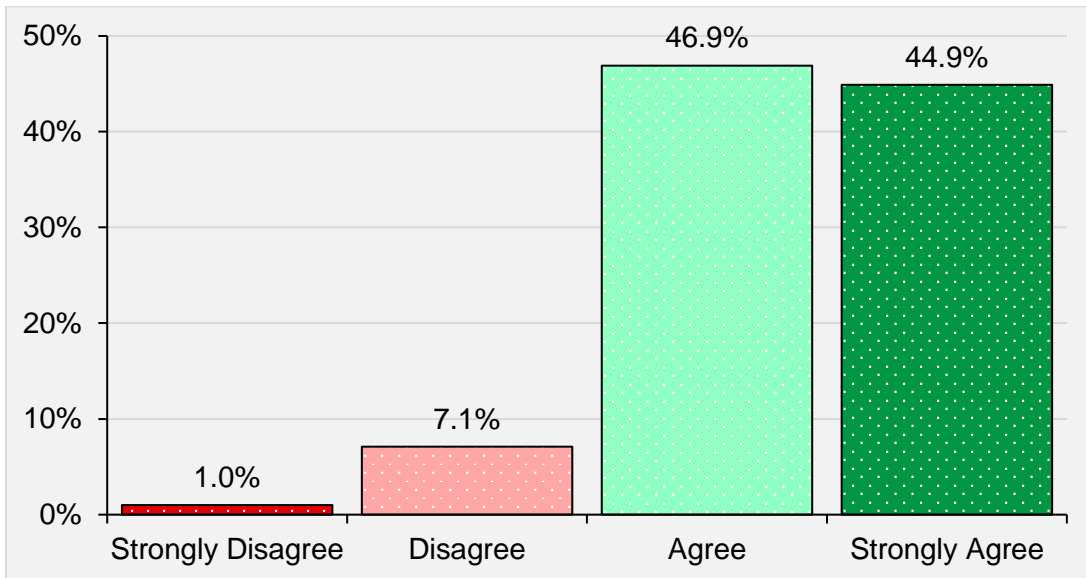


Figure 4. 53: I believe what I am learning is useful for me to know

As seen in the next figure, 85.7% of the respondents agreed that their goals were related to what they are studying, i.e. entrepreneurship (statement 3.8).

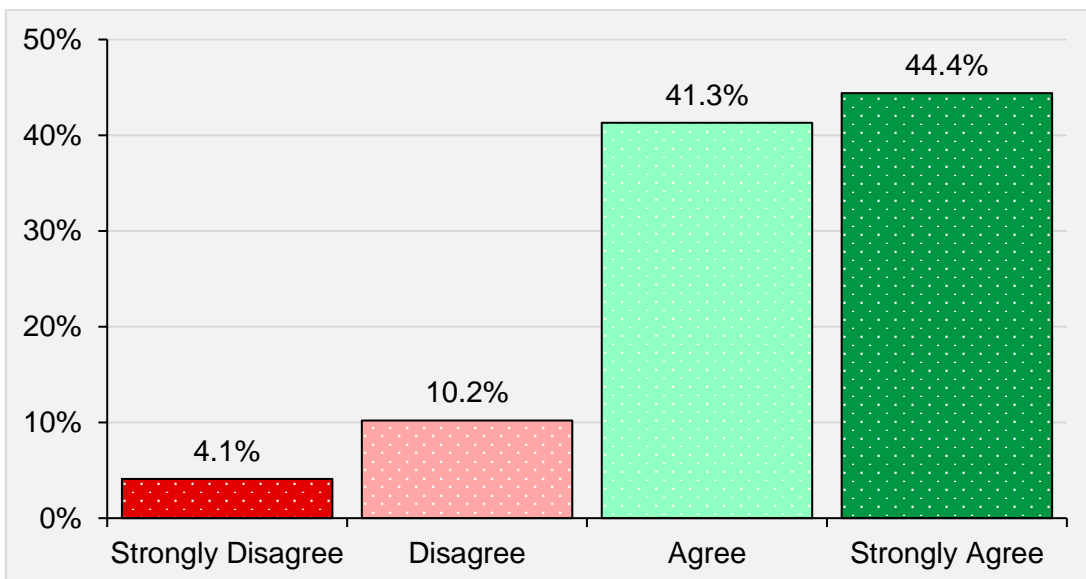


Figure 4. 54: My future goals are related to what I am studying

About 78% of the respondents agreed that assignments helped them learn from others (statement 3.9 and the next figure).

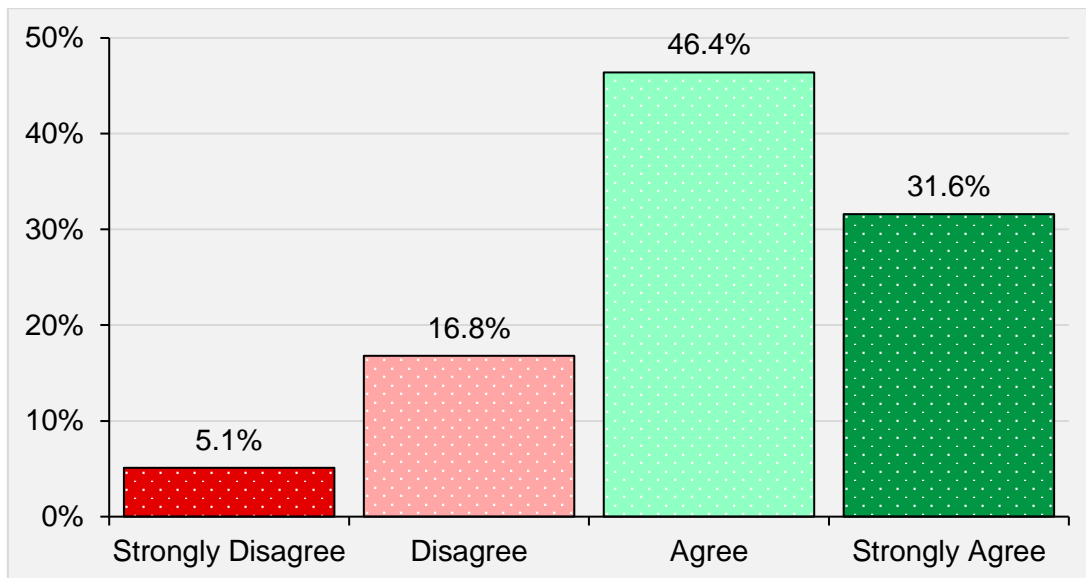


Figure 4. 55: Group assignments help me learn more from others

4.8.2. Summary of institutional support and development at university under study

This study revealed that there was a high awareness of the currently available institutional interventions available, such as Fundani services, the library services, financial aid and the departmental tutorial system. The institution continually communicated with the students via the university email system on the present support systems at the disposal of the students. The onus rested on the students to make use of the available services. Other services offered by the institution not part of this research include the mentoring services and guidance and counselling services. Mamabolo (2017:228), however, points out a lack of access to coaching and mentoring for entrepreneurs.

4.8.3. Suggested strategies towards the improvement of students' academic success

This section suggests strategies based on the capabilities of the participated by focusing on their profile (pre-enrolment and entrepreneurial). Thus, it will directly answer the third research question of this study:

What strategies can be employed in order to maximise the academic success of entrepreneurship students?

As indicated earlier, the pre-enrolment profile of the participants showed that young individuals perceived themselves as qualified for many higher education qualifications, had ambitions to study for a qualification leading to a job after graduation, and were currently not studying their preferred qualification. Thus, the suggested strategies should be relevant to the profile of the study population. There are two broad strategies suggested by this study, one aimed at the

university department under study, and the second one targeting stakeholders outside the university department under study.

(a) Suggestion One: Promotion of career guidance at a high school level by stakeholders

As alluded to in other studies such as Adam et al. (2010), this study has revealed that the participants were under-prepared for higher education. Under-preparedness of students has also been highlighted in a study conducted by Leshoro and Jacobs (2019). They did not qualify to study for what they wanted to but were offered places to study a qualification that did not directly meet their career aspirations, i.e. finding employment after graduation, a trend among South African students (Kroon & Meyer, 2001:480). Thus, career guidance (2.10) should be promoted at an early stage, such as in high school, so that students prepare adequately for tertiary level education. This suggestion is in line with Kroon et al. (2003:321) and would assist in increasing the chances of pursuing desired qualifications at tertiary level.

As pointed out earlier, the lack of career guidance could be attributed to the lack of financial resources to visit career fair events (2.10) as indicated by the participants. One way to promote this is collaboration by the private sector to sponsor schools to attend university career fairs for learners to become familiar with the possible options they can pursue at tertiary level. Alternatively, institutions should also consider sponsoring schools within their catchment area to attend their career fairs. Lastly, considering a wide catchment area for institutions, there is a need to promote career fairs at a national level to help matriculants to make an informed decision before commencing higher education studies.

Family support was identified as critical throughout the educational journey. Such support was noted as making a positive contribution towards high school results (statement 2.13) and was still regarded as invaluable towards the completion of tertiary studies (statement 3.1). Gaffoor (2018) found that support from parent and family makes a positive contribution to the completion of qualifications.

(b) Suggestion Two: Promotion of intrapreneurship as a career

The findings of statement 2.10 (*career guidance during high school*) compared with three statements, 2.6 (desire to study a qualification leading to a job), 2.8 (entrepreneurship being not the preferred qualification of study), and 2.9 (desire to change qualification), presents an interesting outcome. There is a need to continually remind the students that they can still find

employment in companies that embrace intrapreneurship. Therefore, a possible solution to the current students is to promote corporate entrepreneurship at all study levels.

(c) Suggestion three: Tightening of the student recruitment process by entrepreneurship departments

Since the findings describe students who wanted to study for a qualification leading to a job, this might suggest the need for the entrepreneurship department to review their student selection process during the application stage to ensure that students who are passionate to study entrepreneurship as qualification are enrolled. The institution's entrepreneurship department can do this in three ways: (i) the application process could include a motivation to study entrepreneurship; (ii) conducting interviews before enrolment or (iii) through a questionnaire in which prospective students must answer questions to determine their willingness to study entrepreneurship.

(d) Suggestion four: The entrepreneurship department should periodically measure the perceptions of the students regarding their entrepreneurial profiles and uptake of the intervention measures

The findings show that there is a need to understand the needs of every cohort and ensure that appropriate academic interventions are applied to cohorts to manage the associated dynamics.

This study has shown that students have adapted to studying a qualification that was not their first choice through the strong entrepreneurial characteristics exhibited. Results of statements 3.7 and 3.8 confirm this as students have indicated that the content they were learning was useful towards building their knowledge. Their future goals were related to what they were studying. This finding confirms one of the entrepreneurial characteristics, namely adaptability to a new discipline as per statement 2.19. Thus, there is a need to capitalise on this by adapting the curriculum to delve deeper into corporate entrepreneurship.

The department may consider the promotion of intrapreneurship through departmental offerings at university under study such as group assignments (3.9), motivational talks (3.5), and practical projects (3.6). Many benefits can be realised from group projects such as increased entrepreneurship intentions, networking opportunity to identify potential co-

founders, and the creation of entrepreneurship teams (Sieger *et al.*, 2018). Furthermore, the department can use such projects to promote entrepreneurship systems to reduce potential administrative barriers for students to become entrepreneurs. Projects may also be used as a platform to boost the creativity of students, considering the low mean shown in statement 2.21. The practical projects should be challenging enough to allow students to tackle real-world challenges. An example would be to participate in the annual Global Enterprise Experience (GEE) whereby students are grouped with students from different countries to write a business proposal towards an idea in a suggested field. The researcher participated twice in the past. Further, participating in such challenges would also develop the ability of students to participate in group work, considering the low mean in statement 2.17.

The GUESSS 2018 survey highlights the essence of students working in start-ups to boost their entrepreneurial intentions and activities (Sieger *et al.*, 2018:3). Thus, practical projects offered at the HE institutions would be ideal towards boosting participants' entrepreneurial intentions (Mamabolo, 2017:227). In this regard, the participants showed a strong networking ability, and working on projects would further strengthen the skill that allows them to identify co-founders for any potential business ventures (Sieger *et al.*, 2018:27).

Since the participants' career aspirations lean mostly towards getting employment, there is a need to assure them that they would still have opportunities to find employment and be encouraged to remain entrepreneurial within their employment situation, where possible. This is not surprising considering a study by Nchu (2015:94) in the Cape Town Metropole area, which maintains that high school students are not prepared for careers in entrepreneurship but prefer employment. A proactive approach should be taken, considering the intentions of most students to take up employment before becoming entrepreneurs. Further, students should be aware of the opportunity cost the longer they wait (Sieger *et al.*, 2018:27). Thus, students should be encouraged to consider entrepreneurship as a promising and rewarding career path. Not all companies promote intrapreneurship; hence, the participants should be cautioned on this. During the orientation of the students when they join the department, more emphasis should be placed on encouraging students to consider entrepreneurship as a career through intrapreneurship.

Apart from the above, the institution's entrepreneurship department should consider balancing the assignments and the guest speakers to infuse corporate entrepreneurship. One of the findings by GUESS in the 2018 survey shows that less than 10% of students from 54 countries

would consider entrepreneurship directly after completion of their studies (Sieger *et al.*, 2018:3). However, 35% revealed their interest after five years after their graduation. Thus, if corporate entrepreneurship is emphasised, perhaps more students would consider taking the entrepreneurship route after graduation.

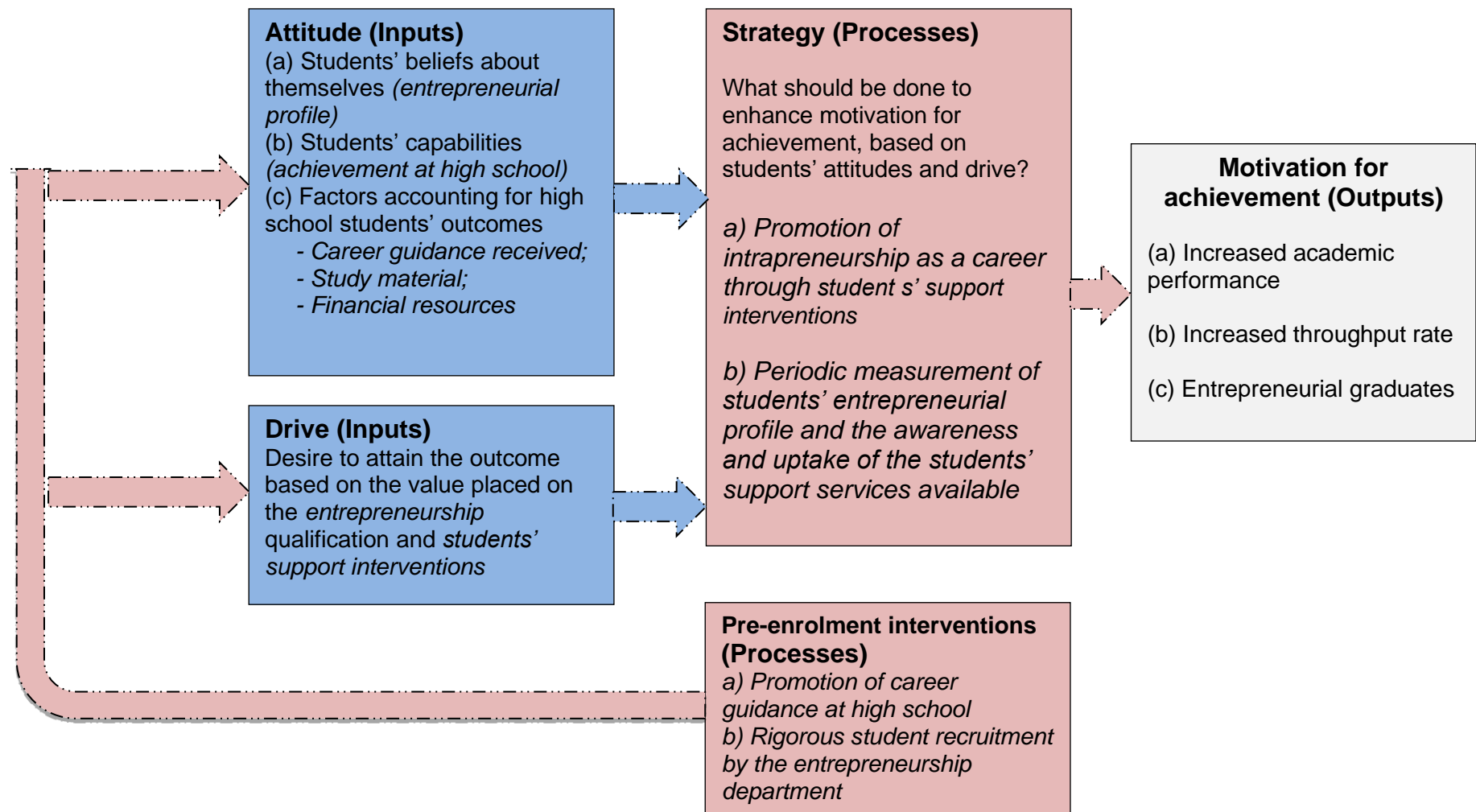


Figure 4. 56: Framework for improving academic performance (final)

Source: Author's construction

4.9. Summary of the chapter

This chapter presented the findings of the study. Descriptive analysis was made in terms of comparison and ranking of means which helped towards answering the three sub-research questions from the findings. Further, the findings were compared with other studies cited in the literature, which was reviewed in Chapter 2. The next chapter presents the conclusions drawn from the findings, and recommendations will be made based on these.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This study was motivated by the high failure rate of students in tertiary institutions and specifically, in business studies (Adam *et al.*, 2010; DHET, 2020:162) and the high unemployment levels in South Africa. Entrepreneurship qualifications are classified under Business Studies in the HEMIS categories. This was demonstrated in Chapter 2 from the secondary data analysed and literature reviewed. Considering the momentum on research that focuses on entrepreneurship due to its benefits such as employment creation, this study sought to explore on the pre-enrolment factors influencing the academic performance of entrepreneurship students and possible interventions. More specifically, the study focused on the pre-enrolment factors that influence the academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa.

Three sub-research objectives were formulated to understand the pre-enrolment factors perceived to be influencing academic performance, the present institutional interventions aimed at improving the academic performance, and the possible strategies to be implemented to mitigate low academic performance:

- (i) To determine the extent to which pre-enrolment factors influence the academic performance of entrepreneurship students;
- (ii) To ascertain existing and implemented institutional interventions to mitigate factors that influence poor success;
- (iii) To recommend strategies that can be employed to maximise the academic success of entrepreneurship students.

This chapter presents the conclusions drawn from the findings based on the analytical evidence in the previous chapter. It then offers recommendation, and evaluates the contribution of the study towards understanding the academic performance of students in tertiary level.

5.2. Conclusions for this study

The main objective of this study was to determine pre-enrolment factors that influence the academic performance of entrepreneurship diploma students at a tertiary institution in the Western Cape, South Africa and suggest relevant academic interventions. As highlighted in Chapter 2, the concluding remarks are explained in line with the Tripartite Model of Motivation

for Achievement by Tuckman (1999), together with the General Systems Theory (Von Bertalanffy, 1968) underpinning this study. Both have three aspects that should be considered, and these are students' attitudes about their capabilities to succeed; their drive to succeed; and the strategies employed to attain the desired outcome. Students' attitudes and drive to succeed have been observed through their perceptions. Then relevant strategies that can be implemented by the department on the mitigating low academic performance within their department were determined.

The study explored three sub-objectives to answer the main objective of this study, and the concluding remarks are given below per sub-objective.

5.2.1. Sub-objective one

The first sub-objective was: To determine the extent to which pre-enrolment factors influence the academic performance of entrepreneurship students.

The top three pre-enrolment factors identified from this study, which were perceived to have influenced students' high school performance, are:

- (a) Lack of career guidance – students were not clear on what to emphasise in preparation for tertiary studies hence were under-prepared for tertiary education;
- (b) Lack of study material – certain socio-economic factors have been linked to this considering that the majority of the students in this study are from previously disadvantaged backgrounds;
- (c) Lack of financial resources – the lack of financial resources limited the students in preparing for higher education, such as through attendance of career fairs.

Moreover, this study identified family support as a critical support structure. Apart from this, students have indicated that neither family commitment nor job commitment influenced their academic performance. Considering the average age of 21 as per Figure 4. 3, this may suggest that most students still rely on the financial support of their parents or other source and are not working. This finding is not surprising considering that the study focused on full-time students as its unit of analysis. Some of these students may be funded by NSFAS.

5.2.2. Sub-objective two

The second sub-objective was: To ascertain existing and implemented institutional interventions to mitigate factors that influence the low success rate.

This study revealed that there is a high awareness of some of the investigated institutional interventions in place such as the Fundani services, the library services, financial aid and departmental tutorial system available. In addition, students perceived most of these support structures to be critical to academic success. However, it is essential to encourage the uptake of these services despite high awareness and perceived value of the services. In line with the Tripartite Model of Motivation for Achievement by Tuckman (1999) together with the General Systems Theory by Von Bertalanffy (1968), institutional or departmental interventions are critical to the promotion of the desired outcome of improved academic performance. Thus, from the findings regarding the above sub-objective, the support services regarded as critical were identified, and their uptake levels determined. Understanding the perceived importance and uptake is essential to making any suggested recommendations covered in the next sub-objective of this study.

5.2.3. Sub-objective three

The third sub-objective was: To recommend strategies that can be employed to maximise the academic success of the entrepreneurship students.

Four recommendations were made based on the pre-enrolment profile for the participants, the factors leading to their high school academic performance, their entrepreneurship profile and the support offered at the institution. Reflecting on the Tripartite Model of Motivation for Achievement by Tuckman (1999) and the General Systems Theory by Von Bertalanffy (1968), students' attitudes on their capabilities are essential when suggesting appropriate students' support strategies.

(a) Suggestion one: Promotion of career guidance at high school level by various stakeholders. The evidence in this study revealed that students were under-prepared for higher education, which calls for career guidance to be promoted to high school students by various stakeholders. The schools, government, companies, tertiary institutions, parents, and students should make efforts towards the promotion of career guidance. This finding supports an earlier recommendation by Kroon et al. (2003:321) and Maila and Ross (2018:10).

- Schools may host career fair functions on which they can invite guest speakers from both the private and public sector to present various career paths that can be followed by students.

- Private companies may be encouraged to participate in the development of entrepreneurship. It can be done through sponsoring school career fair functions as part of their social responsibility initiatives or financially supporting schools to send their final year students to university career fairs because of their financial circumstances. In this study, these factors were found to impede students from attending such crucial events.

- The role played by family support should also be emphasised during the high school level to guide their children to prepare for higher education. The importance of the role played by family support has been identified to be critical throughout the studies of the students, be it at high school or tertiary level. As such, parents should be encouraged to engage with their children and the schools they attend to ensure that appropriate guidance is given to them (Chowdhury & Hossain, 2019). As a result, high school students should have a clear picture of the career path they will be taking and the necessary groundwork expected of them.

(b) Suggestion two: Promotion of intrapreneurship as a career.

This study suggests the need to promote corporate entrepreneurship as a career. This suggestion is based on two findings that (i) students are under-prepared for higher education; and (ii) have adapted and eventually found the entrepreneurship qualification to offer useful content towards their future goals despite a career change experienced. The entrepreneurship department, through the lecturers and the private sector, such as companies, can thus promote corporate entrepreneurship. Furthermore, this is in line with the lifelong entrepreneurship education model discussed in Chapter 2.

- After considering the finding of high awareness of the departmental support offered, this study suggests that these may be used as vehicles to instil the dimension of corporate entrepreneurship as part of the content covered. It can be infused in group assignments, motivational talks from guest speakers, and practical projects. This is supported by Jones and English (2004) that a teaching style for an entrepreneurship course should be action-oriented, supportive of experiential learning, focus on problem-solving and project-based learning, creativity, and peer evaluation. At the University of Pretoria, a practical teaching

approach was implemented in one of the entrepreneurship modules and yielded a positive outcome (Strydom & Adams, 2009; Mamabolo, 2017:227). A study conducted by Kabengele (2019) in Cape Town which interviewed entrepreneurs revealed that some entrepreneurs cited lack of emphasis on entrepreneurial education during their high school and tertiary education.

- Furthermore, research by Herrington and Kew (2016:63) supports the restructuring of the formative assessments to include activities such as projects and competitions. They made a recommendation that the quality and relevance of entrepreneurial curricula should be addressed to be in line with expected industry skills. Apart from the above, the GEM 2015-2016 report recommends that schools actively promote entrepreneurship as a career path. Mainly, this would prepare future entrepreneurs for 4IR.

- Companies should consider supporting corporate entrepreneurship, for example by working with entrepreneurship departments to offer internships within their organisations so that they can gain experience in entrepreneurial organisations. Both government entrepreneurial agencies and social organisations promoting entrepreneurship should spearhead the promotion of corporate entrepreneurship. This supports a finding by Kroon et al. (2003:321) that students could be employed during holidays to gain practical exposure. The entrepreneurship department should also engage with the private sector to ensure that the students build a career in corporate entrepreneurship, considering that it is one of the emerging recommendations.

(c) Suggestion three: Tightening of the student recruitment process by the entrepreneurship department.

Since the findings describe students who wanted to study for a qualification leading to a job, which supports the findings by Viviers et al. (2013), this might suggest the need for the entrepreneurship department to review their student selection process to ensure that students who are passionate about studying entrepreneurship as a qualification are enrolled. The department can do it in three ways:

- (i) The application process can include a motivation to study entrepreneurship;
- (ii) Conducting interviews before enrolment; or
- (iii) Through a questionnaire in which prospective students may answer questions to determine their willingness to study entrepreneurship.

(d) Suggestion four: The entrepreneurship department should periodically measure the perceptions of the students on their entrepreneurial profile and uptake of the intervention measures.

It was found that it is necessary to understand the needs of every cohort and ensure that appropriate academic interventions are applied to relevant cohorts to manage the associated dynamics. This confirms a finding by Matoti (2010:154) and is in line with the expectations by the DHET for universities to carefully monitor interventions (DHET, 2020:165).

Academic performance can be improved through enrolling students who are prepared to study an entrepreneurship qualification and are willing to develop it as a career. It would be rewarding to see more students enrolling for the entrepreneurship qualification who are prepared to navigate the entrepreneurial journey after completion of studies. This study has found that the behaviour of the students is shaped by various factors and does not happen overnight. Thus, academic performance should be linked to the inbuilt system every individual has been exposed to, be it in society or high school.

5.3. Study limitations

This research had limitations methodologically and analytically. Due to the limited budget and time, the study focused on students from one entrepreneurship department instead of a bigger sample population, such as entrepreneurship departments from other institutions within the province. Apart from the above, this research employed a quantitative approach to collect data. Results were presented based on descriptive statistics. Thus, the research findings cannot be generalised to all entrepreneurship students in the province or country as only one institution was included as part of the study. Also, it should be noted that this study focused on undergraduate students studying on a full-time basis, a category identified by the DHET as having the highest dropout rates and lowest throughput rates in the 2000 to 2017 cohort tracking (DHET, 2020:165). It should also be noted that this study omits race as deemed necessary by the researcher; hence, the findings do not include this variable. Thus, the study can be used as a point of reference or departure when conducting similar or broader studies.

5.3.1. Directions for future research

This research presents a starting point to further develop understanding in entrepreneurship education in HE. The study contributes towards the body of literature on the academic performance on higher education students, particularly in entrepreneurship education as

research that seeks to understand the reasons why business studies has the lowest performance (DHET, 2020:165). Based on the findings, a future study could consider increasing the study size, including more universities within the Western Cape Province or across the country. Research can consider increasing the scope by collaborating with other universities' entrepreneurship departments in the province or nationally. Further research comparing institutions offering contact mode and distance mode, such as the University of South Africa (UNISA), has recorded alarming retention rates (DHET, 2020:14). Moreover, future studies may consider triangulating students' views with lecturers' views or employing a qualitative data collection method, thus gaining detailed insights from the participants. This method could draw detailed insights regarding the narratives of entrepreneurship students on throughput rates. Furthermore, future research needs to embrace a more rigorous analytical approach that involves correlation and regression analyses towards enhancing and extending the conclusions from this study. The conceptual framework for this study (summarised in Figure 2.1) and supported by the conclusion from the study (summarised in Figure 4.56) suggests causal relationships. These independent and dependent relationships are, ideally, gauged through correlation analysis and or regression analysis.

5.4. Recommendations

This study has revealed the need to establish the pre-enrolment profile of students to understand further their perceptions of pre-enrolment factors influencing their academic performance. This is in line with the suggestion by the DHET for universities to further understand the complex reasons hindering student retention in HE (DHET, 2020:14). Therefore, the study serves as a point of departure for any interventions to be implemented. From this study, a general overview of the participants shows that they can be described as a group of individuals who regard themselves as qualified to study various tertiary qualifications at various institutions and intended to study for a qualification leading to finding employment, not entrepreneurship. This finding is in line with a finding by Nchu (2015:94) that high school education prepares students for employment, rather than for entrepreneurship as a career. From the above, students might need some form of motivation to accept a turn of events in their career and eventually build a career based on the knowledge they have acquired from an entrepreneurship qualification.

Furthermore, an entrepreneurial profile of the students should also be established to understand how they have integrated these factors into the qualification. Specific emphasis should be then placed on improving their entrepreneurial characteristics that might be identified as weak. This study has established that the participants possess most of the entrepreneurial

characteristics investigated. Thus, they are networkers, and they are confident, persistent, learn from mistakes, are aware of their abilities, preferences and behaviours, can quickly adapt, and are creative. This may suggest that students become positive towards the qualification they were offered as a second or third option (entrepreneurship) and are determined to make something out of it. An understanding of the pre-enrolment factors perceived as influencing students' academic performance coupled with their entrepreneurial profile may provide a basis to suggest academic interventions directed towards improving their academic performance.

5.5. Implications of this study

This study has implication for theory as well for practice as explained in the next two sections.

5.5.1. Implications for theory

Two theories underpinned this study. Thus, this study suggests a conceptual framework that combines the General Systems Theory, together with the Tripartite Model of Motivation for Achievement, towards the understanding of the students' academic performance. The conceptual framework can be further refined to determine the casual relationship of dependant, and independent variables summarise in figures 2.1 and 4.56. Thus, students' journey in HE should be viewed as a dynamic system with inputs, processes, and output.

5.5.2. Implications for practice

This study calls for input from all stakeholders to promote career guidance at high school level (Maila & Ross, 2018:10). Career fairs should be promoted, sponsoring this function and engaging in corporate social responsibility initiatives. These may include the promotion of career guidance and offering bursaries and scholarships to promote the uptake of entrepreneurship qualifications. Institutions, specifically the entrepreneurship department, should consider reviewing their student recruitment processes to attract students ready to study entrepreneurship. The entrepreneurship department and the private sector may also actively promote corporate entrepreneurship to cater for the trends revealed in this study. With the need to promote corporate entrepreneurship, the private sector could partner with entrepreneurship departments to place entrepreneurship students in business incubators, business mentorship programmes and internships. Furthermore, there is a need for the entrepreneurship department to monitor the perceptions of the students such as through administering an annual questionnaire aimed at understanding the background profile and the entrepreneurship characteristics of their students, thereby applying relevant support tailored

to their groups. This supports a recommendation by Mthimunye and Daniels (2019:217) who conducted a study on nursing students and is in line with a suggestion by the DHET for universities to further explore the reasons for low retention rates (DHET, 2020:14).

5.6. Conclusion

It may be concluded that the main objective of this study, namely to investigate the pre-enrolment factors influencing entrepreneurship students at a tertiary institution in Western Cape, South Africa, has been accomplished. The uptake and students' perception of the value of the interventions offered by the institution where this study was conducted were determined. Based on the findings of the study, the researcher made recommendations which could contribute to the mitigation of poor academic performance by the entrepreneurship students and might contribute to an improved success rate of small businesses considering that these students are potential entrepreneurs. This study thus contributes directly to the call by the DHET for universities to determine the factors influencing retention rates and offering customised interventions (DHET, 2020:14). The study made use of the Tripartite Model of Motivation for Achievement by Tuckman (1999), together with the General Systems Theory by Von Bertalanffy (1968). These consider the attitudes and drive (inputs) of the capabilities of the students towards suggesting strategies (processes) aimed at improving their academic performance (output) as an open system. The conclusions drawn from this study are valuable to students, lecturers, DHET, tertiary institutions, parents, schools, the government and private sector companies.

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APPENDICES

Appendix A – Grammarian Letter

Ken Barris, PhD

Academic Writing Workshops
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29 September 2020

To whom it may concern:

This is to certify that the following thesis by Mr Lucky Sibanda has been edited to professional standards:

Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa

Best regards



KEN BARRIS

Appendix B – Frequency tables

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	81	39.7	39.9	39.9
	Female	122	59.8	60.1	100.0
	Total	203	99.5	100.0	
Missing		1	.5		
Total		204	100.0		

Study Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extended Year 1	21	10.3	10.3	10.3
	Extended Year 2	19	9.3	9.3	19.6
	Mainstream Year 1	68	33.3	33.3	52.9
	Mainstream Year 2	54	26.5	26.5	79.4
	Mainstream Year 3	42	20.6	20.6	100.0
	Total	204	100.0	100.0	

Nationality					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	South African	178	87.3	89.9	89.9
	Non South African	20	9.8	10.1	100.0
	Total	198	97.1	100.0	
Missing		6	2.9		
Total		204	100.0		

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	2	1.0	1.0	1.0
	18	12	5.9	6.1	7.1
	19	34	16.7	17.3	24.4
	20	46	22.5	23.4	47.7
	21	34	16.7	17.3	65.0
	22	22	10.8	11.2	76.1
	23	21	10.3	10.7	86.8
	24	8	3.9	4.1	90.9
	25	7	3.4	3.6	94.4
	26	4	2.0	2.0	96.4
	27	3	1.5	1.5	98.0
	28	1	.5	.5	98.5
	29	1	.5	.5	99.0
	31	1	.5	.5	99.5
	37	1	.5	.5	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

I had more than three subjects which I achieved more than 50%					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	6	2.9	3.0	3.0
	Yes	196	96.1	97.0	100.0
	Total	202	99.0	100.0	
Missing		2	1.0		
Total		204	100.0		

I passed Business Studies with more than 50%					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	45	22.1	24.1	24.1
	Yes	142	69.6	75.9	100.0
	Total	187	91.7	100.0	
Missing		17	8.3		
Total		204	100.0		

I passed Mathematics rating of 2 / Mathematical Literacy with 50%					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	42	20.6	21.3	21.3
	Yes	155	76.0	78.7	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

I passed English at a rate of more than 50%					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	18	8.8	8.9	8.9
	Yes	185	90.7	91.1	100.0
	Total	203	99.5	100.0	
Missing		1	0.5		
Total		204	100.0		

I completed my high school in rural areas					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	159	77.9	79.1	79.1
	Yes	42	20.6	20.9	100.0
	Total	201	98.5	100.0	
Missing		3	1.5		
Total		204	100.0		

I wanted to study for a qualification that will help me get a job					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	40	19.6	20.0	20.0
	Yes	160	78.4	80.0	100.0
	Total	200	98.0	100.0	
Missing		4	2.0		
Total		204	100.0		

I wanted to study at another university					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	100	49.0	50.3	50.3
	Yes	99	48.5	49.7	100.0
	Total	199	97.5	100.0	
Missing		5	2.5		
Total		204	100.0		

Entrepreneurship was not my preferred qualification when I applied					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	77	37.7	38.5	38.5
	Yes	123	60.3	61.5	100.0
	Total	200	98.0	100.0	
Missing		4	2.0		
Total		204	100.0		

Given the chance to study a different qualification, I would change					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	115	56.4	57.5	57.5
	Yes	85	41.7	42.5	100.0
	Total	200	98.0	100.0	
Missing		4	2.0		
Total		204	100.0		

The career guidance support during high school					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	31	15.2	16.2	16.2
	Disagree	40	19.6	20.9	37.2
	Agree	85	41.7	44.5	81.7
	Strongly Agree	35	17.2	18.3	100.0
	Total	191	93.6	100.0	
Missing		13	6.4		
Total		204	100.0		

Lack of financial resources negatively influenced my performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	49	24.0	25.0	25.0
	Disagree	60	29.4	30.6	55.6
	Agree	56	27.5	28.6	84.2
	Strongly Agree	31	15.2	15.8	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

Lack of study material negatively influenced my performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	38	18.6	19.6	19.6
	Disagree	64	31.4	33.0	52.6
	Agree	59	28.9	30.4	83.0
	Strongly Agree	33	16.2	17.0	100.0
	Total	194	95.1	100.0	
Missing		10	4.9		
Total		204	100.0		

Lack of family support negatively influenced my performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	63	30.9	32.0	32.0
	Disagree	71	34.8	36.0	68.0
	Agree	41	20.1	20.8	88.8
	Strongly Agree	22	10.8	11.2	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

Family commitment negatively affected my performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	69	33.8	35.0	35.0
	Disagree	79	38.7	40.1	75.1
	Agree	35	17.2	17.8	92.9
	Strongly Agree	14	6.9	7.1	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

Job commitment negatively affected my performance					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	74	36.3	38.5	38.5
	Disagree	69	33.8	35.9	74.5
	Agree	40	19.6	20.8	95.3
	Strongly Agree	9	4.4	4.7	100.0
	Total	192	94.1	100.0	
Missing		12	5.9		
Total		204	100.0		

I am confident in my ability to succeed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2.9	3.0	3.0
	Disagree	3	1.5	1.5	4.6
	Agree	56	27.5	28.4	33.0
	Strongly Agree	132	64.7	67.0	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

I find it difficult to raise my opinion in discussions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	34	16.7	17.3	17.3
	Disagree	62	30.4	31.5	48.7
	Agree	81	39.7	41.1	89.8
	Strongly Agree	20	9.8	10.2	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

I enjoy making new friends, maintaining good relationships with them					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	5.4	5.6	5.6
	Disagree	26	12.7	13.1	18.7
	Agree	90	44.1	45.5	64.1
	Strongly Agree	71	34.8	35.9	100.0
	Total	198	97.1	100.0	
Missing		6	2.9		
Total		204	100.0		

I find it difficult to adapt to change					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	37	18.1	18.9	18.9
	Disagree	97	47.5	49.5	68.4
	Agree	51	25.0	26.0	94.4
	Strongly Agree	11	5.4	5.6	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

I believe in learning from my mistakes					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.5	2.5	2.5
	Disagree	10	4.9	5.1	7.6
	Agree	60	29.4	30.5	38.1
	Strongly Agree	122	59.8	61.9	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

I prefer using proven ways of doing things than trying new ways					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	26	12.7	13.5	13.5
	Disagree	80	39.2	41.5	54.9
	Agree	68	33.3	35.2	90.2
	Strongly Agree	19	9.3	9.8	100.0
	Total	193	94.6	100.0	
Missing		11	5.4		
Total		204	100.0		

I am aware of my abilities, preferences and behaviour					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	7	3.4	3.6	3.6
	Disagree	5	2.5	2.6	6.2
	Agree	94	46.1	48.2	54.4
	Strongly Agree	89	43.6	45.6	100.0
	Total	195	95.6	100.0	
Missing		9	4.4		
Total		204	100.0		

Writing down goals is not necessary as long I know what I want to achieve					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	30	14.7	15.3	15.3
	Disagree	47	23.0	24.0	39.3
	Agree	72	35.3	36.7	76.0
	Strongly Agree	47	23.0	24.0	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

I am not frustrated by disappointments, and I keep on trying					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	4.9	5.1	5.1
	Disagree	24	11.8	12.3	17.4
	Agree	94	46.1	48.2	65.6
	Strongly Agree	67	32.8	34.4	100.0
	Total	195	95.6	100.0	
Missing		9	4.4		
Total		204	100.0		

I am comfortable when someone leads me to do some tasks					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	4.9	5.1	5.1
	Disagree	35	17.2	17.9	23.1
	Agree	109	53.4	55.9	79.0
	Strongly Agree	41	20.1	21.0	100.0
	Total	195	95.6	100.0	
Missing		9	4.4		
Total		204	100.0		

The support from my family will help me pass					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	5.4	5.6	5.6
	Disagree	15	7.4	7.6	13.1
	Agree	70	34.3	35.4	48.5
	Strongly Agree	102	50.0	51.5	100.0
	Total	198	97.1	100.0	
Missing		6	2.9		
Total		204	100.0		

The academic support from my Fundani will help me pass					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	26	12.7	14.1	14.1
	Disagree	29	14.2	15.7	29.7
	Agree	67	32.8	36.2	65.9
	Strongly Agree	63	30.9	34.1	100.0
	Total	185	90.7	100.0	
Missing		19	9.3		
Total		204	100.0		

I often attend the departmental tutorial sessions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	7.8	8.1	8.1
	Disagree	46	22.5	23.4	31.5
	Agree	91	44.6	46.2	77.7
	Strongly Agree	44	21.6	22.3	100.0
	Total	197	96.6	100.0	
Missing		7	3.4		
Total		204	100.0		

The tutorial support from the department will help me pass					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	3.9	4.0	4.0
	Disagree	16	7.8	8.1	12.1
	Agree	111	54.4	56.1	68.2
	Strongly Agree	63	30.9	31.8	100.0
	Total	198	97.1	100.0	
Missing		6	2.9		
Total		204	100.0		

The motivational talks from industry leaders motivate me					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	2.5	2.6	2.6
	Disagree	23	11.3	11.8	14.4
	Agree	100	49.0	51.3	65.6
	Strongly Agree	67	32.8	34.4	100.0
	Total	195	95.6	100.0	
Missing		9	4.4		
Total		204	100.0		

Practical projects help me understand the course content					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	3.9	4.1	4.1
	Disagree	21	10.3	10.7	14.8
	Agree	97	47.5	49.5	64.3
	Strongly Agree	70	34.3	35.7	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

I believe what I am learning is useful for me to know					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	1.0	1.0	1.0
	Disagree	14	6.9	7.1	8.2
	Agree	92	45.1	46.9	55.1
	Strongly Agree	88	43.1	44.9	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

My future goals are related to what I am studying					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	3.9	4.1	4.1
	Disagree	20	9.8	10.2	14.3
	Agree	81	39.7	41.3	55.6
	Strongly Agree	87	42.6	44.4	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

Group assignments help me learn more from others					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	4.9	5.1	5.1
	Disagree	33	16.2	16.8	21.9
	Agree	91	44.6	46.4	68.4
	Strongly Agree	62	30.4	31.6	100.0
	Total	196	96.1	100.0	
Missing		8	3.9		
Total		204	100.0		

Appendix C – Consent letters



Faculty of Business and Management Sciences
Entrepreneurship and Business Management
Cape Town Campus
☎+27 21 460 3450
✉TengehR@cput.ac.za
31/07/17

RE: Permission to use CPUT National Diploma Entrepreneurship students as audience for a Research Study

STUDENT NAME: Lucky Sibanda
STUDENT NUMBER: 210227206

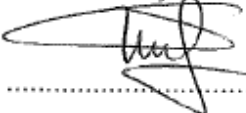
Dear Sir / Madam,

This letter serves to grant permission to Lucky Sibanda to canvass the opinions of the National Diploma Entrepreneurship students towards a research effort in fulfillment of the MTech Business Administration in Entrepreneurship at CPUT.

This active research takes place either during the second semester of 2017 or first semester of 2018. Any further requirement for access to students for the purpose as stated, should first be approved by the department.

Such research activities should not negatively impact on the lecturing and research staff of the university and should be conducted subject to the approval of the Faculty's Ethical Clearance Committee.

Yours faithfully,

A handwritten signature in black ink, appearing to read "R. Tengeh", written over a dotted horizontal line.

Dr. Robertson K Tengeh,
Senior Lecturer & research Coordinator,
Department of Entrepreneurship and Business Management



Cape Peninsula
University of Technology

FACULTY OF BUSINESS

Department of Entrepreneurship & Business Management

Informed Consent

Dear Participant,

I am a Masters student in the department of entrepreneurship and business management. I am conducting research titled: *'Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape'*. I am approaching you to be part of this study. I realise you need to make an informed decision whether or not to be part of this study, thus I have provided below further details with regard to the research to assist in your decision process.

Self-administrated questionnaires will be handed over to all Entrepreneurship diploma students of Cape Peninsula University of Technology. The information gathered will be treated as highly confidential and will not require students to reveal their personal identity. This research is purely for academic purposes and will be submitted towards the fulfillment of the requirements for a Master's degree in the form of a thesis.

Your consent to participate in this study is highly appreciated. The information gathered for this research will hopefully, contribute to the understanding of factors which influence the academic performance of entrepreneurship students and measures aimed at improving throughput rates.

For further inquiries, you may contact me on 073 541 3706 or via email ckisto@gmail.com / LuckyS@boston.co.za

You may also contact my supervisor Pro. C.G. Iwu on 021 460 9038 or via email on iwuc@cput.ac.za

Yours sincerely,

Lucky Sibanda (Student Number 210 227 206)

Consent:

By signing this form, I agree that I have read the above-mentioned information and am satisfied with the terms and conditions.

Name of Participant: Carol J van der Merwe (1st) or 2nd or 3rd year student

Signature CJ Date 14/07/2012



Cape Peninsula
University of Technology

FACULTY OF BUSINESS

Department of Entrepreneurship & Business Management

Informed Consent

Dear Participant,

I am a Masters student in the department of entrepreneurship and business management. I am conducting research titled: ***'Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape'***. I am approaching you to be part of this study. I realise you need to make an informed decision whether or not to be part of this study, thus I have provided below further details with regard to the research to assist in your decision process.

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Your consent to participate in this study is highly appreciated. The information gathered for this research will hopefully, contribute to the understanding of factors which influence the academic performance of entrepreneurship students and measures aimed at improving throughput rates.

For further inquiries, you may contact me on 073 541 3706 or via email ckisto@gmail.com / LuckyS@boston.co.za
You may also contact my supervisor Pro. C.G. Iwu on 021 460 9038 or via email on iwuc@cput.ac.za

Yours sincerely,

Lucky Sibanda (Student Number 210 227 206)

Consent:

By signing this form, I agree that I have read the above-mentioned information and am satisfied with the terms and conditions.

Name of Participant: Mthobeli Dumezweni 1st or 2nd or 3rd year student

Signature: Date: 19/06/2017



Cape Peninsula
University of Technology

FACULTY OF BUSINESS

Department of Entrepreneurship & Business Management

Informed Consent

Dear Participant,

I am a Masters student in the department of entrepreneurship and business management. I am conducting research titled: *'Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape'*. I am approaching you to be part of this study. I realise you need to make an informed decision whether or not to be part of this study, thus I have provided below further details with regard to the research to assist in your decision process.

Self-administrated questionnaires will be handed over to all Entrepreneurship diploma students of Cape Peninsula University of Technology. The information gathered will be treated as highly confidential and will not require students to reveal their personal identity. This research is purely for academic purposes and will be submitted towards the fulfillment of the requirements for a Master's degree in the form of a thesis.

Your consent to participate in this study is highly appreciated. The information gathered for this research will hopefully, contribute to the understanding of factors which influence the academic performance of entrepreneurship students and measures aimed at improving throughput rates.

For further inquiries, you may contact me on 073 541 3706 or via email ckisto@gmail.com / LuckyS@boston.co.za
You may also contact my supervisor Pro. C.G. Iwu on 021 460 9038 or via email on lwuc@cput.ac.za

Yours sincerely,

Lucky Sibanda (Student Number 210 227 206)

Consent:

By signing this form, I agree that I have read the above-mentioned information and am satisfied with the terms and conditions.

Name of Participant: Alice Leiria 1st or 2nd or 3rd year student

Signature: Date: 20.06.2017

FACULTY OF BUSINESS
Department of Entrepreneurship & Business Management

Informed Consent

Dear Participant,

I am a Masters student in the department of entrepreneurship and business management. I am conducting research titled: '**Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape**'. I am approaching you to be part of this study. I realise you need to make an informed decision whether or not to be part of this study, thus I have provided below further details with regard to the research to assist in your decision process.

Self-administrated questionnaires will be handed over to all Entrepreneurship diploma students of Cape Peninsula University of Technology. The information gathered will be treated as highly confidential and will not require students to reveal their personal identity. This research is purely for academic purposes and will be submitted towards the fulfillment of the requirements for a Master's degree in the form of a thesis.

Your consent to participate in this study is highly appreciated. The information gathered for this research will hopefully, contribute to the understanding of factors which influence the academic performance of entrepreneurship students and measures aimed at improving throughput rates.

For further inquiries, you may contact me on 073 541 3706 or via email ckisto@gmail.com / LuckyS@boston.co.za
You may also contact my supervisor Pro. C.G. Iwu on 021 460 9038 or via email on iwuc@cput.ac.za

Yours sincerely,


Lucky Sibanda (Student Number 210 227 206)



Consent:

By signing this form, I agree that I have read the above-mentioned information and am satisfied with the terms and conditions.

Name of Participant: DMOYAJONG JOSEPH 1st or 2nd or 3rd year student

Signature:  Date 19TH JUNE 2014

Appendix D – Ethical clearance letter



P.O. Box 1906 • Bellville 7535 South Africa • Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	Faculty: BUSINESS AND MANAGEMENT SCIENCES
--	--

At a meeting of the Faculty's Research Ethics Committee on 02 November 2017, Ethics Approval was granted to Lucky Sibanda (210227206) for research activities related to the MTech: Business Administration in Entrepreneurship at the University of the Cape Peninsula University of Technology

Title of dissertation/thesis/project:	PRE-ENROLMENT FACTORS INFLUENCING ACADEMIC PERFORMANCE OF ENTREPRENEURSHIP STUDENTS AT A TERTIARY INSTITUTION IN THE WESTERN CAPE, SOUTH AFRICA Lead Researcher/Supervisor: Prof. C G Iwu
---------------------------------------	--

Comments:

Decision: APPROVED

	09 February 2018
Signed: Chairperson: Research Ethics Committee	Date

Clearance Certificate No | 2017FBREC501

Appendix E – Questionnaire

STUDENTS' PRE-ENROLMENT ACADEMIC FACTORS

Dear Student,

I am a Masters student at Cape Peninsula University of Technology (CPUT) in the Entrepreneurship and Business Management Department. I am conducting research titled: '***Pre-enrolment factors influencing academic performance of entrepreneurship students at a tertiary institution in the Western Cape, South Africa***'. Hence, I am approaching you to be part of this study. I realise you need to make an informed decision whether or not to be part of this study. Thus I have provided below further details about the research to assist in your decision process.

Self-administered Questionnaires will be handed over to all Entrepreneurship diploma students of the Cape Peninsula University of Technology. The information gathered will be treated as highly confidential and will not require students to reveal their identity. This research is for academic purposes and will be submitted towards the fulfilment of the requirements for a Master's degree in the form of a thesis.

Your consent to participate in this study is highly appreciated. The information gathered for this research will hopefully, contribute to the understanding of factors influencing the academic performance of the entrepreneurship students and measures aimed at improving throughput rates.

For further inquiries, you may contact me on 073 541 3706 or via email ckisto@gmail.com / LuckyS@boston.co.za
You may also contact my supervisor Prof. C.G. Iwu on 021 460 9038 or via email on iwuc@cput.ac.za

Yours sincerely,

Lucky Sibanda (Student Number 210 227 206)

Please make a cross (X) on your option

Section A: Demographic

1.1. Gender:

Male	Female

1.2. What level of study are you in? (chosed from below)

1 st extended year	2 nd extended year	1 st year	2 nd year	3 rd year
1	2	3	4	5

1.3. Citizenship:

South African	Non-South African
1	2

1.4. Age: _____ years

Section B: Pre-enrolment Factors and Profile

The following statements relate to your high school results and the time when you applied at for a place to study at a university:

	No	Yes
2.1. I had more than three subjects which I achieved more than 50%	1	2
2.2. I passed Business Studies with more than 50%	1	2
2.3. I passed Mathematics rating of 2 / Mathematical Literacy with 50%	1	2
2.4. I passed English at a rate of more than 50%	1	2
2.5. I completed my high school in rural areas	1	2
2.6. I wanted to study for a qualification that will help me get a job	1	2
2.7. I wanted to study at another university	1	2
2.8. Entrepreneurship was not my preferred qualification when I applied	1	2
2.9. Given the chance to study a different qualification, I would change	1	2

Place an (X) in the box describing you based on the following key:

SD: Strongly Disagree; D: Disagree; A: Agree; SA: Strongly Agree

How did the lack of the below affected your high school academic performance?

<i>Example: I am willing to put more hours in all I do</i>	SD	<input checked="" type="checkbox"/>	A	SA
2.10. The career guidance support during high school	SD	D	A	SA
2.11. Lack of financial resources negatively influenced my	SD	D	A	SA
2.12. Lack of study material negatively influenced my performance	SD	D	A	SA
2.13. Lack of family support negatively influenced my performance	SD	D	A	SA
2.14. Family commitment negatively affected my performance	SD	D	A	SA
2.15. Job commitment negatively affected my performance	SD	D	A	SA

Place an (X) in the box describing you based on the following key:

SD: Strongly Disagree; D: Disagree; A: Agree; SA: Strongly Agree

2.16. I am confident in my ability to succeed	SD	D	A	SA
2.17. I find it difficult to raise my opinion in discussions	SD	D	A	SA
2.18. I enjoy making new friends, maintaining good relationships with them	SD	D	A	SA
2.19. I find it difficult to adapt to change	SD	D	A	SA
2.20. I believe in learning from my mistakes	SD	D	A	SA
2.21. I prefer using proven ways of doing things than trying new ways	SD	D	A	SA
2.22. I am aware of my abilities, preferences and behaviour	SD	D	A	SA
2.23. Writing down goals is not necessary as long I know what I want to achieve	SD	D	A	SA
2.24. I am not frustrated by disappointments, and I keep on trying	SD	D	A	SA
2.25. I am comfortable when someone leads me to do some tasks	SD	D	A	SA

Section C: Student Support and Development

Place an (X) in the box describing you based on the following key:

SD: Strongly Disagree; D: Disagree; A: Agree; SA: Strongly Agree

3.1. The support from my family will help me pass	SD	D	A	SA
3.2. The academic support from my Fundani will help me pass	SD	D	A	SA
3.3. I often attend the departmental tutorial sessions	SD	D	A	SA
3.4. The tutorial support from the department will help me pass	SD	D	A	SA
3.5. The motivational talks from industry leaders motivate me	SD	D	A	SA
3.6. Practical projects help me understand the course content	SD	D	A	SA
3.7. I believe what I am learning is useful for me to know	SD	D	A	SA
3.8. My future goals are related to what I am studying	SD	D	A	SA
3.9. Group assignments help me learn more from others	SD	D	A	SA

Appendix F – Turnitin report

PRE-ENROLMENT FACTORS INFLUENCING ACADEMIC PERFORMANCE OF ENTREPRENEURSHIP STUDENTS AT A TERTIARY INSTITUTION IN THE WESTERN CAPE, SOUTH AFRICA

ORIGINALITY REPORT

14%	13%	5%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

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