# The influence of entrepreneurial pedagogy on entrepreneurial intent among Secondary School learners in Gauteng West District

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# ABSTRACT

The purpose of this research was to investigate the influence of entrepreneurial pedagogy on entrepreneurial intention among Grade 12 learners of West District of Gauteng Province in South Africa. A sample of 169 learners participated in the survey. To collect primary data, the researcher used a quantitative method and handed self-administered questionnaires to respondents. Two constructs were analysed, entrepreneurial pedagogy and entrepreneurial intention. Correlation coefficient was used to determine the direction and strength of the relationship between entrepreneurial pedagogy and entrepreneurial intention, while the regression coefficient was used to determine the influence of entrepreneurial pedagogy on entrepreneurial intention. The findings concluded that entrepreneurial pedagogy does have a positive influence on entrepreneurial intentions among secondary school learners in the West District of Gauteng Province of South Africa.

# DECLARATION

I, Kedibone Tyeda, declare that this research report is my own work except where information was sourced from the work of other theorists in the subjects of entrepreneurship and education, this however, was indicated in the form of references in text and at the end of the report. Submission of this research report is a partial requirement for the degree of Master in Management (ENVC) at the University of the Witwatersrand.

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Signed at……..on the……..

Day of……...2020

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LIST OF ACRONYMS

| | |
|---|---|
| **EFA** | Exploratory factor analysis |
| **EMS** | Economics and Management Sciences |
| **DV** | Dependent variable |
| **GDP** | Gross Domestic Product |
| **GEM** | Global Entrepreneurship Monitor |
| **IBM** | International Business Machines Corporation |
| **IV** | Independent variable |
| **NFTE** | Network for Teaching Entrepreneurship |
| **NDP** | National Development Programme |
| **NGOs** | Non-Government Organisations |
| **OECD** | Organisation for Economic Co-operation and Development |
| **SA** | South Africa |
| **SACCI** | South African Co-operation Initiative |
| **SMMEs** | Small, micro and medium enterprises |
| **SPSS** | Statistical Package for the Social Sciences |
| **STATSA** | Statistics South Africa |
| **TEA** | Total entrepreneurship activity |
| **TPB** | Theory of Planned Behaviour |
| **USA** | United States of America |
| **WEF** | World Economic Forum |

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# CHAPTER 1. INTRODUCTION

## 1.1 Purpose of the study

This study investigates the influence of entrepreneurial pedagogy on entrepreneurial intention among Grade 12 learners in the West District of Gauteng Province. This chapter covers the context of the study, problem statement, research objectives, significance of the study, and the main aim of the study, delimitation of the study and definitions of terms.

## 1.2 Context of the study

Many theorists (Alexander & Hjortsø, 2013; Blenker, Korsgaard, Neergaard, & Thrane, 2011; Hytti & O'Gorman, 2004), believe that entrepreneurship can be taught and learned and entrepreneurial pedagogy will be determined by the model chosen. If the objective is for learners to understand and gain knowledge of entrepreneurship, the model should focus on traditional ways of teaching (Alexander & Hjortsø, 2013; Blenker et al., 2011; Hytti & O'Gorman, 2004). However, if the objective is to get learners equipped with skills and competencies, then the model should be about business training and coaching (Alexander & Hjortsø, 2013; Blenker et al., 2011; Hytti & O'Gorman, 2004). Finally, if the objective is to prepare learners to behave as entrepreneurs, then the model should be experiential learning through business role-playing or as simulation (Alexander & Hjortsø, 2013; Blenker et al., 2011; Hytti & O'Gorman, 2004).

According to Kolb's learning cycle (1984), experiential learning has four phases that learners have to go through (Gibb & Price, 2014). They are; planning, theorising, reflecting, and doing (Gibb & Price, 2014). The learning cycle assists in illustrating the learning process and gives an outline of how learners learn, and how teachers can select proper instruction methods to support learning (Alexander & Hjortsø, 2013; Blenker et al., 2011; Gibb & Price, 2014). Experiential learning, which is one of the entrepreneurial pedagogy models, and the learning cycle phase are covered and explained in detail in the literature review as they form the first part of the research question for this study, which is entrepreneurial pedagogy.

According to Bosma, Schott, Terjesen, and Kew (2016), the level of entrepreneurial activity is low in South Africa compared to other efficiency-driven economies. Furthermore, although encouragement has been shown by some South Africans who believe that there are good opportunities in their domains, and also have the skills and knowledge to open businesses, these

have not been translated into high levels of entrepreneurial intentions (Bosma, Schøtt, Terjesen, & Kew, 2016). Entrepreneurial intentions in South Africa are significantly lower than other African countries and efficiency-driven economies (Bosma et al., 2016, p. 6).

However, based on the latest GEM report 2017/18, South Africa's total entrepreneurship activity (TEA) growth has increased from 6.9% in 2016 to 11.0% in 2017 (Herrington & Kew, 2017/18). Entrepreneurial intentions also have increased from 10.1% in 2016 to 11.7% in 2017 (Herrington & Kew, 2017/18). This is a positive indication that local entrepreneurs are working really hard in increasing the economy and more unemployed people are finding work and this will encourage others to take up entrepreneurship as their careers and open businesses (Herrington & Kew, 2017/18). Tables 1 and 2 indicate entrepreneurship intentions from 2003-2017 in South Africa and entrepreneurial activity among the population aged 18-64 years from 2001 to 2017.

Table 1 Entrepreneurial intentions in South Africa. Percentage of population aged 18 – 64 years, 2003 – 2017

| | 2003 | 2005 | 2008 | 2010 | | 2013 | 2014 | 2015 | 2016 | 2017 | Africa region 2017 (average) | Efficiency driven economies 2017(average) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Entrepreneurial intentions** | 12.2 * | 10.7 | 16.9 | 19.6 | 14 | 15.4 | 11.8 | 10.9 | 10.1 | 11.7 | 33.4 | 26.3 |

* Read as 12.2% of South African adults in 2003 had entrepreneurial intentions

**Entrepreneurial intentions – Percentage of population aged 18-64 that is not involved in entrepreneurial activity.

Source: GEM Report: Is there a change in attitude towards the small and medium in business sector in South Africa (2017/18)

Table 2: Prevalence rates (percentage) of entrepreneurial activity among the adult population in South Africa from 2001 – 2017. Percentage of population aged 18 – 64 years.

| | 2001 | 2005 | 2009 | 2013 | 2015 | 2016 | 2017 | Africa region 2017 (average) |
|---|---|---|---|---|---|---|---|---|
| Nascent entrepreneurial rate | 5.3* | 3.6 | 3.6 | 6.6 | 5.5 | 3.9 | 7.5 | 7.3 |
| New business ownership rate | 1.4 | 1.7 | 2.5 | 4.1 | 3.8 | 3.3 | 3.8 | 6.6 |
| TEA | 6.5 | 6.2 | 5.9 | 10.6 | 9.2 | 6.9 | 11.0 | 13.7 |
| Established business ownership rate | - | 1.3 | 1.4 | 2.9 | 3.4 | 2.5 | 2.2 | 11.9 |
| Business discontinuance rate | - | 2.9 | 3.5 | 3.9 | 4.8 | 4.5 | 6.0 | 6.9 |

* Read as 5.3% of entrepreneurs in 2001 were engaged in nascent entrepreneurial activity

Source: GEM Report: Is there a change in attitude towards the small and medium in business sector in South Africa (2017/18)

Ajzen (1991), in his Theory of Planned Behaviour (TPB) explains how people's behaviour can change. He states that people's intentions to engage influence them to act or behave in a certain way, how much control they have over those actions, and the views of those close to them. The researcher views TPB model as relevant to this study and that this will help to understand the attitudes and perceptions of the learners of secondary schools of West District of Gauteng, towards learning about entrepreneurship. The model also stresses the importance of knowledge about necessary skills, environmental factors, as well as past experience (Ajzen, 1991; Kautonen, Van Gelderen, & Tornikoski, 2013). The researcher also looked at the environment in which entrepreneurship education takes place. In the literature review, the researcher explains in detail the TPB model, which forms the second part of the research question, entrepreneurial intention.

## 1.3 Problem statement

The number of youth who have completed grade 12 and are unemployed in the West District of Gauteng Province and across the country in general, increases every year (Stats SA, 2019). To address this problem, the government of South Africa introduced entrepreneurship education in schools from grade 3-12 in order to encourage leaners to open their own businesses and be employers rather than employees (Bhorat, Asmal, Lilenstein, & Van der Zee, 2018; Du Toit & Gaotlhobogwe, 2018; Nchu, 2015). However, this has not produced the expected results and the source of this problem is the way teachers teach entrepreneurship at schools (Du Toit & Gaotlhobogwe, 2018; Nchu, 2015; Nieuwenhuizen & Groenewald, 2008).

Many theorists (Gibb & Price, 2014; Lackéus, Lundqvist, & Williams Middleton, 2013; Nchu, 2015; Nieuwenhuizen & Groenewald, 2008; Peppler, 2013), believe that the entrepreneurial pedagogical methodology to teach entrepreneurship is experiential learning or learning by doing where learners learn by watching and not the traditional way of teaching. Furthermore, this type of teaching has a positive influence on learners, they become motivated and their entrepreneurial intentions increase (Dyani, 2017; Moberg, 2014). The environment in which learning entrepreneurship occurs, also plays a big role as it helps learners to be stimulated (Moberg, 2014).

## 1.4 The main aim of the study

The aim of this study was to ascertain the influence entrepreneurial pedagogy has in transferring entrepreneurial attitude, knowledge, and skills to Grade 12 learners in the secondary schools of West District of Gauteng Province of South Africa.

Research objectives are as follows:

- To investigate the influence of entrepreneurial pedagogy in achieving positive entrepreneurial intention - attitude among Grade 12 learners of secondary schools of Gauteng West District
- To determine the influence of entrepreneurial pedagogy on entrepreneurial intention – financial planning among Grade 12 learners of secondary schools of Gauteng West District.

## 1.5 Contribution to knowledge

This study is crucial because it attempts to determine whether entrepreneurship education contributes in transferring entrepreneurial knowledge and skills to learners in selected secondary schools of Gauteng Province in South Africa, and encourages them to regard entrepreneurship as a career after completing their Grade 12. Many theorists (Du Toit & Gaotlhobogwe, 2018; Elmuti, Khoury, & Omran, 2012; Nchu, 2015) have conducted studies on this topic, covering areas of entrepreneurial experiential learning, attitude and motivation of learners studying entrepreneurship education at secondary schools in South Africa.

The problem of learners not opening their businesses immediately after completing their Grade 12 still persists, and the findings of this study indicate that even though learners do not rule out engaging in entrepreneurship activities, they prefer to do that later after completing their tertiary education. The aim of this study is not to disregard these studies, but to add and contribute to the body of knowledge on the subject of entrepreneurship education.

## 1.6 Delimitations of the Study

Research for this study was limited to the grade 12 learners of selected secondary schools in Gauteng West District. The study reflected only on the schools within the geographic area of Gauteng West District and did not reflect or represent other schools in Gauteng Province. The study excludes other learners from Grades 10 and 11 who are also studying entrepreneurship and might have had interest in the research study and wanted to contribute. However, this study was only about Grade 12 learners as they were about to complete the last phase of secondary school, and would thereafter either want to open their own business, join the corporate world or go to college or university to further their studies.

## 1.7 Definition of Terms

Terms used in the study are defined as follows:

- **Entrepreneurship:** pedagogical context by Dal, Elo, Leffler, Svedberg and Westerberg (2016) define entrepreneurship as being about both business and people and the way these people seek to accomplish their desire to create their own ventures. This is a narrow and traditional use of the term, the broader definition however, centres around qualities and skills that individuals possess and make it viable for them to be innovative and creative even when facing social and economic adjustments (Dal, Elo,

Leffler, Svedberg, & Westerberg, 2016). This extensive perspective essentially centres on expanding an entrepreneurial mind-set in engaging further with other people, rather than on gaining entrepreneurship knowledge (Dal et al., 2016).

- **Entrepreneurship Education:**, the intention of entrepreneurship education should be to provide school leavers and prospective entrepreneurs with essential skills so that they can be innovative when creating their new ventures even when confronted by difficulties (Elmuti et al., 2012; D. Elmuti, G. Khoury, & O. Omran, 2012). Entrepreneurship education is about recognition, ability and inclination that supply entrepreneurial thinking and exploitation that learners can administer in their everyday lives and in future (McGuigan, 2016).
- **Entrepreneurship Pedagogy:** refers to the know-how and conditions that aid in interpreting the course outline and learners' capabilities to work in groups (Dal et al., 2016).
- **Entrepreneurial intention:** Entrepreneurial intention is defined as individuals' level of commitment and decision to start a business and act on that decision (Lüthje & Franke, 2003; Setti, 2017).
- **Experiential Learning:** Experiential learning is the process of learning through practice where students reflect on their performance against theory (Ho, Uy, Kang, & Chan, 2018; McPhee & Przedpelska, 2018; Tovar & Misischia, 2018).
- **Entrepreneurial Teaching**: the purpose of entrepreneurial teaching is to increase the inherent instinct for stimulating entrepreneurial attributes, insight and equipping learners for action (Elert, Andersson, & Wennberg, 2015; Gibb & Price, 2014; Oosterbeek, Van Praag, & Ijsselstein, 2010).

# CHAPTER 2: LITERATURE REVIEW

In this chapter, literature review in the field of entrepreneurship education and entrepreneurship pedagogy in secondary schools is discussed. The study does so by discussing two key constructs namely entrepreneurial pedagogy and entrepreneurial intention; it also explores relevant theories and develops hypotheses for the study. The structure of this chapter is as follows: introduction, entrepreneurship, state of entrepreneurship globally, underpinning theories, entrepreneurial pedagogy, entrepreneurial pedagogical models, and entrepreneurship intention.

## 2.1 Importance of Entrepreneurship

According to Venter, Urban, Beder, Oosthuizen, Reddy, and Venter (2015), the behavioural definition of entrepreneurship focuses on the specific behaviour of individuals and how this behaviour differentiates itself from others, secondly the process definition looks at the entrepreneurial process and how it is navigated and relates to individuals, enterprise and society, lastly the outcome definition focuses on the results of entrepreneurship. For the purpose of this study, the researcher chose the process definition as it is appropriate for the context. In Table 3 page 8, more definitions of entrepreneurship from different schools of thought are illustrated.

**Table 3: Different Scholarly perspectives on Entrepreneurship**

| Category | Definition | Author/s | Key themes |
|---|---|---|---|
| Behavioural | Entrepreneur is a person who is innovative and has a way of identifying procedures of manufacturing new products, new trade, and new resources of raw material to create a new enterprise. | Schumpeter (1934) | Innovation, resourceful, creative, |
| | Entrepreneurship requires entrepreneurial skills that necessitate the entrepreneur to participate in a competitive environment e.g. international markets. | Rwigema, Urban, & Venter (2008) | Entrepreneurial skills, Competitive markets |
| | Entrepreneurship is about how, when, and why some entrepreneurs have the abilities to identify and exploit opportunities while others do not. | Shane and Venkataraman (2001) | Identify, exploit, opportunities |
| Process | Entrepreneurship is influenced by the environment in which it operates | GEM (2016/17) | Competitive environment |
| | Entrepreneurship as a venture of creation which consists of sub-areas in which opportunities can be explored and exploited, based on contexts in which they operate. | Kloepfer & Castrogiovanni (2018) | Venture creation, opportunities, explore and exploited |
| | The entrepreneur is in a value creation process of something new by devoting the necessary time and effort, assuming the financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence. | Hisrich and Peters (1998) | Value creation, financial and social risks, |
| Outcomes | The entrepreneur will shift economic resources from low productivity towards higher productivity and greater returns. | Jean-Baptiste Say (1803) | Profit, innovation |
| | Entrepreneurs are driven by motivation and outcome. They are categorised into three groups (lifestyle, small profitable and high growth ventures). | Ronstadt (1984) | Motivation, outcome, profitable |

| | | | |
|---|---|---|---|
| | An entrepreneur is someone who has created a new firm in the last two years or is planning to launch one in the next five years. | Busenitz and Barney (1997 | Initiator, proactive, risk taker |

**Source: Venter et al. (2015a)**

The definition of entrepreneurship has two opposing perspectives, the narrow and wide perspectives (Lackéus, 2015). The narrow perspective argues that learners should be encouraged to open their own businesses, while the wide perspective believes that it is not only about opening businesses, but also about making learners be creative, opportunity oriented, proactive, and innovative. The wide perspective is relevant to learners at all levels of schooling. Lackeus (2015) further states that it is important that all learners in all different levels learn and show their keenness in creating value for other community members.

Countries continue to look at different ways to improve, contribute, and increase their economies in order to be competitive globally. One of the options to do that is through entrepreneurship (Nchu, 2015). Many theorists regard entrepreneurship as playing a pivotal role in the creation of small, micro, and medium enterprises (SMMEs), which have contributed to economic growth and have created jobs (Du Toit & Gaotlhobogwe, 2018; Nchu, Tengeh, & Hassan, 2016; SEDA, 2016). South Africa also regards entrepreneurship as a major driver that could bring about changes and opportunities to remedy the past social and economic differences among citizens (Nchu, 2015).

Furthermore, entrepreneurship is also often recognised as a critical tool that enables the country's economic transformation to move from a developing to a developed one (Naudé, 2012). Through the introduction of new technologies, countries move from low-income countries or efficiency-driven economies to high-income technology-based economies and entrepreneurs through these technologies, competition in the market increases and helps to increase the country's competitiveness (Naudé, 2012).

Van Praag and Versloot (2007), point out four economic benefits of entrepreneurship as: (i) generating employment; (ii) innovation; (iii) productivity and growth; and (iv) the increase of the individual's efficacy level. Sandström, Berglund, and Magnusson (2014), confirm this and state that entrepreneurs disrupt the existing state of stability in the economic markets by

introducing disruptive innovations that bring about change in the way the economic market is operating and allow for more opportunities and growth within the economy.

Many scholars believe appropriate training that provides entrepreneurial skills is crucial and needs to be developed in order to create skilled and opportunity-driven entrepreneurs (Du Toit & Gaotlhobogwe, 2018; Nicolaides, 2011; Wood, McKelvie, & Haynie, 2014). Furthermore, entrepreneurship programmes have been developed with the intention of empowering learners with skills related to entrepreneurial activities so that they believe in their capabilities and stimulate an enterprise culture that will benefit them in future (North, 2002).

However, Fayolle, Gailly and Lassas-Clerc (2006) caution that taking entrepreneurial training does not mean learners will open businesses immediately after school. Looking at the unemployment statistics mentioned earlier, it is expected that a large number of young people will undertake training in entrepreneurship and this will motivate them to rather create jobs than looking for one(Elmuti et al., 2012). When equipped with entrepreneurial skills and abilities at individual level, learners will be in a better position to deal with current challenges that are not limited to unemployment (Elmuti et al., 2012). At a broader level, because of the contribution they will be making towards economic development, their start-ups will be sustainable and enhanced (Nieuwenhuizen & Groenewald, 2008).

Regardless of how important entrepreneurship education is, there are still some disagreements among policy makers on how it should be embedded in general curricula (Tengeh, Iwu, & Nchu, 2015). This thus put doubts on the intentions and outcome of entrepreneurship programmes.

## 2.2 Global perspective on entrepreneurship education

Entrepreneurship education is promoted in most European countries' schools (Oosterbeek et al., 2010). The United States of America (USA), has also incorporated entrepreneurship education in their curricula (Oosterbeek et al., 2010). Everyone, including the community and business, are involved in nurturing and training entrepreneurs in the USA because they believe entrepreneurs emerge from somewhere (Network for Teaching Entrepreneurship (NFTE), 2013). Nine states in the USA so far promote entrepreneurship education in the formal

educational systems at the K-level and as result; there has been some outstanding experience in the USA (NFET, 2013).

Finland, for example, has also introduced entrepreneurship education in all school grades since 1994 (NFET, 2013). Teachers who teach the subject, had been trained before they started with implementation, by attending capacity building training on different models of pedagogies (Dyani, 2017). Furthermore, Finland trained teachers on how to use various approaches, such as experiential and problem-based learning which helped learners to understand risk-taking (Dyani, 2017; Oosterbeek et al., 2010; Terjesen, Hessels, & Li, 2016). Learners are helped to get exposed to entrepreneurs where they learn about entrepreneurship, and the Ministry of Education in Finland empowers learners to open their businesses while still at school and when their businesses grow, the Ministry stresses the importance of getting their businesses registered (Dyani, 2017; Oosterbeek et al., 2010).

The Nigerian Ministry of Education introduced entrepreneurship education as part of business studies at junior secondary level and the subject is optional (Olokundun, Falola, Ibidunni, & Inelo, 2014). One of the goals of business studies is for learners to gain knowledge on creating business opportunities, taking risk and responsibilities (Olokundun et al., 2014).

## 2.3 Entrepreneurship education in South Africa

Although South Africa is one of the strongest economies in Africa, it is worrying to note that unemployment and poverty are still serious social ills for the majority of citizens, especially the youth. Statistics South Africa (Stats-SA) (2019), states that the unemployment rate has increased from 27.6% in the first quarter of 2019 to 29% in the second quarter of that year. Furthermore, the unemployment rate among young people at age 15-34 is 55.2 %, and this is the reason why very few school leavers find employment after school (Stats-SA, 2017). Only about 7% of successful Grade 12 learners who have completed and passed their matriculation, get employment in the formal sector (Stats-SA 2017). Driven by these deplorable statistics, among others, current research points to weaknesses in the education system that limits entrepreneurial activity in South Africa (Stats-SA, 2017).

The government of South Africa over the past years has established systems whereby young people can be dynamic and become involved in entrepreneurial ventures, in a bid to enable them to cultivate an entrepreneurial spirit (Elmuti et al., 2012). Various informal and formal

entrepreneurship education programmes have, as their main objective, to enable learners to become innovative and constructive while acquiring entrepreneurial skills (Elmuti et al., 2012). Given the on-going employment crisis, one finds that there is an increasing need for such programmes, especially in the context of the South African youth, where for an alternative to unemployment, school leavers more than ever are required to provide for their own economic survival through entrepreneurial activities (Elmuti et al., 2012).

South Africa has introduced entrepreneurship education at secondary level. Learners in other African countries like Nigeria, have more opportunities of gaining knowledge on entrepreneurship education before those in South Africa (Dyani, 2017). South Africa introduced entrepreneurship education in 2000 into the education curriculum of Grade 3 to 9, as part of Economics and Management Sciences (EMS) (Ahmed & Ndedi, 2013). Grade 10-12 have had entrepreneurship in their curriculum since 2005 and entrepreneurship is one of subjects under business studies (Horn, 2006). The intention for the government was for learners after completing grade 12, to open their own businesses and creating employment rather than being employees (Horn, 2006). The year 2008 was the year where the first group of Grade 12 learners matriculated with a formal entrepreneurship education qualification (Horn, 2006).

However, this has not translated into learners opening their own businesses, and the Swiss-South African Co-operation Initiative (SSACI) asserts that the number of school leavers surpasses the current job market (SSACI, 2012). Furthermore, small business ventures and entrepreneurship do not create more jobs as fast as it was expected they would and this is of grave national concern (SSACI, 2012). Shortage or lack of relevant skills is still a big issue in South Africa and a number of school leavers who are not working, continues to grow each year as they lack generic competencies and are not workplace ready (SSACI, 2019).

## 2.4 Entrepreneurial Pedagogy

Entrepreneurial pedagogy is a combination of different innovative and active teaching approaches:- it makes the learning process engaging and significant for learners (Alexander & Hjortsø, 2013; Dal et al., 2016). However, Seikkula-Leino, Satuvuori, Ruskovaara, and Hannula (2015) state that the focus should not only be on learners, but on teachers as well, as they are the ones implementing entrepreneurship education. The methods, including the

content to teach entrepreneurship in South Africa, have not been made clear in the entrepreneurship education policy (Du Toit & Gaotlhobogwe, 2018).

Teachers' role in the overall implementation of any entrepreneurial learning programme is important (Seikkula-Leino et al., 2015). They are the end user of the entrepreneurship education policy as they have to apply or implement entrepreneurship education, and for them to achieve that goal they have to be trained on both traditional and experiential pedagogy and this suggests some operational changes in the present education system (Seikkula-Leino et al., 2015; World Economic Forum, 2011). Training provided to teachers must be nearly as complete as the essential curriculum for learners, and it is also imperative that they work closely with entrepreneurs (World Economic Forum, 2011).

As is mentioned in the World Economic Forum (2011) report, entrepreneurship education will not be successfully applied without involving entrepreneurs. This view suggests that a good classroom facilitator or a teacher having past experience or not in entrepreneurship and an organised interaction with an entrepreneur, would make an appropriate study (World Economic Forum, 2011).

## 2.5 Entrepreneurial education pedagogical models

Finland, for example, uses different types of pedagogical models and approaches in entrepreneurship education (Seikkula-Leino et al., 2015). The first pedagogical model is learning for entrepreneurship, which is experiential, and problem-based learning that centres on risk-taking and responsibility. The second pedagogical model is learning about entrepreneurship:- in this stage learners learn by being exposed to existing enterprises and organisations, such as NGOs (Tovar & Misischia, 2018). In the third model, learners are motivated to practise by running their own enterprises, in order to learn through entrepreneurship (Seikkula-Leino et al., 2015), as in Figure 1 on page 15.

Many theorists (Dal et al., 2016; Du Toit & Gaotlhobogwe, 2018; McGuigan, 2016; McPhee & Przedpelska, 2018) emphasise that understanding how learning take place is crucial for entrepreneurial learning and strategy. Gibb (2002) also expresses that teaching entrepreneurship needs a different pedagogical approach and using traditional teaching methods will not produce the expected results. Gibb and Price (2014) state that entrepreneurial

teaching should stress teaching for, rather than teaching about. In this way, the teacher's focus is on creating an enterprising mind-set and exploration by learners for them to understand what it feels like to be an entrepreneur (Du Toit & Gaotlhobogwe, 2018; Gibb & Price, 2014; Oosterbeek et al., 2010). They also talk about the process of teaching, which is an approach that gives learners the necessary opportunity to be creative and think outside the box (Du Toit & Gaotlhobogwe, 2018; Gibb & Price, 2014).

The process of teaching is designed also to help learners change their attitudes and the way they think and do things (Gibb & Price, 2014). Moreover, they regard this approach as the foundation of entrepreneurial learning (Gibb & Price, 2014). Many researchers' findings (do Paço, Ferreira, Raposo, Rodrigues, & Dinis, 2011; Schwab, 2009) express that entrepreneurial skills are better taught through student centred and active experiential learning and not just traditionally, as most other subjects are taught. Entrepreneurship pedagogy's main goal is to produce learners who are prepared for the outside world (Marques & Albuquerque, 2012). Therefore, teaching approaches need to be encouraging to learners so that they keep on learning throughout their experience and learn how to build life opportunities. Experiential learning or learning by doing in this context, becomes important (Marques & Albuquerque, 2012).

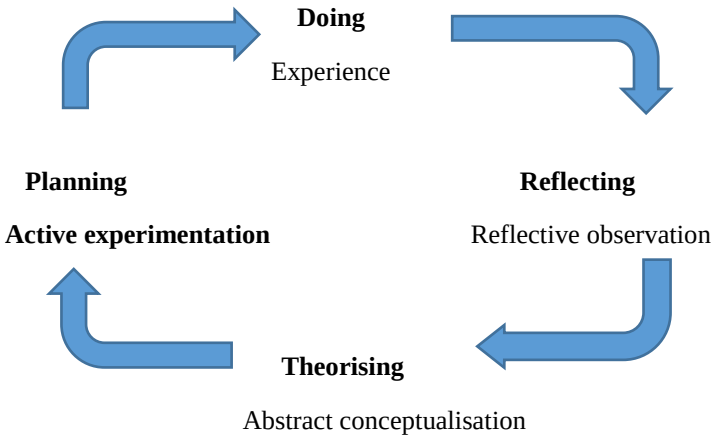
Learning-by-doing is not far from experiential learning and the conceptual model is based on Russian researchers such as Vygotsky, Leontev and Galperin in 1978 (Haswell, 2017; Lackéus, 2015; Reshmad'sa & Vijayakumari, 2017). Furthermore, learners in learning-by-doing take centre stage by interacting firstly with fellow learners and also with stakeholders from outside (Ho et al., 2018; Lackéus, 2015). This interaction with stakeholders from outside, for example entrepreneurs, is in line with what Vygotsky refers to as instruments, procedures, regulations, recognition, and design (Haswell, 2017; Lackéus, 2015; Siddiqua, Asim, & Bibi, 2014). This interaction leads to two main outcomes: internalisation of human activity and development of new mental abilities and secondly, externalisation of activity into artefacts. They define artefacts as objects produced by human activity (Hassan, Jones, & Mahmud, 2012; Reshmad'sa & Vijayakumari, 2017). Internalisation of human activity leads to learners acquiring deep learning while externalisation results in value creation (Hassan et al., 2012; Lackéus, 2015; Siddiqua et al., 2014).

Deep learning is regarded as the absorption of meaning and the interpretation of experience (Higgins & Elliott, 2011; Reshmad'sa & Vijayakumari, 2017). Therefore, when learners

interact with external stakeholders, deep learning occurs and this is meaningful and leads to learners being motivated (Higgins & Elliott, 2011; Lackéus, 2015; Reshmad'sa & Vijayakumari, 2017). If the artefact created begins to be valuable to a wider community, it will also activate a major amount of motivation and engagement. Learning-by-doing essentially is an emotional and motivation filled process where motivational levels depend on what actions to take, and what learning and value to create (Lackéus, 2015; Reshmad'sa & Vijayakumari, 2017; Siddiqua et al., 2014).

Kolb's learning cycle (1984) arises from a tradition of experiential learning (Gibb & Price, 2014; Moore, Boyd, & Dooley, 2010). The learning cycle assists in illustrating the learning process and provides an outline of how learners learn and how teachers can select proper instruction methods to support learning (Gibb & Price, 2014; Moore et al., 2010). The learning cycle has four phases that learners have to go through; they are discussed below, and they are - concrete experiencing, reflecting, theorising, and active experimentation.

**Figure 1: Kolb's learning cycle (1984) by Gibb & Price (2014)**




**Source: (Gibb & Price, 2014, p. 9)**

According to researchers (Kolb & Kolb, 2018; Moore et al., 2010; Nchu, 2015; Tovar & Misischia, 2018), learners cannot go through learning without experiencing what they are learning. The experiencing mode initiates learning therefore, what the teacher teaches over and over again becomes habitual to learners and easy to remember and apply (Moore et al., 2010; Tovar & Misischia, 2018). Learning through real life experiences like visiting markets

or businesses can benefit learners by shaping their capacity to recall knowledge from the past experience in order to shape their future experiences (Moore et al., 2010; Tovar & Misischia, 2018).

In the second phase, learners reflect on what they have learned and experienced (Du Toit & Gaotlhobogwe, 2018; Nchu, 2015). When learners experience an activity, such as going to businesses, they reflect back to that experience. Moreover, they get an opportunity to observe, they get an opportunity to think and review what was happening, they get an opportunity to interact with others and finalise a view without been judged when making mistakes (Moore et al., 2010; Nchu, 2015; Steenekamp, Van der Merwe, & Athayde, 2011). Information that learners receive through concrete experience, is converted through reflection and thinking, and again converted through their actions to change the world, for example, opening businesses (Du Toit & Gaotlhobogwe, 2018; van Vuuren & Alemayehu, 2018).

During the theorising phase, learners try to make sense of information that they have collected during the reflective phase, the questions they asked and what they have observed (Moberg, 2014; Moore et al., 2010). During this phase, learners try to find answers through theory and clear purpose to activities (Moore et al., 2010). What learners learned through real life experience can now be analysed and the findings generalised (Moberg, 2014; Moore et al., 2010).

The planning or active experimentation is the last phase, and it is about learners getting actively involved in a project, for example, designing a model for the school (Moore et al., 2010; Tovar & Misischia, 2018). According to Gibb and Price (2014), a practical approach have to be applied in this phase and learners have to be given space to generate ideas and practice what they have learned, an opportunity to execute what they have learned.

**Hypothesis 1: Entrepreneurial experiential learning has a positive influence on entrepreneurial intentions of secondary school learners in Gauteng Province of South Africa**

## 2.6 Entrepreneurial Intent

According to research, the intention to engage in business is the most important action that indicates the effort an individual is willing to take to carry out the behaviour (Kibler, 2013;

Thompson, 2009; Venter et al., 2015b). GEM (2016) states that potential entrepreneurs have ability to identify opportunities and have the self-efficacy that the skills and experience they possess will help them open a business, however recognising an opportunity and having skills does not necessarily lead to the intention to open a business. Furthermore, the environment in which entrepreneurs exist has to be favourable GEM (2016). This view is also supported by De Jorge-Moreno, Laborda Castillo, and Sanz Triguero (2012); Matlay, Solesvik, and Westhead (2014), that contextual factors as well as the individual's background, such as culture and processes, play a major role in the individual's entrepreneurial intention.

Many theorists support the concept of entrepreneurial intention through the theory of planned behaviour (Ajzen, 1991; do Paço et al., 2011; Fatoki, 2014; Kautonen et al., 2013; Kibler, 2013). Furthermore, they explain entrepreneurial intention through three components or influencing factors namely:- attitude towards behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991, 2005; Conner & Armitage, 1998; do Paço et al., 2011; Kibler, 2013; Thompson, 2009).

Attitude towards behaviour refers to people assessing whether a behaviour in question is negative or positive (Ajzen, 1991; Conner & Armitage, 1998; Kautonen et al., 2013; Setti, 2017; Thompson, 2009). Before people make an intention and act on it, they appear to evaluate that behaviour. TPB postulates that factors such as environment or beliefs shape the attitudes of individuals (Herrington & Kew, 2017/18; Setti, 2017; Venter et al., 2015a). These factors affect people either positively or negatively and they contribute to people's attitudes and actions, for example, starting a business (Herrington & Kew, 2017/18, Venter et al., 2015). However, if these factors affect people in a negative way, their attitudes and actions will also reflect that (Almobaireek & Manolova, 2012; Kautonen et al., 2013; Setti, 2017).

If learners have positive attitudes towards entrepreneurship education, and recognise it as appealing and favourable, this will promote entrepreneurial intention (Almobaireek & Manolova, 2012; Setti, 2017; Thompson, 2009; Venter et al., 2015a). According to research (Kautonen et al., 2013; Oosterbeek et al., 2010; Thompson, 2009) on youth entrepreneurship, attitude and perception play an important role in creating an entrepreneurial culture.

However, South Africa's entrepreneurial intentions are low when compared to other African countries and efficiency-driven economies (GEM, 2016). Factors such as the environment also

play a huge role and based on the youth unemployment rate provided by Stats SA (2019), does this mean this high rate is as a results of South Africa's low entrepreneurial intentions being reflected in learners or is it because of the way entrepreneurship education is executed in secondary school?

Subjective norm depends on the individual's perception about how influential people in their lives think about whether or not to engage in a particular behaviour, such as starting a business (Herrington & Kew, 2017/18; Krueger, Reilly, & Carsrud, 2000; Venter et al., 2015a). TPB asserts that subjective norm or perceived social pressure has two components: normative beliefs and motivation to comply (Ajzen, 1991). These normative beliefs are concerned with the likelihood that people who are influential to others approve or disapprove performing start-up behaviours. The component of motivation to comply reflects the individual's willingness to conform to such norms, which implies behaving in accordance with the expectations of influential others (Ajzen, 1991; Herrington & Kew, 2017/18; Krueger et al., 2000).

Subjective norm has been found to be not that impactful in predicting entrepreneurial intentions, like two previous components (Almobaireek & Manolova, 2012; Krueger et al., 2000). However, a number of other studies have found that subjective norm influenced intention (Kautonen et al., 2013; Siu & Lo, 2013). Cultural or family background is part of learners' upbringing and has an influence over learners to participate in a behaviour or not (Ajzen, 1991).

As defined by TPB, perceived behavioural control depends on the availability of resources and opportunities (Veciana, Aponte, & Urbano, 2005). When learners get an opportunity to perform or get actively involved in a project at school and believe that the ideas generated behind the project are theirs, they become encouraged and it also becomes easier for them to take control and perform that task (Ajzen, 2005). The concrete experience that learners acquire through learning in the past, becomes helpful to them to have control and believe in performing the task at hand (Ajzen, 1991). It has been attested that perceived behavioural control is also regarded as self-belief which is a considerable source of entrepreneurial intention (Almobaireek & Manolova, 2012; Kautonen et al., 2013; Krueger et al., 2000).

**H1a: Entrepreneurial experiential learning has a positive influence on Entrepreneurship Intent - attitude among secondary school learners of Gauteng Province of South Africa**

**H1b: Entrepreneurial experiential learning has a positive influence on Entrepreneurship Intent – financial planning among secondary school learners of Gauteng Province of South Africa**

## 2.7 Conceptual framework

### Introduction

Proceeding from the literature review is the conceptual framework, which was developed to illustrate how key concepts of this study, entrepreneurial pedagogy and entrepreneurial intention, influence each other. Variables such as entrepreneurship capital, skills development, are also discussed in this section. This study aimed to determine the impact entrepreneurial pedagogy has on motivating learners to open their own businesses after completing their Grade 12.

### 2.7.1 Link between Entrepreneurship and education

Human capital theorists state that education is an asset that grants a reward to an individual for the diverse skills, training and experience he/she possesses (Venter et al., 2015b). Therefore, for entrepreneurs to be innovative and compete locally and globally, they have to possess some form of education and skills. According to Naong (2011), teaching entrepreneurship education in schools in a traditional way alone will not motivate learners to acquire entrepreneurial skills, but entrepreneurs, mentors, business sectors and organisations should also get involved (Naong, 2011).

Naong (2011), further argues that a conducive environment is important and can contribute in encouraging and changing one's mind-set. The school curriculum that includes sessions where learners go out and engage in business activities, if developed with all stakeholders contributing and put into law, can increase learners' fascination (Naong, 2011). Education elevates consciousness of entrepreneurship and if introduced while learners are still young, it will help them to be confident and not to be afraid to initiate and believe in themselves in whatever they do (Naong, 2011).

### 2.7.2 Entrepreneurial Skills

Research on entrepreneurial skills embraces the human capital viewpoint that investing in education and work experience results in skills development (Chell, 2013; Venter et al., 2015b). Furthermore, these skills can help entrepreneurs to effectively exercise their abilities in executing tasks at hand and exploiting business opportunities (Chell, 2013). The South African government introduced the Skills Development Act No. 97 of 1998, with the intention of encouraging South Africans to be self-employed and to increase their skills level (Dyani, 2017).

So acquiring tacit and explicit knowledge combined is important for learners to be able to open their own business (Chell, 2013). Tacit knowledge, which learners can acquire through training by entrepreneurs and business sector, can help them with opening start-ups while still at school so that they can learn to be creative, make mistakes, and not feel judged and seen as failures (Bhorat et al., 2018; Chell, 2013; Naong, 2011). Explicit knowledge, on the other hand, can provide learners with information important for opening these start-ups, for example, financial knowledge (Venter et al., 2015b). Bhorat et al. (2018) state that most small business owners in South Africa have lower levels of education when compared to large business owners and this is the reason why most small businesses close before they even reach two years after opening.

This view is also supported by SEDA (2016), and state that this is the same as financial resources, in order for entrepreneurs to successfully start and grow a business, they require certain skills that can be developed through education and training programmes. Lack thereof can present a major constraint for Small and Medium Enterprises (SMEs) and individual entrepreneurs are more likely to have less than a secondary school education and skills than both SMEs and large firm owners (SEDA, 2016).

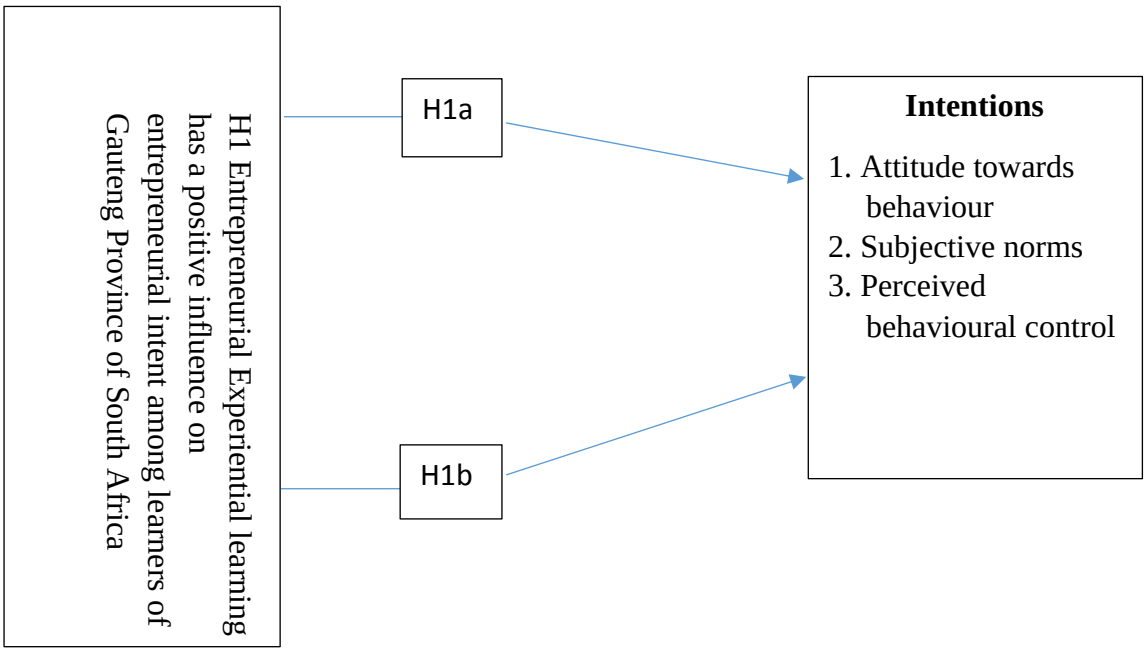
### 2.7.3 Entrepreneurial activity

According to Herrington and Kew (2017/18), South Africa has low total entrepreneurial activity (TEA), compared to other efficiency-driven economies. This entrepreneurial activity has not increased but instead, decreased throughout the year 2019 (Bowmaker-Falconer & Herrington, 2019/2020). The government of South Africa has conceded the importance of entrepreneurship in increasing the economy of the country and in July 2019, the Minister of the Department of Small Business and Development introduced new measures that will help to

improve economic transformation and jobs creation (Bowmaker-Falconer & Herrington, 2019/2020).

However, the year 2020 presented more socio-economic challenges not only in South Africa but globally where Covid-19 affected businesses and a lot of companies have closed, especially small businesses (Wegerif, 2020). The unemployment rate in South Africa has increased by 1% to 30.1% and the youth are the most affected by joblessness (Statistics South Africa, 2020). The direct relationship between entrepreneurial pedagogy and entrepreneurial intentions is also illustrated in Figure 2 below.

**Figure 2: Conceptual Framework**




## 2.8 Conclusion of literature review

In this chapter, literature on entrepreneurial pedagogy and entrepreneurial intention was discussed. It commenced by defining constructs that are key to this study, which are entrepreneurial pedagogy and entrepreneurial intentions. Regardless of the view by many theorists that entrepreneurship education is teachable, others however, believe that entrepreneurship education on its own cannot turn learners into entrepreneurs (Fayolle, Gailly, & Lassas-Clerc, 2006; World Economic Forum, 2011). Variables such as skills development and favourable environment are important factors that can help in motivating learners to look at entrepreneurship as a career after completing their Grade 12 (Bhorat et al., 2018; Chell,

2013). This indicates that there is a strong link between skills development not only for learners but for teachers as well, and education, both formal and informal, is essential for entrepreneurship activity and competencies. Skills development through informal education can motivate learners to see themselves as entrepreneurs of tomorrow. Variables discussed also assist in answering the research question of this study and address the identified problem which is learners not engaging in entrepreneurship activities after Grade 12.

# CHAPTER 3: RESEARCH METHODOLOGY

The objective of this chapter is to provide a detailed description of the research paradigm, research design, research population and sampling, research instruments, procedure for data collection, data analysis, and ethical considerations.

## 3.1 Research Paradigm

This study adopted a positivist approach and used a deductive method. The positivist approach is rooted on the principle that the only way to learn about the truth is through science (Aliyu, Bello, Kasim, & Martin, 2014). The advantage of the positivist approach is that the researcher analyses and interprets data in an objective way (Aliyu et al., 2014). The study used deductive logic to derive a conclusion about what method is deemed appropriate to teach entrepreneurship to learners of Gauteng West District secondary schools so that they become the entrepreneurs of tomorrow (Creswell, 2014).

## 3.2 Research Design

The research design is a type of enquiry in a quantitative approach that sets out specific guidance for procedures in a research design (Caruth, 2013; Creswell & Creswell, 2017; Onwuegbuzie, Collins, & Frels, 2013). The research method was non-experiment quantitative, cross-sectional. A survey design was used because it provides a quantitative statistical relationship between variables (Caruth, 2013; Creswell, 2014; Onwuegbuzie et al., 2013). The purpose for using a survey was to generalise from a sample to a population so that inferences can be made about some characteristic, attitude, or behaviour of this population (Creswell & Creswell, 2017). Field (2009) states that a survey is the most used method for quantitative studies and one advantage is that it allows the researcher to collect data in a short period of time. Primary data was collected after schools to avoid disrupting learning programmes.

## 3.2 Population

The target population was Grade 12 learners of Gauteng West District in South Africa. Gauteng West District is located on the Western side of Johannesburg. Gauteng Province has about 269 secondary schools, 49 of these secondary schools are situated in Gauteng West district, and only five secondary schools were selected for this study.

## 3.3 Sample & Sampling method

This study used a convenient sampling method. Convenient sampling method was chosen because it is suitable, easy and not costly to use as all respondents were available in their school classrooms (Acharya, Prakash, Saxena, & Nigam, 2013; Creswel, 2009; Creswell & Creswell, 2017). Five secondary schools were sampled, and all these schools offered entrepreneurship education in their curriculum for Grade 12.

The researcher targeted a sample of 150 Grade 12 learners but was fortunate enough to get 169 learners to participate in the study. As the researcher was focusing on a specific target group in Gauteng West District, non-probability sampling technique was used (Alvi, 2016; Creswell, 2014). Non-probability sampling technique was used because the respondents were relevant to the study and it is a simple process (Acharya et al., 2013; Alvi, 2016).

**Table 4: Profile of respondents**

| **Description of respondent type** | **Number sampled** |
|---|---|
| Learners of Grade 12- from Gauteng West District | 169 |

## 3.2 Research Instrument

Self-administered questionnaires were developed and handed to Grade 12 learners of secondary schools in Gauteng West district. Questionnaires had two constructs and eight questions per construct. A 7-point Likert scale was used to measure entrepreneurial pedagogy and entrepreneurial intention. The scale varied from strongly agree to strongly disagree giving the researcher a comprehensive perspective about participants' attitudes and reflections (TypeForm, 2019).

Variables in a quantitative research are measured as ordinal, nominal, interval, or ratio (Field, 2013). In this study, the researcher used a nominal scale to get details of variables such as demographic information, and an ordinal scale to obtain non-numeric data on entrepreneurial intention of secondary school leaners.

**Table 5: Summary of measures used in the study**

| Construct | Literature Source | Hypotheses | Comment on instrument |
|---|---|---|---|
| **Entrepreneurial pedagogy (IV)** **Measured on 7-point Likert scale: '1= Not very much like me' to 7 = 'Very much like me'** | (Lackeus, 2015; Cassim et al., 2014; Gibb 2006; Nchu et al., 2015; Gibb & Price, 2014 | H1.Entrepreneurial pedagogy has a positive influence on entrepreneurial intent of learners of Gauteng west district in Gauteng | Exploratory factor analysis (EFA) was used to test validity |
| **Entrepreneurial intent (DV)** **Measured on 7-point Likert scale: '1= Not very much like me' to 7 = 'Very much like me'** | Ajzen, 1991; (Conner & Armitage, 1998); Lackeus, 2015; (Almobaireek & Manolova, 2012; Kautonen et al., 2013; Krueger Jr et al., 2000; Gibb & Price, 2014; Moore et al., 2010). | H1.a. Entrepreneurial pedagogy has a positive influence on entrepreneurial intentions – attitude of Grade 12 learners in West District of Gauteng.<br><br>H1.b. Entrepreneurial pedagogy has a positive influence on entrepreneurial intentions – financial planning of Grade 12 learners in West District of Gauteng. | Cronbach alpha was used to test reliability |

**IV- Independent variable, DV-Dependent variable**

## 3.2 Procedure for Data Collection

Before conducting research, the researcher obtained a letter of approval from the Department of Basic Education, permitting the research to go ahead. The researcher then approached principals of the schools selected for research to request permission and discuss the best possible way and times convenient to the schools and to learners. As soon as the researcher received the ethics clearance letter from the university, the researcher then went to schools with letters of consent from the parents, letter of approval from the Department of Basic Education all attached to the research instruments. Deputy Principals of all schools were the points of contact between the researcher and schools while also ensuring that ethics were not compromised by the researcher being present when the research was conducted.

Qualtrics software was used to design the questionnaires. The researcher did not have email addresses of respondents, so questionnaires were downloaded from Qualtrics and physically

handed to respondents. Once the respondents had completed the questionnaires, the researcher uploaded the questionnaires back into qualtrics in order to summarise data. The reason for handing over questionnaires was that the researcher also wanted to avoid delays by respondents returning questionnaires late, and to provide clarity to respondents. Survey is by far the cheapest and easiest method of data collection (Caruth, 2013; Creswell, 2014; Creswell & Creswell, 2017; Neuman, 1994).

## 3.3 Data Analysis

Participants' responses were exported to Excel to clean and simplify raw data so that it could be imported to IBM SPSS for analysis. Data cleaning entails taking out or rectifying disorganised data or inconsistencies in the data set and change it in a manner that will be easier to analyse (Krishnan, Wang, Wu, Franklin, & Goldberg, 2016). A total of 169 cases were received and there was only one case that was missing and replaced by the average of the item for rating questions.

After the cleaning process was completed, data was imported to SPSS for analysis. Sample characteristics were analysed to illustrate gender, age, and race distributions and female respondents were found to be more than male at 53% to 47%, and the majority of respondents 73%, were under the age of 18 while 23% were between the ages of 19-22 and 1% did not indicate their age. All respondents were black South Africans.

## 3.4 Limitations of the Study

This study was limited only to Grade 12 learners in the West District of Gauteng Province of South Africa. The location where the study was conducted was well known to the researcher including schools and this made it easier to collect data. However, the time that was allocated to the researcher to collect data was only after the schools' programmes had completed for the day, and it was not sufficient as some of the respondents had to abandon participating because they reside far from the school and had to leave. This however did not affect the process of collecting data as schools accorded more days to the researcher to collect more data from learners who could not participate earlier.

## 3.5 Validity and Reliability

### 3.9.1 Validity

Validity tells us about how precisely the assessment tool will measure the essential results we are interested in (Neuman, 1994). There are different types of validity and they are; internal, external, face, content, construct and criterion-related validity, and they evaluate a range of facets of measurement instrument so they are therefore measured differently (Golafshani, 2003). Not all validity types were used in this study but only the content, criterion-related and external as they were suitable for this study. Content validity assesses whether the instrument sufficiently covers all content with regards to the construct (Creswell, 2014). Criterion-related validity is the level to which a measure is related to the results (Creswell, 2014).

External validity is the degree to which the outcome of the study can be generalised from one setting to another (Creswell, 2014). For external validity, results of this study cannot be transferable to other Grade 12 learners in different areas even though entrepreneurship education is offered nationally in all secondary schools that offer Business Studies. The researcher needed to avoid the threat to external validity unless she conducted the same test at these new areas to see if it would give the same results as in the initial area (Creswell, 2014).

### 3.9.2 Reliability

Reliability tests whether the instrument is consistent or not, does it give the same results when used in the same context (Field, 2013; Golafshani, 2003; Jackson, 2015). Reliability of the data was tested as it is directly related to the validity of the measure (Golafshani, 2003). Reliability of the scale was also assessed using Cronbach's alpha for each construct.

## 3.10 Ethical Concerns

Before the researcher could conduct any research at schools, the Department of Basic Education had to grant permission to address the issue of ethics. The Department of Basic Education also has a regulated period of time and months (10 February-31 September), in which research can be conducted so that learning programmes are not disrupted. This regulated period is not aligned to the months in which the University allows students to start conducting their research. This presented a dilemma to the researcher where the researcher had to request an extension from the university, and as soon as the university accepted and granted an extension, the researcher started with the process of conducting the research.

It is unethical to force subjects to participate in the research and put subjects in a position, for example teachers, to coerce learners to participate and make them believe that knowledge created from the study will benefit them (Creswell, 2014; Jackson, 2015; Neuman, 1994). The researcher was truthful and honest with the deputy principals and learners about the research.

# CHAPTER 4. PRESENTATION OF RESULTS

## 4.1 Introduction

The purpose of this chapter is to present the results of the data analysed. The chapter start with the data screening, data quality and presentation of the sample characteristics of the respondents. The presentation of the descriptive analysis follows where two hypotheses, entrepreneurial pedagogy and entrepreneurial intention are presented, followed by validity and reliability, and the chapter ends with regression and correlation analysis.

## 4.2 Data screening

The sample was made up of 169 respondents who had studied entrepreneurship education in the previous three years. When collecting data, it is not all the time that data will be clean and usable. Data screening has to be performed before any statistical process takes place in order to identify missing variables (Field, 2013; Jackson, 2015; Neuman, 1994). After the data had been collected and uploaded onto Qualtrics, data was cleaned to ensure that the character of data was not jeopardised. The process to check the data quality involved screening the data for missing values, errors, and completeness. A few cases were missing values, they were replaced by the average of the item for rating questions. For demographics, where the respondent decided not to provide an answer, it was indicated in the analysis.

## 4.3 Sample Characteristics / Demographic

### 4.3.1 Gender

The gender distribution of the respondents is summarised in Figure 3. It can be noted that more than half of the sample were female (53%) compared to 47% male respondents.

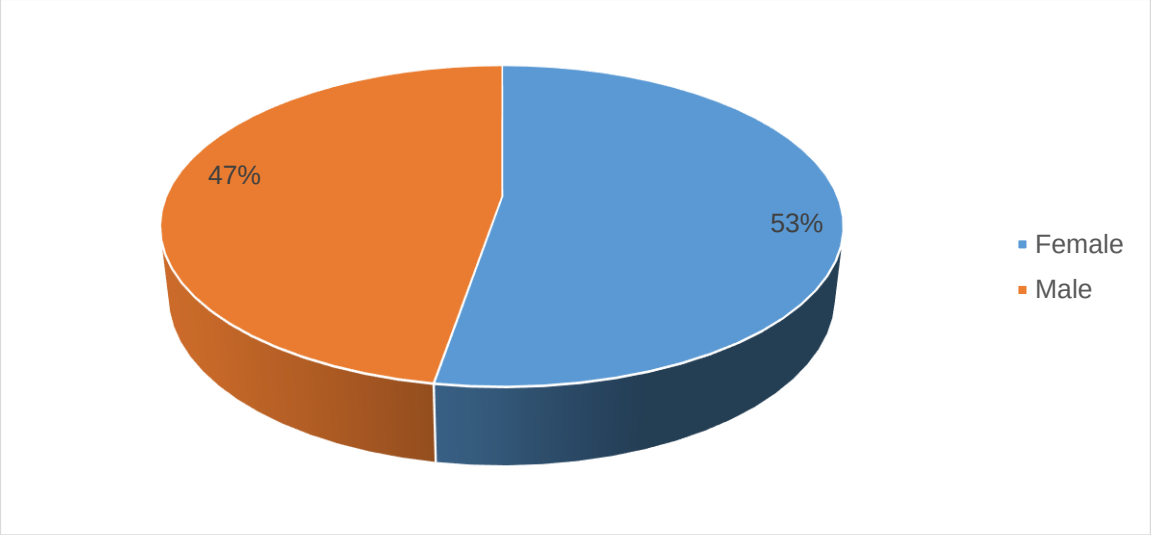



Figure 3: Respondent Gender

### 4.3.2 Age

Figure 4 shows that the majority of the respondents were under the age of 18 (73%) while 26% were 19-22 years old and the other 1% did not indicate their age.

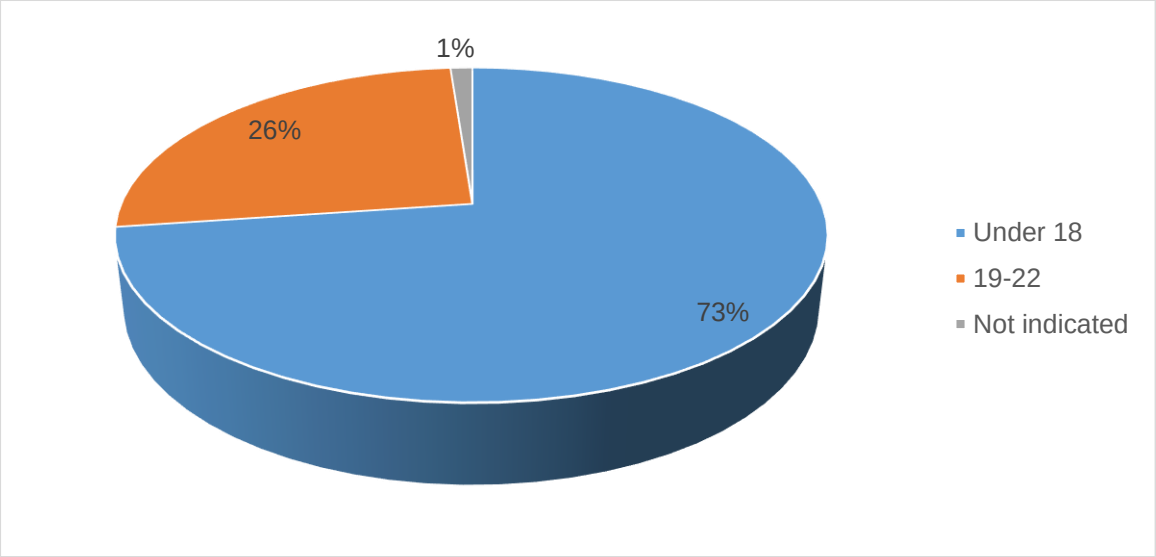



Figure 4: Respondent Age

### 4.3.3 Reason for taking entrepreneurship education

All 169 respondents in the sample took entrepreneurship education. The reasons for taking entrepreneurship education are summarised in Figure 5. It can be noted that enjoying Business Studies (62%) was by far the most common reason for taking entrepreneurship education. This was followed by it being a requirement (25%), being a minor requirement (11%). A proportion of 2% of the sample did not indicate their reason for taking entrepreneurship education.

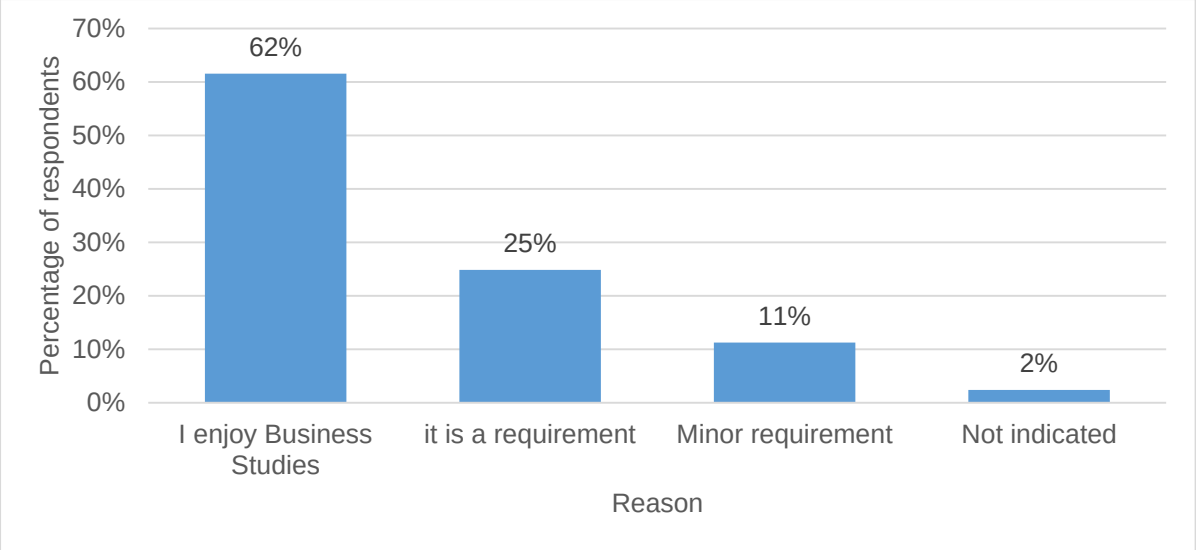



Figure 5: Reason for taking Entrepreneurship education

### 4.3.4 Plans after completing Grade 12

The respondents were asked about their plans after completing Grade 12. Figure 6 summarises the plans. The results revealed that 24% of the respondents wanted to start their own businesses after Grade 12. Most of the respondents wanted to further their studies at tertiary education (64%), 5% apiece wanted to seek employment in government and business, 1% wanted to be employed by their family while 1% did not indicate their plans.

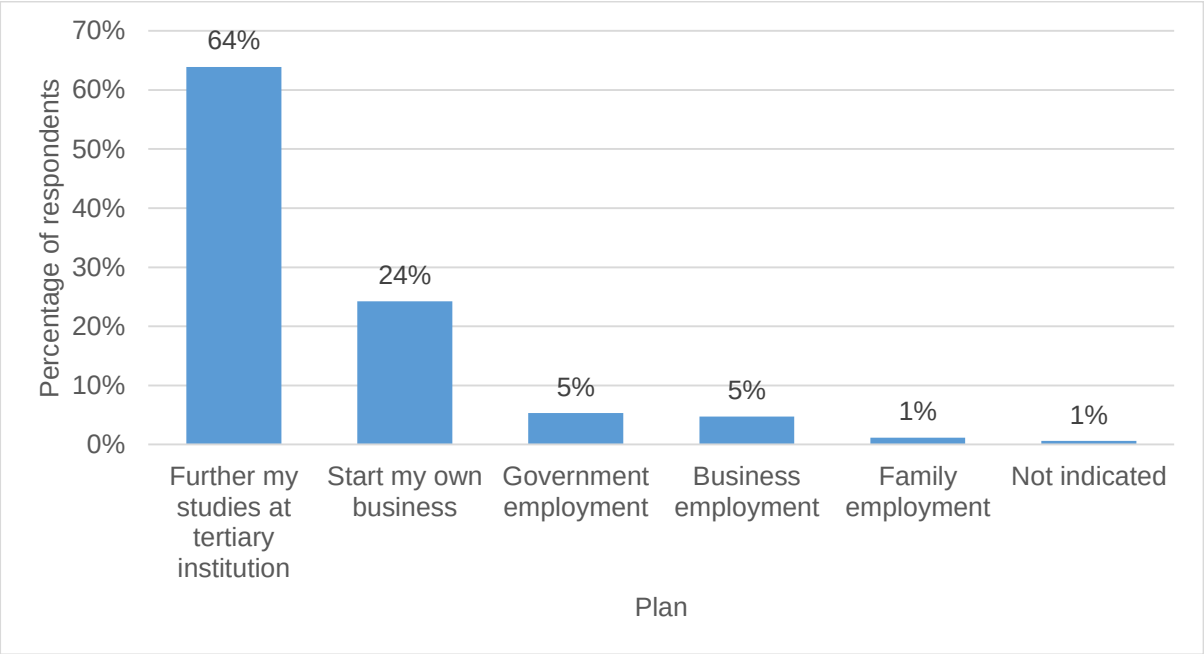



Figure 6: Plans after complete Grade 12

Table 6: Summary of descriptive Statistics

| Variable | Option | Frequency | Percent |
|---|---|---|---|
| Gender | Female | 89 | 53% |
| | Male | 80 | 47% |
| Age group | 19-22 | 44 | 26% |
| | Under 18 | 123 | 73% |
| | Not indicated | 2 | 1% |
| Race | African | 169 | 100% |
| Have you studied Entrepreneurship education in the last three years? | Yes | 169 | 100% |
| Q5 Reasons for taking entrepreneurship education? | I enjoy Business Studies | 104 | 62% |
| | it is a requirement | 42 | 25% |
| | Minor requirement | 19 | 11% |
| | Not indicated | 4 | 2% |
| Q6 What do you plan to do after you complete your Grade 12? | Further my studies at tertiary institution | 108 | 64% |
| | Start my own business | 41 | 24% |
| | Government employment | 9 | 5% |
| | Business employment | 8 | 5% |
| | Family employment | 2 | 1% |
| | Not indicated | 1 | 1% |

## 4.4 Descriptive statistics

### 4.4.1 Entrepreneurial Pedagogy

The descriptive statistics for the items under entrepreneurship pedagogy indicate that "Visiting businesses and markets help me understand what we learn in the classroom" (mean = 6.13) was the highest rated item. This item had 80% of the respondents either agreeing or strongly agreeing with the statement. This was followed by "Being introduced to successful entrepreneurs has motivated me to want to open my own business after Grade 12" (mean = 5.43).

Table 7: Entrepreneurial Pedagogy

| | N | Mean | Std. Deviation | Strongly disagree | Disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Agree | Strongly agree |
|---|---|---|---|---|---|---|---|---|---|---|
| Q7_3 Visiting businesses and markets help me understand what we learn in the classroom | 167 | 6.13 | 1.37 | 1% | 3% | 2% | 7% | 7% | 22% | 58% |
| Q7_6 Being introduced to successful entrepreneurs has motivated me to want to open my own business after Grade 12 | 169 | 5.43 | 1.97 | 5% | 9% | 6% | 8% | 8% | 16% | 47% |
| Q7_7 I would be able to start a business of my own with the knowledge and experience I gained studying entrepreneurship education | 169 | 5.19 | 1.87 | 4% | 12% | 3% | 10% | 14% | 25% | 32% |
| Q7_1 The style my teacher uses to teach entrepreneurship education makes it easy for me to understand the course | 168 | 5.08 | 1.70 | 5% | 6% | 7% | 13% | 15% | 36% | 18% |
| Q7_5 The type of practical exercises I am exposed to on entrepreneurship education makes it easy to enjoy the subject | 169 | 5.02 | 1.71 | 3% | 7% | 14% | 10% | 15% | 29% | 22% |
| Q7_2 The method used by teachers to teach entrepreneurship education makes it easy to apply when we do our practical | 168 | 5.01 | 1.62 | 3% | 8% | 8% | 11% | 17% | 38% | 14% |
| Q7_4 Classroom is an appropriate environment to learn entrepreneurship education | 167 | 4.51 | 1.64 | 5% | 11% | 11% | 17% | 25% | 23% | 9% |
| Q7_8 There are entrepreneurial activities conducted at school to promote the culture of entrepreneurship | 169 | 4.64 | 1.95 | 9% | 14% | 3% | 8% | 22% | 27% | 16% |

### 4.4.2 Entrepreneurial Intent

The descriptive statistics for the items under entrepreneurship intention indicate that “I plan my future carefully” (mean = 6.24) was the highest rated item. This item had 85% of the respondents either agreeing or strongly agreeing with the statement. This was followed by “I plan my finances carefully” (mean = 5.37).

Table 8: Entrepreneurial Intent

| | N | Mean | Std. Deviation | Strongly disagree | Disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Agree | Strongly agree |
|---|---|---|---|---|---|---|---|---|---|---|
| Q8_2 EI - I plan my future carefully | 168 | 6.24 | 0.89 | 0% | 1% | 1% | 1% | 13% | 40% | 45% |
| Q8_7 EI - I plan my finances carefully | 169 | 5.37 | 1.74 | 5% | 8% | 2% | 7% | 24% | 22% | 33% |
| Q8_1 EI - I intend to set-up a company in the future | 169 | 5.24 | 2.14 | 11% | 9% | 1% | 8% | 8% | 18% | 44% |
| Q8_5 EI - I read financial planning books | 169 | 4.49 | 1.78 | 5% | 14% | 11% | 15% | 21% | 20% | 14% |
| Q8_9 EI - I spend time learning about how to start a company | 169 | 4.41 | 2.19 | 17% | 12% | 8% | 4% | 17% | 22% | 21% |
| Q8_3 EI - I read business newspapers | 168 | 4.40 | 1.66 | 4% | 15% | 8% | 20% | 27% | 14% | 11% |
| Q8_4 EI - I never search for business start-up opportunities | 167 | 4.00 | 2.05 | 12% | 20% | 15% | 10% | 11% | 16% | 16% |
| Q8_8 EI - I have no plans to launch my own business | 166 | 3.83 | 2.28 | 19% | 24% | 9% | 3% | 9% | 17% | 18% |
| Q8_6 EI - I am saving money to start a business | 166 | 3.52 | 1.89 | 14% | 25% | 13% | 19% | 11% | 6% | 11% |

## 4.5 Validity

Exploratory Factor analysis (EFA) was conducted to assess the validity of the constructs (Hadi, Abdullah, & Sentosa, 2016; Noble & Smith, 2015). All the items that had a factor loading less than 0.4 were excluded from further analysis and so were all the items that cross loaded on more than one factor (Hadi et al., 2016). The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.780, which indicates that the sample was adequate for conducting factor analysis. The Bartlett's test of sphericity was significant indicating that the items were correlated strongly enough to enable factor analysis (Field, 2013). These results are indicated in Table 9.

Table 9: KMO and Bartlett's Test

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .780 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 657.819 |
| | df | 66 |
| | Sig. | .000 |

The total variance explained indicates that a total of three factors were extracted. The extracted factors explained 59.992% of the variation in the initial items. This is shown by a cumulative Initial Eigenvalues of 59.992 shown in Table 10.

Table 10: Total Variance Explained

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings[a] |
|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total |
| 1 | 3.762 | 31.349 | 31.349 | 3.330 | 27.749 | 27.749 | 2.964 |
| 2 | 1.961 | 16.344 | 47.692 | 1.554 | 12.948 | 40.698 | 2.228 |
| 3 | 1.476 | 12.300 | 59.992 | .929 | 7.742 | 48.440 | 1.774 |
| 4 | .869 | 7.239 | 67.231 | | | | |
| 5 | .802 | 6.680 | 73.911 | | | | |
| 6 | .655 | 5.460 | 79.372 | | | | |
| 7 | .609 | 5.071 | 84.443 | | | | |
| 8 | .523 | 4.358 | 88.801 | | | | |
| 9 | .479 | 3.993 | 92.794 | | | | |
| 10 | .337 | 2.812 | 95.606 | | | | |
| 11 | .273 | 2.277 | 97.883 | | | | |
| 12 | .254 | 2.117 | 100.000 | | | | |
| Extraction Method: Principal Axis Factoring. | | | | | | | |
| a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance. | | | | | | | |

The purpose of the scree test is for the researcher to be able to plot Eigenvalues, which is usually represented by y-axis against the x-axis which in this graph is represented by factor numbers, and examines the spot where the curve is going to change (Ledesma, Valero-Mora,

& Macbeth, 2015). The scree plot shown in Figure 7, confirms that three factors were extracted as shown by three factors with slopes and that had Eigen values greater than one. After three factors the line graph flattened out. The line graph flattened from the fourth factor only.

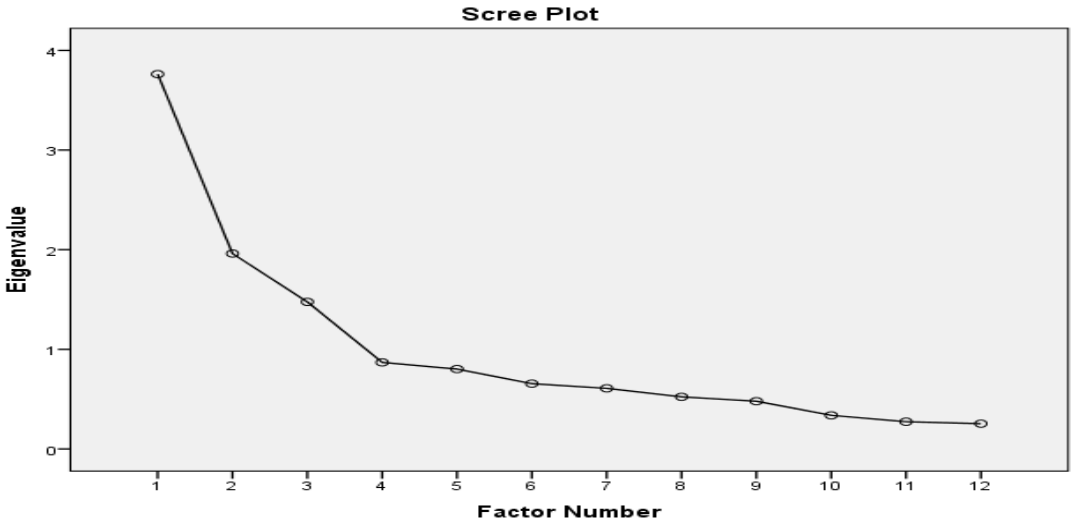



Figure 7: Scree plot

The pattern Matrix in Table 11 indicates the composition of the three final factors. The three factors that were extracted were Entrepreneurship Intent – attitude, Entrepreneurial Pedagogy, and Entrepreneurship Intent – Financial Planning

Table 11: Pattern Matrix

| | | Factor | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| Entrepreneurship Intent - attitude | Q8_1 EI - I intend to set-up a company in the future | .968 | | |
| | Q8_9 EI - I spend time learning about how to start a company | .735 | | |
| | Q7_7 I would be able to start a business of my own with the knowledge and experience I gained studying entrepreneurship education | .612 | | |
| | Q8_8_R* EI - I have no plans to launch my own business | .584 | | |
| | Q8_4_R* EI - I never search for business start-up | .503 | | |
| Entrepreneurial Pedagogy | Q7_2 The method used by teachers to teach entrepreneurship education makes it easy to apply when we do our practical | | .945 | |
| | Q7_1 The style my teacher uses to teach entrepreneurship education makes it easy for me to understand the course | | .731 | |
| | Q7_5 The type of practical exercises I am exposed to on entrepreneurship education makes it easy to enjoy the subject | | .615 | |
| Entrepreneurship Intent – Financial Planning | Q8_5 EI - I read financial planning books | | | .740 |
| | Q8_6 EI - I am saving money to start a business | | | .486 |
| | Q8_7 EI - I plan my finances carefully | | | .471 |
| | Q8_3 EI - I read business newspapers | | | .432 |
| | Extraction Method: Principal Axis Factoring.<br>Rotation Method: Promax with Kaiser Normalization. | | | |
| | a. Rotation converged in five iterations. | | | |

R* implies scale reversed

All the individual items loaded highly on to their respective factors. The items that do not belong to the same factor diverged from those factors and it confirmed discriminant validity. The items that belonged to the same factor were loaded into the same factor.

## 4.6 Reliability

Cronbach's alpha was calculated for each construct to assess the reliability of scale, the results are shown in Table 12. The results showed that there was a very good reliability level for

entrepreneurship intent-attitude (α = 0.804). Entrepreneurial Pedagogy (α = 0.797) had an acceptable reliability level while entrepreneurship intent - financial planning (α = 0.641) was poor.

Table 12: Cronbach's Alpha

| Construct | N of Items | Cronbach's Alpha | Reliability level |
|---|---|---|---|
| Entrepreneurship Intent - attitude | 5 | .804 | Very good |
| Entrepreneurial Pedagogy | 3 | .797 | Acceptable |
| Entrepreneurship Intent – Financial Planning | 4 | .641 | Poor |

Literature maintains that if the level of Cronbach coefficient Alpha is higher, this shows the reliability of scale measurement (Noble & Smith, 2015; Taber, 2018). Since all the three factors had a Cronbach's alpha values greater than 0.5, the minimum below which the reliability level becomes unacceptable, this implies that items within each construct could be grouped together to form a composite scale for that particular construct (Noble & Smith, 2015; Taber, 2018). The composite score was computed by calculating the average of the items within the construct.

## 4.7 Hypothesis testing

### 4.7.1 Correlation

The descriptive statistics and Pearson's correlation for the three constructs are summarised in Table 13. It can be noted that there was a moderate relationship between Entrepreneurship Intent - attitude and entrepreneurship intent – financial planning ($r = 0.359$, p-value $< 0.05$). There was however a weak but positive correlation between pedagogy and each of entrepreneurship intent – attitude ($r = 0.215$, p-value $< 0.05$) and entrepreneur intent financial performance ($r = 0.220$, p-value $< 0.05$).

Table 13: Descriptive Statistics and Pearson's Correlation

| | | Descriptive Statistics | | Pearson's Correlation | | |
|---|---|---|---|---|---|---|
| | N | Mean | Std. Deviation | Entrepreneurial Pedagogy | Entrepreneurship Intent - attitude | Entrepreneurship Intent – Financial Planning |
| Entrepreneurial Pedagogy | 169 | 5.04 | 1.41 | 1 | | |
| Entrepreneurship Intent - attitude | 169 | 4.60 | 1.58 | .215** | 1 | |
| Entrepreneurship Intent – Financial Planning | 169 | 4.45 | 1.22 | .220** | .359** | 1 |

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

## 4.7.1 Testing Regression Assumptions

### Test for Normality Error terms

A histogram of the regression error terms for both models were plotted, the results are shown in Figure 8 and Figure 9. The purpose of the histogram is to help in summarising the distribution of data graphically (Field, 2013). It can be noted that the histograms had bars mainly below the normality curve. This implies the assumption of normality of error terms was met for both models.

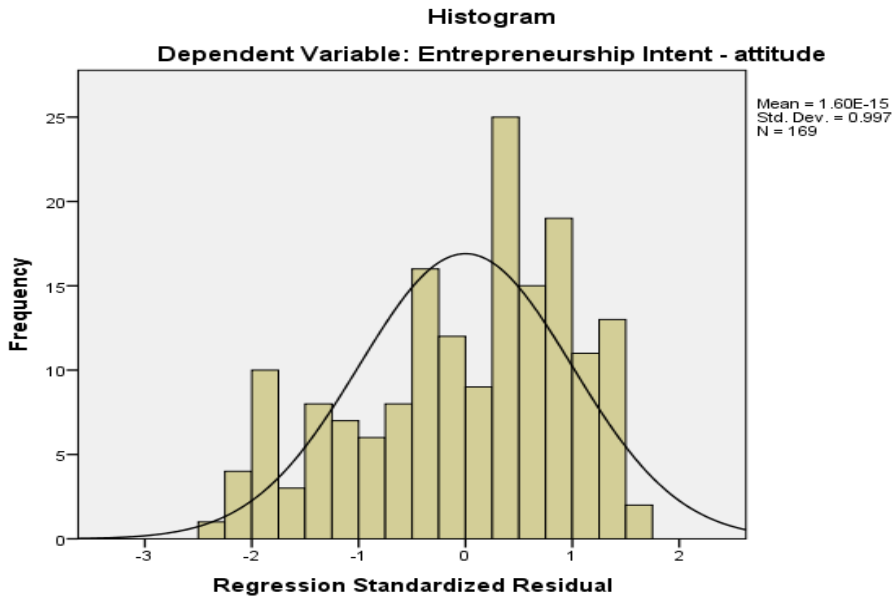



Figure 8: Histogram for model 1

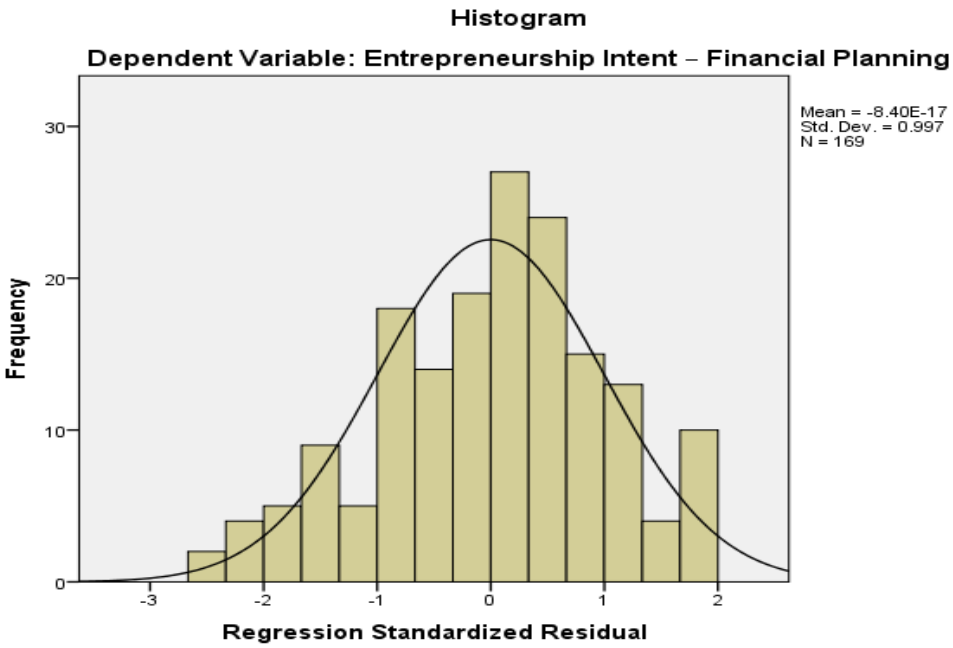



Figure 9: Histogram for model 2

The Normal P-P plots shown in Figures 10 and 11 also confirmed normality since the values were very close to the diagonal line.

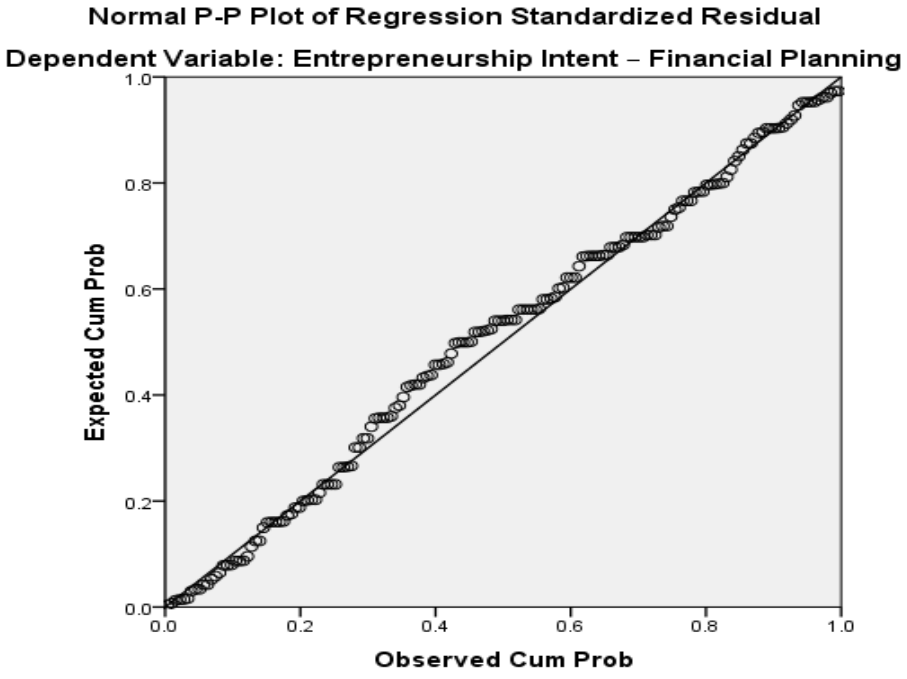



Figure 10: Normal P-P Plot for dependent variable: Entrepreneurial Intent-financial planning

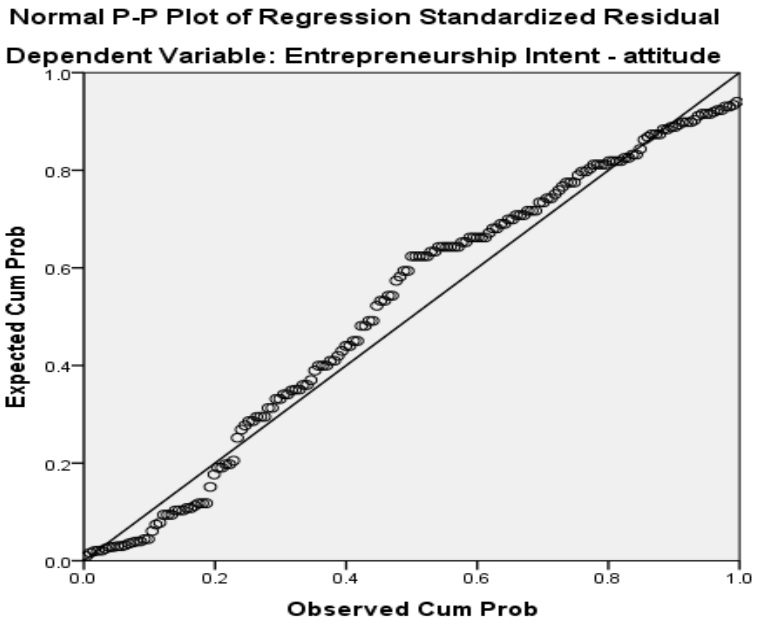



Figure 11: Normal P-P Plot for dependent variable: Entrepreneurial Intent-attitude

## Test for Linearity

It is assumed that there is at least a linear relationship between the independent variables and the dependent variables (Huque, Carlin, Simpson, & Lee, 2018; Mostafa, 2019). To assess this assumption, scatter plots of the dependent variable against each of the two independent variables were developed, as shown in figure 12. The results shows that there is some linear relationship between the independent variables and the dependent variable as shown by an upward trend on both independent variables and the dependent variable (Mostafa, 2019). This implies that the linearity assumption was met.

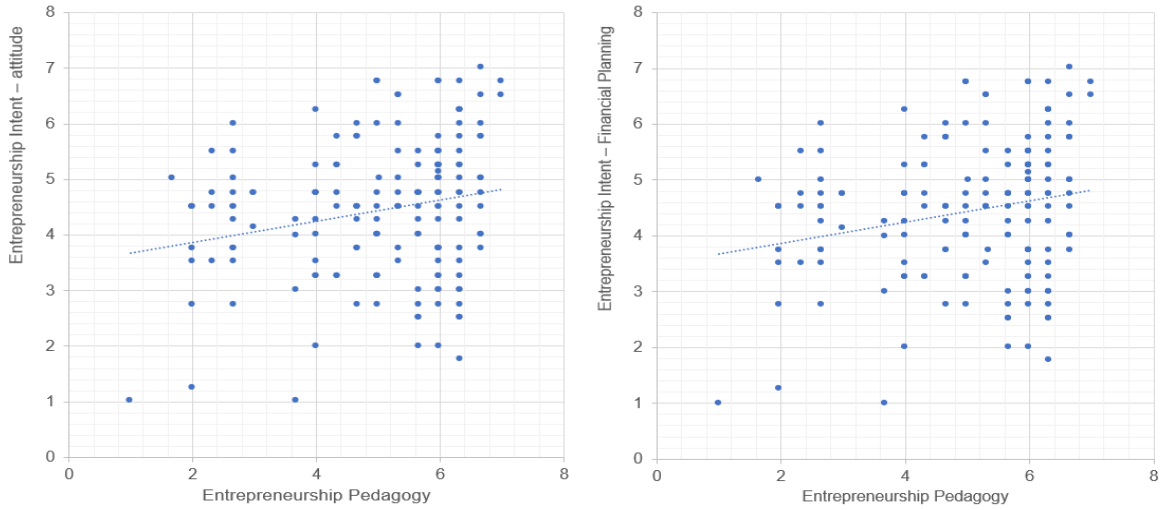



Figure 12: Scatter plots of independent variables against the dependent variable

### Test for Equality of variance of error terms

A test for equality of variance, also referred to as homoscedasticity, was assessed using scatter plots illustrated in Figures 13 and 14. Homoscedasticity means the connection under examination does not change for the whole area of the dependent variable (Garson, 2012). The regression standardised residuals were scattered around the zero without an obvious pattern. This means that the assumption for homoscedasticity was met.

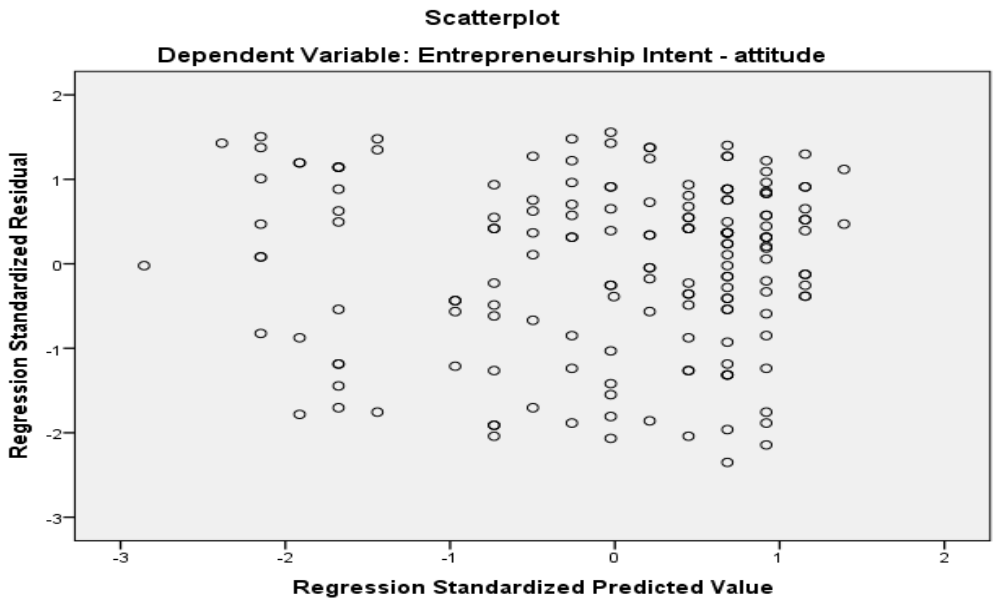



Figure 13: Scatter plot for dependent variable: Entrepreneurial Intent-attitude

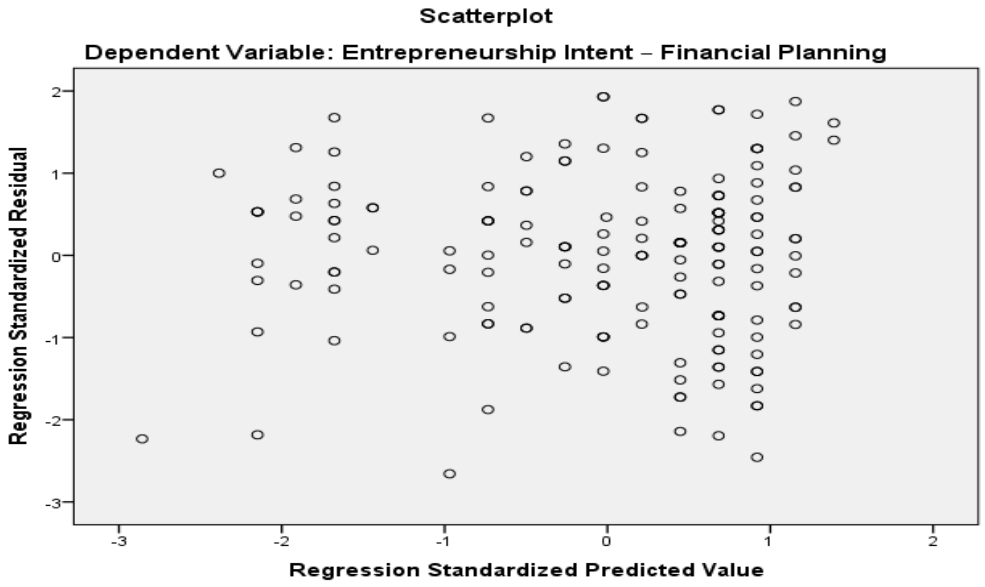



Figure 14: Scatter plot Scatter plot for dependent variable: Entrepreneurial Intent-financial planning

**Test for Outliers**

A test was also conducted to assess whether there were any outliers or influential points. This was conducted by plotting the box plots for the three constructs. An outlier is a data point that is considerably different from other data points (Garson, 2012). An outlier is indicated by a value with an asterisk (*). The results shown in Figure 15 indicates that none of the three variables had an outlier since there were no asterisks. This means that the assumption for there being no outliers was also met.

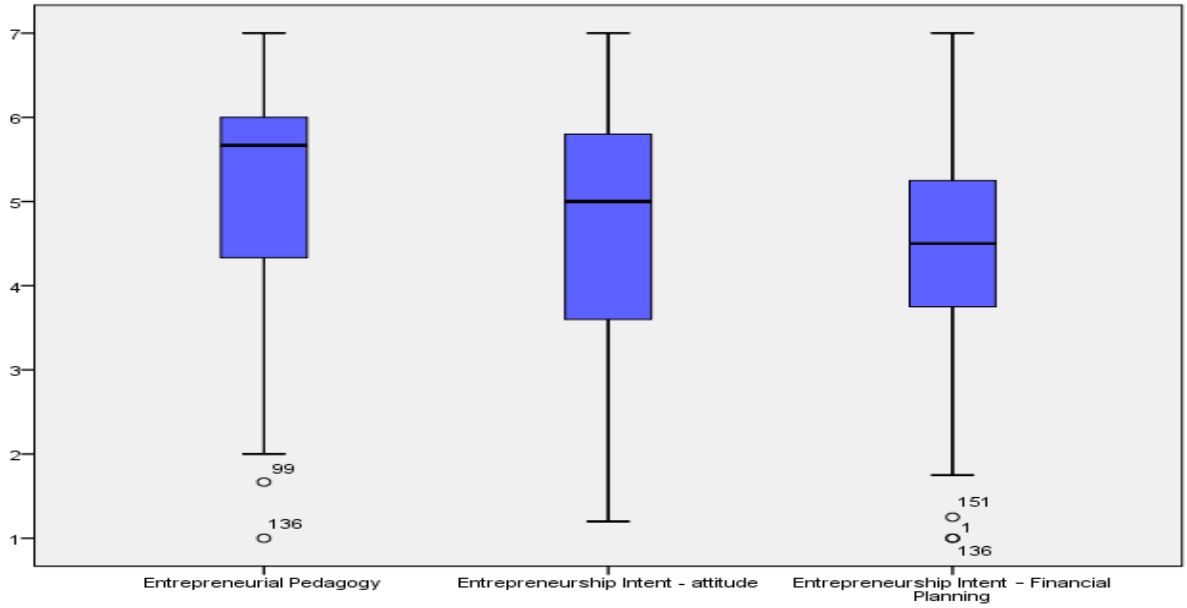



Figure 15: Box plot

All the regression assumptions were met for both regression models; thus the results were reliable.

## 4.7.2 Regression results

Regression analysis was conducted to assess the hypotheses. Two models were fitted: one with pedagogy as the independent variable and entrepreneurial intent- attitude as the dependent variable. The second model had pedagogy as the independent variable and intent- financial planning as the dependent variable.

**Model 1.**

The first model had entrepreneurial pedagogy as the independent variable and entrepreneurial intent- attitude as the dependent variable explained 4.6% of variation in the Entrepreneurship Intent – attitude. This is because the r-square value was 0.046 as shown in Table 14.

Table 14: Model 1 Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .215[a] | .046 | .040 | 1.54534 | .502 |
| a. Predictors: (Constant), Entrepreneurial Pedagogy | | | | | |
| b. Dependent Variable: Entrepreneurship Intent - attitude | | | | | |

The results shown in Table 15 indicates that entrepreneurial pedagogy was significant in predicting Entrepreneurship Intent - attitude as shown by a p-value of 0.005 < 0.05.

Table 15: ANOVA

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 19.274 | 1 | 19.274 | 8.071 | .005[b] |
| | Residual | 398.811 | 167 | 2.388 | | |
| | Total | 418.085 | 168 | | | |
| a. Dependent Variable: Entrepreneurship Intent - attitude | | | | | | |
| b. Predictors: (Constant), Entrepreneurial Pedagogy | | | | | | |

The regression coefficient table shown in Table 16 confirmed that there was a positive relationship between Entrepreneurial Pedagogy and Entrepreneurship Intent – attitude.

Table 16: Regression Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.394 | .441 | | 7.689 | .000 |
| | Entrepreneurial Pedagogy | .240 | .084 | .215 | 2.841 | .005 |
| a. Dependent Variable: Entrepreneurship Intent - attitude | | | | | | |

**Results pertaining to hypothesis 1a. Entrepreneurial pedagogy has a positive influence on entrepreneurial intentions among secondary school learners in West District of Gauteng Province of South Africa**

H1: Entrepreneurial pedagogy has a positive influence on entrepreneurial intentions among secondary school learners in West District of Gauteng Province of South Africa

The entrepreneurial intentions had two sub-constructs namely, Entrepreneurship Intent – attitude and entrepreneurship intent – financial planning.

**H1a: Entrepreneurial pedagogy has a positive influence on Entrepreneurship Intent - attitude among secondary school learners in West District of Gauteng Province of South Africa**

The results shown in Table 15 revealed that Entrepreneurial pedagogy (B = 0.240, β = 0.215, t-value = 2.841, p-value = 0.005) had a positive and significant impact on Entrepreneurship Intent - attitude. The impact was positive since the coefficient for Entrepreneurial pedagogy (B = 0.240) was greater than zero. It was significant because the p-value was less than 0.05. This implies that the null hypothesis was rejected in favour of the alternative hypotheses. It is thus concluded that entrepreneurial pedagogy has a positive influence on Entrepreneurship Intent - attitude among secondary school learners in West District of Gauteng Province of South Africa.

**Model 2.**

The second model had entrepreneurial pedagogy as independent variable and entrepreneurship intent – financial planning as the dependent variable explained 4.9% of variation in the entrepreneurial intent – financial planning. This is because the r-square value was 0.049 as shown in Table 17.

Table 17: Model 2 Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .220[a] | .049 | .043 | 1.19775 | 1.497 |
| a. Predictors: (Constant), Entrepreneurial Pedagogy | | | | | |
| b. Dependent Variable: Entrepreneurship Intent – Financial Planning | | | | | |

The results shown in Table 17 indicates that entrepreneurial pedagogy was significant in predicting entrepreneurship intent – financial planning as shown by a p-value of 0.004 < 0.05.

Table 18: ANOVA

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 12.218 | 1 | 12.218 | 8.517 | .004[b] |
| | Residual | 239.579 | 167 | 1.435 | | |
| | Total | 251.797 | 168 | | | |
| a. Dependent Variable: Entrepreneurship Intent – Financial Planning | | | | | | |
| b. Predictors: (Constant), Entrepreneurial Pedagogy | | | | | | |

Table 18 shows that there was a positive relationship between entrepreneurial pedagogy and entrepreneurship intent – financial planning.

Table 19: Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.484 | .342 | | 10.183 | .000 |
| | Entrepreneurial Pedagogy | .191 | .065 | .220 | 2.918 | .004 |
| a. Dependent Variable: Entrepreneurship Intent – Financial Planning | | | | | | |

**H1b: Entrepreneurial pedagogy has a positive influence on Entrepreneurship Intent – financial planning among secondary school learners in West District of Gauteng Province of South Africa**

The results shown in Table 19 revealed that Entrepreneurial pedagogy (B = 0.191, β = 0.220, t-value = 2.918, p-value = 0.004) had a positive and significant impact on Entrepreneurship Intent - Financial Planning. The impact was positive since the coefficient for Entrepreneurial pedagogy (B = 0.191) was greater than zero. It was significant because the p-value was less than 0.05. This implies that the null hypothesis was rejected in favour of the alternative hypotheses. It is thus concluded that entrepreneurial pedagogy has a positive influence on entrepreneurship intent - financial planning among secondary school learners in West District of Gauteng Province of South Africa.

Since both H1a and H1b were supported and were significant, it implies that H1 is supported. It is thus concluded that Entrepreneurial pedagogy has a positive influence on entrepreneurial intentions among secondary school learners in West District of Gauteng Province of South Africa.

## 4.8 Conclusion

In this study two hypotheses, entrepreneurial pedagogy and entrepreneurial intention were proposed to help answer the research problem. The study started with a sample size of 169, characterised by 53% females and 47% males. All respondents were Africans, with 73% of them under the age of 18, and 26% were 19-22 years old. Only 1% did not state their age.
To assess the reliability of scale, Cronbach's alpha was calculated for each construct. The entrepreneurial intention had two sub-constructs which were entrepreneurial intent-attitude and entrepreneurial intent-financial planning. The results indicated that there was a very good reliability level for entrepreneurship intent-attitude and entrepreneurship intent - financial planning. Entrepreneurial Pedagogy also had an acceptable reliability level.

In terms of validity, the exploratory factor analysis (EFA), was used to test validity of construct. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.780, which indicates that the sample was adequate for conducting factor analysis. Correlation coefficient was used to determine the direction and strength of the relationship between entrepreneurial pedagogy and entrepreneurial intention. The results show that there was a moderate relationship between entrepreneurship intent - attitude and entrepreneurship intent – financial planning. There was however a weak but positive correlation between pedagogy and each of entrepreneurship intent – attitude and entrepreneur intent financial planning.

Regression analysis was conducted to assess the hypotheses. Two models were fitted: one with pedagogy as the independent variable and entrepreneur intent-attitude as the dependent variable. The second model had pedagogy as the dependent variable and entrepreneurial intent-financial planning as the independent variable.

A key finding for this study is that entrepreneurial pedagogy has a positive influence on entrepreneurial intention among Grade 12 learners of Gauteng West district.

# CHAPTER 5. DISCUSSION OF THE RESULTS

## 5.1 Introduction

The aim of this chapter is to discuss the findings of the study. It examined the influence entrepreneurial pedagogy has on learners' entrepreneurial intentions. Furthermore, the level in which the two constructs, entrepreneurial pedagogy and entrepreneurial intentions affect each other was evaluated. The chapter starts by discussing the demographic profiles and then findings from each construct. In addition, the chapter discusses the conclusion, followed by recommendations and suggestion for future research.

## 5.2 Demographic profile of respondents

To understand the characteristics of the sample better, the demographic profile of respondents was examined. The sample consisted of 169 black learners of whom more than half, were females than males. All these learners came from the urban area of Gauteng West district. Out of 169, 73% were under that age of 18 while 26% were between ages 19-22. All these learners have studied entrepreneurship education from Grade 10 to 12.

## 5.3 Reason for taking entrepreneurship education

Most of the respondents revealed that they chose to study entrepreneurship education because they enjoyed Business Studies. However, a small number of respondents indicated that they chose entrepreneurship education not because they wanted to, but because it was a compulsory subject. Hence there are learners who even after they have been exposed to Business Studies, still perceived themselves not as business owners but as joining corporate world. This also supports the theory of perceived behavioural control by Ajzen (1991), that the availability of resources, in this case learning entrepreneurship education, will influence and motivate learners to engage in business activities after completing Grade 12. These learners see learning entrepreneurship education as an opportunity that will become useful when they perform their duties in the corporate world but not in their own businesses.

## 5.4 Plans after completing Grade 12

Respondents were asked what their plans were after completing Grade 12 and the majority of them indicated that they want to further their studies at tertiary institutions. These learners do not reject the idea of opening businesses immediately after completing Grade 12, but they want

to gain more knowledge by going to college or university first. This is supported by the human capital theory that investing in education will lead to skills development (Dyani, 2017; Venter et al., 2015b). According to Chell (2013), skills can assist entrepreneurs perform their duties productively. The rest of the respondents stated that they wanted to open their own businesses immediately after completing Grade 12. These learners believe the knowledge they have acquired in the classroom is adequate enough and has inspired and motivated them to open their own businesses. These learners are displaying self–efficacy and what theorists (Setti, 2017; Venter et al., 2015b) regard to as the intention to engage in business venture.

## 5.5 Discussion of findings

The preceding chapter was structured according to two key constructs and the discussions of findings are structured in the same manner.

### 5.5.1 Entrepreneurial Pedagogy

This construct looked at the methods used by teachers to transfer entrepreneurial education to Grade 12 learners of Gauteng West district. There were eight clear questions that were created to address the entrepreneurial pedagogy.

Hypothesis 1 (H1) is the main hypothesis and it reads as follows:

| |
|---|
| *H1: Entrepreneurial experiential learning has a positive influence on entrepreneurial intent among secondary school learners of Gauteng Province of South Africa* |

This study tested if entrepreneurial intentions of Grade 12 learners are impacted by the entrepreneurial experiential learning of entrepreneurship education. The findings indicate a positive and significant influence which imply the hypothesis is supported. These findings support the theory by Lackéus (2015), that when entrepreneurial pedagogy is combined with practical experience, and learners see what they are taught in class in practice, they become motivated and this could encourage them to engage in entrepreneurial activities after completing their Grade 12.

Moreover, this confirms what Kolb and Kolb (2018) are arguing, that learning through real life experiences like visiting markets or businesses can benefit learners by shaping their capacity to recall knowledge from the experience in order to shape their future experiences. These

findings also agree with WEF (2009), that meeting successful entrepreneurs can motivate learners, and entrepreneurship education will not be successfully applied without involving entrepreneurs.

The findings further indicate that most learners have grasped the concept of entrepreneurship education and can even apply it later in their future. The findings, however, do not provide a strong assurance that learners will engage in entrepreneurial activities. It supports what Fayolle et al. (2006) are arguing that even though learners enjoyed learning by watching activities, this does not mean they will open their businesses immediately after completing Grade 12.

### 5.5.2 Entrepreneurial Intent

The second construct is entrepreneurial intention and two sub-constructs: entrepreneurial intent-attitude and entrepreneurial intent-financial planning were created. The reason for creating two sub-constructs was to understand what factors of entrepreneurial intention are more influenced by entrepreneurial pedagogy. Nine questions under the entrepreneurial intent were developed in order to measure this construct.

| |
|---|
| *H1a: Entrepreneurial pedagogy has a positive influence on Entrepreneurship Intent - attitude among secondary school learners in West District of Gauteng Province of South Africa* |

The findings show that there is a positive and significant impact of entrepreneurial pedagogy on the learners' entrepreneurial intent-attitude which means the hypothesis is supported. Ajzen (1991), in his theory of planned behaviour, indicates that the way people act or behave is influenced by their intentions to engage. This is consistent with the finding that as much as learners enjoy business studies and plan their finances carefully, their attitudes towards opening businesses immediately after completing Grade 12 is low. The majority of the learners still believe in attending tertiary institutions first to further their studies could help them when they want to open their businesses in the distant future but not now.

However, the findings show respondents' positive attitude towards opening businesses and be employers rather than employees. According to Ajzen (1991), positive attitudes toward

entrepreneurship education, if perceived as attractive and advantageous to learners then will lead to better entrepreneurial intention. Furthermore, Almobaireek and Manolova (2012) state that attitude is seen as a strong projector of entrepreneurial intentions.

| |
|---|
| *H1b: Entrepreneurial pedagogy has a positive influence on Entrepreneurship Intent – financial planning among secondary school learners in West District of Gauteng Province of South Africa* |

The findings indicate that learners do take their future seriously and are aware that planning financially will help them achieve their goals. These findings resonate with the reason the majority of learners gave about why they chose to study entrepreneurship education, and they indicated because they enjoy business studies. Furthermore, the findings indicate a large number of respondents (30%) who do not read financial planning books to empower themselves. This supports SACCI (2012), when they state that shortages of financial skills remain a concern in South Africa and many people are unemployed for various reasons; one of these reasons is lack of business skills and competences. As much as the majority of learners want to further their studies, they do not regard reading business newspapers or financial planning books as more important than reading what they believe will assist them achieve their immediate goal, which is a college or university degree.

The hypothesis indicates that when entrepreneurial experiantial learning influence is positive, the entrepreneurial intent-financial planning of learners will be positively impacted too. Since learners are still at school and do not have any means of generating money to start businesses, they plan to launch their own businesses later. The research findings show the influence is positive and significant which implies the hypothesis is supported.

# 5.6 CONCLUSION

## 5.6.1 Conclusion of the study

The purpose of this study was to investigate whether the methods used by teachers to teach entrepreneurship education to Grade 12 learners in the Secondary schools of Gauteng Province in South Africa, have resulted in learners having the desire, motivation and encouragement to want to open their own businesses right after completing their Grade 12. Many scholarly

researches on the topic of entrepreneurship education were reviewed in order to learn and understand what the current knowledge is on the subject, and the researcher learned that there are many factors that contribute to learners not opening businesses after Grade 12. Factors such as experiential learning, the environment in which this learning takes place is important to stimulate that interest, and involving entrepreneurs and businesses to provide training to learners on how to operate a business (Ho, Uy, Kang, & Chan, 2018). This is also supported by several authors (Alexander & Hjortsø 2013; Blenker, Korsgaard, Neergaard, & Thrane 2011) that if the objective is to teach learners to be equipped with entrepreneurial skills and competencies, then the model of teaching should be about business training and coaching. After learners have been trained and for them to behave like entrepreneurs, assimilation or business role playing has to be introduced (Alexander & Hjortsø 2013; Blenker, Korsgaard, Neergaard, & Thrane 2011)

This is what is lacking in the curriculum of Business Studies, incorporating more practical lessons by involving businesses, markets, entrepreneurs and also role playing by learners so that they see themselves as entrepreneurs of tomorrow. On the findings, learners indicate this is what they enjoyed most about this subject, going out to businesses and markets. Based on the findings of the study, one can conclude that entrepreneurial pedagogy has a positive influence on the entrepreneurial intention among the Grade 12 learners of Gauteng West District. The findings show that even though the majority of learners' immediate goals are to further their studies at college or university, they still have the desire to open businesses for themselves in the future.

### 5.6.2 Recommendations

The researcher recommends that the Department of Basic Education should involve businesses and entrepreneurs more in the subject of Business Studies. The Department of Basic Education can use Finland as an example where they have introduced entrepreneurship education in all school grades and have invested also in training their teachers on different models of pedagogies (Dyani, 2017). Learners in Finland are encouraged to open businesses while still at school and get help from the Ministry of Education to register their businesses (Dyani; Oorstebeek et al., 2010; Terjesen, Hessels, & Li 2016). This could encourage learners in South Africa, especially when they see the Government get more involved by helping them while still at school.

### 5.6.3 Suggestions for future research .

The Department of Basic Education does not allow any research to be conducted at schools any time from September to the beginning of February, so that any school programmes and examinations are not disrupted. The researcher proposes future research on this limitation especially on the side of the University so that the times of collecting data from schools are closer to that of the University.

This research was only conducted in five secondary schools in the urban areas of Gauteng West District in South Africa, in order to understand other factors that contribute to learners not to engage in entrepreneurship activities immediately after completing Grade 12, more research need to be conducted on a bigger scale including both urban and rural areas of Gauteng in South Africa.

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## APPENDIX A i): RESEARCH INSTRUMENT

**Block: SECTION A: Demographic Information**

**Block: SECTION B: Entrepreneurial Pedagogy**

**Block: SECTION C: Entrepreneurial Intent**

Welcome to the research study on: The influence of entrepreneurial pedagogy on entrepreneurial intent among secondary school learners in Gauteng West district.

My name is Kedibone Tyeda, a student at Wits Business School, studying Masters of Management in Entrepreneurship & New Venture Creation. I am conducting a research to evaluate the process of entrepreneurship education in high schools. 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 with regard to the research to assist in your decision process. The study should take you around 15-20 minutes to complete.

Kedibone.tyeda@wits.ac.za

My supervisor: mcedward.murimbika@wits.ac.za

Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice.

Thank you for taking the time and effort to respond to this questionnaire. Please give candid and thorough responses to the questions below. Rest assured that the information you share here is confidential.

All questions must be answered by placing a tick in the relevant boxes

---

**SECTION A: DEMOGRAPHICS INFORMATION**

Q1 Please state your gender

- ○ Male
- ○ Female
- ○ Other

Q2 Please state your age group?

- ○ Under 18
- ○ 19-22

---

Q3 Please state your race?

- ○ African
- ○ Indian
- ○ Coloured
- ○ Other

Q4 Have you studied Entrepreneurship education in the last three years?

- ○ Yes
- ○ No

---

Q5 which of the following best describe your reasons for taking entrepreneurship education?

- ○ it is a requirement
- ○ Minor requirement
- ○ I enjoy Business Studies

---

Q6 what do you plan to do after you complete your Grade 12?

- ○ Further my studies at tertiary institution
- ○ Government employment
- ○ Business employment
- ○ Start my own business
- ○ Family employment

**Q7 SECTION B: ENTREPRENEURIAL PEDAGOGY**

| | Strongly agree | Agree | Somewhat agree | Neither agree nor disagree | Somewhat disagree | Disagree | Strongly disagree |
|---|---|---|---|---|---|---|---|
| The style my teacher use to teach entrepreneurship education makes it easy for me to understand the course | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The method used by teachers to teach entrepreneurship education makes it easy to apply when we do our practical | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Visiting businesses and markets help me understand what we learn in the classroom | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Classroom is an appropriate environment to learn entrepreneurship education | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| The type of practical exercises I am exposed to on entrepreneurship makes it easy to enjoy the subject | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Been introduced to successful entrepreneurs has motivated me to want to open my own business after grade 12 | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I would be able to start a business of my own with the knowledge and experience I gained doing entrepreneurship education | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| There are entrepreneurial activities conducted at school to promote the culture of entrepreneurship | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Q8 SECTION C: ENTREPRENEURIAL INTENT**

| | Strongly agree | Agree | Somewhat agree | Neither agree nor disagree | Somewhat disagree | Disagree | Strongly disagree |
|---|---|---|---|---|---|---|---|
| I intend to set-up a company in the future | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I plan my future carefully | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I read business newspapers | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I never search for business start-up opportunities | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I read financial planning books | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am saving money to start a business | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I plan my finances carefully | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I have no plans to launch my own business | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I spend time learning about how to start a company | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

## APPENDIX A b): ETHICS CLEARANCE CERTIFICATE


**SCHOOL OF GRADUATE SCHOOL OF BUSINESS ADMINISTRATION ETHICS COMMITTEE**

**CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)**

| | |
|---|---|
| **CLEARANCE CERTIFICATE** | **PROTOCOL NUMBER: WBS/BA9405161R/968** |
| **PROJECT TITLE** | Effect of entrepreneurial pedagogy on entrepreneurial intent among secondary school learners in Gauteng west district |
| **INVESTIGATOR** | Mrs Kedibone Tyeda |
| **SCHOOL/DEPARTMENT OF INVESTIGATOR** | MM (Entrepr & New Venture Creation) |
| **DATE CONSIDERED** | 10 December 2019 |
| **DECISION OF THE COMMITTEE** | Approved unconditionally |
| **RISK LEVEL** | MINIMAL RISK |
| **EXPIRY DATE** | Date of submission of the project Research Report |

**ISSUE DATE OF CERTIFICATE** 17 February 2020 **CHAIRPERSON** __
_____

(Dr MDJ Matshabaphala)

cc: Supervisor: Dr Murimbika

---

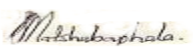
**DECLARATION OF INVESTIGATOR**

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

_____ _____/_____/_____

**Signature** **Date**



## APPENDIX B: CONSISTENCY METRIX

| Influence of entrepreneurial pedagogy on entrepreneurial intent among secondary school learners of Gauteng West district | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Sub-problem** | **Literature Review** | **Hypotheses** | **Research Questions** | **Independent (IV) and Dependent (DV) Variables** | **Source of Data** | **Type of Data** | **Analysis** |
| 1. To investigate the influence entrepreneurial pedagogy has on entrepreneurial intent among Grade 12 learners in Gauteng West District | (Lackeus, 2015; Cassim et al., 2014;Gibb 2006; Nchu et al., 2015; 2011; Tsia et al.,2011;(Gibb & Price, 2014; Gibb, 2002 | **Hypothesis 1:** Entrepreneurial pedagogy has positive influence on entrepreneurial intent among Grade 12 learners o Gauteng West district | To what extent does the entrepreneurial pedagogy has positive influence on entrepreneurial intent among secondary learners of Gauteng West district? | IV-entrepreneurship pedagogy | Q7 | Ordinal-(7point Likert scale) | Correlation<br>Regression analysis |
| | Ajzen, 1991; Ajzen, 2005; Luthje, 2013; Setti, 2017;<br>Xavier et al., 2013 | **H1.a.** Entrepreneurial experiential learning has a positive influence on entrepreneurial intentions-attitudes among Grade 12 learners in West District of Gauteng.<br>**H1.b.** Entrepreneurial experiential learning has a positive influence on entrepreneurial intentions-financial planning among Grade 12 learners in West District of Gauteng | To what an extent does entrepreneurial experiential learning has positive influence on entrepreneurial intentions-attitudes of Grade 12 learners in West District of Gauteng?<br>To what extent does entrepreneurial experiential learning has positive influence on entrepreneurial intentions-financial planning of Grade 12 learners in West District of Gauteng? | DV-entrepreneurial intentions | Q8 | Ordinal 7 point Likert scale | Correlation<br>Regression analysis |

# APPENDIX C: APPROVAL OF TITLE

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E-mail: jennifer.mgolodela@wits.ac.za

03 December 2020

Person No: 9405161R

PAG

Mrs KP Tyeda
9037 Lebogang Crescent
Kagiso 2
1754
South Africa

Dear Mrs Kedibone Tyeda

Master of Management in Entrepreneurship and New Venture Creation: Approval of Title

We have pleasure in advising that your proposal entitled: The influence of entrepreneurial pedagogy on entrepreneurial intent among secondary school learners in Gauteng West district has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Marike
Bosman
Faculty
Registrar

Faculty of Commerce, Law and Management

# APPENDIX D: DEPARTMENT OF BASIC EDUCATION APPROVAL LETTER

## GAUTENG PROVINCE

Department: Education

REPUBLIC OF SOUTH AFRICA

**8/4/4/1/2**

## GDE AMENDED RESEARCH APPROVAL LETTER

| | |
|---|---|
| **Date:** | **06 November 2019** |
| **Validity of Research Approval:** | **10 February 2020—30 September 2020 2019/78AA** |
| **Name of Researcher:** | **Tyeda K.P** |
| **Address of Researcher:** | **9037 Lebogong Crescent Reservoir Ridge Kagiso 2, 1754** |
| **Telephone Number:** | **011 717 3884/ 083 975 8921** |
| **Email address:** | **kedibone.tyeda@wits.ac.za** |
| **Research Topic:** | **The influence of entrepreneurial pedagogy on entrepreneurial intent among secondary school Learners of Gauteng West District.** |
| **Type of qualification** | **Masters of Management in Entrepreneurship** |
| **Number and type of schools:** | **Five Secondary Schools** |
| **District/s/HO** | **Gauteng West** |

***Re: Approval in Respect of Request to Conduct Research***

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior

Manager confirming that permission has been granted research to be conducted.

**The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:**



*Making education a societal priority*

**Office of the Director: Education Research and Knowledge Management**

7th Floor, 17 Simmonds Street, Johannesburg, 2001

Tel: (011) 355 0488

Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

1. *Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*

2. *The District/Head Office Senior ManagerIs must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*

3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*

4. *A letter/ document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*

5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*

6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*

7. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.*

8. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*

9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*

10. *The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*

11. *The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*

12. *On completion of the study the researcher/s must supply the Director. Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*

13. *The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.*

14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study

Kind regards

Mr Gumani Mukatuni

Acting CES: Education Research and Knowledge Management

DATE- 08/11/2019

*Making education a societal priority*

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# APPENDIX E: LETTER OF CONSENT FOR PARENTS

**The Graduate School of Business Administration**

2 St David's Place, Parktown, Johannesburg, 2193

PO Box 98, WITS 2050, South Africa

Telephone: +27 11 717 3495

Facsimile: + 27 11 717-3514

Website: www.wbs.ac.za

19 February 2020

Dear Parent or Guardian,

My name is Kedibone Tyeda, and I am a Master of Management in Entrepreneurship and New Venture Creation ("MMENVC") student at the University of Witwatersrand (Wits Business School) in Johannesburg. I would like to ask permission for your child to take part in my research. From 24th February and 6th March 2020, I will be surveying Grade 12 learners in schools situated in Kagiso, to learn about entrepreneurship education in transferring entrepreneurial knowledge and skills to learners in five selected high schools of West District in Gauteng. I will also examine the attitudes, perceptions, and views of learners regarding entrepreneurship education.

If you permit your child to participate in the study, I will ask your child to complete a questionnaire about the way they see themselves and others, and about how entrepreneurship education is promoted in schools to better prepare them when they leave schools to enter labour markets where formal job opportunities are scarce. Completion of these surveys is estimated to take no more than fifteen to twenty minutes and it will take place just after school so that class programmes are not disrupted.

All of the information I obtain from your child will be kept confidential. Your child's name will not be used on any of the forms they complete, and no information about your child will ever leave school premises with a name attached. The survey that your child completes will be marked with a number I select but no one who works in the school will ever know this number or the responses of your child.

The report will not contain any INDIVIDUAL information about children. It will describe what groups of students said. For example, I might describe what 12th graders said" but I will NOT report what an individual learner disclosed. The primary objective of this research is to provide a better understanding of the impact that entrepreneurship education could have in entrepreneurial competencies, knowledge, and skill for secondary school learners.

Once again, I will never report individual information. The District Department of Basic Education and the School Principal or his or her Deputy has approved the survey. However, your child does not have to participate in the survey and participation or non-participation will not affect your child's Grades. If your child does not want to do the survey, or wants to quit after starting, that will still be accepted. Teachers must be present in the classroom during the survey because of district policy. However, they will not be involved in the student survey process and will not be told who does and does not participate.

There are no direct benefits to you or your child for participating in this study. The information from the survey should help us learn more about the factors that contribute to the understanding of entrepreneurial intent among senior secondary school learners. There are no known risks associated with participation in this study, and most learners enjoy the opportunity to express their opinions. However, if your child becomes upset, he/she will be able to stop the survey and may choose to talk to one of the school staff.

The University of Witwatersrand appreciates the participation of people who help it carry out its function of developing knowledge through research.

**Whom to contact if you have been harmed or have any concerns**

This research has been approved by the Wits Business School. If you have any complaints about ethical aspects of the research or feel that you have been harmed in any way by participating in this study, please contact the programme manager for MMENVC, Ms Meisie Moya on (011)717-3629 or via email on: Meisie.Moya@wits.ac.za

If you and your child agree that your child may take part in the research, please return a signed copy of this form to me in the enclosed envelope.

You may keep the other copy for future reference.

You have read this permission form and agreed to have your child take part in the research.

Name of Leaner_____

Printed Name of Parent_____

Signature of Parent_____

Date_____