NELSON MANDELA UNIVERSITY

AN ANALYSIS OF SELECTED ENTREPRENEURSHIP MODULES AT TERTIARY INSTITUTIONS

BY

ASEMAHLE FIGLAN
STUDENT NUMBER: 227472268
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DECLARATION BY CANDIDATE

NAME: Figlan, A

STUDENT NUMBER: 227472268

QUALIFICATION: BACHELOR OF COMMERCE HONOURS

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DECLARATION:

In accordance with Rule G5.6.3, I hereby declare that the above-mentioned treatise/dissertation/thesis is my own work and that I have not previously been submitted to another University or for another qualification.

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SIGNATURE

………29/10/2023……………………
DATE

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ABSTRACT

An analysis of selected entrepreneurship modules at tertiary institutions, is the topic of this study. The purpose of the study was to provide insights into the nature of entrepreneurship education modules currently offered at selected tertiary institutions. The primary objective of this study is to analyse entrepreneurship modules at selected tertiary institutions, both in South African and internationally. Desktop research was conducted during the data collection period. The data collected was analysed using quantitative content analysis to count, and thematic analysis was used to identify themes in the data collected. The findings show that entrepreneurship modules differ from institution to institution, and that there are similarities between these modules and the literature. The current study has highlighted the need for greater access to entrepreneurship modules on the websites of tertiary institutions that offer these modules to give more insights on the aspects of aims and central objectives, learning outcomes, topical content, teaching methods, and the skills being taught.

KEYWORDS: Entrepreneurship; entrepreneurship education; entrepreneurship modules; aims; central objectives; learning outcomes; topical content; teaching methods; skills taught.

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INTRODUCTION AND BACKGROUND OF THE STUDY

1.1   INTRODUCTION

According to Ramchander (2019:1), the aim of entrepreneurship education should be to inspire students to launch their own businesses. In a similar vein, it is also suggested that graduates of entrepreneurship programs ought to have changed their mentality from that of job seeker to that of job-creator (Ramchander, 2019:1). It can be suggested that the education frameworks of tertiary institution are not delivering adequate entrepreneurs as frequently as they should, which could be associated with the way entrepreneurship modules are structured and delivered (Ramchander, 2019:2). The aim of entrepreneurship education in general is to create jobs by promoting self-employment and a next generation of business owners (Sendra-Pons, Calatayud & Garzon, 2022:367).

The social and economic development of a country depends on education (Madani, 2019:100). The goal of educational quality is to improve all aspects of education by guaranteeing excellence in all educational processes, inputs, and outputs, as well as fundamental life skills of students (Madani, 2019:101). Education practices must change to promote entrepreneurial competency, which is essential for graduates as they join society (Radipere, 2012:11017; Pardo, 2013:2; Fejes, Nylund & Wallin, 2019:554). Already available research proves that there is a positive correlation between entrepreneurship education and the formation of startups, which is the entrepreneurial intention of students (Ilonen, & Heinonen, 2018:4; Sendra-Pons et al., 2022:369). Thus, it follows that tertiary institutions serve an extremely important part in promoting entrepreneurship as a career option for students, as well as providing them with the information and skills they need to succeed (Sendra-Pons et al., 2022:369). Hence, stimulating their entrepreneurial intentions (Sendra-Pons et al., 2022:369). New delivery methods of entrepreneurship education call for student participation and interaction, teaching "through" entrepreneurship (Linton & Klinton, 2019:2).

To determine whether the entrepreneurship education practices employed at tertiary institutions are aiding in achieving the general aim of entrepreneurship (venture creation and entrepreneurial skills), it is necessary to evaluate the programs and assessment methods they

use (Linton & Klinton, 2019:2; Lechuga Sancho, Ramos-Rodriguez & de los Angeles Frende Vega, 2022:8; Fiore, Sansone & Paolucci, 2019:4). Entrepreneurship education programmes should be modified to reflect current societal challenges facing the general population for such programmes to be relevant to needs of students (Radipere, 2012:11021). Previous studies on entrepreneurship education have been conducted with only focusing on a single field of study (for example business and management, STEM programmes and law) and educational level (undergraduates or post-graduate), and this could be due to the complexities of introducing entrepreneurship modules to students from different fields that have different levels of education (Fiore et al., 2019:2).

The introduction of entrepreneurship modules may entirely depend on the tertiary institutions policies (Fiore et al., 2019:2). Additionally, the impact of entrepreneurship education on a student's emotional intelligence and entrepreneurial skills may differ significantly, depends on the qualities of students, such as their field of study and educational level (Fiore et al., 2019:2). There is a great importance to foster innovation through entrepreneurship education in different faculties within the same tertiary institutions (Fiore et al., 2019:5). Tertiary institutions have the responsibility to ensure the feasibility of their existing entrepreneurship teaching and assessment practices (Radipere, 2012:11021), by measuring the impact of entrepreneurship education on entrepreneurial skills and the intention of student to develop start-ups (Fiore et al., 2019:5) and how they compare to other tertiary institutions (Lechuga Sancho et al., 2022:8). To close the gap of linking actions and intentions (Lechuga Sancho et al., 2022:1) students must be taught how to be successful entrepreneurs, but the current curriculum for entrepreneurship instructs students about entrepreneurship (Radipere, 2012:11021; Linton & Klinton, 2019:2). Entrepreneurship educators need to be familiar with the ideal entrepreneur to understand what should be taught in entrepreneurship modules (Radipere, 2012:11017).

1.2 PROBLEM DESCRIPTION

Despite entrepreneurship having evolved as an academic discipline, the unemployment rate in South Africa is ever-increasing (Radipere, 2012:11015; Alharbi, Almahdi, & Mosbah, 2018:247) and entrepreneurship acitivity rates remain low (Eesly & Lee, 2020:834; Agastya, 2022:78;). Scholars say that policy makers believe that education, particularly training in entrepreneurship, can lead to higher levels of entrepreneurship (Radipere, 2012:11015;

Grivokosopoulou, Kovas & Perikos, 2019:1; Sendra-Pons et al., 2022:362). By improving entrepreneurship education, this aim can be achieved.

Entrepreneurship education provides practical skills needed by entrepreneurs for starting their own businesses (Radipere, 2012:11016). The justification for entrepreneurship education appears to be a straightforward input-output framework, where the expected outcomes are only expected to be created if the appropriate content is included and presented in the appropriate manner (Radipere, 2012:11016; Colombo, 2020). It appears that many entrepreneurship educators are teaching logical thinking when they should be teaching entrepreneurial thinking (Henry, Hill & Leitch, 2005:164). This is important to point out because logical thinking can result in incorrect and unworkable solutions (Henry et al., 2005:164). An argument to change the focus from teaching to learning exists, contending that someone can only acquire a certain skill when they practice it in a setting that is as like to real-life as possible (Henry et al., 2005:164; Hua & Ren, 2020:70). Therefore, the challenge for entrepreneurship educators, is to identify innovative teaching methods that match the needs of prospective entrepreneurs (Henry et al., 2005:164; Sendra-Pons et al., 2022:363).

The purpose of the current study is to provide insights into the nature of entrepreneurship education modules currently offered at selected tertiary institutions. Given the high levels of unemployment among student, it appears that entrepreneurship education is not achieving the desired results (Radipere, 2012:11016). Against this background the objectives of the study are presented.

1.3 RESEARCH OBJECTIVES

The primary, secondary, and methodological objectives of this study are presented below.

1.3.1 PRIMARY OBJECTIVES

The primary objective of this study is to analyse entrepreneurship modules at selected tertiary institutions, both in South African and internationally.

1.3.2   SECONDARY OBJECTIVES

The following secondary objectives are formulated to address the primary objective:

SO1:   To identify the aim and central objectives of entrepreneurship modules offered at selected tertiary institutions.

SO2:   To identify the learning outcomes of the entrepreneurship modules offered at selected tertiary institutions.

SO3:   To describe the topical content of entrepreneurship modules offered at selected tertiary institutions.

SO4:   To identify the most common teaching methods used for teaching entrepreneurship modules offered at selected tertiary institutions.

SO5:   To identify the skills being taught through entrepreneurship modules offered at selected tertiary institutions.

1.3.3   METHODOLOGICAL OBJECTIVES

MO1:   To conduct at literature review on entrepreneurship education in general considering the aims and central objectives, learning outcomes, topical content, most common teaching methods used and the importance of thereof.

MO2:   To choose and put into practice the best research methodology to address the defined research problem and research objectives.

MO3:   To undertake desktop research to identify the aim, central objectives, learning outcomes, content, teaching methods and skills being taught by entrepreneurship modules offered at selected tertiary institutions.

MO4:   To make conclusions and provide recommendations based on the findings of this study to tertiary institutions and educators of entrepreneurship modules to assist them in improving their module offerings.

1.3.4   RESEARCH QUESTION

RQ1:   What is the aim and central objectives of entrepreneurship modules offered at selected tertiary institutions?

RQ2:   What are the learning outcomes of the entrepreneurship modules offered at selected tertiary institutions?

RQ3:   What is the topical content of entrepreneurship modules offered at selected tertiary institutions?

RQ4:   What are the most common teaching methods used for teaching entrepreneurship modules offered at selected tertiary institutions?

RQ5:   What are the skills being taught through entrepreneurship modules offered at selected tertiary institutions?

1.4   SCOPE AND DELIMITATIONS OF THE STUDY

Although there are many factors that impact the number of entrepreneurs. This study will only focus on entrepreneurship education. Furthermore, although there are many entrepreneurship modules being offered at tertiary level, both in South African and internationally, this study will focus on those conveniently identified via Google. In terms of the entrepreneurship module, only aspects relating to the aim and central objectives, learning outcomes, topical content, most common teaching methods and of the skills being taught will be analysed.

1.5   KEY CONCEPTS

1.5.1   ENTREPRENEURSHIP EDUCATION

Entrepreneurship education refers to activities that assist individuals to acquire the skills, information, and develop the entrepreneurial mindset required to achieve the objective of starting a new venture (Birdthistle, Costinand & Hynes, 2016:767; Sherkat & Chenari, 2022:97).

1.5.2   ENTREPRENEURSHIP MODULE

The word module is derived from Latin meaning part (Abdurazakov & Odinaboboe, 2022:173), and refers to a unit or component of a course or curriculum that focuses on a specific topic or subject area (Barbosa, & Maldonado, 2011:207) Modules are instructional teaching resources used in lessons that are logically divided into parts (Abdurazakov, & Odinaboboe, 2022:173).

Entrepreneurship modules present content that strives to improve the entrepreneurial abilities and capabilities of students (Babatunde et al., 2021:1093).

1.5.3 MODULE AIM AND CENTRAL OBJECTIVES

The aim of a module outlines what is set out in declarations of general educational objectives that identify the modules' purpose. The aim and central objectives of entrepreneurship modules are to develop active entrepreneurs that increase the body of business management expertise (Grivokosopoulou et al., 2019:4), develop an entrepreneurial mindset, a set of skills and competencies that will ultimately aid in the creation of new businesses, startups and projects, as well as encourage and drive student creativity (Grivokosopoulou et al., 2019:2).

1.5.4 MODULE LEARNING OUTCOMES

A module learning outcome is a short statement describing the precise information, skills, or abilities that students are anticipated to acquire or exhibit following completion of a given module or course (Adam, 2008:4). Learning outcomes of an entrepreneurship module student include the ability to analyse potential markets and funding sources, create a business plan, examine marketing frameworks and the format of a business plan, assess market uncertainty and new ventures, talk about team dynamics (Lambert & Rennie, 2021:4), and an intention to start a business (Ilonen & Heinonen, 2018:4).

1.5.5 TOPICAL MODULE CONTENT

Module topical content refers to the specific subject matter or topics that are covered within a particular module or course. Quality content presents students with life skills, and is student centred, non-discriminatory and has standards-based on curriculum structures. (Madani, 2019:103). The content of an entrepreneurship module refers to what the students are being taught during the lessons of the module. These modules frequently draw on the most well-liked entrepreneurship textbooks and tend to mirror the dynamics of the entrepreneurial process, which is opportunity-focused and includes opportunity discovery, evaluation, and exploitation (Fayolle, 2013:695).

1.5.6   MODULE TEACHING METHODS

Teaching methods are the approaches educators use to deliver the content of modules to students. Various methods exist, namely case studies, group discussions, individual presentations, individual written reports, group projects (Arsati, Falavarjani & Imanipour, 2012:4).

In the context of entrepreneurship education, a teaching method refers to a learning process focusing on holistic, integrated education within practical and creative learning strategies, where students are engaged and encouraged to adjust to the constantly changing workplace and general environment with the aim of fostering their drive towards self-sustainability and success (Abaho, Olomi & Urassa, 2015:910).

1.5.7   MODULE SKILLS TAUGHT

Module skills refer to the specific abilities or competencies that students are expected to develop and improve during completing the module. Key skills being taught in entrepreneurship modules include creativity, critical thinking, social skills, persistence, cooperation, teamwork, and leadership (Ghafar, 2020:219).

1.6   SIGNIFICANCE OF STUDY

The purpose of the current study is to provide insights into the nature of entrepreneurship education modules currently offered at selected tertiary institutions. The reason for this is to provide tertiary institutions with insights into the contents of and teaching methods used for entrepreneurship modules at other tertiary institutions. Such insights will be to their advantage as it can assist them in improving their own content or methods of teaching of their own entrepreneurship modules. Therefore, this study will also assist educators and curriculum developers in their module development to make sure what they are teaching is the right thing, and to make sure that students have obtained the right skills come graduation. Teaching the right thing will help students develop the necessary mindset to create their own venture.

1.7 STRUCTURE OF THE RESEARCH

Chapter One serves as an introduction and background to the study and presents the problem description, and the research objectives. The above mentioned are followed by research questions and scope and delimitations of the study. The clarification of key concepts, the significance and the structure of the research conclude this chapter.

Chapter Two offers a literature review which provides a definition of entrepreneurship education and highlights the nature and purpose of entrepreneurship education. Types of entrepreneurship education, the content of entrepreneurship education modules, and the importance of entrepreneurship education will then be described. Chapter Two will be concluded by a discussion on existing research on entrepreneurship education modules.

Chapter Three the research design and methodology adopted in this study will be discussed in this chapter. An elaboration on the research strategy, namely case study will be given. How trustworthiness will be ensured will then be described. The chapter will conclude with the ethical considerations to be taken into account.

Chapter Four will present the empirical results of this study.

Chapter Five is the last chapter and provides a summary of the contents of the previous chapters. Both the research questions and the research objectives will be explored in relation to the findings. The literature review and the empirical findings will be used to draw conclusions and make recommendations. Limitations will be emphasized, and prospects for further investigation will be presented.

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CHAPTER TWO

LITERATURE REVIEW

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2.1 INTRODUCTION

In Chapter One, an introduction and background to this study was offered. A problem statement and objectives of this study, as well as a brief overview was included. In Chapter Two, a brief definition of entrepreneurship education, and the nature and purpose of entrepreneurship education will be elaborated on first. A discussion of the types of entrepreneurship education, the content of entrepreneurship education modules, and the importance of entrepreneurship education will thereafter follow. Chapter Two will be concluded by a providing a brief overview of existing research on entrepreneurship education modules.

2.2 ENTREPRENEURSHIP EDUCATION

In the 1940s, courses in small business management started to appear, and in 1947, Myles Mace launched the first entrepreneurship course in the USA at Harvard Business School (Samuel & Rahman, 2022:1808). The phenomenon of entrepreneurship was not acknowledged until 50 years later (Artasti, Falavarjani & Imanipour, 2012:3). Shigeru Fijii, who began teaching this phenomenon at Japan's Kobe University in 1938, was a pioneer in the subject of entrepreneurship education (Samuel & Rahman, 2022:1808). Regardless of Shiferu Fiji pioneering, many entrepreneurship programs and courses were developed and launched in American colleges (Ooi, Selvarajah & Meyer, 2011:207). Globally, tertiary institutions have seen a sharp increase in entrepreneurship education (Aladejebi, 2018:2) and there is evidence of a continuous increase in the number of tertiary institutions that are offering entrepreneurship modules. Despite this, different opinions have been expressed on whether entrepreneurial goals can be achieved and strengthened through education and training, or whether some students are born to be entrepreneurs or to act entrepreneurially (Gautam, 2015:25). Entrepreneurship education is defined as the development of mindsets, actions, and skills that may be used during an individual's career as a self-employed businessperson (Ndofirepi, 2020:4). According to Mani (2015:1),

entrepreneurship is a body of codified lessons designed to instruct and inspire anybody interested in starting a business while educating them on entrepreneurship's core principles.

Fayolle and Lessas-Clerc (2006) describe entrepreneurship education as encompassing a wide range of audiences, aim, content, and instructional techniques. Students from varying educational backgrounds and with a range of sociodemographic characteristics and levels of engagement in the entrepreneurial process, can take entrepreneurship education across faculties (Cascavilla, Hahn & Minola, 2022:3).

Manish Kumar Gautam (2015:24) defines entrepreneurship education as a process of applying information, attitude, skills, and competences in a professional setting. Entrepreneurship education goes beyond only educating students on the launch of their own accord independent businesses (Gautam, 2015:24). It involves developing and supporting a learning environment that encourages entrepreneurial qualities and behaviors, including the ability to think independently and creatively, to take calculated risks, accept responsibility, and value variety (Gautam, 2015:24). Aspects relating to the purpose, learning outcomes, topical content, most common teaching methods and skills taught in entrepreneurship education are elaborated on below.

2.2.1 PURPOSE OF ENTREPRENEURSHIP EDUCATION (AIM AND CENTRAL OBJECTIVE)

Entrepreneurship education is designed to develop entrepreneurial mindsets, attitudes, and abilities in a variety of domains, including idea generation, startup, growth, and innovation (Kickul, Mitra & Bercot, 2018:211). Human Capital Theory (HCT) and the Theory of Planned Behaviour (TPB) are characterised as two of the major streams in the research on the efficacy of entrepreneurship education (Debarliev, Janeska-Iliev, Stripeikis & Zupan, 2022:220). These two streams of research concentrate on various aims (Debarliev et al., 2022:220). Human Capital Theory highlights knowledge, skills, and abilities based on entrepreneurs being successful in launching and managing a business (Debarliev et al., 2022:220). The Theory Planned Behaviour reflects certain tools for evaluating such educational effects since it is based on beliefs and perceptions that are closely related to the setting of entrepreneurship (Debarliev et al., 2022:220). The Theory Planned

Behaviour highlight the behavioural/entrepreneurial intention of an individual to pursue or not to pursue entrepreneurship to become self-employed (Kisubi, Bonuke & Korir, 2021:21).

The goal of entrepreneurship education typically follows the for, through, and about methods, differing throughout the spectrum in terms of educating a person to start and run a business, offering general life and work skills, and introducing students to the world of business and industry (O'Connor, 2012:4). Formal entrepreneurship education is delivered to students with the aim of raising their knowledge of entrepreneurship as a viable career option and providing them with the necessary tools to launch their own firms (Radipere, 2012:11016; Khalid, Kartar Singh & Krishnan, 2022:441). Further elaboration is provided by Khalid et al. (2022:448) who state that the goal of entrepreneurship education is to provide students the knowledge, abilities, and capabilities necessary to become self-employed entrepreneurs as opposed to paid workers. With the aim to generate innovate ideas that are advantageous to both the student and the environment, entrepreneurship education strives to improve the skills of students in entrepreneurial activities or the capacity to create something new by utilising the potential of students (Sadewo, Purnasari, Tawarik & Beni, 2022:2).

The primary aim of entrepreneurship education in tertiary institutions is to equip graduates with the abilities to engage in income-producing businesses (Aladejebi, 2018:3), to develop the holistic characteristics of entrepreneurship, the importance of an innovative attitude, and entrepreneurial skills (Jianping & Chao, 2010:1824). Graduates who get entrepreneurship education move from being job seekers to job creators (Aladejebi, 2018:3). The central objective of adding entrepreneurship education to tertiary institutions is to generate graduates who have the entrepreneurial abilities required in the private sector and who can launch their own businesses and, as a result, employ others (Aladejebi, 2018:3; Jianping & Chao, 2010:1825).

2.2.2   LEARNING OUTCOMES FOR ENTREPRENEURSHIP EDUCATION MODULES

The learning outcomes of an entrepreneurship module address the questions of what knowledge, skills and values should a student possess upon graduating? What improvements has the module contributed towards the student's development? (Duval-couetil, 2013:395). At end of an

entrepreneurship education module, students are expected to have developed entrepreneurial behaviour, attitude and skills, learnt and know how to write and familiarise themselves with a business plan, have the ability to obtain the necessary funding to start a business, have an understanding of business entry procedures and the duties of an entrepreneur, be interested in entrepreneurship and be motivated to choose being self-employed as a career, take care and maintain relationships, and be good at communicating (Azizi, & Mahmoudi, 2019:151; Pittaway, Hannon, Gibb & Thompson, 2009:25).

From the aims and objectives of entrepreneurship education a link to learning outcomes is developed to ignite an entrepreneurial spirit and interest within students (Sadewo, Purnasa, Tawarik & Beni, 2021:3). It appears to be that there has not been much progress in recent years regarding the development of learning outcomes in the field of entrepreneurship education and other than the provision of lists of desirable outcomes (Buckley, 2015:27). Existing literature offers, for the most part, little theoretical or practical guidance on how these outcomes might be attained through curriculum design and teaching methodologies (Buckley, 2015:27). Learning outcomes for entrepreneurship modules are measured according to knowledge, skills and attributes. Knowledge, understanding, and critical thinking are cognitive learning outcomes, psycho-motor learning outcomes are centered on the change or development in behaviour/skill, and lastly affective learning outcomes are relating to attitudes, emotions, and feelings (Kozilnska, 2012:10; Kozlinska, Mets & Roigas, 2020:3).

2.2.3   THE TOPICAL CONTENT OF ENTREPRENEURSHIP EDUCATION MODULES

The content of entrepreneurship education modules should be shaped around the broad understanding of the industry, business risk awareness for new ventures, and understanding the development potential of the student (Giudice, Della Peruta & Caraynnis, 2014:93). In addition, the content of entrepreneurship involves finding new, underserved markets along with comprehension of how to make use of the tools at hand to break into those markets (Giudice et al., 2014:93). Entrepreneurship education covers a variety of topics, including idea development, start-up growth, and innovation (Artasti et al., 2012:3). In addition, business plan writing and presentations, types of enterprises and entrepreneurs, entrepreneurship skill development,

entrepreneurial capacity and mindsets, business startups, managing the business, and entrepreneurial implementation, form part of what is being taught in entrepreneurship modules (Lin & Sekiguchi, 2020:83; Katz, Hanke, Maidment Weaver & Alpi, 2016:496).

2.2.4 TEACHING METHODS USED IN ENTREPRENEURSHIP EDUCATION MODULES

Due to their diversity, tertiary institutions differ widely in their entrepreneurship education teaching approaches used, which characterises the collection of ideas educators use to explain their teaching (Babatunde, El-Gohary & Edwards, 2021:1094; Cascavilla et al., 2022:3). Entrepreneurial teaching methods include the various methods and techniques used to teach entrepreneurship (Williams Middleton, & Donnellon, 2014:169; Babatunde et al., 2021:1094). Methods for teaching entrepreneurship can be categorised into one of three categories of teaching, namely 'about', 'for' and 'through' entrepreneurship (Lackeus, 2015:10; Koustas & Salehi, 2021:35). These methods can also be classified according to the 'know how', 'know what', and 'know why' of entrepreneurship education (Williams Middleton, & Donnellon, 2014:175). The 'know what' provides information on understanding what steps to take to start a new business; the 'know how' provides the information necessary for carrying out an entrepreneurial activity; and the 'know why' provides information essential to comprehend and justify one's own entrepreneurial behaviour (Williams Middleton, & Donnellon, 2014;176).

Teaching 'through' entrepreneurship refers to a method that involves students participating in an actual entrepreneurial learning process and is process-based and frequently experiential (Lackeus, 2015:10; Kakouris & Liargovas, 2021:20). This method often attracts a broader understanding of entrepreneurship and can be integrated into other general education subjects that relate the primary subject to entrepreneurial traits, practices, and experiences (Lackeus, 2015:10). As such teaching through entrepreneurship provides the 'know why' of entrepreneurship, which is the understanding of the students' individual motivation for engaging and continuing with their own entrepreneurial action (Williams Middleton & Donnellon, 2014:170).

Teaching 'for' entrepreneurship relates to a method centred around providing the necessary expertise and skills needed by aspiring business owners (Lackeus, 2015:10; Kakouris & Liargovas, 2021:20). 'Know-how' is related to teaching for entrepreneurship, as it is connected to the understanding of which procedures a student should cover to follow to accomplish an end, as well as how successfully the student puts knowledge into practice (Williams Middleton & Donnellon, 2014:169).

Teaching 'about' entrepreneurship entails using a theorical and content-heavy methodology in an effort to provide a broad grasp of the occurrence (Lackeus, 2015:10; Kakouris & Liargovas, 2021:20). Teaching 'about' entrepreneurship provides the 'know what' to students and is seen as providing the mental comprehension that students acquire about what to do in order to execute entrepreneurship (Williams Middleton & Donnellon, 2014:169). In tertiary institutions, this is the most common strategy (Lackeus, 2015:10).

The embedded method of teaching 'through' entrepreneurship may prove applicable to all students at all levels of education (Lackeus, 2015:10) where students are encouraged to become entrepreneurs (Koustas & Salehi, 2021:35), while the 'about' and 'for' methods are largely applicable to students on secondary and higher levels of education (Lackeus, 2015:10). Teaching 'for' entrepreneurship gives students the opportunity to act and pretend to be entrepreneurs (Koustas & Salehi, 2021:35), and teaching 'about' entrepreneurship provides them with the necessary knowledge to choose entrepreneurship as a career (Koustas & Salehi, 2021:47).

It is important to apply efficient teaching methods while teaching entrepreneurial knowledge, and cultivating an environment that encourages awareness, enthusiasm, desire, and activity in entrepreneurship education (Abaho, Olomo & Urassa, 2014:911). Teaching methods for entrepreneurship education include individual written reports, individual presentations, group projects, group discussions, case studies, formal lectures, guest speakers, action learning, seminars, web-based, and video recordings (Arsati, Falavarjani & Imanipour, 2012:4).

The most common methods used are the preparation of business plans, case studies, and lectures (Arsati et al., 2012:4). There are however several methods to use in entrepreneurship education,

depending on the aims of that education (Arsati et al., 2012:4). Traditionally the teaching method used most in entrepreneurship education was direct instruction from an educator and students were given homework to expand their knowledge (Ruiz-Jimenez, Martinez-Jimenez, Liceran-Guterrez & Garcia-Marti, 2022:4). Since the Pandemic, pre-recorded video lectures are used as introductions to units of the module and readings are provided before class, where students familiarise themselves with the unit contents (Ruiz-Jimenez et al., 2022:4). Role-play, group discussions and presentations, project-based learning, simulations are also used as part of delivering entrepreneurship education topical content (Ruiz-Jimenez et al., 2022:4). Additionally, students may participate in seminars, interact with successful entrepreneurs, and ask for guidance on potential startups, go on field excursions, participate in 'real life' events, and watch video clips of active startups (Samuel et al., 2022:1809). Another method to deliver entrepreneurship education that allows students to participate directly in the entrepreneurship process is through training, and to equip students with entrepreneurial skills that are immediately transferable to the workplace (Arsati et al., 2012:4).

2.2.5   SKILLS TAUGHT BY ENTREPRENEURSHIP EDUCATION

Previously it was believed that entrepreneurs needed to possess certain technical skills, business management skills and personal entrepreneurial skills (Sendra-Pons et al., 2022:367). Additionally, they needed a set of skills that includes financial management, accounting, marketing, economics, and talent management. (Sendra-Pons et al., 2022:367). However, entrepreneurship education today not only focuses on these skills but also on enhanced entrepreneurial ability among students (Wei, Liu & Sha, 2019:2). Today entrepreneurhsip education involves developing entrepreneurial skills and on the promotion of creativity, innovation, self-employment and the ability to clearly identify opportunity (European Commision, 2008:10; Wei et al., 2019:2). Other skills a student will obtain from an entrepreneurship module include the skill to be a risk taker that possesses strong self-confidence, the ability to analyse the market and to create a marketing plan, to be an innovative thinking, have good management and networking skills, the ability to understand and to see change, and be able to identify and solve a problem (Tarhan, 2021:35).

Entrepreneurship education raises the students' awareness of self-employment as a career option, it promotes the development of personal qualities like creativity, spirit of initiative, risk-taking, and responsibility that are significant to entrepreneurship (Mico & Cungu, 2023:2; Fayolle, 2006;7). It provides skills necessary to start a new venture (Mico & Cungu, 2023:2), and supports project bearers (Fayolle, 2006:7).

2.3   IMPORTANCE OF ENTREPRENEURSHIP EDUCATION

According to Henry, Hill and Leitch (2005:100), the convergence of developments in the business world, new technologies, and developing global marketplaces has led to an evolving economic climate that is adequately reflected by the sustained interest and increased attention to the topic of entrepreneurship. Given these developments, entrepreneurship can be advantageous (Henry et al., 2005:100). At the global level, societal level, and organisational level there is climate and economic uncertainty, as there are new developments and advancements throughout. It becomes clear that there will be a larger demand for people to have entrepreneurial abilities and skills to enable them to deal with life's present issues and an unpredictable future (Henry et al., 2005:101). Entrepreneurship education will also help people, regardless of their professional choice or personal circumstances, discover creative problem-solving techniques, adapt to change more easily, become more self-reliant, and foster their creativity (Henry et al., 2005:101; European Commision, 2008:10). Entrepreneurship education serves as a key pillar of the university ecosystem for student entrepreneurship, inspiring and preparing students from all academic disciplines and levels of study to pursue venture formation (Artasti et al., 2012:4; Cascavilla et al., 2022:3). The promotion of self-employment through entrepreneurship education is crucial for societal transformation and expansion. It offers chances for professional progress, knowledge expansion, and bringing innovation to society (Wong & Chan, 2022:1214).

2.4   EXISTING RESEARCH ON CHALLENGES OF ENTREPRENEURSHIP EDUCATION

The goals and objectives of entrepreneurial modules, according to research, go hand in hand with entrepreneurship intention and entrepreneurship attitude. Jianping and Chao (2010:1825) state that

the goals of entrepreneurship modules at tertiary institutions are to foster the spirit of entrepreneurship, strengthen three different types of qualities (leadership, risk-taking, and teamwork), increase employment opportunities, and contribute to quality-oriented education. According to Jianping and Chao's analysis (2010:1827), tertiary institutions can create their own unique goals based on their own assumptions, circumstances, and resources. To name a few, the development and improvement of future decision-making skills, acceptance of educational and employment outcomes, and the development of a sense of responsibility for problems solved through individual initiative should all be among the above-average objectives of entrepreneurship modules (Rahim et al., 2015). According to Wu and Gu (2017:153), entrepreneurship courses foster an entrepreneurial attitude or mindset, which is essential in a globalised information economy. In addition to the economic sphere, Wu and Gu (2017:156) draw the conclusion that entrepreneurship modules are being incorporated into other facets of society.

Ilonen and Heinonen (2018:21) assert that entrepreneurship modules produce a range of efficient learning outcomes, which relate to both the nature and content of learning. Ilonen and Heinonen (2018:21) draw the conclusion that the opportunity for reflection in a real-world setting, such as the workplace, is necessary for achieving the highest level of affective learning outcomes (internalising corporate entrepreneurship as one's own mode of action). Learning results are influenced by the many ways that entrepreneurship education is taught (Cascavilla et al., 2022:19). The authors of Cascavilla et al.'s study (2022:19) advise further research to identify the best combinations of teaching methods and urge academics to keep looking into the ways in which teaching model design might enhance students' learning about entrepreneurship. According to the findings and analysis of Sadewo et al. (2021:6), there is a substantial correlation between the learning objectives of students and their interest in entrepreneurship in entrepreneurship modules.

The application of real-world scenarios to practical tasks may stimulate the growth of the motivation and dedication required to inspire students to pursue entrepreneurship after graduation (Olokundun, Ibidunni, Falola, Salua & Oyafunke-Omoniyi, 2018:8). Olokundun et al. (2018:8) came to the additional conclusion that students' entrepreneurial drive will increase if the topical contents of the entrepreneurship modules include critical thinking and problem solving, brainstorming exercises that generate business ideas, and finally the submission of business plans

and business start-ups as graded components. The empirical data from Musetsho and Lethoko (2017:86) showed that the entrepreneurial intention and attributes that the students interviewed had acquired are because of the entrepreneurship education they were taught, as they felt that they were equipped with the necessary skills and knowledge by preparing them to be potential entrepreneurs.

Depending on the objectives and desired outcomes of the module, a variety of teaching techniques (including group projects, individual projects, business plans, guest speakers, and problem-solving) may be employed to effectively teach entrepreneurship (Arasti et al, 2012:7.). Teaching for and via entrepreneurship rather than teaching about it encourages students to mimic real-world business circumstances or, better yet, allows them to start their own businesses or contribute to the formation of new one (Sirelkhatim & Gangi, 2015:8). The study of Sendra-Pons et al. (2022:369) shows that different teaching techniques for entrepreneurship are used, which means that different goals are not pursued in education for, about, and via entrepreneurship.

According to the model put forth by Ghafar (2020:226), imparting 21st-century skills as part of the system of entrepreneurship education should not be viewed as an additional "obligation" of the teaching and learning paradigm of an institution, but rather as an integral part of the program's overall mission.

2.5 SUMMARY

In this Chapter a literature review was provided. This Chapter gave a brief overview of what Entrepreneurship Education is and proceeded to describe its purpose (aims and central objectives). The Chapter elaborated more on the types of Entrepreneurship Education, learning outcomes for Entrepreneurship Education, topical content of Entrepreneurship Education modules, teaching methods used for Entrepreneurship Education, and skills taught by Entrepreneurship Education. The importance of Entrepreneurship Education and existing research on entrepreneurship modules concluded Chapter Two. The next chapter describes the research design and methodology used in this study to achieve the study objectives.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1   INTRODUCTION

Chapter Three of this study will outline the methodology and research design that was used. This chapter first provides a description of how the literature review was undertaken. The chapter then continues by describing the empirical investigation undertaken. Following that, a table containing the various options, choices taken, and their justifications for use is. It also discusses the research strategy and the steps taken to analyse data. Chapter Three concludes on how trustworthiness is ensured and describes the ethical considerations accounted for

3.2   LITERATURE REVIEW

In the current study the researcher consulted numerous journal articles, reports, and websites to complete the literature review. Using the keywords "entrepreneurship education," "entrepreneurship education modules," and "aims and central objectives of entrepreneurship modules," to mention a few, the search engines Google and Google Scholar were used to identify relevant sources of information to undertake the literature review. After gathering the data, the information needed to address the objectives of the current study was summarised. A brief and detailed definition of entrepreneurship education was presented. The literature review in terms of the entrepreneurship modules included only aspects relating to the aim and central objectives, learning outcomes, topical content, most common teaching methods and the skills being taught. The literature review also included a summary of existing research on entrepreneurship modules. The literature review of this study can be found in Chapter Two.

3.3   EMPIRICAL INVESTIGATION

The various options, choices made and justification for choices made, with regard to the empirical investigation in this study are elaborated on in the Table 3.1. Thereafter the research strategy as well as the techniques and procedures for data collection and analysis will be described.

Table 3.1: **Research design and methodological choices for study**

Descriptor	Options	Description of choice and justification for use
Philosophy and approach		
Philosophy/paradigm	Positivism	Positivism mostly represents a natural scientist's philosophical perspective (Melnikovas, 2018:35). Only observation and empirical facts may be referred to as "credible" since ontology is built on objectivist beliefs that entities are observable, atomistic occurrences, and existent outside of social actors (Melnikovas, 2018:35). Positivism assumes that the future is predictable and within our control (Melnikovas, 2018:36). Positivism is suited for this study because it is a strictly scientific empiricist method design that will result in pure data and facts that are no influenced by human bias or interpretation. This study is deductive and quantitative content analysis will be used to analyse the data.
Approach to theory development (The logic of the research)	Deductive	Deductive research uses physical reasoning and is directed at controlling knowledge and functions (Melnikovas, 2018:38). It is referred to as the top-down strategy (Malhotra, 2017:173). Deductive research is suitable for this study as it uses existing literature to identify theories (existing literature) and ideas that can be tested using data. Based on the literature, key aspect relating to entrepreneurship modules have been identified and a framework for capturing and analysing data has been developed.
Research design		
The purpose of the study	Descriptive	Descriptive research seeks data to comprehensively characterise a thing, circumstance, or population (Ansari, Rahim, Bhoje & Bhosale, 2022:1133). A descriptive study's objective is to outline a phenomenon's features (Nassaji, 2015:129). As opposed to focusing on the how or the why of a situation, it is more interested in the what of a situation (Nassaji, 2015:129). In the current study the features of entrepreneurship modules will be outlined, the purpose of the study is thus descriptive.
Methodological choice	Mono method	A mono method research employs just one kind of methodology, be it quantitative or qualitative (Azorin & Cameron, 2010:96). When using a mono method for research, one method of data collection and its related methods of analysis are implemented (Saunders, Lewis & Thornhill, 2019:178). In the current study data is collected using one method other, namely quantitatively.

Table 3.1:   Research design and methodological choices for study (continued)

Descriptor	Options	Description of choice and justification for use
The process of the research (approach)	Quantitative study	Any method of data collection or method of data analysis that produces or makes use of numerical data is typically referred as a quantitative study (Saunders, Lewis & Thornhill, 2007:145). This will be relevant to the current study as quantitative content analysis will be used.
Research strategy	Case study	A case study is a tool for describing and evaluating a person, group, or a phenomenon (Starman, 2013:31). It is a description of the actions and circumstances in a specific situation (Starman, 2013:31). A case study is suited to this study because the objective it to describe and evaluate a phenomenon or specific situation, namely entrepreneurship education modules.
The time dimension	Cross-sectional	According to Saunders et al. (2007:148), cross-sectional studies involve the research of a particular occurrence at a particular time. The current study is cross-sectional because it examines several entrepreneurship modules at one particular point in time.
Techniques and procedures for data collection and analysis	Monitoring study	Monitoring is the methodical collecting of information on specified indicators, supply management, and significant stakeholders of the indications of progress and attainment of goals in a continuous development (Kabonga, 2019:2). This study will collect and analyse data on entrepreneurship modules in the aspects of aims and central objectives, learning outcomes, topical content, teaching methods, and the skills being taught at tertiary institutions.
Data collection	Desk research	Desk research involves the collection, and/or synthesis of prior research, that is being considered for reuse for new questions and for which the data was not originally intended. This data constitutes secondary data research (Martins, Cunha, & Serra, 2018:2). Depending on the objective of the study, such data can be obtained internally or outside an institution (Kalu, Unachukwu, & Ibiam, 2018;53). Desk research is used in this study to search for websites containing details of entrepreneurship modules offered at tertiary instititions .
Data analysis	Content analysis Thematic analysis	Content analysis involves examining meanings, themes, and patterns that may be clear or implicitly hidden in a given text using the subjective method of content analysis allows for the extraction of objective information from texts (Bengtsson, 2016:10). Thematic analysis is a process of finding themes and patterns in qualitative data. It is fluid and open to interpretation of data, to make sense of it (Maguire & Delahunt, 2017:2). In current study quantitative content analysis will be employed to count. Thematic analysis will be used to look for themes in aspects like the aims and central objectives, learning outcomes, topical content, teaching methods, and skills being taught in entrepreneurship education. Once identified recurring themes will be quantified.

3.3.1 RESEARCH STRATEGY

The research strategy adopted in the current study is a case study. A case study is an in-depth inquiry into a topic or phenomenon within its real-life setting (Saunders et al., 2019:196). The topic or phenomenon under investigation in the current study in that of entrepreneurship education, or more specifically certain aspects of entrepreneurship modules. Choosing the phenomenon to be studied and determining the boundaries of the study is a key factor in defining a case study (Saunders et al., 2019:196). Once defined, case study research sets out to understand the dynamics of the phenomenon being studied within its setting or context (Saunders et al., 2019:196). The study of a case within its real-life setting or context helps distinguish this research strategy from others (Saunders et al., 2019:197).

Even while case studies can be quantitative or involve a mix of qualitative and quantitative methods, they are frequently regarded as a component of qualitative research and method (Starman, 2013:30). Case studies tend to be more qualitative than quantitative, however they can sometimes combine qualitative and quantitative methods (Starman, 2013:30). The current study is quantitative as the data (aspects of entrepreneurship modules) collected will be quantitatively analysed.

3.3.2 TECHNIQUES AND PROCEDURES

Defining the case, choosing the case(s) (sampling), gathering and analysing the data, interpreting the data, and reporting the findings are the five key stages of research when planning and conducting a case study (Crowe, Cresswell, Robertson, Huby, Avery & Sheikh, 2011:5). Each of these stages will be described below.

Stage 1 - Defining the case: The first step is to choose a study design. A research design is a strategy for gathering and evaluating data to enable the researcher to respond to the topic they have set (Priya, 2021:99). The main components of a case study design include the study's objectives, the kind of research to be conducted, the research question, a literature review, the techniques used to gather data, how the data were analysed, and how the results were presented (Priya, 2021:99). The research design for this study is descriptive. An exhaustive description of a phenomena in its

actual setting is the goal of a descriptive case study (Priya, 2021:96). The phenomenon that is being researched in this current study is entrepreneurship modules. As many modules as possible that could be found online by the researcher have been included in the analysis. The purpose and main goal of this study is describing the aims, central objectives, learning outcomes, current topics, teaching methods, and the skills being taught in the entrepreneurship modules identified via the desk research.

Stage 2 – Sampling: Much thought should be given to the choosing of the case(s) to analyse (Crowe et al., 2011:5). Instead of aiming to generalise from sample to population, qualitative research is concerned with making meaning of experienced, observed occurrence in a particular environment with precisely chosen participants (Johnson, Adkins & Chauvin, 2020:141). As a result, sampling in qualitative search is not random; rather, it is designed purposefully to include the most relevant participants in the most ideal environment for the research question (Johnson et al., 2020:141). Qualitative researchers understand that some participants are more likely than others to be rich with data or insight, making them more relevant and effective in attaining the study objective and providing an answer to the question at hand (Johnson et al., 2020:141). The relevant entrepreneurship modules conveniently available to researcher via a google search that are necessary to answer the objectives of this study, were identified through convenience sampling.

Stage 3 - Collecting and analysing data: A case study strategy often entails the collecting of several sources of information utilizing a variety of quantitative and frequently qualitative techniques to gain a full knowledge of the case (Crowe et al., 2011:6). In a case study, using many sources reduces the impact of using a single data source's interpretation alone (Runeson & Host, 2009:144). Third-degree data collecting techniques can be used to include pre-existing and sometimes compiled data (Runeson & Host, 2009:144). It is crucial to note that the information was gathered and documented for purposes other than the research project (Runeson & Host, 2009:145). Desk research was done for the current study to get access to the internet and websites of different tertiary institutions. For the purpose of this study a quantitative content analysis was used. Table 3.2 represents the eight steps were taken when doing the quantitative content analysis on the entrepreneurship modules identified.

Table 3.2: **Quantitative content analysis steps**

Step	Description
Step 1: Prepare the data	Data in a quantitative content analysis need to be converted into text before analysis can start (Zhang & Wildemuth, 2005:3).
	Google and Google Scholar were used to search for the relevant data relating to entrepreneurship modules. The researcher personally captured the data, and an Excel spreadsheet was used to capture the data. The data was captured under the following headings:
Step 2: Define the unit of analysis	This step involves classifying the information into units or themes, which may be a word, phrase, or a sentence, means dividing it into categories (Datt & Chetty, 2016).
	The unit of analysis for this study is the entrepreneurship modules that are available on the websites of tertiary institutions. Data captured relating to these modules include: the aims and central objectives, learning outcomes, current topical content, teaching methods and skill being taught.
Step 3: Develop categories and a coding scheme	Categories and codes must be generated based on the technique used since the qualitative content analysis can be based on both an inductive and a deductive approach (Datt & Chetty, 2016). In the current study the approach is deductive as the categories of data collected from each of the entrepreneurship modules was identified in Chapter Two (literature chapter).
Step 4: Test your coding scheme on a sample text	Coding a sample of the data is the greatest way to assess the precision and consistency of the category definitions (Zhang & Wildemuth, 2005:4). After the sample has been coded, it was necessary to examine the consistency of the coding, often by an evaluation of inter-coder agreement (Zhang & Wildemuth, 2005:4). In the current study, the researcher's supervisor confirmed the coding done.
Step 5: Code all the text	A table was used to capture and code the data. There was a column for each aspect (aims and central objectives, learning outcomes, topical content, teaching methods, and skills being taught).
Step 6: Assess your coding consistency	The researcher double-checked the coding's consistency once the complete collection of data had been coded (Zhang & Wildemuth, 2005:5).
Step 7: Draw conclusions from the coded data	Using the obtained codes and categories, the researcher made conclusions about the data collected (Datt & Chetty, 2016).
Step 8: Report your methods and findings	The results were preented accompanied by conclusions, supported from secondary data and quotes from the created code (Datt & Chetty, 2016). Additionally, the researcher chose to show the findings in the form of graphs, and tables. The findings were presented so that the reader could comprehend the interpretations (Datt & Chetty, 2016.

Stage 4 - Interpreting data: This step will involve analysing, interpreting, and evaluating the gathered empirical data. In order for the reader to assess the trustworthiness of the analysis, the many participant points of view are provided in sufficient detail and depth (Ngulube, 2015:18). In this current study there will be no participants. The data will be presented in tables.

Stage 5 - Reporting the findings: The reporting of results is the last step. It is important to report the results as doing so will enlighten the reader about the study's methodology and the approaches taken to come to the study's conclusions (Crowe et al., 2011:7). The reporting of the case study demonstrates the case study's quality (Runeson & Host, M, 2009:155; Rashid et al., 2019:6). In this current study the data will be reported in tables.

3.4 TRUSTWORTHINESS

Trustworthiness has to do with how much readers believe the outcomes are trustworthy or credible (Cypress, 2017:254). Therefore, being trustworthy is one method researchers can use to convince readers and themselves that their study findings are valuable (Nowell, Norris, White & Moules, 2017:3). Credibility, transferability, dependability, and confirmability criteria were added to the traditional quantitative evaluation criteria of validity and reliability to further develop the idea of trustworthiness (Nowell et al., 2017:3). Credibility (internal validity) is concerned with findings' consistency with reality (Nyirenda, Kumar, Theobald, Sarker, Simwinga, Kumwenda, Johnson, Corbett, Sibanda & Taegtmeyer, 2020:2). Credibility in this study was ensured by the researcher through personally preparing, collecting, and analysing data. Additionally, the researcher's study leader checked that the correct methods were followed, and the data gathered was captured correctly. Transferability (generalisability) refers to the ability of a study to be generalised (Nowell et al., 2017:3). This solely relates to case-to-case transfer in qualitative research (Nowell et al., 2017:3). Although a researcher is responsible for giving thorough descriptions so that individuals wishing to transfer the findings to their own site may assess transferability, the researcher cannot predict the sites that may choose to do so (Nowell et al., 2017:3). In this current study transferability was ensured by giving a detailed description of the methodology followed and how the researcher analysed and compared the data on entrepreneurship modules at tertiary institutions. Dependability (reliability) refers to the methods used in the study being described in detail so that

future researchers can replicate the work, even if they do not necessarily get the same outcomes (Shenton, 2004:71). These details make it possible for readers to fully understand the methods used and their effectiveness (Shenton, 2004:71). To ensure dependability in the current study, the researcher aimed to use trusted sources, from the early 2000s until present time. In addition, the methodology followed was clearly outlined. In addition, the findings and recommendations will be made available for future references. Confirmability (objectivity) refers to a research's objectivity in interpreting data; data that is without any bias, including social-desirability bias, which might be present since the researcher creates and use tools (Nyirenda et al., 2020:2). The researcher entered all the data into an Excel spreadsheet to ensure confirmability and also included a comprehensive research methodology chapter where the steps taken during the data collection and analysis phases detailed. Doing this will show that the findings and conclusions are derived directly from the data that was collected by the researcher and therefore free of study bias.

3.5 ETHICAL CONSIDERATIONS

Ethical considerations are important throughout all stages of quantitative research to keep the balance between risks of research and the likely benefits of the research (Arifin, 2018:30). Human subjects were not used in the current study's data gathering, hence no ethical clearance with regard to people was required. Desk research was conducted for this study. The study was however carried out in an ethically sound manner and complied with Nelson Mandela University's regulations. To confirm that the study conforms with the university's ethical requirements, Ethical Form E will be filled out and submitted (See Appendix 2).

3.6 SUMMARY

Chapter Three described the research design and methodology that were used. A discussion of the research strategy and the steps involved in carrying out the quantitative content analysis and thematic analysis was presented. The chapter concluded with a description of how trustworthiness was guaranteed and how ethical concerns were addressed. This study's empirical findings will be provided in Chapter Four.

CHAPTER FOUR
EMPIRICAL RESULTS

4.1 INTRODUCTION

In this chapter, Chapter Four, the findings of the empirical investigation into selected entrepreneurship modules offered at national and international tertiary institutions is presented. The data gathered is analysed, and the findings are discussed. Firstly, the tertiary institutions will be profiled, and this will be followed by an analysis of module names. Thereafter, the analysis of the aims and central objectives, learning outcomes, and the common topical content of entrepreneurship modules. The chapter concludes with analysing the teaching methods and skills being taught by entrepreneurship modules.

4.2 PROFILE OF CASES

In this section the institutions hosting the entrepreneurship modules and the module names are listed. This is followed by the analysis of the aims and central objectives, learning outcomes, topical content, teaching methods used, and skills being taught with regards to these entrepreneurship modules.

4.2.1 LIST OF INSTITUTIONS

Thirty modules from 23 tertiary institutions were analysed in this study (see Table 4.1). These 23 tertiary institutions are divided into two categories, national institutions (8) and international institutions (15). Out of these 23 tertiary institutions, the University of Pretoria, Tshwane University of Technology, and the University of Witwatersrand have two modules each. The University of Kent and Nelson Mandela University have three modules each.

Table 4.1:   List of institutions

National institutions	International institutions
University of Pretoria (2)	University College Dublin
University of Western Cape	Durham Technical Community College
Central University of Technology, Free State	University of Kent (3)
Tshwane University of Technology (2)	University of Exeter
University of Witwatersrand (2)	University of York
University of Free State	Cork Institute of Technology
University of Kwazulu-Natal	University of Warwick
Nelson Mandela University (3)	University of Birmingham
	European University Foundation
	University of Surrey
	The University of The West Indies
	Nice
	University of Reading
	Alison
	Abertay University

4.2.2   MODULE NAMES

The most common words appearing in the names of the entrepreneurship modules are Entrepreneurship (11 times), followed by Entrepreneurship plus additional words (9 times) and Innovation and Entrepreneurship (7 times). Other words appearing are summarised in Table 4.2.

Table 4.2:   Module names

Words	Number	Details
Entrepreneurship	11	Introduction to entrepreneurship; Entrepreneurship
Entrepreneurship plus additional words	9	Starting your own business; Enterprise, Practice of; SBM; From ideas to reality; Business management and entrepreneurship
Innovation and Entrepreneurship	7	Marketing, entrepreneurship & innovation; Innovation and entrepreneurship
New Venture Creation & Development	1	New venture creation & development
Marketing and Entrepreneurship	2	Entrepreneurial marketing; Marketing, entrepreneurship, and innovation
Corporate Entrepreneurship	1	Corporate entrepreneurship

4.3   AIM AND CENTRAL OBJECTIVES OF MODULES

The empirical results show that the aims and central objectives of the modules investigated relate to 13 themes (see Table 4.3), namely to teach students about the following: introductory knowledge of entrepreneurship, the nature of entrepreneurship, knowledge and skills, innovation, economic changes/development, creativity, business start-up, opportunity evaluation and identifying, managing and growing a small business, entrepreneurial culture, self-employment, theoretical insight, and design and implementation. Three modules out of the 27 modules that had data/information on aims and central objectives could not be analysed further as they did not focus on entrepreneurship. One module focused on marketing, another on corporate entrepreneurship and the third on business management.

Table 4.3:   Aims and Central objectives

Coded/Category	Theme
Introductory principles	**Introductory knowledge of entrepreneurship**
Introductory knowledge of innovation and entrepreneurship	
Introduction to the important elements involved in the understanding of marketing	
The basics of entrepreneurship, providing a solid foundation	
To introduce students to the notion of entrepreneurship	
Table 4.3: Aims and Central objectives (cont.)	
To provide an introduction	
The concept of entrepreneurship	
The nature and importance of entrepreneurship	**The nature of entrepreneurship**
The nature of enterprise and entrepreneurship	
The nature and fundamentals of entrepreneurship	
Knowledge and skills	**Knowledge and skills**
Knowledge, skills, and competence	
Develop skills	
Knowledge and skills	
Develop and practice the skills	

Table 4.3: **Aims and Central objectives (continued)**

Innovation and enterprise skills	**Economic changes/development**
To understand the social and economic changes	
Importance for economic development	
Creativity, and creative problem solving	**Creativity**
Thinking critically and creatively	
Think critically and creatively	
Innovation and entrepreneurship	**Innovation**
Entrepreneurship and innovation	
Analysis and innovation	
Develop and implement new corporate ventures	**Business start-up**
Setting up and running their own business.	
Start and manage a new venture	
Launching and new venture	
Start a business	
Business start-up and development	
Identify entrepreneurial opportunities	**Opportunity evaluation and identifying**
Opportunities and challenges of entrepreneurship	
Opportunity evaluation	
Identify and assess his/her own opportunity	
Opportunities are identified	
Manage a new venture	**Manage and grow a small business**
Manage and grow their own small business enterprises.	
Manage and grow small business enterprises	
Manage the operations of a small business	
Manage and grow their own small business enterprises.	
The culture and workings of an entrepreneurial environmental	**Entrepreneurial culture**
Raise awareness of self-employment	**Self-employment**
Theoretical insight into entrepreneurship	**Theoretical insight**
Design and implement a compelling strategy which promotes corporate entrepreneurship	**Design and implementation**

4.4 LEARNING OUTCOMES

Eighteen different learning outcomes were identified in the modules analysed. The empirical

results show that the most common learning outcomes that these entrepreneurship modules have are being able to scale-up opportunities/= and recognise opportunity (10 times), as well as understanding the concept of entrepreneurship and its nature (8 times). Assessing the attractiveness, feasibility, and viability of opportunities, being able to critically analyse, assess, evaluate opportunities, understanding and writing business plan, being innovative and entrepreneurship, and understanding, discussing, and being familiar with the entrepreneurial process all appeared as learning outcomes seven times. Numerous other learning outcomes were mentioned between two and six times, the outcomes are summarised in Table 4.4

Table 4.4:   Learning Outcomes

	Learning outcome	**Number**
1	Scaling opportunities/opportunity recognition	10
2	Understanding the concept of entrepreneurship and its nature	8
3	Assessing the attractiveness, feasibility, and viability	7
4	Critically analyse/assess/evaluate	7
5	Understanding of business plan and the ability to write one	7
6	Innovation and entrepreneurship	7
7	To understand, discuss, and be familiar with the entrepreneurial process	7
8	Understanding of finance	6
9	The interaction of entrepreneurship with the economy and society	5
10	Entrepreneurial mindset	5
11	Acquire knowledge and skills related to policy issues/identify entrepreneurship policies/assess global trends/identify global challenges	4
12	Critical understanding/thinking	4
13	Understanding the skills required by an entrepreneur	4
14	Tools and methods used to make investment decisions about new ventures.	3
15	Pitch of a venture idea	3
16	Production and management	3
17	Understand social entrepreneurship	2
18	Working in a team	2
19	Applying and understanding effectuation	2
20	Identify key features and commonalities in entrepreneurship behaviour	2

4.5 TOPICAL CONTENT

The data collected on the topical content of entrepreneurship modules analysed is presented in Table 4.5. Initially there were 21 modules that were analysed but one was eliminated as its content was focused on marketing and not entrepreneurship. The empirical results show that entrepreneurship modules investigated mostly include topics involving finance, business planning, and strategy. The 23 topical themes developed are: opportunities, entrepreneurial mindset, venture financing, entrepreneurial process, developing a business plan, types of entrepreneurs and entrepreneurial ventures, the concept of business models, introduction to entrepreneurship, feasibility and viability, design thinking, the value umbrella, lean model, the legal umbrella, teamwork, problem solving, effectuation, risk and uncertainty, generating business ideas, challenges of entrepreneurship, various strategies, social entrepreneurship, entrepreneurial skills and motivations.

Table 4.5:   Topical Content

Coded/category	Theme
Screening and application of business opportunities	Opportunities
Creativity and Opportunity Discovery	
Recognising and Exploiting Opportunity	
Entrepreneurial opportunity	
Opportunity Seeking	
Opportunities and alternatives of entrepreneurship	
Opportunity recognition and creation	
Entrepreneurial opportunities	
Innovation, Creativity, Ideas and Opportunities	
Case studies review and analysis	
Case studies in entrepreneurship	
Entrepreneurial Mindset	Entrepreneurial mindset
Introduction to the entrepreneurial mindset	
Entrepreneurial mind-set	
Mind of the entrepreneurship	

Table 4.5:   Topical Content (continued)

Funding a new enterprise	**Venture Financing**
Financing for start-ups	
Finance	
Entrepreneurial finance	
Getting Finance	
Financing options	
Financial planning and calculations	
Introduction to business functions such as finances	
Finance growth	
Resources primarily financial	
Entrepreneurial process	**Entrepreneurial process**
Entrepreneurship process	
Entrepreneurial process	
Entrepreneurial process	
The entrepreneurial process	
Business Plans Developing a credible business plan that includes evaluating business ideas	**Developing a business plan**
Business plan for growth	
Business planning	
Business plan	
Developing the business plan	
The planning process for starting a new venture	
Developing business plans	
The business plan	
The Overall Business Plan A. Purpose of the Business Plan B. Components of the Business	
Types of Entrepreneurial Ventures and Entrepreneurs	**Types of entrepreneurs and entrepreneurial ventures**
Types of Entrepreneurships	
Typologies of Entrepreneurship	
Definition of Entrepreneurship and Types of Entrepreneurs	
Entrepreneurial Business Types	
Discovering Entrepreneurship	

Table 4.5:   **Topical Content (continued)**

Introduction to Entrepreneurship	**Introduction to entrepreneurship**
This module will introduce students to basic concepts of entrepreneurship and innovation.	
Introduction to entrepreneurship	
An introduction to entrepreneurship	
Management and entrepreneurship: Introductory views	
Introduction to entrepreneurship	
Determining the Feasibility	**Feasibility and viability**
Feasibility and Viability	
Feasibility studies	
Assessing Feasibility and Viability	
Viability, desirability and feasibility	
Business Model	**The concept of business models**
The business model	
Analysing Business Models	
Business models, Business model canvas, business model patterns	
The concept of business models, the search for an appropriate business model	
Design thinking and product development	**Design thinking**
Ideation and design thinking	
Design thinking	
Value-creation, Fit and the Value Proposition Canvas	**The value umbrella**
Value in an innovation ecosystem	
Value Proposition	
Value-creation	
Lean start-up, validation experiments, customer research	**Lean Model**
Resource Requirements and Business Planning (* Lean Model Canvas).	
The practice of starting up by applying the lean start-up principles	
Legal Issues; management and leadership	**The legal umbrella**
Business Ethics; Operations Management; Growth and Exit Strategies	
The protection of ideas and intellectual property	
Government policies and initiatives, and support agencies.	
Intellectual Property	
Legal requirements	
Statutory Requirements and Start-Up Issues	

Table 4.5:   **Topical Content (continued)**

Team development	**Teamwork**
Team Collaboration	
Team management	
Building the entrepreneurial team	
Solving Problems Creatively	**Problem solving**
Entrepreneurial Fit, Styles and Effectuation.	**Effectuation**
Effectual Entrepreneurship	
Effectuation	
Managing risk and uncertainty	**Risk and uncertainty**
Assessing risk and uncertainty	
Calculated risk	
Identifying small business ideas	**Generating business ideas**
Business Ideas Strategies for generating successful business ideas	
The process of turning an idea into a successful startup business	
Generating and Screening Ideas	
The innovation process- create, and develop ideas	
Identifying a good business idea and the future direction of our organisation	
Challenges of entrepreneurship	**Challenges of entrepreneurship**
Factors that have influenced the growth of the enterprise culture in the UK	
Content of a business proposal, using and implementing a business proposal and understanding how some businesses fail.	
Surviving the early stages of business development, including failure rates in new and small enterprises and barriers to growth and development.	
Cashflow, cost & profit, pricing strategies	**Strategies**
General and strategic management	
Strategy and branding	
Strategies for generating successful business ideas	
Blue Ocean strategy	
Growth and exist strategies	
Strategic entrepreneurial marketing	
Students to adopt a strategic vision of enterprise in a global setting	
Testing Strategies	
Business strategies between small and large firms	
Innovation strategies	
Strategies to internationalise new ventures	
Selecting a marketing strategy	

Table 4.5: Topical Content (continued)

Social entrepreneurship in practice	**Social entrepreneurship**
Social Entrepreneurship.	
Entrepreneurial social capital	
Social enterprise	
Entrepreneurial behaviours and skills	**Entrepreneurial Skills**
An analysis of the skills and qualities associated with successful entrepreneurs	
Entrepreneurial motivation	**Motivations**
Pathways to starting a business Motivations	

4.6 TEACHING METHODS

Table 4.6 shows the results of the most common teaching methods used in the modules investigated. Twelve modules out of 30 provided information on the teaching methods use to teach these entrepreneurship modules. Most common teaching method identified are formal lectures, appearing 10 times, followed by private/individual/self-study, mentioned eight times. Practical activities, presentations, learning/discussion/analysis, all appeared five times. The most common teaching method are lectures and task-based learning is the least commonly used teaching method.

Table 4.6: Teaching methods

	Teaching methods used	Number
1	Lectures	10
2	Private/individual/self- study	8
3	Practical activities	5
4	Presentations	5
5	Learning/discussion/analysis	5
6	Assessments/assignments	4
7	Seminars/tutorials	3
8	Reading	3
9	Guest speakers	3
10	Group/teamwork	3
11	Class discussion	2
12	Workshops	2
13	Task based learning	1

4.7 SKILLS BEING TAUGHT

Only six modules investigated provided information relating to the skills they are teaching students. Table 4.7 summarises these skills and the number of modules that teach them. The empirical results show that entrepreneurship modules are likely to teach students skills based on the nature of the module. From the modules investigated, 24 skills were identified. Problem solving and teamwork skills were mentioned three times, research skills, self-manage/self-reflect skills, communication skills, and IT skills, were all mentioned two times.

Table 4.7:   Skills taught

	Skills	Number
1	Problem solving skills	3
2	Teamworking skills	3
3	Research skills	2
4	Self-manage/self-reflect skills	2
5	Communication skills	2
6	IT Skills	2
7	Decision making skills	1
8	Critical thinking skills	1
9	Numeracy skills	1
10	Time Management skills	1
11	Present an audit of a new venture or innovation	1
12	Diagnose pitfalls and problems with new ventures	1
13	Identify potential organisational resistance to innovations	1
14	Work in interdisciplinary areas relating theories from different subjects	1
15	Negotiating skills	1
16	Business planning	1
17	Opportunity awareness	1
18	Organisational skills	1
19	Networking skills	1
20	Presentation skills	1
21	Business operations	1
22	Development and analysis skills	1
23	Managerial skills	1
24	Ethical skills	1

4.7 SUMMARY

The empirical results of the study were reported in this chapter. The first two table listed the names of tertiary institutions offering the module and the names of these modules. The third table summarised the aims and central objectives of the modules. The tables that followed summarised the learning outcomes, topical content, common teaching methods, and the skills being by entrepreneurship modules analysed. In the next chapter, the results are discussed and compared to the literature. In addition, conclusions, and recommendations based on the findings of the study are given.

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CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

</div>

5.1 INTRODUCTION

Chapter Five provides a synopsis of all the chapters completed in this study. The chapter indicates how the research objectives were met and how the research questions posed in Chapter One are answered. The findings are discussed, and recommendations based on the literature overview and empirical findings are made. Limitations of the study are indicated, and future research areas are suggested. To conclude the study, concluding remarks regarding the study are made.

5.2 SUMMARY OF RESEARCH

Chapter One serves as an introduction and background to the study and presents the problem description, and the research objectives. The above mentioned are followed by research questions of the study which guided the researcher throughout the course of the study, and the scope and delimitations of the study. The clarification of key concepts, the significance and the structure of the research concludes this chapter. A literature review, which provides a definition of entrepreneurship education and highlights the nature and purpose of entrepreneurship education, follows. The types of entrepreneurship education, the content of entrepreneurship education modules, and the importance of entrepreneurship education were then described. Chapter Two concluded with a discussion on existing research on entrepreneurship education modules. The research design and methodology employed in this study was described in Chapter three. The techniques and procedures, and the collection of data were described. An elaboration on the research strategy, namely case study was given. How trustworthiness was ensured was described and ethics addressed concluded the chapter. Chapter four reported on the empirical results of the study. A profile of the cases was provided followed by the descriptions, codes, and themes of the key concepts of the study (as provided in Chapter One). The chapter summarised the collected during the desktop research, namely the aims and central objectives, learning outcomes, topical content, teaching methods, and skills being taught by entrepreneurship modules.

5.3   ACHIEVEMENT OF PRIMARY AND SECONDARY OBJECTIVES

The achievement of the research objectives is summarised in Table 5.1.

Table 5.1:   Achievement of research objectives

Objectives	Relevant Chapter (s)
Primary objective:	
The primary objective of this study is to analyse entrepreneurship modules at selected tertiary institutions in South Africa and internationally.	Chapter 1 – 5
Secondary objectives:	
SO1: To identify the aim and central objectives of entrepreneurship modules offered at selected tertiary institutions.	Chapter 2 & 4
SO2: To identify the learning outcomes of the entrepreneurship modules offered at selected tertiary institutions.	Chapter 2 & 4
SO3: To describe the topical content of entrepreneurship modules offered at selected tertiary institutions.	Chapter 2 & 4
SO4: To identify the most common teaching methods used for teaching entrepreneurship modules offered at selected tertiary institutions.	Chapter 2 & 4
SO5: To identify the skills being taught through entrepreneurship modules offered at selected tertiary institutions.	Chapter 2 & 4
Methodological objectives:	
MO1: To conduct at literature review on entrepreneurship education in general considering the aims and central objectives, learning outcomes, topical content, most common teaching methods used and the importance of thereof.	Chapter 2
MO2: To choose and put into practice the best research methodology to address the defined research problem and research objectives.	Chapter 1 & 3
MO3: To undertake desktop research to identify the aim, central objectives, learning outcomes, content, teaching methods and skills being taught by entrepreneurship modules offered at selected tertiary institutions.	Chapter 3
MO4: To make conclusions and provide recommendations based on the findings of this study to tertiary institutions and educators of entrepreneurship modules to assist them in improving their module offerings.	Chapter 5

5.4 DISCUSSION AND ADDRESSING OF RESEARCH QUESTIONS

The research questions that were posed based on the primary objective of this study were provided in Chapter One. In the paragraphs below the researcher will elaborate on how each of the research questions have been answered and the findings will be discussed

RQ1:   What is the aim and central objectives of entrepreneurship modules offered at selected tertiary institutions?

The findings of this study show that the aim and central objectives of entrepreneurship modules offered at selected tertiary institutions vary. For example, in the literature review Kickul et al. (2018:211) says that entrepreneurship education is designed to develop entrepreneurial mindsets, attitudes, and abilities in a variety of domains, including idea generation, startup, growth, and innovation. Debarliev et al. (2022:220) mentions the Human Capital Theory (HCT) and the Theory of Planned Behaviour (TPB) as two of the major streams in the research on the efficacy of entrepreneurship education and these two streams of research concentrate on various aims. Human Capital Theory highlights knowledge, skills, and abilities based on entrepreneurs being successful in launching and managing a business (Debarliev et al., 2022:220). The Theory Planned Behaviour highlight the behavioural/entrepreneurial intention of an individual to pursue or not to pursue entrepreneurship to become self-employed (Kisubi, Bonuke & Korir, 2021:21).

 As such it appears from the empirical results that no one size fits all and aims vary depending on depend on the specific module itself. The themes developed in Table 4.3 highlight the similarities the modules have in their aims and central objectives. When comparing to the literature and the empirical results it is evident that knowledge and skills, business start-up, innovation, growing a business, and the knowledge of entrepreneurship is what the aims and central objectives of entrepreneurship modules offer students. The literature puts emphasis on business start-up, creating something new, and self-employment which is also mentioned in the empirical results. The findings of this study relating to the aim and central objectives of entrepreneurship modules algin to the literature as suggested in Chapter Four.

RQ2:   What are the learning outcomes of the entrepreneurship modules offered at selected tertiary institutions?

The study has presented evidence that the learning outcomes of entrepreneurship modules vary, and that each module is most likely to have its own learning outcomes based on the aim and central objectives of that module. From the aims and objectives of entrepreneurship education a link to learning outcomes is developed to ignite an entrepreneurial spirit and interest within students (Sadewo et al., 2021:3). The literature review points out that learning outcomes for entrepreneurship modules are measured according to knowledge, skills, and attributes. Knowledge, understanding, and critical thinking are cognitive learning outcomes, psycho-motor learning outcomes are centered on the change or development in behaviour/skill, and lastly affective learning outcomes are relating to attitudes, emotions, and feelings (Kozilnska, 2012:10; Kozlinska et al., 2020:3). Table 5.2 summarises the similarities of learning outcomes found in the literature (Azizi, & Mahmoudi, 2019:151; Pittaway et al., 2009:25) to those identified in the empirical results. According to (Azizi & Mahmoudi (2019:151) and Pittaway et al. (2009:25), students need to be interested in entrepreneurship and be motivated to choose being self-employed as a career at the end of the entrepreneurship modules. The learning outcomes identified in the empirical reuslts to not mention the need for students to be motived and intrested in being self-employed as a career choice.

Table 5.2:   Similarities between literature review and empirical results

Literature review	Empirical results
Developed entrepreneurial behaviour.	Identify key features and commonalities in entrepreneurship behaviour.
Develop attitude and skills.	Understanding the skills required by an entrepreneur.
Learn and know how to write and familiarise themselves with a business plan.	Understanding of business plan and the ability to write one.
Ability to obtain the necessary funding.	Understanding of finance
Understanding of business entry procedures and the duties of an entrepreneur.	Understanding the concept of entrepreneurship and its nature.
Maintain relationships.	Working in a team.
Good at communicating.	Pitch of a venture idea.

RQ3:   What is the topical content of entrepreneurship modules offered at selected tertiary institutions?

According to Giudice et al. (2014:93), business risk awareness for new businesses, as well as an awareness of the student's development potential, should be the focal point of entrepreneurship education modules. In addition, finding new, underserved marketing and knowing how to use the resources at hand to break into those markets are key component of entrepreneurship (Giudice et al., 2014:93). The findings of this study, concerning the topical content of entrepreneurship modules, aligns to that identified in the literature. Both the empirical findings and the literature highlight the importance of students being taught about business planning, the types of enterprises and entrepreneurs, idea generation, innovation, and start-up growth. The literature and the empirical results are also consistent in that students need to be taught how to develop an entrepreneurial mindset and entrepreneurial skills.

The literature also identifies that students need to be taught entrepreneurial capacity, managing the business and entrepreneurial implementation (Lin & Sekiguchi, 2020:83; Katz et al., 2016:496). The topical themes developed during the data analysis that identify the topical content of entrepreneurship modules under investigation are: opportunities, entrepreneurial mindset, venture financing, entrepreneurial process, developing a business plan, types of entrepreneurs and entrepreneurial ventures, the concept of business models, introduction to entrepreneurship, feasibility and viability, design thinking, the value umbrella, lean model, the legal umbrella, teamwork, problem solving, effectuation, risk and uncertainty, generating business ideas, challenges of entrepreneurship, various strategies, social entrepreneurship, entrepreneurial skills and motivations.

RQ4:   What are the most common teaching methods used for teaching entrepreneurship modules offered at selected tertiary institutions?

The entrepreneurship education teaching methods employed by tertiary institutions vary greatly due to their diversity; these approaches are characterised by the assortment of concepts that educators employ to clarify their lessons (Babatunde et al, 2021:1094; Cascavilla et al., 2022:3). According to Lackeus (2015:10) and Koustas and Salehi (2021:35), there are three types of entrepreneurship teaching: 'about', 'for', and 'through' entrepreneurship. Additionally

these types can be categorised in accordance with the 'know what', 'know how' and ' know why' of entrepreneurship education (Williams Middleton & Donnellon, 2014:175).

Table 5.3 below summarises the most common teaching methods identified in the literature and the empirical results.

Table 5.3:   **Common teaching methods**

Literature review	Empirical results
Case studies	Case-based learning/discussion/analysis
Lectures	Lectures
Discussions and presentations	Presentations and class discussion
Guest speakers	Guest speakers
Group projects	Group / teamwork
Action learning	Practical activities

Since the Pandemic, pre-recorded video lectures are used as introductions to units of the module and readings are provided before class, where students familiarise themselves with the unit contents (Ruiz-Jimenez et al., 2022:4). Role-play, group discussions and presentations, project-based learning, simulations are also used as part of delivering entrepreneurship education topical content (Ruiz-Jimenez et al., 2022:4). Additionally, students may participate in seminars, interact with successful entrepreneurs, and ask for guidance on potential startups, go on field excursions, participate in 'real life' events, and watch video clips of active startups (Samuel et al., 2022:1809). From the findings in Chapter Four, the most common teaching methods used in the entrepreneurship modules under investigation include lectures, private/individual/self-study, practical activities, case-based learning/discussion/analysis, presentations, assessments/assignments, group/teamwork, guest speakers, reading, class discussions, workshops, and task-based learning.

RQ5:   What are the skills being taught through entrepreneurship modules offered at selected tertiary institutions?

Previously it was believed that entrepreneurs needed to possess certain technical skills, business management skills and personal entrepreneurial skills (Sendra-Pons et al., 2022:367). Additionally, they needed a set of skills that includes financial management, accounting, marketing, economics, and talent management. (Sendra-Pons et al., 2022:367). However,

entrepreneurship education today not only focuses on these skills but also on enhanced entrepreneurial ability among students (Wei, Liu & Sha, 2019:2). Today entrepreneurship education involves developing entrepreneurial skills and on the promotion of creativity, innovation, self-employment, and the ability to clearly identify opportunity (European Commission, 2008:10; Wei et al., 2019:2). Table 5.4 compares the skills identified in literature chapter to those identified in empirical results.

Table 5.4: Literature review and empirical results comparison

Literature review	Empirical results
Identify and solve problems	Problem solving skills
Creativity	Team working skills
Risk taking	Research skills
Self-confidence	Self-manage/self-reflect skills
Entrepreneurial Skills	Entrepreneurial skills
Spirit of initiatives	Communication skills
Responsibility	IT Skills
Creating a marketing plan	Decision making skills
Innovative thinking	Critical thinking skills
	Time Management skills
Identify opportunity	Opportunity awareness
	Business planning
	Business operations
	Organisational skills
Networking skills	Networking skills
	Presentation skills
	Numeracy skills
Ability to analyse the market	Development and analysis skills
	Ethical skills
Good management skills	Managerial skills
	Work in interdisciplinary areas relating theories from different subjects
	Identify potential organisational resistance to innovations
Ability to understand and to see change	Diagnose pitfalls and problems with new ventures
	Present an audit of a new venture or innovation

The table provides evidence of how skills identified in the literature have both similarities and differences to those identified in the findings of this study. The European Commission (2008:10) and Wei et al., (2019:2), are in agreement with the empirical findings that students

need to develop entrepreneurial skills, the ability to identify opportunities. Tarhan (2021:35), further agrees that at the end of entrepreneurship modules students should obtain the skill to have good management, the ability to analyse the market, networking skills, the ability to understand and see change, innovative thinking, and be able to identify and solve problems. The European Commission (2008:10), Wei et al., (2019:2), and Tarhan (2021:35), also identified skills not mentioned in the empirical findings, namely skills such as creativity, risk taking, self-confidence, spirit of initiative, responsibility, and creating a marketing plan.

Chapter Four shows evidence of additional skills together with a number of skills that were not identified in the literature, namely decision-making skills, critical thinking skills, research skills, self-manage/self-reflect skills, communication skills, team working skills, numeracy skills and IT Skills, time management skills, present an audit of a new venture or innovation, diagnose pitfalls and problems with new ventures, identify potential organisational resistance to innovations, work in interdisciplinary areas relating theories from different subjects, negotiating skills, business planning, opportunity awareness, organisational skills, presentation skills, business operations, and ethical skills.

5.5   RECOMMENDATIONS

Through investigating the nature of selected entrepreneurship modules at South African and international tertiary institutions, best cases were found and shared, and where limitations existed corrective steps are offered below. Based on the findings of this study the researcher recommends that curriculum developers read academic journals or do research on what other tertiary institutions in their country and abroad are doing to teach entrepreneurship modules, the kind of content that is involved in these modules, the skills and learning outcomes students are expected to learn/acquire come graduation. This recommendation will help curriculum developers to align their own aims and central objectives to those of other modules, to ensure there are no big gaps between their modules and other modules from other tertiary institutions.

It is recommended that tertiary institutions have more information on the entrepreneurship modules they offer. They should not limit the information they provide for the public, as this will help prospective students gain knowledge on what to expect from the module, what they

will be taught and how they will be taught, the primary learning outcomes of the module, and more especially knowledge on the kind of skills they will obtain at the end of the module. All this information will be beneficial to a prospective student to help them choose and to know which module is going to satisfy their specific needs on their entrepreneurial journey. It is, furthermore, recommended that tertiary institutions allow more access to their school websites and have specific channels where researchers can ask questions about or gain more information on the entrepreneurship modules they offer. Tertiary institutions are recommended to do research on previous studies based on entrepreneurship modules, as this can be used as a measurement tool to see what is recommended by scholars to be the aims and central objectives, the learning outcomes, topical content, teaching methods, and skills taught to students by entrepreneurship modules. The recommendation will assist tertiary institutions to ensure they provide only the best modules to their students.

5.6   LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

The limitations of any study are related to the possible weaknesses that are encountered by a researcher which are normally out of the researcher's control, and are strongly connected with the selected research design, data analysis constraints, funding constraints, or other factors present in the study (Theofanidis & Fountouki 2018:163). Since limitations are present in every study, and the researcher identified a few limitations in this study, which are highlighted below:

- There were study limitations during data collection, due to the researcher only conducting desktop research, some of the information need to answer the research objectives was not available.
- Study limitations were identified from the accessibility and availability of entrepreneurship modules, which limited the researcher in effectively analysing entrepreneurship education modules.
- Also, study limitations were identified from the small sample size of tertiary institutions that offer entrepreneurship modules on the internet.

The limitations to the study have been discussed, and from the limitations the focus of future studies can be determined. Future studies need to put emphasis on data collection, by calling, sending an email, or going personally to the tertiary institutions that offer entrepreneurship

modules. Furthermore, the small sample size limits the researcher from accurately investigating entrepreneurship modules. Therefore, future studies need to increase the sample size to between 40 and 80 institutions. The study focused on only on 30 modules that were found on websites in South African and overseas, whereas there are many other South African and international tertiary institutions that offer entrepreneurship modules but were not analysed in this study. Future studies need to use an increased number of entrepreneurship modules to ensure a thorough investigation.

5.7   CONCLUDING REMARKS

The study provides insight into South African and international entrepreneurship education modules. The study provided evidence that entrepreneurship modules are not a one size fits all, but they do possess variation together with some commonalities. The study, however, could serve as a guide to aid future researchers conducting a study on the research topic, since some research questions in this study remain with gaps. Future studies are required on the research topic, where there is a full access to the entrepreneurship education modules they can investigate.

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APPENDIX 1

Figlan AS

ORIGINALITY REPORT

5%	6%	0%	3%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	busman.mandela.ac.za Internet Source	3%
2	Submitted to Nelson Mandela Metropolitan University Student Paper	1%
3	ebin.pub Internet Source	1%
4	www.kent.ac.uk Internet Source	1%

Exclude quotes	On	Exclude matches	< 1%
Exclude bibliography	On		

APPENDIX 2

NELS●N M▲NDELA

UNIVERSITY

FACULTY OF BUSINESS AND ECONOMIC SCIENCES

ETHICAL CONSIDERATIONS FOR ADVANCED DIPLOMA/HONOURS/POSTGRADUATE
DIPLOMA FOR NON-PUBLICATION PURPOSES

INSTRUCTIONS

- This form must be completed by student with the relevant explanation by and support of the supervisor and the student.
- It must be signed off by the student, supervisor and HoD.
- Submit the completed form to Ms Lindie van Rensburg lindie.vanrensburg@mandela.ac.za.
- Please ensure that the research methodology section from the proposal is attached to this form.

Please note that by following this ethics route, the study will NOT be allocated an ethics clearance number.

SECTION A – STUDENT ACKNOWLEDGMENT

In completing this form I, *Asemahle Sinazo Figlan*, acknowledge that my research project is for academic qualification purposes only. As such, the research report or any sections thereof may not be published in any publication, including an accredited journal.

I further acknowledge that my research project will be a desktop study and will only make use of publicly available documents or secondary data. No human subjects/ participants/ respondents will be involved in the study.

I understand that secondary data in this instance refers to data that was collected and processed by someone else for some other purpose but is now being used by the researcher for another reason (Tripathy, 2013). Research utilizing secondary data that both exists and has been collected in a public, academic database, for example Google Scholar, is considered desktop research and generally does not require full ethical approval (Creswell & Poth 2017).

SECTION B – STUDENT AND RESEARCH PROJECT DETAILS

Student name & surname	**Asemahle Sinazo Figlan**
Student number	**227472268**
Study title	**An analysis of selected entrepreneurship modules at tertiary institutions**
Year of registration	**2023**
Qualification	**BCom Hons (Business Management)**
Department	**Business Management**
Supervisor	**Prof SM Farrington**

SECTION C – ETHICS CRITERIA

In completing my research project, I hereby acknowledge that I have read and understand the following important considerations as they apply to my study. I indicate this by placing a tick next to each statement.

I acknowledge that my study is based on the analysis of secondary data and that the following conditions apply:

1.	There are no human subjects/participants/respondents in my study and as such there will be no collection and use of data from human subjects/participants/ respondents though administering/distributing any questionnaire/survey or by holding any form of interview.	√
2.	As there are no human subjects/participants/respondents in my study, it does not pose any risk of harm, embarrassment or offence, however slight or temporary, to any human participant, third parties or communities at large.	√
3.	As there are no human subjects/participants/respondents in my study, it will not utilise human subjects defined as 'vulnerable' in terms of age, physical characteristics and/or disease status.	√
4.	The secondary data that will be utilised in this study does not require the consent of any institutional or government authority established to protect vulnerable people.	√
5.	The secondary data that will be utilised for this study does not require access to data from any existing, stored repository (e.g. school, institutional or university records) that can be linked to human subjects.	√

It is acknowledged that both supervisor and student have given the study the necessary research ethical consideration and confirm that full ethics approval is not required.

_____   17/05/2023
SUPERVISOR(S)   _____
                                                      DATE

_____   17/05/2023
HEAD OF DEPARTMENT   _____
                                                      DATE

_____   15/05/2023
STUDENT(S)   **DATE**

Asemahle Sinazo Figlan