

**Entrepreneurship Teachers' Implementation of Blended Learning: Case Studies of
Three Secondary Schools in Namibia.**

By

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Declaration

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Hileni Tuyoleni Shifotoka

Date

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Abstract

The objective of this study was to determine how Entrepreneurship teachers perceive blended learning, and how they use it in their classrooms as well as the challenges, benefits, and opportunities they encountered during implementation. The literature reviewed has shown that only few studies have been conducted till today on the implementation of blended learning in most parts of Africa, particularly in Grades 8-12.

The Community of Inquiry (COI) theoretical framework was used to further investigate blended learning in the context of this study. A case study qualitative research design was employed, with the sample of six entrepreneurship teachers from three high schools in Namibia's Khomas Region, Windhoek. Qualitative data were collected using three methods namely observation, semi-structured interviews, and document analysis. While the interviews were transcribed using Temi.com software, an observation method was also used purposely to obtain information on how various documents were used as well as how blended learning was incorporated into the teaching of Entrepreneurship Education. The data were analysed using content analysis. This method helped to identify similarities and differences in how teachers interpret the concept of blended learning,

The findings demonstrated that blended learning as a teaching strategy has the potential to provide numerous benefits to the teaching and learning communities. The findings also revealed that the emergence of the COVID-19 lockdown has re-invigorated the use of blended learning in the Entrepreneurship classroom. Moreover, most of the teachers in most private schools had a better understanding of the concept of blended learning than many teachers in the public schools.

The study recommends that more technology training or workshops are needed for teachers to improve their technology and digital skills, and to keep them updated with the use of technology relevant for implementing blended learning. The study also suggests some areas suitable for future research.

Opsomming

Die doel van hierdie studie was om te bepaal hoe ondernemingsonderwysers gemengde leer waarneem en hoe hulle dit in hul klaskamers gebruik, sowel as die uitdagings, voordele, en geleenthede wat hulle tydens implementering ondervind het. Die literatuuroorsig het getoon dat slegs enkele studies tot vandag toe gedoen is oor die implementering van gemengde leer in die meeste dele van Afrika, veral in grade 8 – 12.

Die Gemeenskap van Onderzoek (COI) teoretiese raamwerk is gebruik om gemengde leer in die konteks van hierdie studie verder te ondersoek. 'N Kaaluitstudie-kwalitatiewe navorsingsontwerp is gebruik, met die steekproef van ses ondernemerskaponderwysers van drie hoërskole in die Khomas-streek in Namibië, Windhoek. Kwalitatiewe gegewens is versamel met behulp van drie metodes: waarneming, semi-gestruktureerde onderhoude en dokumentanalise. Terwyl die onderhoude met behulp van Temi.com-sagteware getranskribeer is, 'n waarnemingsmetode is ook gebruik om inligting te bekom oor hoe verskillende dokumente gebruik is, asook hoe gemengde leer by die onderrig van entrepreneurskapsonderwys opgeneem is. Die data is met behulp van inhoudsanalise ontleed. Hierdie metode het gehelp om ooreenkomste en verskille te identifiseer in hoe onderwysers die konsep van gemengde leer interpreteer,

Die bevindings het getoon dat gemengde leer as 'n onderrigstrategie die potensiaal het om talle voordele vir die onderrig- en leergemeenskappe te bied. Die bevindings het ook aan die lig gebring dat die opkoms van die COVID-19-sluiting die gebruik van gemengde leer in die entrepreneurskapsklas weer geïnspireer het. Boonop het die meerderheid van die onderwysers in die meeste privaatskole 'n beter begrip gehad van die konsep van gemengde leer as baie onderwysers in die openbare skole.

Die studie beveel aan dat meer tegnologie-opleiding of werksinkels nodig is vir onderwysers om hul tegnologie en digitale vaardighede te verbeter en om dit op hoogte te hou met die gebruik van tegnologie wat relevant is vir die implementering van gemengde leer. Die studie stel ook enkele gebiede voor wat geskik is vir toekomstige navorsing.

LIST OF ACRONYMS

CA	Continuous Assessment
COI	Community of Inquiry
COVID-19	Coronavirus Disease 2019
EE	Entrepreneurship Education
ICT	Information Communication Technology
JSC	Junior Secondary Certificate
LMS	Learning Management System
MOOCs	Massive Open Online Courses
MS Teams	Microsoft Teams
NIED	National Institute for Educational Development
OER	Open Educational Resources

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CHAPTER 1: INTRODUCTION

1.1 Background to the study

This chapter provides a broad overview of the research as well as the purpose of the research, it formulates the research question, research objectives, and sub-research question. Furthermore, it also indicates the methodology of the study.

The Ministry of Education introduced Entrepreneurship into the Namibian education system in substitute of Business Management in 2005, and the subject was gradually implemented as an optional subject in grades 8-10 from 2008 to 2010 (Larsen & Nagel, 2013). The main objective of such substitution was to address the high youth unemployment in the country. Entrepreneurship is part of the business subjects in curriculum and in textbooks. According to the rationale given in the Entrepreneurship Syllabus (NIED, 2015), Entrepreneurship as a subject is intended to impart basic concepts of entrepreneurial skills to the learners to create jobs for themselves as well as in the future. Arogundade (2011) stressed that Entrepreneurship education is structured to enable individuals to be self-employed and self-reliant, enable people to be creative, and innovative in identifying business opportunities, and create employment opportunities.

The Namibian education system is characterised by pre- and post- education systems. Before independence, the country embraced a teacher-centred approach to education. The role of the teacher in this approach has been defined as the transmission of information to students, whereby the teacher was regarded as all knowing-person in the classroom, and who followed the textbook in transmitting the information (Amushigamo, 2021). Amushigamo further stated that this approach required the students to sit passively listening to the teacher learning via memorisation (rote learning), and recalling of transmitted information. Learners were conceived to be empty vessels or receptacles to be filled (Massouleh & Jooneghani, 2012).

Shortly after Namibia gained independence in 1990, the government decided to embark on transforming the education system through a policy document called "*Towards Education For All*" (Kandumbu, 2005). This policy document envisaged transforming the former system from being one providing an education for the elite to one that entailed "education for all" (MEC, 1993:3). The education policy on teaching approach from a teacher-centred to a learner-centred approach was changed by the Ministry of Education. The learner-centred approach is based on assumptions that students learn by actively constructing and

assimilating knowledge rather than through passive addition of discrete facts to an existing store of knowledge (Mtika & Gates, 2010). The teacher's role in the learner-centred classroom was to create interactive and participatory environment. The approach to teaching and learning in Entrepreneurship is therefore based on the learner-centred approach where the teacher came to school with the hope that his/her learners brought knowledge from home and the teacher built on its prior knowledge (NIED, 2015). Kelm (2011) defined knowledge as something that is constructed within a social context. The classroom is therefore one of the social contexts where the teacher's role is to facilitate and guide the learners to interact and construct knowledge in a collaborative manner (Amushigamo, 2021).

Additionally, the Information Communication Technology (ICT) policy on education was published in 2005. This policy was intended to coordinate the appropriate development, efficient delivery, and quality use of technology to ensure ICT integration for excellence, and equity in education (ICT Policy in Education, 2005a). The Entrepreneurship curriculum has also embraced the use and integration of ICT in the teaching of the subject (NIED, 2015).

The unprecedented global Corona virus (COVID-19) pandemic in 2020 brought with it many changes to the way people do things, work, teach, and learn. The spread of COVID-19 led to the temporary closure of educational institutions all over the world, and COVID-19 crisis eventually presented an opportunity for online education to present and integrate new areas to offer sustainable and effective learning solutions to the populations it has impacted (Vlachopoulos, 2020).

While the Constitution of the Republic of Namibia made provisions for education as a right for all persons, and places responsibility on the government to provide education; the outbreak of the COVID-19 pandemic has made the attainment of this noble obligation more daunting as face-to-face teaching mode has been the most prevalent mode of education in the country. Nonetheless, the prevailing situation did not remove the government's responsibility to ensure the continuity of inclusive and quality education for all learners (Ministry of Education, Arts, and Culture, 2020). This led the government to introduce online learning in the Namibian schools as the Executive Director in the Ministry of Basic Education, Arts, and Culture Sanet Steenkamp insisted that schools should be reopened on the 20th of April 2020, but that no learners should on that date return to the school premises, hence the implementation of e-learning (Shikololo, 2020). However, the revolving term "emergency remote teaching" that emerged during the COVID-19 pandemic will be referred to as "e-learning" in this study.

According to Vlachopoulos, Sangrà and Cabrera (2012), online education can undoubtedly offer new learning environments that made learning accessible, and support students in developing competencies, skills, and attitudes. Online education was therefore introduced to salvage the educational calendar year. Moreover, to avoid a setback of a year or two has called for the implementation of virtual learning in all Namibian public schools during the lockdown and beyond (Nashilongo, 2020). To ensure continued learning, Entrepreneurship teachers needed to make a quick mind shift by integrating technology in their teaching, although many had reservation and condemned the implementation by saying the system was not inclusive and premature (Shikololo, 2020).

As per the Ministry's directive, no learners were going to return to school premises, hence the implementation of e-learning where lessons were to be conducted via televisions, radios, print media as well as mobile phones (Nashilongo, 2020). Alternative modes of teaching and for example digital learning was introduced in Zambia, and these modes were mostly the use of social media platforms by young people such as Facebook and WhatsApp (Sintema, 2020).

This shift came with opportunities and challenges as some teachers did not even know where to start, especially virtual teaching, since they are technologically challenged. Despite the technological challenges faced by the teachers, teaching and learning had to continue, and schools reopening was made essential. In addition, various strategies were used to hold classes, and among them were sending learning materials with learner's activities to learners from schools that did not have access to the internet, smart devices, or through virtual classrooms so that learners could access lessons using mobile phones and other Internet devices.

As new health protocols for COVID-19 were introduced to curb the further spread of the virus, the rules, and regulations of COVID-19 prompted the schools to use both traditional face-to-face and online learning modes to make up for the lost time. A rotational basis was also introduced to allow learners to continue with their schooling. The above implies that the use of blended learning was introduced. Cleveland-Innes and Wilton (2018) defined blended learning as the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. In simple terms, it combines online learning with face-to-face delivery. Blended learning, although not entirely a new concept, is easily confused with e-learning (Cleveland-Innes & Wilton, 2018).

As this new concept was introduced in Namibian schools, all teachers despite the technological challenges must embrace and implement the concept as expected by the Ministry of Education. It is against this background that the study aimed to examine the implementation of blended learning by the Grade 9 Entrepreneurship teachers in selected schools in Namibia.

The theoretical framework selected for this study is based on the work of Garrison and Kanuka's (2004), communities of inquiry as illustrated in Figure 1.

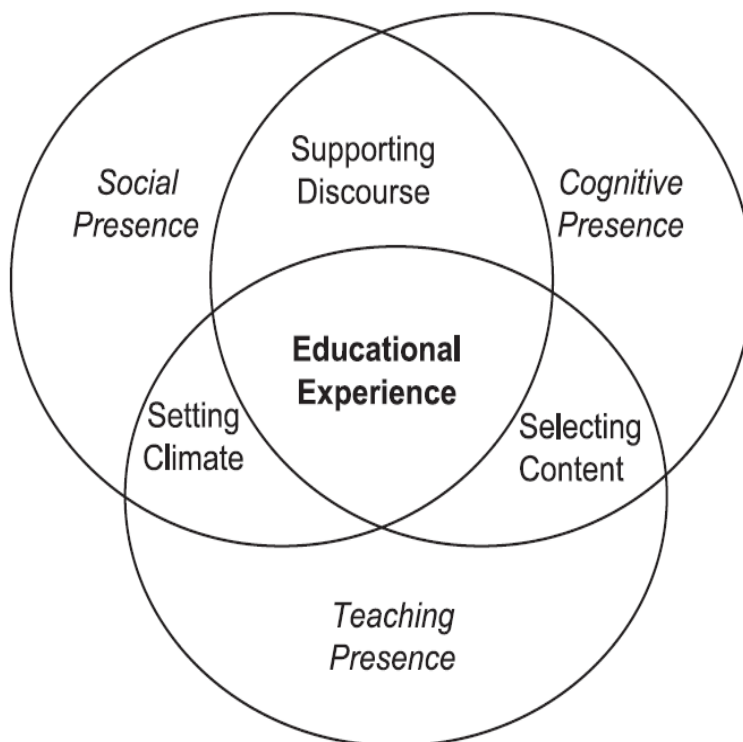


Figure 1: Community of inquiry

As argued by Garrison and Kanuka (2004), communities of inquiry as a theoretical framework can offer some meaningful implementation solutions, and this theory has the potential to support deep and meaningful learning.

1.2. Significance of the study

The notion of the implementation of blended learning in Namibia has developed my interest, especially in teachers' understanding and implementation of blended learning in Entrepreneurship Education (EE). It is also significant to know whether blended learning is working for them, and what challenges they are facing while implementing it. Previous researchers concentrated more on the implementation of blended learning at the institutes

of higher learning, and in Namibia on mobile learning technology at high school (Osakwe, Ujakpa, Iyawa & Florich, 2019). This research has potential to inform the future implementation of blended learning in delivery of EE in high schools (mostly public schools) in Namibia. The results of the study may propose recommendations to education policy makers in setting up proper blended learning policies especially for Grade 8-12.

1.3 Statement of the problem and rationale

As of recent, the primary use of blended learning had been at the university level, where students were able to access data that were otherwise impractical because of distance learning institutions, physical limitations of the individual, or where funding and facilities were lacking (Archambault, Kennedy, Shelton, Dalal, McAllister & Huyett, 2016). The outbreak of COVID-19 has affected the education sectors adversely. The effects of COVID-19 provided both opportunities and challenges. The challenges outweighed the opportunities, as many students for instance were unable to access their school and their teachers for academic consultations because of self-isolation and social distancing practices (Sintema, 2020). This implied that an alternative form of continuing education for students while away from schools was needed, and thereby being introduced. During the period, teachers were challenged to come up with innovative ways of teaching, including the teaching of EE.

My interest in the subject came at the end of 2019 when I travelled to India to attend a two-week course on Transforming the Education Ecosystem Through Blended Learning. There, I gained knowledge about blended learning and the various technological tools that can be incorporated into it to increase its success. It became an important subject of my research interest, particularly to the possibilities of it in the African classrooms. As COVID-19 emerges in 2020, I noticed that most academic institutions have embraced the concept of blended learning in order to ensure continuity in teaching and learning. At that time, my interest was piqued, and I wanted to know how teachers were affected by blended learning during the pandemic. Consequently, I decided to investigate it's the application of blended learning in an African context.

This study examined the implementation of blended learning among the Entrepreneurship teachers in three Namibian high schools in the Khomas Region.

1.4 Objectives of the study

The main objective of this study was to investigate how the Entrepreneurship teachers in the three selected Namibian high schools implemented blended learning in their practice at high school level. The following objectives guided the study.

- To examine Entrepreneurship teachers' understanding of the concept of blended learning.
- To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice.
- To examine challenges, opportunities, and successes in the implementation of blended learning.

Research question: How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?

Sub-question 1: What are the implications of blended learning implementation for Entrepreneurship Education?

1.5 Research methodology

I conducted case study research. According to Liamputtong (2010), a case study is a qualitative approach in which the investigator explored a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audio-visual materials, documents, and reports) of a case description and case-based themes. For this study, I investigated cases of three secondary schools (multiple case studies) implementing blended learning in their classrooms.

This study was conducted within an interpretive paradigm. This paradigm implied that the researcher engaged the situation from the viewpoint of the participants (Bertram & Christiansen, 2014). I was therefore able to make sense of how teachers understood and practiced blended learning in their teaching with the use of this paradigm as well as the use of a qualitative research methodology. Christensen, Johnson, and Turner (2015) defined qualitative research as an approach to empirical research that relies primarily on the collection of qualitative data. The qualitative research method allowed me to explore and understand the meaning of individuals or groups ascribe to a social or human problem, in this case, blended learning. I used a multiple case study to conduct an in-depth study of the

teachers understanding and implementation of blended learning in their pedagogical practices.

1.6 Sampling

This study employed purposive sampling. Maree (2007) explained that in purposive sampling, participants are selected according to pre-selected criteria relevant to a particular research question. Notwithstanding, Johnson and Christensen (2012) emphasised that purposive sampling allows the researcher to sample participants who fits the characteristic of a population of interest and then tries to locate individuals who have those characteristics. Using purposive sampling in this study, I considered teachers with the following characteristics fit to participate in this study. First, they must have experience in teaching Grade 9 Entrepreneurship with the use of blended learning; and second, they must be familiar with the use of technology in their classrooms.

Mangal and Mangal (2018) asserted that a sample is a small proportion of the population of the study that is selected for extracting information or performing experiments as a part of the execution of the research study for realizing the research objectives. The sample of this study comprised six Grade 9 Entrepreneurship teachers who used blended learning, and were familiar with the use of technology in their classrooms at three secondary schools in Khomas Region of Namibia. The goal was to get cases that were likely to be information rich in respect to this study.

1.7 Data collection

In this study, qualitative interview was used to collect data. Researcher uses the qualitative interview “to obtain in-depth information about participants’ thoughts, beliefs, knowledge, reasoning, motivations and feelings about the topic” (Johnson & Christensen, 2012:202). I tried to gain an understanding of the Grade 9 Entrepreneurship teachers’ perspective on the topic under study (Patton, 2002). Meanwhile, semi-structured interviews were used to collect data from the six recruited Grade 9 Entrepreneurship teachers. The interviews were to seek their detailed views and opinions regarding the implementation of blended learning while teaching at high school level. Maree (2007) reiterated that semi-structured interviews are commonly used in research projects to corroborate data emerging from other data sources.

An interview guide was drawn up to explore specific topics, and to ask specific open-ended questions of the interviewee (Johnson & Christensen, 2012). According to Liamputtong (2010), the interview guide contains the main issues and usually the wording of questions

the researcher will use. While carrying out the interviews, I did not strictly follow the guide because open-ended questions were asked in any order. As suggested by Bertram and Christiansen (2014), the researcher asked probing and clarifying questions on how research participants understood the implementation of blended learning. As per COVID-19 regulations, all the interviews were initially planned to be conducted through telephone or tele-conferencing software know as Zoom, and Microsoft Team, but they were eventually conducted face-to-face due to the lifting of the COVID-19 regulations. The interviews were recorded and later transcribed.

To increase the richness of data collection in this study, structured classroom observation was conducted, whereby the researcher went to the three schools to observe how participant practiced and implemented blended learning in their respective classrooms. I kept the field notes from observation and interviews to summarise important key messages from the interviews. This also helped me during the transcription of the data (Friesen, 2010).

Document analysis was also used “to analyse the practical social contexts of everyday life within which they are constructed and used” (Miller as cited in Patton, 2002:498). The documents to be analysed were Continuous Assessment (CASS) forms and lesson plans.

1.8 Data analysis

The study used inductive data analysis. According to Bertram and Christiansen (2015), data analysis in the qualitative methodology employs an inductive approach whereby the researcher will look for themes emerging from the data, look for patterns in the data, and code them. For the purpose of this study, I analysed the content and categorized key themes that emerged repeatedly. Data was interpreted according to those themes, patterns, and categories.

Kothari (2004) remarked that after collection, data must be processed and analysed in accordance with the outline laid down for the purpose at the time of developing the research plan. Processing implied editing, coding, classification, and tabulation of collected data to make it easier for analysis. I made use of document analysis, for example the analysis of the Entrepreneurship curriculum, assessment records, and lesson plans to see how the teachers integrated blended learning in their teaching. This provided meaningful answers to the research objectives / questions.

All the interviews were transcribed and documents such as Continuous Assessment (CASS) forms and lesson plans provided more information that eventually enriched the overall data

gathered for this study. In other words, the documents similarly provided an excellent source of additional data to complement the interviews. Additionally, these documents were used to validate interview data and gave detailed description and context of the schools of the respective participants.

1.9 Ethical Considerations

I sought ethical approval and clearance from the Research and Ethics Committee of Stellenbosch University, and from the Directorate of Khomas Education Region, Namibia before conducting the study. Participation was voluntary, and participants were informed about issues of anonymity and confidentiality and signed an informed consent form. To minimise the risk of COVID-19 infections, all interviews were conducted face-to-face but with caution against COVID-19. Participants were Entrepreneurship teachers from both private and public schools. Each participant completed a consent form which indicated that their participation was voluntary and anonymous. In addition, they were told to withdraw from the project at any time during the process if they chose to do so.

1.10 Measures concerning reliability, credibility, trustworthiness, and dependability

For findings to be consistent and accurate, one needs to consider the reliability, credibility, and trustworthiness, and dependability of it.

1.10.1 Reliability

Reliability in qualitative research refer to the extent to which the test, measure or instrument can be repeated with the same group of respondents, and still produces same results (Bertram & Christiansen, 2014). For this study, a pilot testing of the interview schedule was conducted with two entrepreneurship teachers who did not participate in the main study. The purpose was to ensure that there were no difficulties in answering the research questions.

1.10.2 Credibility

According to Liamputtong (2010), credibility is comparable to internal validity. It scrutinizes the matter of fit between what the participants said, and the representation of their viewpoints by the researchers. Credibility is also used to determine whether the research is genuine, reliable, or authoritative. For this study, participants were purposively and carefully selected for their knowledge and unique characteristics, and this gave me the assurance that the information they provided was credible and authentic. To further ensure consistency and credibility, I confirmed that the questions were clear and strictly focused on the topic, blended

learning. The data collected through observation, interviews, and document analysis also helped to enhance the credibility of all findings.

1.10.3 Transferability or applicability

Another measure considered in this study is transferability or applicability. Transferability or applicability is comparable to external validity and refers to the generalizability of inquiry. It asks the question: to what degree can the study findings be generalized or applied to other individuals or groups, contexts, or settings? (Liamputtong, 2010). It was my expectation that the results of this study should be applied to similar individuals (in these cases Entrepreneurship teachers) and accurately represented the phenomenon under investigation (blended learning). I could not use the findings of the research to generalise the case beyond what it can warrant, but to serve as a benchmark for future research (Bertram & Christiansen, 2014).

1.10.4 Trustworthiness

Validity refers to the instrument measures what it is supposed to measure (Maree, 2007). So, in setting up of interview questions, I needed to make sure that they are clear and tackling blended learning and geared towards answering the research questions (Kvale & Brinkmann 2009; Friesen, 2010). For example, the interview protocol were used in the pilot study with two Entrepreneurship teachers who were not included in the study to identify any flaws in the questions.

1.10.5 Dependability

According to Liamputtong (2010) dependability can be compared to reliability. It asks whether the research findings fit the data from which they have been derived. Dependability is gained through an auditing process. For this study, I ensured that the research process was logical, well documented, and traceable for future use.

1.11 Conclusion

In this introductory chapter, I provided a broad overview of my research as well as the purpose of my research, formulated research question, research objectives, and sub-research question. I clarified the key concepts and introduced the chosen paradigmatic perspectives as well as the entire research process.

The following chapter discusses existing literature on the implementation of blended learning in high schools. Furthermore, the chapter presents relevant research studies that showed

similar or opposing arguments and examines current limitations in existing literature as well as potential areas where the current study could add to existing literature on blended learning in high school. Lastly, the chapter explains in detail the theoretical framework I chose for this study.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The educational system is evolving. This transformation is centred on online learning, thus necessitating a shift toward the use of technology in teaching and learning as well as the development of learning theories such as social constructivism and the creation of entirely new teaching and learning models (Hiralaal, 2012). To start this transformation, a blended learning approach was proposed to enable students engage in personalized learning. In the digital era, entrepreneurship education can be made available in an online and blended format (Chen, Ifenthaler & Yau, 2021). Contemporary Entrepreneurship Education (EE) began in the 1970s in the United States as a reaction to a lack of employment and corporate stagnation (Viebig, 2022). Chen et al. (2021) defined EE as a subject consisting of learning activities, allowing learners to acquire entrepreneurial knowledge, skills, and attitudes necessary for creating and operating a business. This emergence further aims to develop students' entrepreneurial knowledge, skills, and attitudes as well as to directly prepare them for business ventures. Similarly, EE technologies intend to facilitate active, intentional, constructive, and collaborative learning (Chen et al., 2021).

There is no universal agreement on the operational definition of blended learning despite numerous studies. Hratinski (2019) argued that the point of blended learning means different things to different people, demonstrating its untapped potential, and that the ambiguity on how to define blended learning is problematic. According to Bhadri and Patil (2022:53), "it is a technique that integrates digital media and technology with traditional classroom activity." It is therefore a combination of traditional face-to-face instruction with online learning.

Blended learning technology is becoming increasingly popular in Grade 8-12 education. Although blended learning in high school is becoming the "new normal" in developed countries, it is still relatively new in developing countries, particularly Sub-Saharan Africa, and more specifically, Namibia (Norberg, Dziuban, Graham & Moskal, 2011). The COVID-19 pandemic prompted a further digital transformation in the education sector (Mhlanga, 2021), thus making blended learning unavoidable for both higher education institutions and K-12 institutions, and Aljedaani, Aljedaani, AlOmar, Mkaouer, Ludi and Khalaf, (2021) predicted that it would become our new norm.

The objective of this study was to find out how Entrepreneurship teachers perceive blended learning, and how they use it in their classrooms as well as the challenges, benefits, and

opportunities they encountered during implementation. The theoretical framework of the Community of Inquiry (COI) will be used to investigate blended learning further.

2.2 Face-to-face/ traditional instruction

Traditional learning is a teacher-centred, face-to-face approach in which the teacher teaches students while the students passively listen (Staker & Horn, 2012). Face-to-face teaching is defined by Alsaaty, Carter, Abrahams and Alshameri (2016) as a method of instruction in which the teacher and students meet at the same time and place, with rote memorization and lecturing as the norm. This implies that students need to attend formal education school systems to learn, and this may be delivered in any form.

Teachers use traditional face-to-face teaching strategies to keep students involved and engaged to maintain the learners' attention. It encourages the social interaction that is required for learning. Classrooms can be interactive depending on the teachers teaching styles. It is believed to be a strict environment controlled by the teacher (Sharma & Garg, 2016). The authors above further added that to succeed in a traditional classroom setting, students must have self-efficacy and motivation.

Moreover, teachers provide formal education in a traditional face-to-face setting by using a curriculum or notes prepared from books as well as their own experiences (Wikramanayake, 2005). This author further pointed out that students needed to be enrolled in schools that provided formal education, and that libraries should provide additional reading material as well as reference services.

Bubacz, Niksiar, Elamin, Ragan and Bass (2021) identified group understanding and teaching of the subject as well as the ability to interact more effectively with classmates as benefits of face-to-face learning on students. The ability to learn from classmates and interact with the teacher, and to modify lectures based on how well the class understands. As a result, face-to-face learning became more popular. In contrast, online learners are easily distracted, and it is more difficult to discuss questions with the teacher online than in person (Bubacz et al., 2021). Face-to-face teaching is the preferred method due to its superiority, and online learning is used only when circumstances preclude the use of face-to-face teaching, such as when students cannot travel to campus or when classes are so large that interaction with students is limited (Bates, 2015).

Despite its benefits, face-to-face instruction has limitations. In traditional chalk-and-board classrooms, for example, instruction is limited to textbooks and teacher notes; and

participants must be present for teaching and learning to take place (Wikramanayake, 2005; Mirriahi, Alonzo & Fox, 2015). It is far more convenient to take notes and see the board in person.

Traditional modes of instruction require teachers to move all students through the curriculum at the same rate, regardless of mastery, since the teacher has little time to assist individual students and that they have no one to turn to for help at home, thus resulting in poor performance of some learners (Lin, Tseng & Chiang, 2017). Further constraints that impede the successful implementation of face-to-face teaching and learning include irregular revision of course, when school is not suitable to reach every child (Pachisia, 2022), insufficient one-on-one teacher-learner interactions, delayed feedback, and limitations in the visual aids and materials that the teacher can use in a classroom discussion (Lin et al., 2017).

Moreover, classroom instruction is primarily teacher-directed, top-down, and one-size-fits-all, with some differentiation thrown in (Pachisia, 2022). With blended learning however, this author asserts further that it is becoming more student-driven, bottom-up, and tailored, with differentiation as a key feature. Blended learning thereby allows teachers to keep up with educational advancements in a non-threatening manner while still interacting with students face-to-face (Hiralaal, 2012).

2.3 Technology in education

Technology has increasingly influenced the core teaching activities of universities, and more recently, K-12 schools in the last ten to fifteen years (Bates, 2015). According to Madhavan and Lindsay (2015:639), students are now living Internet-based lives as technology becomes more prevalent in their daily lives. Furthermore, as students spend more of their non-study lives online, they now expect their study environment to be online as well. It is also becoming rampant to see credit-based online learning as a major activity in most academic departments at universities, and to some extent, in K-12 education (Bates, 2015). Similarly, computers are rapidly becoming the dominant technology in education, and as computing evolves, so does how computers are used in the classroom (Madhavan & Lindsay, 2015:639). The educational technology trends brought with it the trend of online and blended entrepreneurial courses to be the main choices among learners, teachers, and businesses (Chen, Ifenthaler & Yau, 2021). Madhavan and Lindsay (2015:640) maintained that technology is enabling new ways of learning by removing many of the barriers inherent in "traditional" face-to-face education as discussed below.

“Firstly, the synchronization barrier: technology allows learners to schedule their own learning rather than being constrained by university or other organizationally imposed structures. Secondly the co-location barrier: technology allows students to learn from anywhere, rather than having to travel to a university. Thirdly the class size barrier: thanks to technological advances, teachers can now teach thousands of students at once. And lastly the barrier of one-size-fits-all: technology allows learners to tailor their learning environment to a large extent to their preferences and needs”.

Over decades, technology has transformed the education ecosystem, and the way people teach and learn. Bates (2015) has compiled a list of some of the most recent trends in educational technology.

- **Fully online:** Enrolment in fully online courses (also known as distance education courses) now accounts for between a quarter and a third of all post-secondary enrolments in the United States. It is now an important part of many schools and post-secondary education systems.
- **Blended and hybrid learning:** As more teachers become involved in online learning, they recognize that what has traditionally been done in class can be done better online. Blended learning refers to the combination of traditional and online learning.
- **Open learning:** There have been developments in open learning over the last ten years that are beginning to have an impact on traditional institutions. One of the most obvious is open textbooks. These are digital textbooks that students (or instructors) can download free, and thereby saving students a significant amount of money on textbooks. The second is the utilization of Open Educational Resources (OER). These are free digital educational materials that can be downloaded by instructors (or students) and adapted or amended as needed under a Creative Commons license that protects the creators of the material.
- **MOOCs (Massive Open Online Courses):** The rapid growth of Massive Open Online Courses has been one of the most significant developments in online learning (MOOCs). These courses are open to anyone, with no formal assessment. Many students are allowed to enrol and have access to free video-recorded lectures from the world's most prestigious universities.

2.4 E-learning

E-learning has significantly transformed the education ecosystem in recent years by utilizing newly developed applications and technologies. Many authors approach it in various ways.

E-learning, according to Kapezovich and Toktarbekovna (2014), is an internet-based education system that can store, re-emerge, distribute, and share information and knowledge that is beneficial for maximizing forms of distance learning.

Thomas and Graham (2019) however stated that it is the use of advanced information communication technology (ICT) in the learning process, where advanced technology includes electronic media. It is a new educational pattern imposed by new scientific and technological changes occurring in the world today because of traditional teaching strategies and methods' inability to keep pace with these changes, given the changing roles of both teacher and student (Harandi, 2015).

One could argue that the goal of e-learning is to allow teachers to deliver learning materials at any time and from any location (Kapezovich & Toktarbekovna, 2014). As a result, e-learning enables learners and teachers to teach and learn from any location and at any time, with access to both online and traditional face-to-face learning. Furthermore, it provides teachers and students with new interactive techniques that cannot be ignored. Another advantage of e-learning is the convenience of learning remotely, saving money on transportation, and having up-to-date information at the touch of a button (Liu, Peng, Zhang, Hu, Li, & Yan, 2016).

E-learning has been widely adopted in Africa, as it has in developed countries, because of its importance, owing primarily to its perceived ability to accommodate learners in a variety of situations (Zongozzi, 2021). E-learning proponents claimed that it improves educational quality, student performance, and student engagement (Shen & Ho, 2020). Despite the widespread interest, e-learning implementation is still in its early stage, and future growth prospects are unknown. Globally, challenges in online education are common to almost all nations including those from Africa, America, Europe, and Asia (Palvia, Gupta, Mahapatra, Rosner & Sindhi, 2018).

Institutional challenges include a lack of understanding of online pedagogy, online learning styles, a lack of administrative support for online education, the number of students enrolled, faculty qualifications, tuition rates, and programme length (Kentnor, 2015). According to Palvia et al. (2018), most African students access the Internet and related educational resources via mobile devices; thus, the negative impact of smartphone dependence must be considered when developing policy to ensure better educational outcomes.

In addition, overall ICT capacity in Africa according to research has not changed significantly, even though online learning appears to be approaching critical mass, and could

have a significant impact on education (Palvia et al., 2018). The use of online learning was mandated in Namibia following the outbreak of COVID-19, thus posing numerous implementation challenges. When students returned to their village, for example, they encountered unfavourable teaching and learning factors such as poor network connectivity, power failure or absence of electricity, a lack of a digital device, parents' inability to purchase data for accessing e-learning platforms, and others (Nakale, 2020; Siririka, 2020 & Nakale, 2020). As a result, the Ministry of Education, Arts, and Culture as well as other educational institutions have been forced to revise their e-learning policies and materials to ensure that teaching and learning do not completely stop (Shihomeka, 2021).

Online learning in the Middle East is characterized by low internet penetration, low public perception of online learning, and a scarcity of Arabic-language online educational repositories (Palvia et al., 2018). Another challenge is teachers' unpreparedness in transforming physical classrooms to a virtual one, and a lack of previous knowledge of basic skills in IT (Alessa & Salhi, 2021). These authors added that the spread of COVID-19 forced teachers out of their comfort zone and placed them in a position where e-learning is in charge. According to Cheok, Wong, Ayub, and Mahmud (2017), when teachers in a Malaysian secondary school were given access to online learning technology, there was evidence of poor implementation, with many teachers being reluctant to integrate eLearning into classroom instruction. Furthermore, teachers who are unsure of their ability to use technology will avoid it. Teachers in the Philippines who had previously taught in face-to-face classrooms were also forced to transition to online instruction, whether synchronous or online learning (Landicho, 2021). Moreover, online distance learning necessitates the conversion of learners' and even guardians' homes into classrooms and workspaces.

2.5 Blended learning

The incorporation of web-based technologies into the teaching and learning processes has increased the popularity of blended learning (Vaughan, Cleveland-Innes & Garrison, 2013). In a blended teaching format, educational institutions are gradually integrating e-learning into basic education. The blended approach to teaching has been labelled as the "new normal" by Norberg, Dziuban and Moskal (2011). Blended learning, like classroom learning, combines online access with knowledge and human interaction. Garrison and Kanuka (2004) defined it as the thoughtful integration of face-to-face learning experiences in the classroom with online experiences. As a teaching method, blended learning enables

students to learn, receive guidance, and help one another at any time and from any location (Celyan & Kesici, 2017; Hiralaal, 2012).

Students can access the course whenever they want, not just when it is scheduled. There is evidence that blended learning has the potential to be more effective and efficient than traditional face-to-face learning (Garrison & Kanuka, 2004). This evidence according to this author shows that students perform well in exams and are satisfied with the blended learning approach. Blended learning being a formal education programme helps students learn at least in part through online learning to give students greater flexibility and some control over time, place, path, and pace (Horn & Staker, 2014; Blaine, 2019).

Blended learning, when compared to face-to-face courses improves student success and satisfaction as well as students' sense of community, thus making learning more meaningful (Norbert, Dziuban & Moskal, 2011; Hiralaal, 2012). Blended learning does not only combine technology and education or using technology as a supplement to teach a difficult concept or provide additional supplementary material, but also combining some of the advantages of online learning with some of the advantages of face-to-face learning (Utami, 2018). It is not just a simple mix of two modes, but it refers to a well-organized combination of relevant conditioning in both face-to-face and online learning environments (Pachisia, 2022). Blended learning, a type of virtual learning, is frequently used in curriculum implementation when participants are separated by distance (Onwusuru & Ogwo, 2019).

With the advent of the 'new normal' as a result of COVID-19, blended learning became more appealing, in which online media is used in both real time (such as Zoom, Skype, Google Meet, and Microsoft Teams), and in online learning (such as watching pre-recorded lecture videos or lessons, viewing video demonstrations, and so on) modes to deliver class remotely (Berga, Vadnais, Nelson, Johnston, Buro, Hu, & Olaiya, 2021). The online components of blended learning provide flexibility, which benefit both teachers and students by increasing accessibility while retaining the benefits of face-to-face education (Kaur, 2013). Additionally, it provides learners with the advantage of experts of the course content by watching different lectures by well-known experts through YouTube videos (Pachisia, 2022).

The goal of blended learning is to combine these modes to academically challenged students in ways that one mode could not (Vaughan et.al, 2013). Blended learning requires a combination of online and face-to-face education to be successful. Direct instruction, circular instruction, group instruction, and computer-assisted individual learning are all used (Pachisia, 2022).

Moreover, learning management systems (LMS), which are platforms for learning and evaluation, can be used in blended learning. A LMS is a platform that offers a course management system to support the teaching-learning process (Bhadri & Patil, 2022). Pachisia (2022:80) defined LMS as follows:

"LMSs are web applications, which mean they run on a server and are accessed via a web browser." LMSs provide educators with the tools they need to create a course website and provide access control so that enrolled students can view it as soon as they enrol. LMSs also provide a plethora of tools that can help your course be more effective. They make it simple to upload and share files, hold online discussions and chats, administer quizzes and surveys, collect and review assignments, and track grades. LMS can be installed in the cloud, and all faculty members can upload and share all class-related documents, videos, MP3s, and so on."

Ceylan and Kesici (2017) also highlighted that blended learning as an educational method, combines technology with a focus on the student-teacher relationship to improve student engagement, independence, and achievement. Moreover, it enables teachers to combine traditional teaching methods with technology to improve the teaching and learning process while allowing students to study at their own pace (Boelens, Wever & Voet, 2017; Kihzoza, Zlotnikova, Bada & Kalegele, 2016).

Students have access to course information that is typically more current and relevant to their learning needs because online content can be updated quickly in response to data changes (Kihzoza et al., 2016). As a result, the blended learning mode improves the students' learning experiences. Similarly, blended learning gives students immediate feedback, which is important in education because it motivates them, and is based on readiness principles (Pachisia, 2022). Furthermore, online assessment increases productivity, transparency, and speed of evaluation systems, and thereby resulting in greater dependability and objectivity.

2.6 Blended learning models

Blended learning refers to a variety of instructional methods that combine face-to-face instruction with individualized, student-directed computer-based instruction. This model can promote active, learner-centred learning environments as well as good interaction in the learning process (Nugraha, 2020).

Figure 1 depicts four blended learning models that categorize most blended-learning programmes emerging in current K-12 education.

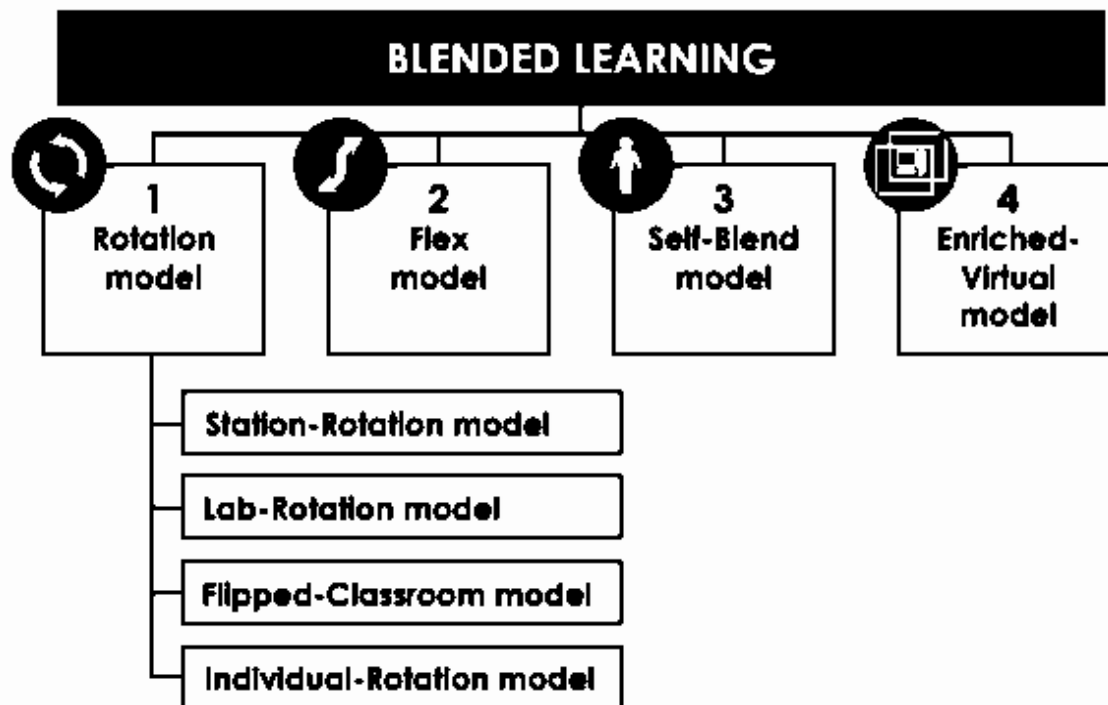


Figure 2.1: Blended learning models adapted from Staker & Horn (2012)

Staker and Horn (2012) identify four blended learning models for primary and secondary education namely Rotation, Flex, Self-Blend, and Enriched Virtual.

Rotational model

A rotation model is a programme in which students alternate between learning modalities, at least one of which is online learning within a given course or subject (e.g., Entrepreneurship), and on a set schedule or at the teacher's discretion (Staker & Horn, 2012).

The rotational model is divided into four models: station rotation, lab rotation, flipped classroom, and individual rotation (Sharma & Garg, 2016). Each of the above-mentioned models is discussed below.

(i) Station rotation is a rotation-model implementation in which students rotate among classroom-based learning modalities on a predetermined schedule or at the discretion of the teacher within a given course or subject (e.g., Entrepreneurship) (Staker & Horn, 2012). Through the station rotation, students can visit several other stations that provide a variety of information and experiences (Nugraha, 2020). Nugraha added that the steps of the station rotation type of learning model are distinctive because they encourage students to be active cognitively and physically. They can have a unique learning experience at each station.

Students learn a variety of things in an indirect manner. In elementary schools, the station rotation model can be used as an alternative to combat student learning boredom (Nugraha, 2020).

(ii) Lab rotation - is a rotation-model implementation in which students rotate among locations on the brick-and-mortar campus on a fixed schedule or at the discretion of the teacher within a given course or subject (e.g., Entrepreneurship) (Staker & Horn, 2012). According to Staker and Horn (2012), at least one of these spaces should be used as a learning lab for primarily online learning, with the remaining classroom(s) housing other learning modalities.

(iii) Flipped classroom - is a rotation-model implementation in which students rotate on a fixed schedule within a given course or subject (e.g., Entrepreneurship) between face-to-face teacher-guided projects on campus during the standard school day and online delivery of content and instruction of the same subject from home after school (Staker & Horn, 2012). The primary mode of content and instruction delivery is online, which distinguishes a Flipped Classroom from students who simply do homework practices online at night.

(iv) Individual rotation - is a rotation-model implementation in which students rotate among learning modalities (at least one of which is online learning), on an individually customized, fixed schedule within a given course or subject (e.g., Entrepreneurship). Staker and Horn (2012) stated that individual student schedules are created by an algorithm or by a teacher(s). Individual- Rotation models also differ from other Rotation models as students are not required to rotate to every available station or modality.

The self-blend model

This model describes a situation in which students choose to take one or more entirely online courses in addition to their traditional courses, with the online teacher serving as the teacher-of-record (Staker & Horn, 2012). Learners can take online courses on or off campus. They can self-blend online courses while taking traditional face-to-face courses on campus.

The flex model

The flex model is a programme in which student's progress through learning modalities on an individually customized, fluid schedule, and the teacher-of-record is on-site (Staker & Horn, 2012). Individual teacher's support for students is also possible in the Flex-model since most classes are held online (Parkhatova & Imramzieva, 2022). Furthermore, while

most classes are held online, some learning activities require students to be physically present.

Enriched-virtual model

This is a whole-school experience in which students split their time between attending a physical campus and learning remotely using online content and instruction within each course (for example, Entrepreneurship) (Staker & Horn, 2012). Furthermore, many enriched virtual programmes started as full-time online schools and evolved into blended programmes to provide students with traditional classroom experiences.

2.7 Entrepreneurship education (EE)

Entrepreneurship education (EE) is defined as the study of skills for starting and running a profitable business (Ratten & Jones, 2021). EE is not directly aimed at increasing the number of start-ups and entrepreneurs, but enhancing the life-long skills that a graduate need for undertaking business endeavours or finding an occupation in the future (Chen, Ifenthaler & Yau 2021). It is concerned with the use of new venture creation to assist students in acquiring a wide range of business and entrepreneurship knowledge and skills. Active learning linked to business and community initiatives distinguishes entrepreneurship education (Ratten & Usmanij, 2021). Furthermore, entrepreneurship is a valuable tool for promoting social and economic development while also raising people's living standards (La Guardia, Gentile, Dal Grande, Ottaviano & Allegra, 2013). Its goal is to teach students the fundamental concepts of entrepreneurship so that they can create jobs for themselves and others in the future (NIED, 2015).

Due to the nature of the subject, EE as a practical subject necessitates hands-on experience. With that said, subject-specific knowledge and experience are gained primarily through experiential learning projects and internships (Canziani & Welsh, 2021). EE is reduced to learning "about" entrepreneurship rather than learning "through" and "for" entrepreneurship. Moreover, EE aims to change students' perceptions of innovative and risk-taking business activities (Ratten and Usmanij, 2021) as well as to teach students how to understand entrepreneurship, become entrepreneurial, and become entrepreneurs (La Guardia et al., 2014).

EE can be viewed as "any educational program or process that fosters entrepreneurial attitudes and skills", (Ratten & Jones, 2021:702). According to Ratten and Jones (2021), the application, design, and implementation of innovative, futuristic, and proactive strategies in

a learning environment constitutes the field of entrepreneurship education. Assessment of opportunities and recognition of future engagement possibilities (Ratten and Usmanij, 2021), attitude changes, knowledge and skill changes, feasibility, entrepreneurial intention, socio-economic impact, business start-up rates, and business performance are all required to study EE (Canziani & Welsh, 2021). Students who complete the EE course successfully gain knowledge, skills, and independence that will aid them in their future entrepreneurial endeavours.

2.8 Impact of blended learning on entrepreneurship

EE seeks to equip students with the skills and knowledge required to enter the workforce. The goal of EE is to provide students with entrepreneurship knowledge, entrepreneurship skills, and to teach them how to start a business (Chen, Ifenthaler & Yau, 2021). Furthermore, to effectively teach Entrepreneurship, practice must be grounded in theory; thus, the two cannot be separated if effective teaching and learning are to take place. Theory should not be overlooked when it comes to entrepreneurship (Neck, Greene & Brush, 2014). Due to the online learning system, delivery of entrepreneurship learning activities has been limited since the COVID-19 pandemic (Neck et al., 2014). The COVID-19 pandemic posed a serious threat to educational administration, particularly for practical courses such as EE (Ratten & Jones, 2021). In addition, digital technologies are essential for the development of entrepreneurial students, and the use of digital technologies in EE can result in significant changes in students' online collaboration, engagement, and teamwork satisfaction. In response to these changes, remote and digital learning methods of EE have seen rapid adoption (Ratten & Jones, 2021).

Despite the challenges of the COVID-19, Kassean et al. (2015), and Neck et al. (2014) proposed that there is a need for practice, real-world immersion, and experimental approaches, which are emphasized in EE. According to Neck et al. (2014), traditional textbook publishers are expanding their online learning resources, while private companies are developing more and better online experiential learning curricula, and simulation providers are also offering better alternatives to close this gap. To address these challenges, teachers must use online learning systems to design technology-based entrepreneurship learning that is tailored to their students' needs. Despite its popularity, blended learning continues to be important in EE (Syafidah, Martono & Sangka, 2021).

Blended learning has the potential to promote innovation, creativity, and adaptability while also preparing students for learning challenges in complex and unstructured domains

(Hidayat, 2018). On the other hand, we should be aware of issues relating to technology such as students' lack of online learning skills or self-directed learning; technical issues; opportunities for cheating; overstimulation and distractions; mental health harm; and a lack of access for underserved communities (Garcia, 2021).

2.9 Impact of COVID-19 on blended learning

Although education crises are not new, COVID-19 had the greatest impact on educational practices when compared to other crises (Ratten & Jones, 2021). They also claimed that the crisis had raised new views on the role of education in society and how the education industry should respond to it. The COVID-19 pandemic caused significant disruption in traditional methods of teaching and learning (Whalen, 2021); and the pandemic also exposed the vulnerabilities of the global education sector (Mhlanga, 2021). Teachers had to move offline educational activities online because of COVID-19. During the COVID-19 period, the implementation of blended learning in schools with limited space was critical, (Mhlanga, 2021). To ensure that the teaching and learning objectives were met, the use of online and blended applications was prioritized.

According to Al-Hunaiyyan, AlHajri and Bimba (2021), as COVID-19 spread across borders; governments around the world began limiting the size of public gatherings, with immediate implications for normal school and university operations. Teachers therefore needed to find new ways to transition from in-person to emergency remote teaching. This was like forcing them to devise novel methods of ensuring that their students continue to receive an education and making e-learning mandatory in many places for the remainder of the academic year (Lau, Yang, & Dasgupta, 2020; Al-Hunaiyyan et al., 2021). Many teachers who were used to face-to-face instruction needed to make a paradigm shift to online instruction, has also done by many students who needed to transform their homes into learning environments.

The deadly COVID-19 virus has affected the world's education system including Africa, by preventing more than 98 percent of teaching and learning during lockdowns (Mahaye, 2020). Distance learning was thereby made mandatory as one of the many measures being taken to control the spread of the COVID-19 virus (Al-Hunaiyyan et al., 2021). Even though students and teachers remained the same, the venue was significantly different from what they were used to (Landicho, 2021), thus necessitating teachers' adaptation of their education environment to blended learning. Furthermore, the impact of COVID-19 caused significant transformation in the educational system, thus necessitating everyone's

adaptation in response. According to Ratten and Jones (2021), the good news is that most students and teachers may be able to continue their studies despite the change.

Moreover, long periods of learning were lost due to country lockdowns, and with the new cases being recorded daily with new variants, it was believed that things may become even more complicated in the future (Mahaye, 2020). Schools that missed out on long periods of learning due to disease outbreaks, according to Kekic and Miladinovic (2016) can cause both temporary and permanent harm to the educational system. These authors further stated that the damage includes both temporary curriculum disruption, which takes time to recover from, and permanent disruption, which means that some students may never return to school after the pandemic is over. As educational systems are based on fixed calendars, teachers had to figure out how to compensate for lost time. Meanwhile, alternative modes of instruction such as blended teaching and learning were viewed as a viable option for maintaining continuity during lockdowns and beyond (Mahaye, 2020).

Prior to the outbreak of the pandemic, developing countries did not apply ICT and e-learning practices extensively (Al-Hunaiyyan et al., 2021). According to UNESCO, most African countries are economically and technologically backward, so an African child's education will be the most impacted after the COVID-19 era (Mahaye, 2020). This author further added that blended learning approaches as optional models will enable students to study independently, especially during global pandemics. Two options can be identified. Firstly, installing computers in the classrooms or buildings allowing students to study independently while consulting with their teachers on a regular basis. Secondly, students can study from the comfort of their own homes by utilizing online resources (Mahaye, 2020). Both scenarios are possible in a situation like the COVID-19 era. Despite the use of blended learning, learners and parents in various communities have expressed concern that some students from previously disadvantaged communities felt excluded during the COVID-19 lockdown measures (Shihomeka, 2021).

In Namibia, for example, restricted access to digital and mobile environments (such as access to smartphones at home) keep hindering the successful implementation of blended learning. As Kelm (cited in Garcia, 2021:3) observed, "*we have a new challenge. Our traditional methodology is confronting the reality of our digital age.*" As it is, teachers need to be cautious with the new ways of delivering blended learning.

2.10 Benefits of blended learning to the students

Blended learning as a teaching approach has the potential to provide numerous benefits to the teaching and learning community, particularly to learners. It can be used to meet the needs of individual learners such as motivation levels and abilities, and it provides them with scheduling flexibility as well as opportunities to repeat or review materials as needed (Berga et al., 2021). The use of blended learning in the classroom can promote social interaction, increase student engagement, independence, keeping students focused and interest for longer periods of time, and giving students autonomy by allowing them to study at their own pace (Pachisia, 2022; Berga et al., 2021), and thereby resulting in lifelong learning.

Blended learning has been shown to improve students' technological literacy and digital fluency by strengthening professionalism and developing qualities such as self-motivation, self-responsibility, and discipline (Pachisia, 2022). It is also effective in accommodating different learning styles (Berga et al., 2021). Blended learning is therefore seen as promoting the development of critical thinking skills through the construction of meaning and understanding while increasing students' independence and control (Blaine, 2019).

Blended learning involves students actively in the learning process by allowing them to participate in discussions and to gain a better understanding of course content (Hiralaal, 2012). It means that its significance is to engage and involve students in the learning process.

Another aspect of blended learning is the utilization of LMS. An LMS is shown to increase student engagement and motivation to learn, and enables users to organize their materials. Additionally, blended learning allows students to learn how to use their more effectively by utilizing an application or LMS platform such as Google Classroom, Moodle, or Blackboard, to name a few. According to Garcia (2021:3), "it is undeniable that "mobile technologies... are changing... world" and our teaching approach must change to keep up." Blended learning therefore helps students understand technology and improve their digital literacy skills (Sefriani & Sepriana, 2020). When used correctly, blended learning can help students improve their problem-solving abilities and critical thinking.

Moreover, Baragash and Al-Samarraie (2018) affirmed that the most effective learning environment is a blended learning classroom that combines traditional teacher-led instruction with a programme that allocates assignments and grades as well as a website where students can research topics, participate in discussions, take online quizzes, and collaborate with others. Despite this, Becker (2020) observed a shift away from teacher-led

education and toward student-led instruction, in which students actively participate in their own learning. This allows teachers to send online videos or lectures to absent students, which they can watch in their free time, pausing and rewinding as needed. It also aids in time management because students can interact with course content via assigned video lessons and activities prior to the start of class.

Blended learning can provide a variety of learning benefits such as improved academic performance, increased motivation to learn, autonomy in the learning process, effectiveness in addressing diverse learning styles, and the ability to become lifelong learners (Becker, 2020; Hiralaal, 2012). Pachisia (2022:79) discovered the following benefits of blended learning on learners:

"Blended learning with its diversity can easily cater to the needs of special children like those who are brilliant can satisfy their thirst of knowledge, blind students can easily be educated as ICT supported teaching learning process will provide technical support in their learning, similarly physically challenged can also become part of main stream education and get enrolled in good institutes without bothering about the distance as blended learning will help them study online and from home".

A systematic review conducted by Liu et al. (2016) on the effectiveness of blended teaching approach compared to traditional face to face and e-learning on healthcare students discovered that 0.81 percent of participants believed that a blended learning approach may be more effective in acquiring knowledge than traditional lecture-based and e-learning.

2.11 The effects of blended learning on teachers

High school teachers are now being encouraged to use blended learning to supplement instruction in their classrooms (Blaine, 2019) despite that teachers worldwide are struggling to implement blended learning. Garcia (2022:3) described "lack of teacher training, negative attitudes toward technology..." as factors militating against implementation of blended learning. According to Archambault et al. (2016), online and blended learning are not frequently explicitly taught or practiced in teacher preparation programmes, which continue to separate pedagogical instruction from technology training. This implies that transitioning teachers to blended learning implementation necessitates more than simply learning new skills or switching pedagogical roles (Philipsen, Tondeur, Roblin, Vanslambrouck, & Zhu, 2019). To encourage full implementation of the blended learning approach, it is critical to address teachers' misconceptions about technology and pedagogy (Gerbic, 2011; Philipsen

et al., 2019). In addressing those challenges, teachers will benefit from extensive tutorials, support services, and a helpdesk.

Hsu (2017) opined that a lack of adequate technology integration training is to be blamed for teachers' lack of confidence in implementing blended learning in their practices. Brown (2016) believed that teachers' lack of technological literacy and competency skills is to be blamed for the failure of blended learning implementation. Smith, and Hill (2019) likewise argued that teacher training should be provided prior to the implementation of blended instruction.

Blended learning pedagogy is becoming more common in teacher education courses, particularly in areas such as instruction and technology hardware, however, little research has been conducted on the implementation of blended learning in most parts of Africa, particularly in Grade 8-12. It is difficult to successfully integrate technology while maintaining participant commitment (Hofmann, 2014). The author further pointed out that when users encounter difficulties with technology, they may abandon their learning and its implementation.

It has been reported that many researchers believed that teachers' reluctance to use technology-integrated blended learning was influenced by teacher perception, a lack of training, and the development of digital content to successfully implement blended learning (Hsu, 2017; Dangwal, 2017). Teachers' pre-conceptions about technology-integrated pedagogy as well as their willingness to incorporate it into their methods have also been identified as barriers (Archambault et al., 2016). Many teachers believe that all course material must be covered in class, so the use of blended learning is limited.

External barriers to classroom technology integration are a lack of technical equipment and administrative and technical support. According to Cheek et al. (2017), a lack of support also influences teachers' negative perceptions of technology integration, thus posing a barrier to successfully implementation of blended learning. The authors contended that the more assistance a teacher receives, the greater the effort the teacher will put forth to integrate classroom technology. Several practitioners are struggling to implement blended learning in their classroom instruction, which prevents them from doing so consistently, resulting in a gap in practice (Boelens et al., 2017; Kihzoza et al., 2016).

According to Boelens et al. (2017), it is difficult for teachers in a blended learning environment to incorporate flexibility, facilitate interaction and effective teaching processes, and promote a climate conducive to successful learning. Meanwhile, teachers are wary of

incorporating blended learning into their classroom instruction (Boelens et al., 2017). To implement a successful blended learning, Dangwal (2017) came up with the following requirements, and stated that:

“Teachers must understand the concept of blended learning and be fully trained and skilled in combining traditional and technological approaches. They should be taught how to develop digital content that students can access online. They should be familiar with internet navigation and terminology, as well as all the websites that students can use while learning online. Teachers should be aware of how to use blogs, YouTube, video conferencing software such as Skype and Google Talk for educational purposes, and social networking sites”.

2.12 Availability and accessibility of resources

To successfully implement blended learning, schools must have adequate and appropriate resources. Internet access in schools, according to Neyland (2011) can help students fill gaps in their understanding of content that teachers may have missed. Tondeur, Van Braak, Ertmer and Ottenbreit-Leftwich (2017) discovered in a qualitative study on the relationships between teachers' beliefs and technology uses that internet access and support from information technology personnel influenced teachers' beliefs and perceptions of blended learning implementation. Teachers who participate in technology integration training develop a positive attitude toward technology and are better prepared to incorporate it into their classroom instruction (Archambault et al., 2016; Hsu, 2017). The availability of web-based assessment tools is essential for providing learners with timely feedback in return to ensure that learners' work is assessed on time and feedback is given timely. According to Dangwal (2017), immediate feedback is important in learning because it motivates learners; thus, online assessment is critical in ensuring the successful implementation of blended learning because it makes learners' evaluation systems more formative, transparent, and faster.

Essentially, fully equipped computer labs, internet access, and video-conferencing capabilities, according to Dangwal (2017) are required for successful blended learning. Furthermore, well-equipped computer labs with enough computers and internet access (preferably via wi-fi) will ensure that blended learning is delivered smoothly. Regardless, for a successful implementation, students must have internet access on their home computers. In addition to a fully ICT-friendly campus, students must have basic hardware support to

learn online and offline at home (Dangwal, 2017). To pull this off, both the government and the private sector must have a positive attitude and sound investment plans.

Apart from digital gadgets, appropriate digital skills are another factor in the successful integration of blended learning. To present a blended lesson successfully, teachers must also have basic computer skills such as electronic presentation, internet navigation, network administration, and communication (Mhlanga, 2021). The components that drive learners to adopt blended learning are access to technology tools, data, and a decent online learning environment; however, many learners from low-income backgrounds are not interested due to the absence of those resources (Mhlanga, 2021). Furthermore, for learners to take blended learning seriously, materials must be made available to all.

2.13 Successes of blended learning implementation

Despite some shortcomings in the implementation of blended learning, some success stories have been reported. Kazakoff, Macaruso and Hook (2018) observed the importance of teachers experimenting with and modifying specialized classroom routines and organizational structures in their blended learning classrooms to ensure the successful implementation of blended learning in specific contexts. They however still acknowledged that teachers' personal strengths in blended learning classroom designs must be aligned with their pedagogical goals.

Regardless of what has been extrapolated, e-learning and blended learning success is highly dependent on experience with internet and computer applications, students and teachers gaining confidence and capability to participate in blended learning computer and internet applications confidence and learners' attitude, computer literacy, and time management (Abubakar & Adetimirin, 2015). Garcia (2021) noted how technology has become a crucial part of students' lives, offering them access to unlimited resources in their own schedule.

Given the magnitude of the pandemic and other impending pandemics, blended learning will be a viable alternative solution in entrepreneurship and other classrooms. Similarly, increased educational budgets are required to prepare schools for blended learning. Non-Governmental Organizations (NGOs), private sectors, and industries can be encouraged to contribute financially because they will benefit from well-trained school-leavers for the global market (Dangwal, 2017). To ensure a successful implementation, parents, learners, industry, and society must change their mind set and attitude by creating forums to discuss the benefits of blended learning. To address this issue, school policy statements, mentor

initiatives, and adequate information technology infrastructure are required (Tondeur et al., 2017). If blended learning and its implementation are successful, teachers' attitudes toward technology should also be addressed (Dangwal, 2017). As a result, with the right attitude and training, teachers can overcome challenges in implementing blended learning to benefit students in the classroom.

2.14 Theoretical framework

The theoretical foundation for this framework is provided by Garrison and Anderson's (2003) work on community of inquiry (COI). A COI is defined as the ideal and heart of higher education with purposeful, open, and disciplined discourse and reflection (Hrantiski, 2019). Garrison, Anderson, and Archer established this framework in 2000 as the community of inquiry model of educational interaction at the University of Alberta in Canada. Its primary goal was to structure learning in an online or blended learning environment. In addition, advocate for the advancement of deep and meaningful learning in online learning is based on three different kinds of presence: cognitive, teaching, and social. According to Hrantiski (2019), the ideal higher education experience is a community of inquiry, whether face-to-face, online, or blended. Blended learning's effectiveness is determined by its ability to develop and sustain a COI that provides students with a collaborative learning environment in which individuals negotiate their own ideas with common understanding to achieve higher-order learning objectives (Garrison & Kanuka, 2004).

Maxwell (2013) stated that a theoretical framework is a perception of what one intends to study or research. The theoretical framework should reflect existing theories and ideas about the concept under consideration (blended learning in this context), and it should provide critical sources of understanding about the concept and the related phenomenon under investigation (Maxwell, 2013). This framework is beneficial for comprehending and designing blended learning (Hrantiski, 2019).

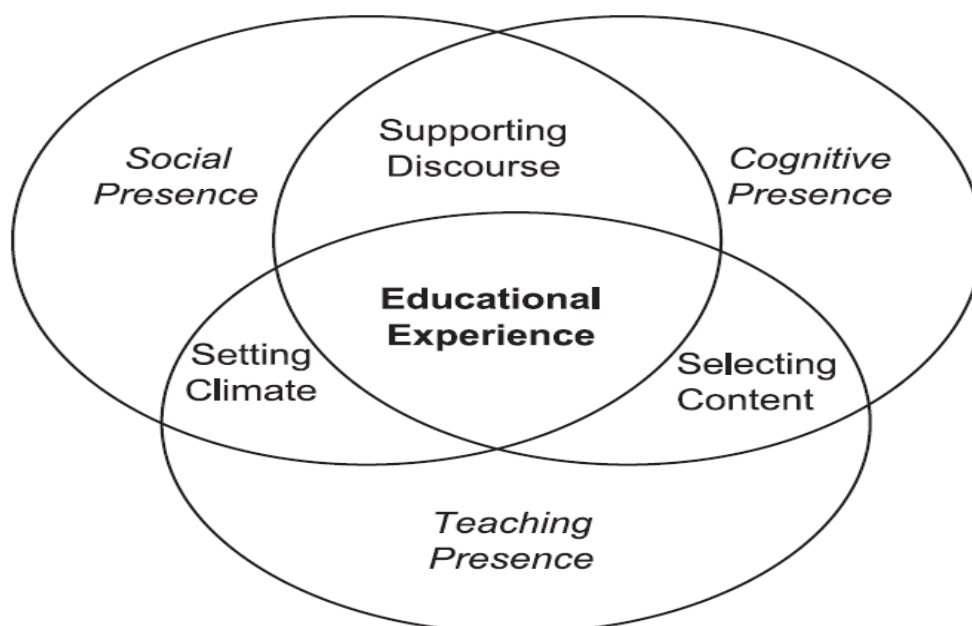
The COI framework is an inquiry-based teaching and learning framework that is based on John Dewey's work and constructivist views of experiential learning (Cleveland-Innes & Wilton, 2018). This theory holds that knowledge is socially constructed through the integration of alternative viewpoints during the inquiry, which is aided by reflection (Krzyszowska & Mavrommati, 2020). Blended learning should thoughtfully integrate face-to-face classroom learning experiences with online learning experiences to enable communities of inquiry (Hrantiski, 2019).

Various philosophical, epistemological, and learning theories are also built on the COI framework (Cleveland-Innes & Wilton, 2018). Its primary goal is to comprehend and resolve the online complexities of collaborative learning environments to promote more effective learning through the formation of a focused community on instructional conversation processes that are likely to lead to epistemic engagement (Shea & Bidjerano, 2009). This is demonstrated by the importance of community in educational activities. To begin with, education is a collective undertaking; one is constantly striving to broaden one's knowledge of a larger community. Meaningful educational experiences, according to Swan et al. (2020) are embedded in communities of inquiry comprising teachers and students, and learning occurs within such communities through the interaction of three core elements: cognitive presence, social presence, and teaching presence.

Cleveland-Innes and Wilton (2018) believed that incorporating the COI framework into blended learning allowed for self-reflection, active cognitive processing, interaction, and peer-teaching. The ability of blended learning to foster a community of inquiry is what makes it so effective (Garrison & Kanuka, 2004). As a result, the COI framework proposed by Garrison, Anderson, and Archer (2000) is widely acknowledged for its significant potential to support higher order, and deep learning by the interaction of social, cognitive, and teaching presences (Bates, 2015).

Figure 2.2 depicts the process of creating a deep and meaningful (collaborative constructivist) **educational experience** by integrating three interdependent elements: social, cognitive, and teaching presence (Garrison & Kanuka, 2004).

Figure 2.2: Community of inquiry (COI)



The three main components of COI are discussed in the following order: teaching presence, social presence, and cognitive presence. All these three must be present for a learner to learn effectively. Firstly, the significance of teaching presence is discussed.

2.14.1 Teaching presence

The presence of the teacher is a direct result of the inquiry, which is explicitly linked to the curriculum. Teaching presence refers to the design, facilitation, and direction of cognitive and social processes that support learning to achieve meaningful and educationally valuable learning outcomes (Garrison & Arbaugh, 2007; Garrison, 2016). When designing a course in teaching presence, the two themes need to be integrated to selecting of content, and setting the climate and they will be discussed below.

Selecting of content or the design phase

The content must be designed before the start of the lesson or course. In the Entrepreneurship classroom, the teacher can create videos and design notes prior to the start of the course, thus establishing teaching presence. Design refers to both learning content and teaching approaches, whereas organization refers to any adjustments made for design changes; and facilitation enables and encourages personal thinking confirmed by shared understanding; and direct instruction is used to deal with specific issues such as illustrating difficult points, diagnosing misconceptions and misunderstandings, and providing feedback (Garrison, 2016; Vaughan et al, 2013). This cycle will be repeated throughout one's academic career. It therefore guides one's study and help establish a community of inquiry.

The second theme is **setting of climates**. Before learning takes place, Entrepreneurship teachers need to ensure that the pace is set to get the learners fully engaged in the lesson by designing proper course activities and providing immediate feedback. Each learner must be engaged throughout the lesson, contributing to the overall success of the lesson, with the teacher facilitating the process. Teaching presence, as opposed to teacher presence, is used to engage students through various technologies (Vaughan et al., 2013). Furthermore, not only the teacher, but all participants in a collaborative environment must accept responsibility for teaching and learning. Students become teachers because of this collaborative approach, and they learn a lot more (Garrison, 2016).

Additionally, teaching presence improves when participants become more metacognitively aware, and are encouraged to take greater responsibility and control over their learning (Vaughan et al., 2013). The teacher's role thereby shifts to that of a facilitator, thus allowing students to express themselves while directing and guiding them to the correct answers. As an outcome of allowing the teaching presence to manage the environment, learning experiences are focused and facilitated (Garrison & Kanuka, 2004). While facilitation is important, teachers should be careful not to get too involved by allowing students to figure things out on their own. Anderson et al. (2001) mentioned that it is a problem-solving strategy in which direct instruction must be effective and efficient while avoiding overbearing the teacher.

Virtual communication and community are pioneering innovations that require both teacher and student to engage, interact, and contribute to learning in novel ways (Vaughan et al., 2013). Despite this, the role of a learner in blended learning environments entails multiple roles and responsibilities. Blended learning necessitates the formation of a collaborative COI as well as an understanding of the principles of teaching presence that guide, engage, and successfully complete a worthwhile educational experience (Anderson et al., 2001).

The quality of discourse and thought shaped by the teaching presence, according to Krzyszkowska and Mavrommati (2020) distinguishes the learning community from any other social community dominated by casual interaction. Feedback and evaluation are also part of the teaching presence to correct student misconceptions and assess the progress of the investigation process (Krzyszkowska & Mavrommati, 2020).

Assigning a role to students, providing motivating information, asking thought-provoking questions, keeping dialogues on track, determining an effective group size, and providing rubrics such as clear communication protocols and participation requirements are all strategies for improving teaching presence (Anderson et al., 2001). Garrison (2016) affirmed that to optimize the learning environment, teachers should not only create teaching presence, but also cognitive presence, and mediate social presence. The presence of the teacher is now the glue that holds meaningful progress, meaning, and shared understanding together.

2.14.2 Social presence

To facilitate the COI and to give students the sense that they can bring their teaching presence to the community, you must have a social presence. The teacher can help students

with their social presence by making them feel welcome, as if they belong and can contribute to the community.

Social presence is defined by Garrison, Anderson, and Archer (2000) as learners' ability to project themselves socially and emotionally within a community of inquiry. It entails the online expression of a participant's socio-emotional identity (Krzyszowska & Mavrommati, 2020).

Social presence and course design in setting the climate

The development of online social presence with course design is presented via the ability of course participants to identify with other members of the group and align their learning objectives and activities with those of the group (Krzyszowska & Mavrommati, 2020). It also encourages trust, open communication, and group cohesion (Vaughan et al., 2013). According to Garrison (2016), it takes time to build personal but meaningful relationships, so open communication should come first.

The first goal in developing social presence is to recognize the need for an identity with a purpose (academic goal) while avoiding overemphasizing interpersonal relationships (Vaughan et al., 2013). Madhavan and Lindsay (2015) opined that social presence can be established through a variety of immediacies, behaviours, and actions that promote a sense of presence and interaction. Allowing and encouraging each other to address each other by name, say thank you, and acknowledging each other can help to boost social presence. The teacher's choice of expressions and vocabulary is one of such behaviours, as is learning the students' names. Punctuality demonstrates the teacher's perceived value in the learning process and serves to enhance social presence.

The social presence principle states that, it is important to plan for an environment that promotes open communication and social cohesion (Vaughan et al., 2013). A community of learners must be established and maintained as its focal point to foster open communication, cohesion, and interpersonal connections. Interpersonal relationships can develop as the course progresses if open communication is maintained. Social presence is therefore strongly related to academic performance.

Supporting of discourse in course design

In social presence, the Entrepreneurship teacher must ensure that the content created encourages trust and interactions, and allowing connections among learners. The ability of participants to identify with other members of the group and to align their learning goals and

activities with those of the group is defined as their social presence (Krzyszowska & Mavrommati, 2020). Students work together and in groups to learn in communities. Collaborative activities thereby increase one's social presence. To maintain group cohesion and a common purpose, strategies will need to be developed through collaborative activities such as discussion boards and assignments. Effective and open communication is therefore required to foster a sense of community (Garrison & Arbaugh, 2007). Moreover, teachers must exert greater control while also fostering trust for students to communicate more openly, be recognized as a group, and begin challenging one another. It is preferable to let this happen naturally.

Furthermore, affective expression (the use of personal expressions of emotions, feelings, beliefs, and values to project presence), group cohesion (interpersonal communication that builds and sustains a sense of community), and open communication (behaviours that encourage interaction and critical reflection by recognizing, complimenting, and acknowledging others) are three types of social presence behaviours (Swan et al., 2020). In social presence, students can convey humanity in a genuine way; even in a blended environment, they can communicate in ways that foster trust and develop associations by expressing individual personalities (Garrison & Arbaugh, 2007). Social presence has been linked to student satisfaction as well as perceived and actual learning in online and blended classes (Swan et al., 2020).

2.14.3 Cognitive presence

Following the establishment of a teaching presence among students, where they know they can bring their own questions about the community as well as a social presence where they know their questions are welcome, and they feel like they belong to that community; the next step is to establish a cognitive presence. Cognitive presence is defined as the extent to which learners can construct and confirm meaning through sustained reflection and discourse in a critical COI (Garrison, 2016; Vaughan et al., 2013). It is a cycle of practical inquiry, according to Garrison (2016) in which participant's progress from problem understanding to application, exploration, and integration. If the goal is to move the discussion from integration to resolution, a deliberate teaching presence will be required.

Cognitive presence and course design in selecting of content

Instructional cognitive presence strategies include having learner's self-selected topics they are curious about within the topic being taught, facilitating critical discussions, connecting

ideas, exchanging of information, and applying new ideas. Learners can say look at topics in Entrepreneurship which they think are pressing and decide the sequence they should be taught. It entails exchanging information, linking ideas, and determining the viability of solutions (Garrison & Vaughan, 2008). Furthermore, cognitive presence is linked to critical thinking, reflection, and collaborative discourse (Garrison, 2016; Garrison, Anderson & Archer, 2000). It is a strategy for activities that promote systematic inquiry, discourse, and reflection (Vaughan et al., 2013). These activities and assignments provide opportunities for critical **discourse** and reflection. Discussion activities are especially effective during the problem definition and exploration phases. After selecting the content, the next instructional design in cognitive presence is supporting discourse.

Supporting discourse

True learning takes place at the heart of the COI framework (Krzyszowska & Mavrommati, 2020). When creating a blended course, the four practical inquiry models (PIM), also known as the phases of cognitive presence, must be considered. Improving cognitive presence in online courses can be done by focusing on the four phases of the PIM. This is identified through frequency types of discourse namely triggering event, exploration, integration, and resolution. Improving cognitive presence in online courses can be done by focusing on those four phases of the PIM. This are explained further below and visualised in Figure 2.3.

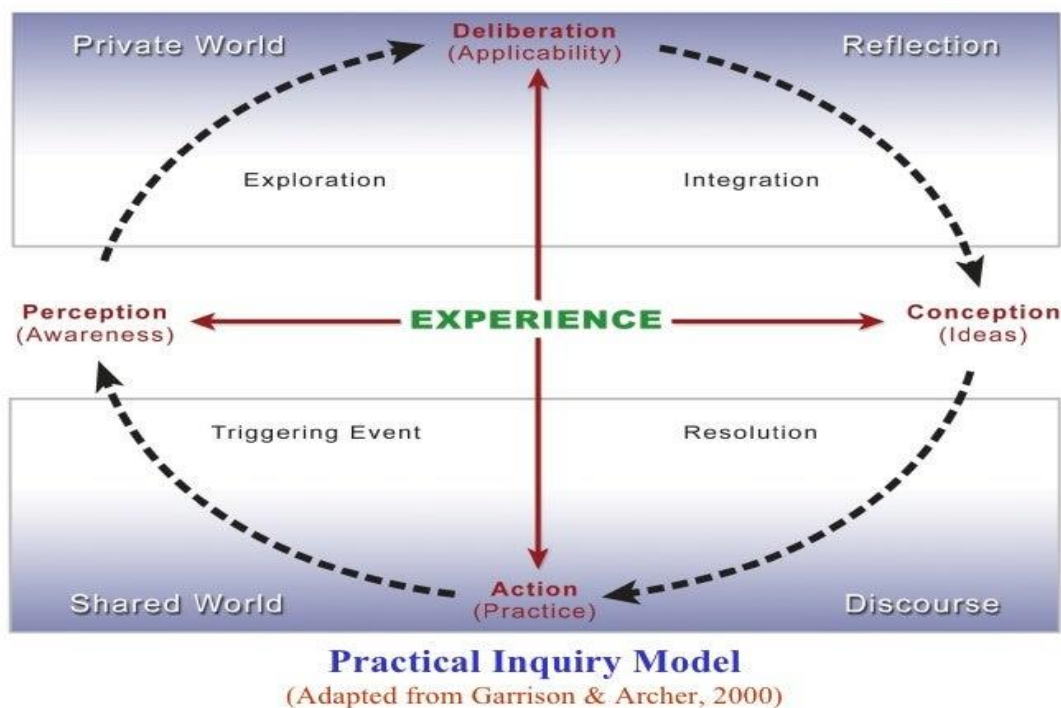


Figure 2.3: Phases of cognitive presence

The four stages of the PIM describe cognitive presence in an educational context in general and in online learning (Garrison & Anderson, 2003).

1. The triggering event: This phase ensures total engagement and kicks off the inquiry process with a well-planned activity and students buy-in. It has several positive outcomes like involving students, assessing the state of knowledge, and generating unexpected but constructive ideas.
2. Exploration: This phase focuses on first understanding the nature of the problem, and then looking for relevant information and potential explanations.
3. Integration: The process of meaning construction becomes more focused and structured at this point. Ideas are integrated, and order is established judiciously.
4. Resolution: In this phase, the dilemma or problem is resolved, either by reducing complexity through the development of a meaningful framework or by identifying a contextually specific solution. This stage of confirmation or testing can be performed either directly or indirectly.

Reflective thinking, which is based on the practical inquiry model, is commonly used to implement cognitive presence (Garrison, 2016). In cognitive presence, the teacher serves as a guide, facilitator, or coach, defining a problem as an unusual event that results in perplexing situations that surprise students and motivate them to engage in an inquiry.

2.15 Conclusion

The implementation of blended learning seems to be challenging to teachers due to lack of teacher training. Teachers face several challenges such as learning new teaching and technological skills. The use of blended learning has shown to have several benefits like increased learner independence, and the ability to learn at their own pace in the comfort of their own homes. As a result of the COVID-19 pandemic, schools now have more opportunities to implement a blended learning strategy.

The COI framework was used to inform blended learning, and the three presences, namely social, cognitive, and teaching, that are part of the COI were also discussed as part of the study. Blended learning necessitates the formation of a collaborative COI as well as an understanding of the principles of teaching presence that guide, engage, and produce a worthwhile educational experience. To optimize the learning environment, the instructor should not only create teaching presence, but also cognitive presence, and social presence. This, in turn will maintain the goal of higher levels of learning, a sense of community, and

belonging, all of which must exist at both a cognitive and social level. In this regard, blended learning presents a unique challenge for emphasizing the importance of a teaching presence.

In the following chapter, I will explain the research methodology I used as well as the research design, data collection and documentation tools, and data analysis and storage procedures that I used in this study. I will also discuss the quality criteria and ethical considerations that I followed throughout this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Chapter 2 has shown us some of the current debates and the implementation of blended learning. This chapter deals with the research design and approach used to carry out this study. The qualitative research design of a case study was used. The methods used to collect and analyse the data will also be discussed. To ensure that the research is carried out in an ethical manner and that the results are credible, the trustworthiness and reliability of the study results, as well as ethical considerations are discussed.

3.2 Research problem and the main research question and sub-questions

The main objective of this study was to investigate how six Entrepreneurship teachers in three selected Namibian high schools are implementing blended learning in their practice.

The study was guided by the following objectives and research questions:

Research Objectives:

- To examine entrepreneurs' understanding of the concept of blended learning.
- To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice.
- To examine challenges, opportunities, and successes in the implementation of blended learning.

Research question: How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?

Research sub-question: What are the implications of blended learning implementation for Entrepreneurship Education?

3.3 Research approach

The qualitative approach was used in this study to answer the research question. According to Maree (2014), qualitative researchers study people by engaging and observing them in their natural environments to develop an understanding of the meanings they impart. Patton (2002) emphasised that a qualitative research approach allows one to get close to the participants and circumstances to capture what is going on. A qualitative approach allowed the researcher to collect rich data by studying the phenomenon in its natural setting. The qualitative approach was used to elicit as much information as possible from the participants. Unlike quantitative research, the emphasis is on the information's quality and depth rather

than its scope. Furthermore, it followed an interpretivist paradigm which aims to understand the social world; meanings can only be understood in the interactions between the researcher and participants (Bertram & Christiansen, 2014). In this regard, the researcher had to interpret the situation from the viewpoints of the participants. Maree (2014) described it as an orthodox branch of hermeneutics and it as the study of theory and practice of interpretation.

Creswell (2014:234) cited the following qualitative research traits and its natural setting. The author believed that qualitative researchers often collect data in the field, and at the site where participants engage the issue or problem under investigation. Secondly, the researcher is seen as a key instrument. This means that qualitative researchers collect information by analysing documents, observing behaviour, and interviewing participants. Thirdly, multiple data sources rather than relying on a single data source is performed by qualitative researchers as they often collect data from a variety of sources including interviews, observations, documents, and audio-visual material to enhance the richness of data. Lastly, inductive data analysis is involved. This implies that qualitative researchers build patterns, categories, and themes from the ground up by arranging data into progressively abstract information units.

Notably, qualitative research seeks to assist the researcher in clarifying the problem and answering the research question by locating people or places (or documents or visual material) that can help clarify the problem and answer the research question (Creswell, 2014). The qualitative approach was used in this study to determine how Entrepreneurship teachers implemented blended learning in their practices at the three selected high schools. A qualitative research technique was therefore appropriate for this research study because it allowed me to gain a thorough understanding of how teachers implemented blended learning from their (teachers') perspective. It was also the preferred method because it allowed me to respond to the main research question.

3.4 Research design

This study employed a qualitative case study approach to investigate how the Entrepreneurship teachers at three high schools in Khomas Region of Namibia implemented blended learning. Maree (2014) reiterated that case study research is a methodical investigation of an occurrence with the goal of characterizing and interpreting the phenomenon of interest. As Creswell (2014) pointed out, the purpose of a case study is to study a case, person, group, or community over time to gain an extremely detailed

description of a social interaction. It allowed the researcher to provide a detailed account of one or more cases, (Johnson & Christensen, 2012). The case study design, therefore, enabled me to investigate in depth and in the context how teachers at multiple sites were implementing blended learning in their classrooms. It was based on defining the subjects of the study, in this case, six Entrepreneurship teachers, each with their own experiences from three different high schools (multiple case studies) (Patton, 2002). This study is a multiple case study, and I selected three different high schools as a focus group to answer the research question by examining each one's perspective and experiences on the implementation of blended learning in their practices. Case study research is popular among qualitative research studies (Maree, 2014) because of its ability to answer why and how questions.

When examining each case, Christensen, and Johnson (2012) confirmed that the researcher will look for similarities and contrasts rather than broad generalizations about the problem. Its goal is to demonstrate the typicality rather than to generalize. To understand each case, triangulation was used rather than relying on a single data collection technique (Creswell, 2014). The data collection methods used were semi-structured interviews, observations, and document analysis. In addition, the facts and conclusions for the case study will be built around the consistency of data from these sources (Yin, 2000). Multiple sources of evidence have been a key advantage for case study (Yin, 2011).

As cases are defined by time and activity, the researcher collected detail data over time using a variety of data collection methodologies (Creswell, 2014). Although the terms 'methods' and 'methodology' are frequently used interchangeably in this study, they have distinct meanings in qualitative research. Creswell (2014) defined methods as "practical data collection techniques" such as tests, interviews, and questionnaires; while Patton (2002:14) defined methods as either qualitative or quantitative approaches. Methodology, on the other hand, is a collection of philosophical perspectives on how we examine reality and generate knowledge that includes case studies, grounded theory, ethnography, and phenomenology, or the identification, investigation, and justification of research methods (Johnson & Christensen, 2012).

The period of data collection began on April 4, 2022, and ended on May 12, 2022. It started with participant interviews and advanced to classroom observations to see if what the participants said in their interviews corroborated what they were doing in their classrooms. The study also looked at curriculum documents to see what provisions curriculum developers made to incorporate technology into the classroom. The lesson plans were also

reviewed to determine which technology was included and how it was integrated. A Continuous Assessment form was also checked to see if it was completed by pen or computer.

A brief description of each data source as well as the timeline of the data collection process is provided in (see **Appendix G**).

3.5 Sampling

Qualitative researchers must first decide who they want to study by examining the population relevant to the research topic at hand (Johnson & Christensen, 2012). The qualitative research focuses intently and thoroughly on carefully chosen small samples (Patton, 2002). According to Mangal and Mangal (2018), a sample is a small proportion of the population of the study that is selected to extract information or performing experiments as part of the execution of the research study to achieve the research objectives.

When we sample, we examine the characteristics of a subset drawn from a larger group to comprehend the larger group's characteristics (Johnson & Christensen, 2012). Purposive sampling was used in this study by selecting six Entrepreneurship teachers who integrated blended learning in their classroom. Maree (2014) claimed that in purposive sampling, participants are selected according to pre-selected criteria relevant to a particular research question. The purposive sampling of selecting specifically Entrepreneurship teachers was relevant in that it was able to help me in answering the research question. The sample of this study were six high school Entrepreneurship teachers.

The site

The research was carried out at three high schools in the Khomas Region, Windhoek, Namibia. It was made up of two public high schools, and one private high school. Creswell (2014) contended that qualitative researchers purposefully select sites that will best help the researcher understand the problem and the research question. **The selection of participants**

This study aimed to investigate how teachers understood the concept of blended learning and to see how they were implementing it in their classes. Participants were selected purposefully by looking at Grade 9 Entrepreneurship teachers who were integrating technology in their classrooms. Six entrepreneurship teachers from the three High schools were chosen to participate in the research. Creswell (2014) claimed that a sample size depends on the qualitative design being used, phenomenology typically ranges from three

to ten; case studies to includes about four to five cases. In this study, three cases were selected to form part of the study.

Criteria for school selection

The researcher discovered these schools after the COVID-19 pandemic hit Namibia around March 2020, when the government required that schools to convert teaching and learning to e-learning platforms. Namibian National Broadcasting (NBC) Television featured schools that used e-learning in their classrooms. The researcher chose the three high schools featured by NBC based on their participation in e-learning. Moreover, the proximity of the researcher's school and ease of access also made those three schools uniquely located.

Criteria for selecting participants/teachers

Maree (2014:79) defined sampling as "the process used to select a portion of the population for study." He further claimed that non-probability and purposive sampling, rather than random sampling, are used in qualitative research. Purposive sampling, also known as judgment sampling, is defined as choosing participants based on some defining characteristics of a population of interest and locating individuals who share those characteristics (Maree, 2014; Johnson & Christensen, 2012). In this study, purposive sampling was used. The teachers were chosen with the help of the three schools' Heads of Department for Commerce, Principals, and Entrepreneurship Subject Heads.

Six Entrepreneurship teachers, two from each high school, who were teaching Entrepreneurship and using blended learning in their classrooms were chosen to participate in the study. This study chose information-rich cases (Grade 9 Entrepreneurship teachers implementing blended learning) whose studies illuminate the themes under consideration and provided a wide range of concerns relevant to the study's objectives and answer the research question (Patton, 2002). Patton (2002) referred to information-rich cases as those in which a lot can be learned about issues relevant to the study's purpose. Purposive sampling involved researchers specifying the characteristics of the population of interest and selecting them based on pre-selected criteria relevant to a specific research question (Maree, 2014; Johnson & Christensen, 2012). As a result, this study focused on teachers who had prior experience in integrating technology into their classrooms, specifically blended learning.

3.6 Data collection

In qualitative studies, the researcher collects various types of data and spends a significant amount of time in the field collecting information (Creswell, 2014). Data for this study were collected using three types of data collection in qualitative studies namely observation, semi-structured interviews, and document analysis.

3.6.1 Observations

Observation is defined by Creswell (2014) as when the researcher takes field notes on the behaviour and activities of individuals at the research site. Observation is used by researchers to gain a deeper insight and understanding of the phenomenon being observed, and in this case; to see how Entrepreneurship teachers are implementing blended learning in their classroom teaching (Maree, 2014). Although there are limits to how much can be learnt from what others say, direct participation in and observation of the phenomenon may be the best way to comprehend the complexities of many situations (Patton, 2002). Patton (2002) further observed that data collected from observations contain detailed descriptions of people's activities, behaviours, actions, and the full range of interpersonal interaction processes that are part of the observable human experience. I was able to observe how teachers were integrating blended learning into their classrooms, and how comfortable or not they were with the implementation, including their frustrations, and successes. Creswell (2014) remarked that the researcher takes field notes on the behaviour and activities of individuals at the research site.

During fieldwork, the researcher spent time in the classrooms of the participants, where a situation relevant to the study could be observed (Patton, 2002). The observer as a participant type was used, which means that the researcher enters the situation but focuses on his role as an observer (Maree, 2014). After receiving necessary permission, the researcher spent two days in each of the six Entrepreneurship classrooms to observe how teachers were incorporating blended learning into their practices. The observations lasted for 12 days, (i.e., from April 4th to May 12th, 2022). The observations were originally scheduled for April, but due to one of the school principals taking too long to grant permission for observing the participating teachers, the observation period was extended to 12 May 2022 to complete the remaining two teachers' observation and interviews. An observation guide was used to assist me (**see Appendix E**). The observers' field notes were also secured for later data transcription.

Observation also presents limitations which may include inter alia that participants tend to behave in a certain manner when they are aware of being observed (Patton, 2002). Furthermore, observations are limited by the sample of activities observed which might not provide a true reflection of the data hence it is important to make use of other data sources to corroborate the data. In order to test for a possible diversion in the findings, I took two days to observe each class.

3.6.2 Semi-structured interviews

Semi-structured interviews are one of the interviewing techniques used in qualitative data collection. Creswell (2014:239) defined qualitative interviews as "unstructured, typically open-ended inquiries aimed at eliciting participants' thoughts and opinions." Maree (2014) stressed that semi-structured interviews are used in qualitative research studies to corroborate data from other data sources. For this study, the interviewer utilized open-ended questions. These questions were pre-arranged, but probing questions were asked during the interview based on each participant's responses. According to Patton (2002), interviews yield direct quotations from people about their experiences, opinions, feelings, and knowledge. He further noted that qualitative researchers interview people about their experiences and perceptions, which allow the researcher to enter the minds of the participants by gathering their stories. Johnson and Christensen (2012) also observed that qualitative interviews allow the researcher to gain insight into a person's inner world to better understand their point of view.

The researcher was able to learn how participants understood the concept of blended learning from participants own perspectives by conducting qualitative semi-structured interviews. The interview protocol was designed with possible probing questions in mind, and the three research objectives were used to guide the researcher on the type of questions to ask (**see Appendix D**). During the interviews, the researcher needs to be aware of the limitations such as possibility of distorted responses due to personal bias e.g., anger, anxiety, politics and merely a simple lack of awareness for the interview (Patton, 2002). The purpose of the study was clearly explained before the interview took place. Clarification was also sought from the interviewee on the responses which needed further elaborations.

Interview process

Even though the interviews were supposed to be conducted on phone/ online, they were all conducted in person due to a relaxation of COVID-19 measures in April 2022.

To eliminate background noise, all interviews were conducted in participants' classrooms after school, after all students had left the school grounds. Each interview lasted about 30 minutes. All interviews were held on separate days as agreed upon by the participants. It should be noted that COVID-19 precautions were observed during the interviews, such as positioning the voice recorder in the centre and physically distancing to prevent the virus from spreading further. Permission was however sought from the participants to record the interview of which they consented.

During the interviews I ensured that the participants were comfortable enough to answer the questions as clearly as possible. I was able to probe for further clarification. The participants were given enough time to think about the questions before answering them. During the interviews, notes were taken of some key information that would aid in data analysis. The interviews were transcribed later.

3.6.3 Documents

When using documents as a data collection technique, one should focus on all types of written communications that may shed light on the phenomenon one is researching (Maree, 2014). Creswell (2014) pointed out that documents may be public documents (e.g., newspapers, minutes of meetings, official reports) or private documents (e.g., personal journals and diaries, letters, e-mails).

I collected qualitative documents such as lesson plans and Continuous Assessment (CA) forms. Following the interviews, I asked the participants to provide electronic copies of the lesson plans, and CA forms. The information in the documents was used to determine whether technological tools were used in the lessons, and how they were used (i.e., to know whether the CA forms were still done on paper, or a computer application was used); and to know the teachers' comfort levels with using technological applications and software. Documents also come with limitations, for example, they may be incomplete or inaccurate (Patton, 2002). In my case, one of the participating teachers forwarded a lesson plan for a Grade I did not observe. The participating teacher was immediately contacted, and the correct lesson plan was sent after several reminders. As Maree (2014) argued, documents could be used to corroborate evidence from other sources. Interviews and observations were initially selected as the main data collection tool. However, for triangulation purposes, documents were used.

Types of qualitative data are shown in Figure 3.1. below.

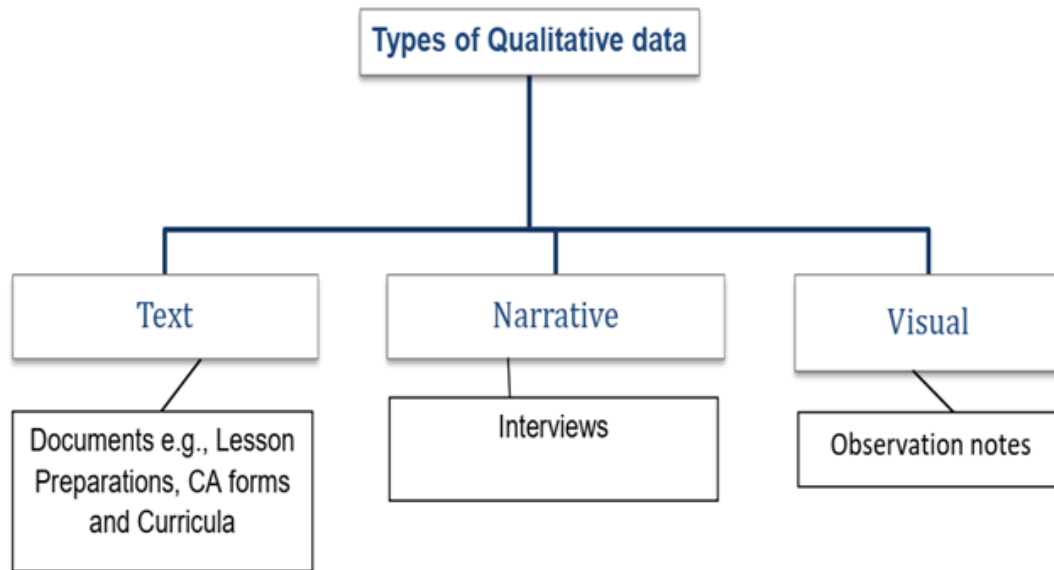


Figure 3.1: Types of qualitative data

3.7 Data Storage

Qualitative data, according to Maree (2014) can be quite lengthy, necessitating careful analysis, comprehension, and reading. Data must be properly organized and labelled so that they are easily accessible. The written consent, interview protocol, documents, and observation guide (field notes) were stored in a lockable box. The hard copies were later scanned and saved on Stellenbosch MS OneDrive for safekeeping.

In qualitative research, researchers must produce an accurate description of the information by employing one or more of the validation procedures to evaluate the accuracy of the data with participants or across different data sources (Creswell, 2014). In this study, interview recordings were double-checked after completion to ensure that they were clear and complete before being erased from the recorder and saved on a Stellenbosch University Ms OneDrive cloud folder. The transcribed information was also reviewed by members to clarify some misrepresentations from the side of the participating teachers.

3.8 Data-explication framework / theoretical approaches to data analysis

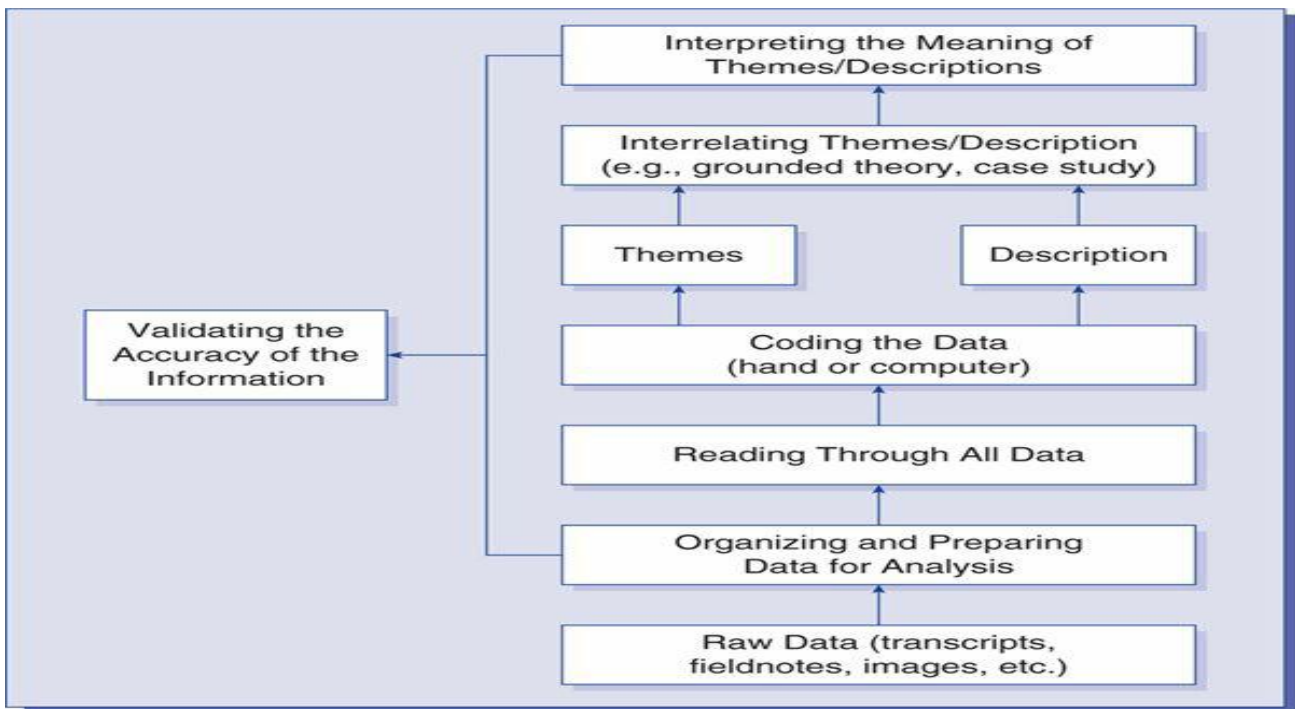
The interpretation of qualitative data is based on an interpretative philosophy that seeks to examine the meaningful and symbolic content of qualitative data (Maree, 2014). It is about determining how people construct the meaning of a specific event by analyzing their

perceptions, understanding, and experiences (Ibid., 2014). The data for this study were analyzed using content analysis and underpinned by the COI Framework of Garrison and Kanuka (2004) as illustrated in Figure 1. As pertained analysis, Patton (2002) defined content analysis as any qualitative data reduction and sense making effort that takes a wide range of qualitative material and attempts to identify meanings and consistency.

Inductive analysis was used to analyse data for this study. According to Johnson and Christensen (2012), inductive qualitative analysis can be thought of as a bottom-up approach because it emphasises starting with data and observation and discovering what is occurring more generally. Patton (2002) acknowledged that it involves immersion of one in the details and specifics of the data to discover important patterns, themes, and interrelationships which may begin by exploring, then confirming; and guided by analytical principles rather than rules. In contrast to deductive analysis where data is analysed according to an existing framework, findings emerge from the data in the case of inductive analysis through interactions with the data (Ibid, 2002). In inductive analysis, an existing framework (COI in this study) was used which means findings emerged from the data. After all the interviews were completed, I created a description of the participants by using pseudonyms T1-T6. The data were transcribed using software called Temi.com.

The process of using content analysis is an iterative and inductive procedure in which a researcher looks for similarities and differences in the text to support theory (Maree, 2014). The content of transcribed interviews (notes) was analysed to identify similarities and variations in the teachers' interpretation of the notion of blended learning. In using content analysis, the researcher looked for patterns, themes, and categories in the data. Content analysis was also used to analyse the observed data, and to look for the themes, patterns, and categories which emerged from the data.

Figure 3.2 below shows the process that I followed in analysing the data of this qualitative research.



(Source: From Creswell 2014:247)

Figure 3.2: Data analysis process

The following steps were followed in the coding process. The Temi.com software was used to transcribe the interview data, and it was followed by a Microsoft Excel programme analysis. Creswell (2014) contended that hand coding is a difficult and time-consuming process, even for data from a few individuals. Qualitative software programmes therefore have become quite popular, and they help researchers organize, sort, and search for information in text or image databases.

3.9 Ethical considerations

To conduct the most ethical and sound research possible, the researcher must consider several factors. Most research studies require the permission of all relevant stakeholders before embarking on the data collection journey involving humans. Informed consent, freedom to withdraw, protection from physical and mental harm, confidentiality, anonymity, privacy, and the ethics of internet-based research are among the standards that must be followed (Ibid, 2012). Due to their importance in conducting ethical research and obtaining organizational approval, these issues are discussed below with emphasis on how they were considered for the purposes of this study.

3.9.1 Permission and approval

I first obtained ethical approval from Stellenbosch University's Research and Ethics Committee. Thereafter, I sought approval from the Ministry of Education, Arts and Culture with the research proposal to request permission to conduct research in three high schools in the Khomas Region, which was granted in less than two weeks (**see Appendix B**). I was then directed to seek additional permission from the Khomas Region's Directorate of Education, Art, and Culture, which was granted. Permission was also obtained from the principals of the three identified high schools, who then referred me to the appropriate participants via their Heads of Departments. I first visited the principals of the respective schools to obtain permission to conduct research with two of their Grade 9 Entrepreneurship teachers at their respective schools. I was directed to the Head of Departments by the principals to brief them about the purposes of the study. Through the departmental heads, a second meeting was held with the selected teachers. Two Entrepreneurship teachers were briefed on the purpose of the study.

3.9.2 Informed consent

After the participating teachers were briefed and the purpose of the study explained to them, an informed consent letters were handed to participants to go through before they could sign. Johnson and Christensen (2012:107) defined informed consent as the participant's agreement to participate in a study after being informed about its purpose, procedures, risks, alternative procedures, and confidentiality limits. Participants were briefed on the purpose of the study and were further informed that participating in the study was completely voluntary. Participants who agreed to take part in the study were asked to sign the consent letters and gave them back to the researcher. Participants were assured that their identity would not be revealed in any way and only a code will be used to protect their identity. Participants were assured that the data collected would be kept strictly confidential. The audio recordings will be safely stored in the Stellenbosch University cloud folder MS OneDrive.

3.9.3 Voluntary participation and freedom to withdraw

Participants were informed that their participation in the study was voluntary, and they had the right to withdraw from the study at any time they felt uncomfortable to continue. They were also assured that refusing to participate and/or withdrawing from the study would have no negative consequences.

3.9.4 Privacy

The participants were informed of their privacy and that any information they provided will be treated confidentially. Pseudonyms (T1-T6) were used to protect the identities of the participants. It is clearly stated that the collected data will only be used for the purpose of the study, and will only be available to me and the assigned study leader who will supervise the study.

3.10 Reliability, trustworthiness, and transferability

Validity as a research instrument is common among quantitative researchers. When qualitative researchers discuss validity, they usually refer to research that is plausible, credible, trustworthy, and thus defensible (Johnson & Christensen, 2012; Maree, 2014). The researcher discussed how validity and other related concepts were maintained in this study.

3.10.1 Reliability

The phrase qualitative reliability refers to how repeatable and consistent a measuring instrument is across different researchers and projects (Creswell, 2014 & Maree, 2014). The purpose of qualitative research is not to measure; rather, it is to describe and comprehend why another person may reach a different conclusion about the same experience (Bertram & Christiansen, 2014:188). The interview questions were relevant and addressed the matter at hand, which was to determine how teachers at the three selected High schools in the Khomas Region understood the concept of blended learning and its implementation from the participants' perspective. The researcher must ensure that all the questions were clear and could be understood the same by all participating teachers. During transcription, the researcher had to check that the transcript did not contain obvious mistakes and ensuring that there was no drift in the definition of codes, and a shift in the meaning of the codes during the process of coding (Creswell, 2014).

3.10.2 Trustworthiness

In terms of trustworthiness, I devised an interview protocol, which was reviewed by the supervisor to ensure that the questions were in the correct order. The same questions were used in a pilot study with two Entrepreneurship teachers who were not included in the study to identify any flaws in the questions. The interview questions that remained unclear after the piloting were clarified. To increase trustworthiness, questions were asked in detail, and if they were unclear, clarification was done during the interview to clarify them. Bertram and Christiansen (2014) agreed that data must be genuine and reflect the respondent's

experiences. It was assumed that the participants might likely paint their schools in a positive light during interviews because they fear that telling the truth will ultimately work against their school. I however assured the participants that the information obtained from this study will not be used for any other purposes, and that it will not be shared with any other person apart from the study leader.

3.10.3 Transferability

Since this study is a case study, the findings of this study could not be generalized to all contexts because the research only focused on three schools in one region, and the results should only be interpreted as representing the cases of the three schools and not the entire country. Some lessons may however be learnt, which may be transferrable to a similar situation such as Entrepreneurship teachers implementing blended learning in another Region with similar facilities (Bertram & Christiansen, 2014).

3.11 Data triangulation

Creswell (2014) found that the use of data triangulation resulted in a more valid and reliable diverse construction of realities utilizing a variety of sources such as interviews, observations, and document analysis. In this study, triangulation was ensured using the following data collection methods: interview, observation, and document analysis, to strengthen the credibility of the data. During the interview, I also used a pseudonym and only chose schools where technology is integrated (Bertram & Christiansen, 2014).

3.12 My role as a researcher

My primary role as a researcher was to work collaboratively with participants to collect and analyze data to create and gain a deeper understanding of how Entrepreneurship teachers use blended learning in their classrooms (Maree, 2014). Furthermore, it demanded that I be a sensitive observer who faithfully records phenomena while raising additional questions, following hunches, and delving deeper into the analysis of the concept of blended learning. To conduct interpretive study, I must convert everyday skills into research skills. I had to learn how to listen and correctly interpret the participants' interactions in their natural environment.

As a qualitative researcher, I was involved in the preparation and structuring of semi-structured interviews. In addition, I oversaw conducting the interviews and then analysing the interview transcripts and observation field notes.

It is also important to consider the research's ethical implications. To protect the identities of the participants, the issue of confidentiality must be taken very seriously during the research process (Maree, 2014). It is my responsibility to obtain consent letters, interview permission (**See Appendix C**), and to have a plan in place to safeguard the audiotapes and interview transcriptions after the research is completed. I found it necessary that it is critical to become acquainted with the ethics policies of the relevant gatekeepers.

3.13 Conclusion

This chapter discussed the research approach and design, methods of data collection, and the research procedures which include data storage, data analysis, and ethical considerations. Validity and reliability issues and other related concepts were also discussed.

The following chapter presents the results of a study by categorizing and coding them according to the various themes and sub-themes that emerged. Semi-structured interviews, observation, and document analysis information will be used to solidify the data. The research question guided the entire process.

CHAPTER 4: DATA PRESENTATION

4.1 Introduction

As stated in Chapter 1, the study examined the implementation of blended learning among Entrepreneurship teachers in three Namibian high schools in the Khomas Region. The chapter shows that the findings of this study emerged from the three main data collection sources: semi-structured interviews, observations, and document analysis in response to the research objective and question as described in Creswell's data analysis (see Chapter 3, Figure 3.2.) using a case study approach. In addition, I presented the themes and categories that emerged from inductive content data analysis.

I sought to find out how teachers in both public and private schools use blended learning in their Entrepreneurship classrooms. I also found it appropriate to analyse various documents that the identified schools use in the implementation of blended learning, these were: JSE Curriculum, lesson plans, and continuous assessment forms. By analysing these documents, I gained a better understanding of how technology is used by the identified schools to carry out and prepare lessons.

The chapter is organised around a research question and sub-question as posed in Chapter 1.

- **Research question:** How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?
- **Sub-question:** What are the implications of blended learning implementation for Entrepreneurship Education?

As earlier indicated in Chapter 1, the following objectives were used to guide the study.

- To examine Entrepreneurship teachers understanding of the concept of blended learning.
- To explore the extent to which Entrepreneurship teachers are implementing blended learning in their practice.
- To examine challenges, opportunities, and successes in the implementation of blended learning.

4.2 Profile of the participants

Before I begin presenting the data needed to dissect the content analysis, I present the profiles of the six participants who were interviewed face-to-face in the individual interview

and from whom I collected data. The tables below show their demographic information (gender, age, years of teaching experience, and information communication technology (ICT) training). For the sake of anonymity, the participants were given the following pseudonyms: Teachers 1, 2, 3, 4, 5, and 6.

4.2.1 Teaching and training experience of participants

Table 4.1 depicts participants’ high school teaching experience, the number of years they have integrated technology in their teaching, and an indication whether they have received any ICT training.

Table 1: Participants demographic information, teaching, and training experience

Participant code	Age	Gender F/M	High school teaching experience (Years)	Entrepreneurship teaching experience (Years)	integration of technology in teaching (Years)	ICT Training received
Teacher 1	43	M	19	10	7	Yes
Teacher 2	25	F	3	3	3	Yes
Teacher 3	47	F	26	11	11	Yes
Teacher 4	38	F	16	9	7	Yes
Teacher 5	58	F	25	12	10	No
Teacher 6	49	F	23	1	10	Yes

Participants have been in the teaching profession for between three and twenty-six years, as shown in Table 4.1. Teachers of entrepreneurship who participated in the semi-structured interviews had teaching experience ranging from one to twelve years. The fact that participants have teaching experience in the subject Entrepreneurship as well as ICT training does not guarantee that they will be able to effectively implement blended learning in their teaching and learning. Only one of the six interviewees stated that he had never received technology training, while the other five stated that they had. All six participants had three to ten years of experience incorporating technology into their teaching.

4.3 Presenting the results of the study

This section presents the results of the study, based on the themes that emerged from semi-structured interviews, and following the inductive content analysis. These themes are categorized as per the research objectives and are illustrated in Table 4.2.

Table 4.2: Themes of the study

Research objectives	Research themes	Community of Inquiry presences
1. To examine Entrepreneurship teachers understanding of the concept of blended learning.	1.1 Blended learning and its incorporation 1.2 Frequency of use 1.3 Entrepreneurship teachers' opinions 1.4 Usefulness of blended learning in the classroom.	Teaching, cognitive, and social presence
2. To explore the extent to which Entrepreneurship teachers are implementing blended learning in their practice.	2.1 Access to blended learning technology tools. 2.2 Models of blended learning used. 2.3 Factors influencing Entrepreneurship teachers in using web-based assessment techniques in the classroom. 2.4 User friendliness 2.5 Management support	Teaching, Social, and cognitive presence
3. To examine challenges, opportunities, and successes in the implementation of blended learning	3.1 Use of mobile technology 3.2 Inappropriate use of phones. 3.3 Uncompromised school rules. 3.4 Use of technological tools during the lesson successes in implementing blended learning in the classroom. 3.5 Benefits of blended learning 3.6 Teachers' confidence in integrating Entrepreneurship teaching with content knowledge of blended learning. 3.7 Lesson learnt by teachers through blended learning.	Social, Teaching, and cognitive presence.

Teachers' quotes are presented verbatim, and any improper grammar used by participating teachers was largely unchanged. Quotes will be in inverted commas to indicate that they are not mine, but attributed to the participants.

4.3.1 Research objective 1: To examine Entrepreneurship teachers understanding of the concept of blended learning

4.3.1.1 Teachers' understanding of the term blended learning and its incorporation

When the Entrepreneurship teachers were asked to explain what they understood by the term blended learning, participants had different responses. **Teacher 3** described blended learning as an education system that involved the use of technology in the teaching and learning.

“It is making use of technology in your teaching.”

Teacher 2 found it difficult to describe the concept of blended learning but defined it as having to do with integrating technology in one's classroom.

“Seriously, I am not sure how I really understand, I think, ... it has to do with me integrating technology in my classroom”.

Three Entrepreneurship teachers described blended learning as a mixture of traditional face-to-face with online teaching.

“Blended learning is when we are combining the traditional face to face, teaching with online teaching methods”. (**Teacher 4**)

“Just mixed methods of teaching and learning, by one use, technology and not just traditional ways, ... face to face”. (**Teacher 1**)

“The conventional teaching method, together with technology”. (**Teacher 5**)

When the Entrepreneurship teachers were asked to indicate how they incorporated blended learning in their classrooms, some participants refer to it as making use of different digital technologies in the form of YouTube videos, PowerPoint presentation and MS Teams. **Teacher 6** put it thus:

“...by making use of videos from YouTube... I download, and which does not need internet for it to go through. ...attach it on the PowerPoint..., teach we can post a video... listen to the video ... And on teams, ...you can record yourself on PowerPoint

...then you send ...Teams and kids can make use of it at a later stage ...seeing notes ...also the voice of the teacher that is attached, explaining.”

One participant referred to an increase in attention span among learners while using videos from the internet when discussing the incorporation of blended learning in their classroom practice. **Teacher 6** stated that:

“Is that you present your lessons to the kids where they are listening to you and you incorporate some videos and lessons you get from resources using the internet, YouTube videos and so forth”.

Another participant referred to the notion of posting lessons on the iPad where students can access and view them.

“In my lessons, when I present a certain topic, I also have it up for them so that they can see on their iPad, but I also post the same information so that they can access it at home where they can refer back to what was done in class”. (**Teacher 4**)

The ITS learning and Airdropping feature of Apple were reported as some tools that some teachers used to send learners notes and homework. **Teacher 3** expressed that:

“You can open ITS learning where all the notes are..... and I also post their homework there, then I don't have to copy it.... Saves a little bit of paper...Easier I Air drop it to their iPad.”

4.3.1.2 Frequency of use

When asked the number of times participants incorporated blended learning into their Entrepreneurship classroom instruction the findings revealed that it varies from one teacher to another teacher. Two teachers indicated using it daily while others mentioned occasionally.

"It's an everyday thing". (**Teacher 1**)

"I've been using blended learning in every lesson for the past three years." (**Teacher 4**)

Other teachers reported incorporating blended learning into their teaching less frequently. As it shown below, blended learning was used by the teachers when beginning a new theme or introducing a new topic.

“At least once every week. Yes, at least. But no, that is why I say at least, but I use it around about two, three times a week.” (**Teacher 3**)

"It all depends on the topic or theme that you are working on, usually four times a week when it comes to starting a new lesson". **(Teacher 6)**

"Not so many times... a month time, maybe we are just beginning the topic. ...when it comes to videos, I use them occasionally. ... everyday PowerPoint is being used in class." **(Teacher 2)**

4.3.1.3 Usefulness of blended learning to the learners (in the classroom)

Almost all the teachers interviewed maintained that blended learning was very helpful and beneficial to them (the teachers) and their learners in the sense that it avoided lesson repetition. For example, teachers can type homework and upload it to any of the platforms such as MS Teams and Google Classroom for students to access at home.

"Yeah, it's very helpful in the sense ..., it helps ...give homework to the learners... via Google classroom, ...send feedback through Google classrooms. in class we present the lesson which is now face to face learning". **(Teacher 6)**

Teacher 2 found blended learning to be a good system in which learners can learn a lot by going back to it whenever necessary.

"... it catches the learner's attention. ...with Microsoft Teams, you know, the kids Rewatch the replay."

The findings showed the significance of blended learning because learners do not need to be in school to catch up on work missed because it is available online and learners can access it from anywhere.

"... helpful for the learners. ... I can voice record and explain to them, ... can have same information and repeated They can already catch up and be at the same level with others." **(Teacher 4)**

One teacher underscored the usefulness of blended learning because of its convenience as it allows learners to concentrate and become more engaged in their studies when technology is used. **Teacher 1** indicated that:

"It's good...helps the learners focus ... when using technologies, they are more into technology... tend to work better.

While most of the teachers alluded to the benefits and usefulness of blended learning, one participating teacher was sceptical about its usefulness. For example, Teacher 3 was

concerned about the disruption that may be caused if care is not taken in guiding learners on how to use technological gadgets during the lessons. **Teacher 3** expressed that:

“... the problem is because the children have iPad, I do not let them take it out ... distract a lot. ... play a lot of games. ... They usually use it for games. But if it is used properly, it works nice.”

4.3.2 Research objective 2: To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice

4.3.2.1 Access to blended learning technology tools

I inquired about teachers' access to various technology tools used in their Entrepreneurship classrooms. The findings pointed to the following as some of the technology tools used by Entrepreneurship teachers such as overhead projectors, laptops for teachers, iPads for learners, computers, cell phones, YouTube, Kahoot, Microsoft Teams, ITS learning, Air drop, Google forms, WhatsApp, and Google Classroom. For instance, **Teacher 3 asserted** thus:

“... We have a group on Ms Teams for staff... other teachers... play Kahoot, which is an online game to learn. ITS learning, ... Apple phone, we use pages, ... notes, numbers. I work a lot with email, I work with function of the Apple, which is Air drop. I use that a lot.”

The findings also revealed some challenges in the use of technology due to the unstable Internet connectivity at their respected schools on some days. This sentiment was echoed by **Teacher 2** thus:

“Well, I would say no but on my own, I do go on YouTube sometimes. When there is internet available at school, when its working.”

Teachers 6 and 4 indicated that some technological tools provided by the schools include smartboards, projectors, laptops, and computers, and the schools had reiterated that all learners should have iPads.

“Yes, we are one of the schools that really in each class there is a facility which is a projector.... really helpful.” (**Teacher 6**)

“... when you become a teacher at the school, you are given a laptop, ... and then its mandatory for all learners to have an iPad... ... All classes have the smartboards, so everything is available for us to use.” (**Teacher 4**)

Teacher 5 expressed displeasure with blended learning especially that it involves recording one's voice.

"I must say I am not very comfortable. If for instance I must talk and the lesson is recorded there, I'm not very fond of that. When I hear my voice...I don't want it."

4.3.2.2 Models of blended learning used

When participants were asked to describe different models of blended learning, participating teachers responded differently. The findings pointed out to different models being used by the participating teachers. These models included flipped classroom, MS Teams, Google Classroom, WhatsApp groups and YouTube. For example, Teacher 4 narrated using flipped classroom and MS Teams because they are more engaging with learners and the teacher serve as a facilitator and guiding the learning process (teaching social and cognitive presences).

"... I have tried the flipped classroom. I just introduce the topic... they can go, and research and they come give us more information. And then I just facilitate, and they feel empowered in the process." **(Teacher 4)**

"Students can do most of the work...on MS Teams. I love the chat platform where if working at home ...get stuck somewhere they can just type quickly to me...I can say proceed like this... even in research, I can still guide them." **(Teacher 4)**

The findings showed that participating Teachers 2, 3 and 5 used one model of blended learning. These include among others MS Teams, Google classroom to post learners notes and worksheets.

"Sometimes we record lessons and for others we prepare worksheets." **(Teacher 5)**

"Well not many. I used Google classroom, there is MS Teams that is implemented by the school." **(Teacher 2)**

"Learner's work is posted to the "Savings Bank" for later reference and lessons taught online I post the learners notes so that they can go back to that. when we had lockdown we give voice over, just to make it interactive and have ...feel of teacher." **(Teacher 3)**

4.3.2.3 Factors influencing Entrepreneurship teachers in using web-based assessment techniques in the classroom

Web-based assessment was one of the tools used by the participating teachers. As the findings have shown, the participating teachers used it with reluctance because apparently it is prone to learners cheating. Teacher 3 and Teacher 1 remarked thus:

“Personally, I didn’t use it because the children like to cheat....” **(Teacher 3)**

“...at home learners can copy or assist each ...not valid.... security online things are not really guaranteed.” **(Teacher 1)**

However, Teacher 6 indicated that web-assessments was mainly used during lockdown.

“...I can remember last year when we were in lockdown where we must assess, our learners by giving activity from Google classroom. ...”.

The findings also revealed other tools such as MS Teams were used to allow learners to submit tasks. **Teacher 2** indicated:

“...on MS Teams what we do is...give questions and there is a submit button, where learners can submit assignments....”

The findings further showed that several web-based assessments techniques were used such as Google form and Kahoot online game. Teachers can see the level of their learners in the subject and teach accordingly. As **Teacher 5** expressed that:

“I have used forms... on Google...I can set up especially those multiple-choice questions or the true or false, short answer questions.....put it on self-mark. ...Kahoot... an online game.... I can test if my learners are coping with the work....”

4.3.2.4 User friendliness

Participants were asked to indicate the aspects of blended learning that make it beneficial to use. Participants highlighted various benefits in using blended learning such as being fast to use, convenient, eco-friendly, readily available, time user friendly, and creating networking opportunities for the teachers. These were some of the sentiments expressed by the participants regarding the usefulness of blended learning.

“It’s fast... it doesn’t take up a lot of space in your bag. ... all your notes are at one place...you can get it from the cloud wherever.....it’s at hand. Doing our part for environment as well.” **(Teacher 3)**

“The fact that it saves time...because you only have to sit down and do the preparation once, but you can always refer back to it.” **(Teacher 5)**

“It is very useful. ... it reduces time wasted ... use time effectively since some feedback that kids were supposed to receive in class...You are forwarding it to them.”
(Teacher 6)

“In fact, they become more involved in their own studies...to do own studies and research”. **(Teacher 1)**

One interesting response was networking. It is interesting in the sense that the teachers appreciate the benefits that technology brought in education where teachers can share good information related to their practice. This sentiment was echoed by **Teacher 4**.

” The fact that if you are setting up a lesson...You maybe wanting more information..... you can go on YouTube... see what the teacher in Mariental is doing on such a lesson. Then you get a more creative way of doing ...even just a different way will make it more interesting for learners.”

The findings also showed that COVID-19 lockdown has led to many teachers rethinking their pedagogical practices, and adapted to the use of blended learning in their classrooms. As **Teacher 2 stated** that:

“When COVID-19 came we had to go on lockdown...we adopted the Microsoft Teams for Education... we had to continue teaching, but not do it face to face.... but before COVID-19 came, I would usually use YouTube videos and MS PowerPoint presentation”.

It was also reported that although COVID-19 was the main factor that influenced the implementation of blended learning, it came with challenges as not all learners have access to technology. **Teacher 1** expressed that:

“First of all, COVID-19. ...But that is exactly what brought it to this point.....first ...more like you were forced to, it was not coming easy ... if the child has technology.... they can cope better.”

The findings revealed that the emergent of COVID-19 pandemic has reinvigorated the use of blended learning. Participants expressed the need for teachers to continue using the available technologies to transform the education ecosystem. The following sentiments were expressed in relation to embracing technology as a tool for the future.

“We are moving forward with technology, we should know that one day technology will surpass and will take over, we should be willing to use this technology... It is going to make teaching interesting, reduces administration work for teachers.” **(Teacher 6)**

“It would be easily accessible to all if one must use it. It should be easily accessible....” **(Teacher 3)**

Another participant expressed concern about Internet access as a challenge for effective use of blended learning. The findings pointed out to the need of having an IT specialist on-site to handle emergencies as they occur. Teacher 4 alluded that:

“Internet connectivity must be good, if it’s overloaded than blended learning will be affected badly, the IT manager ... to handle IT issues when they arise.” **(Teacher 4)**

4.3.2.5 Management support towards the implementation of blended learning

The findings have shown that the participating teachers have received varying degrees of support from management, with some being extremely supportive and others being limited by budgetary constraints despite their willingness to assist. For example, as it demonstrated by the findings, the private school teachers commended their school administrations for being supportive. Teachers 3 and 4 said:

“They are very supportive and forcing it...we want to be on top of... be the first to do this. If we have complaints regarding wi-fi, all that stuff is investigated. We can also log service complaint... get a service ticket...all your stuff is then monitored”. **(Teacher 3)**

” They are very supportive in that..., ... are more willing to purchase. Also, online support...I can just log a ticket.... have it sorted.... they even set a budget to see.” **(Teacher 4)**

Teachers were provided with laptops to ensure smooth implementation of blended learning. Teacher 6 and Teacher 1 both stated thus:

“Our management is so supportive... that even if you do not have a laptop... the school have accessed some laptops...freely available to be used by teachers. ... installed projectors in each class...we have whiteboards.... trying to be a smart school.” **(Teacher 6)**

“They are very supportive...they try to push in money here and there...the budget is tight ... still coming forth.” **(Teacher 1)**

4.3.3 Research objective 3: To examine challenges, opportunities, and successes in the implementation of blended learning

4.3.3.1 Mobile technology

Not all the learners owned cell phones or having access to Wi-Fi or data for them to do their schoolwork. Many learners found cell phones to be expensive and that they were not trained to use the tools. Teacher 2 stated that:

“...Wi-Fi or data. ...kids do not have the phones or laptops to make use of. ... they say smartphones are expensive or laptops or iPad. ... kids complain that they could not ...upload their assignments...we do not know how to use this thing (MS Teams).”
(Teacher 2)

4.3.3.2 Inappropriate use of phones

As the findings showed, playing of games by learners during the lessons was one of the challenges. Learners used the phones for purposes other than academic which can prove to be a distraction of the lesson. As Teacher 4 and Teacher 3 put it:

“, you will find a learner playing games when are supposed to be doing an exercise. **(Teacher 4)**

“... They sit on with iPad up and you cannot see what they are doing unless you are behind them. ... like to play a lot of games...” **(Teacher 3)**

Access to Wi-Fi, the size of the uploaded work, the availability of data, and the affordability of gadgets were among the challenges encountered when implementing blended learning in the public-school Entrepreneurship classroom. The findings also showed that learners had never been trained on how to access and submit assignments before, which hampered the use of technology in teaching and learning in turn the effective implementation. Teachers 2 and 1 both stated that:

“...Learners do not have the tools...when they have there is not data...size of the work sent to their phones **(Teacher 1)**.

“Number one is Wi-Fi or data... learners don't have smartphones...don't ...know how to use this thing.” **(Teacher 2)**

4.3.3.3 Uncompromised school rules

Although blended learning was being embraced during the teaching and learning process, as the findings showed, public school rules were never changed to accommodate learners.

For example, learners were not permitted to bring phones to school, which was against the school standing rule, so any work forwarded or shared with them during class was only accessed after school. If technology is thereby used to present information, a link will be forwarded to learners so that they can access the information when they return home.

“They cannot bring their phones to school...after school they can access whatever you have forwarded to them... whatever you have presented using technology, you refer a link where they can again, watch to increase their knowledge.” **(Teacher 6)**

4.3.3.4 Implementing blended learning in the classroom

Participating teachers have developed some competencies using the technological in presenting their lessons. The study has shown variations in the use of these tools.

“... With MS Teams if you record yourself, ...on MS PowerPoint...they can play over and over...made it easier ...to understand **(Teacher 2)**.

“The fact that the school makes sure that most classes have whiteboards with projectors. I think that’s also a big help for the teachers.” **(Teacher 5)**.

“Just the knowledge of using computer... So, it is not difficult. It is just normal. **(Teacher 1)**.

4.3.3.5 Benefits of blended learning

Teachers 4, 6, 3 and 1 found blended learning to be useful to both teachers and learners. As the participating teachers had demonstrated, its usefulness depends on the teacher. Teacher 4 alluded that blended learning has been easier to cover the content and learners can always access the study materials at any time.

“Blended learning makes life very easy for me as a teacher...it can make lessons very interesting...when I finish a certain topic, I can quickly go onto the internet...show practical examples of what I have just told them. If students are sick and not in class... I don’t have to do same work twice...they can also access it. I can share it with other teachers.” **(Teacher 4)**.

Teacher 6 viewed the benefits of blended learning in terms of reducing teachers’ workloads and attracting learners’ attention. The participants have also expressed the benefits that come with blended learning such as attentive listening by learners, less stressful class environment, and workload reduction. **Teacher 6** for instance stated that:

“It is very useful. It reduces stress, reduces workload...when you use technology...kids will listen attentively to the presentation that is currently going”.

Building confidence among learners and teachers was mentioned as one of the benefits of blended learning because the content is accessible and available from the Internet. This was pointed out thus by **Teacher 3**:

“It is quite useful because ...if you don't know something, you just research it... Google it. It gives a lot of confidence to the learners as well as you've got the whole library in your hand”.

One participating teacher reported learners' inclusion in the lessons as one of the benefits of using blended learning.

“In a sense it helps.... with the learners, they are different. when you make use of these different methods of teaching...they get to be included in the process...I find it is handy in a way”. (**Teacher 1**)

4.3.3.6 Teachers confidence in integrating Entrepreneurship teaching with content knowledge of blended learning

Most participants have shown to be comfortable with the content of Entrepreneurship and know which YouTube videos channels to go to for proper videos. To make the learning fun, it must be linked to the outside world. This information can only be accessed via technology in the form of blended learning by showing different experience in the form of videos.

Teacher 6 expressed that:

“Entrepreneurship it's a diverse subject... where kids need to gain a lot of knowledge of running a business. So, if you must bring in information from outside, they want to pursue this career and it's helping them a lot”.

One participant indicated that teachers seemed to be comfortable with teaching a blended lesson in Entrepreneurship as they were trained, and in turn trained the learners about how to use the tools. This means that they are at ease in understanding how it should be done and how to integrate blended learning in the Entrepreneurship lesson. This teacher explicated thus:

“I am very comfortable.... with carry out a lesson in Entrepreneurship because I know how the tools work, how the different apps that I need to use. Learners also get trained ...when they come in a grade. They are also very comfortable in using the tools” (**Teacher, 4**).

Most participants indicated that they have been enjoying carrying out a blended learning lesson in an Entrepreneurship classroom because they can incorporate technology in the lesson to make teaching interactive. They also gave freedom to the learners to become researchers by scanning their environment for business related information. This means that the teacher in the classroom is there to facilitate and guide the learning process.

“I think it is very useful in the sense that, sometimes I play videos for the children. They can watch, they can listen. The fact that the subject...it is happening everyday.... it is out there. It's not stuff that we suck out of our thumbs and expect them to know. I guide them and make them aware.” **(Teacher, 5)**

Other participants indicated that although they were not ready using the tools at the beginning. After some time with the tools, they became familiar with the tools and felt at ease. **Teacher 2** stated that:

“I would not lie to you when Microsoft Teams was introduced, I was not very comfortable, ...making mistakes also on my recording. ...after a week or something when you practice and all these kinds of things. ... We are comfortable with what we are using. Unless something else come....”

4.4 Lessons learnt by teachers through blended learning

Despite the ongoing challenges with access to data and internet availability, all participants, as the findings showed, indicated willingness to continue using blended learning after COVID-19. Participants also reported that blended learning is more convenient and enable learners to feel confident in themselves. The participating teachers have also mentioned how they are becoming experts at creating better videos, and how to connect technology to the world of work. The following excerpts from the following participating teachers confirmed the above findings.

“We are continuing with it because we have seen the benefits that derived from it...it reduces stress. We can use our time effectively...learners can go back to your presentations and if they didn't understand, they can listen to your audio that you have presented and sent it to them. I will advise government to really budget for such implementation in most schools”. **(Teacher 6)**.

“I will never leave it. Cause the benefits that I've enjoyed are so much, ...teaching is now so much easier...sometimes I even playback what has happened in class for myself to see what else can I add on to this...if all schools could have access to

blended learning ...students are anyway going to write the same exam... I think it will be helpful for the Namibian child.” **(Teacher 4).**

“We want to use technology, we already invested as much as we can ...we are using our own data.... WIFI works now and then.... I am using my own laptop. ...Private individuals can also just invest...parents must be willing to buy phones for their learners....” **(Teacher 2).**

“One cannot stop now...I mean the work that this system is doing is just doing wonders.... really beneficial to the learners.... ... now technology itself is changing.... improvements come in with money.... there are some of the challenges that its affordability to some kids....” **(Teacher 1).**

“On my part, I can make better videos ...I started off making videos with just face speaking... later, made the voice over. ...when I asked the children...., which one did you like the most.... we miss your face.... Make technology accessible to all learners in the country to remove the digital divide among Africans.” **(Teacher 3).**

4.5 Observations

This section addresses the classroom observations discussion that arose during the visits to the classrooms of the participating teachers, where I was an observer and a participant. Each of the three participating teacher’s lessons were observed twice. As per the school period time allocation, each observation lasted for about 40 minutes. The observation was intended to find out how blended learning is used in the schools, what tools or resources were in place to ensure a successful implementation, what learning management systems they were using, what web-assessment tools they were using, as well as their level of comfort with integrating technology into their classroom teachings. The following are my notes/findings from the observations at the three high schools. The observations were designed to answer the main research question, "How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?"

4.5.1 Prevalence of blended learning in the schools

I was interested to understand how blended learning was used at the three schools I visited, two public and one private. White boards, projectors, smartboards, laptops, and iPads were installed in all schools. Three teachers projected YouTube videos on overhead projectors about various topics, while students listened attentively, and asked questions as needed. The others two projected their lessons onto the smartboard, and because each learner had

an iPad, homework was airdropped to their iPad, which was fascinating to watch. For teachers to implement blended learning, they needed to design learning content suitable to the needs of the learners in the form of videos and notes. Design refers to both learning content and teaching approaches, whereas organization refers to any adjustments made for design changes; facilitation enables and encourages personal thinking confirmed by shared understanding; and direct instruction is used to deal with specific issues such as illustrating difficult points, diagnosing misconceptions and misunderstandings, and providing feedback (Garrison, 2016; Vaughan et al, 2013).

4.5.2 Resources for the successful implementation of blended learning

All the schools had working Wi-Fi, although I noticed that one public school's Wi-Fi was unstable on one of the days of my visit. In that event, the teachers had to switch using own cell phones to ensure that teaching and learning could continue. Only students from private schools were permitted to bring iPads to class and use them during class activities; and their teachers were provided with a school laptop and a smartboard in each classroom. Teachers at one of the public schools had a personal laptop. Furthermore, one of the public schools has made it possible for teachers who do not have access to a personal laptop to borrow one from the school. At each public school visited, class activities, notes, and videos could be projected onto the whiteboard using a digital projector. I also observed that students are not permitted to bring cell phones to the school, but there is a class WhatsApp group where the teacher sends all communications, which they can access at home, which happened at all public schools.

4.5.3 The use of various learning management systems to provide a seamless blended learning education

The following LMSs were used to provide successful blended learning: Google Classroom, MS Team for Education, and D6 communicator, where notes, past question papers, and activities were sent. In the private schools, ITS learning was used, but they expressed concerns about the costs, and the school's plans to phase it out. In addition to ITS learning, Buku, an online textbook was also used. Learners use usernames to access online textbooks, and the school pays subscription fee to allow them access. I was also fortunate to be shown the class administration app, which stored learners' information as well as contact information for their parents. Other learning tools used were such as My Hub and Microsoft Office 365 education.

4.5.4 Online and offline activities to facilitate blended learning

Teachers were teaching in class and posting assignments for students to review them later platforms like Google Classrooms and Microsoft Teams. Because the system automatically connects to iPads, and everything done in class was automatically transferred to the learners' iPads. Teachers in public schools could project the lesson onto whiteboards while explaining the topic in person. Some teachers however sent notes and homework to the WhatsApp group for students to study and complete activities at home later.

4.5.5 Web-based assessment tools

Despite providing online activities, many teachers were unable to mark them online. They had to print them from MS Teams and manually mark them. One of the teachers never gave online assessments because she was uncomfortable with online marking, so learners were only given worksheets to work on them. Other teachers marked short answer questions on their phones using WhatsApp. The question was created by the teacher in Google Forms and was set to auto-mark as well as Kahoot online games. This means that the test will enable teachers to evaluate and judge learners' views on lesson in turn improve thinking, "teaching presence".

4.5.6 Comfort level

Most teachers appeared to be at ease with the tools they are using. Teachers have used PowerPoint, YouTube videos, ITS learning, and D6 Connector to name a few.

4.6 Document analysis

I was interested in seeing how the various documents were used, and how blended learning was incorporated into the teaching of Entrepreneurship Education (EE) According to the curriculum, ICT is being used to teach the learners the basics of ICT. The subject covers only the fundamental ICT topics as shown in Table 4.3, according to the Junior Secondary Certificate (JSC) curriculum. This could be since the curriculum was created when the developers were unaware of the numerous ICT applications in business, and thus only the fundamental topics were then integrated into the teaching and learning of Entrepreneurship.

Table 2.3: Summary of the learning content

Adapted from the Junior Secondary Certificate Grade 8-9 Syllabus (2015)

Theme/Topic	Grade 8	Grade 9
3.4 Computers in a business/enterprise	<ul style="list-style-type: none">• Importance of ICT• ICT tools	<ul style="list-style-type: none">• Explain how to increase the use of computers

The extract from the syllabus shows that there is provision for integrating of Information Communication Technology (ICT) in the curriculum. The findings imply that upon completion of the curriculum learners can use technology in their businesses. ICT in business which is a topic under Entrepreneurship. A business must include the use of technology tools to run a competitive and up-to-date business. It is also a great way to teach students transferable skills and to talk about schoolwork while encouraging participation and meticulousness. Teachers can ensure inclusion by incorporating both face-to-face and technology into their classrooms.

From the classroom observations on the lesson plans and Continuous Assessment (CA), all schools are doing their lesson plan and CA using Microsoft word. Attached (**See Appendix F**) for an example of a lesson plan.

4.7 Conclusion

Chapter 4 focused on presenting the research findings from a case study of Entrepreneurship Grade 9 teachers implementing blended learning in their classrooms. The findings guided the researcher in answering the research question, "How do Entrepreneurship teachers implement blended learning in their classrooms in Namibia?" Content analysis was used in analysing the collected data. Responses of the participants were coded; and emerging themes were identified. The next chapter discusses the findings of the study.

CHAPTER 5: DISCUSSION OF THE FINDINGS

5.1 Introduction

The earlier chapters of this study outlined the literature review, methodology and findings of the study. This chapter discusses the findings about the implementation of blended learning amongst Entrepreneurship teachers in the three Namibian high schools in the Khomas Region which were presented in the previous chapter.

The discussion of the findings is based on the objectives of the study and the critical questions that were generated to address these research objectives shown below.

Research objectives:

- To examine Entrepreneurship teachers understanding of the concept of blended learning.
- To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice.
- To examine challenges, opportunities, and successes in the implementation of blended learning.

Research question: How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?

Sub-question 1: What are the implications of blended learning implementation for Entrepreneurship Education?

The discussion of the findings emerging from individual semi-structured interviews with participants, document analysis as well as field observation notes are supported by literature review presented in Chapter 2.

The chapter begins by discussing the Entrepreneurship teachers' understanding of the concept of blended learning. The chapter further discusses the extent to which the Entrepreneurship teachers are implemented blended learning in their practice. The chapter concluded with challenges, opportunities, and successes in the implementation of blended learning. Suggestions for improvement were also discussed.

5.2 Research objective 1: To examine Entrepreneurship teachers understanding of the concept of blended learning

5.2.1 Teachers' understanding of the term blended learning

The participants of this study talked about their understanding of the term blended learning and how they implemented it. It emerged that the participating teachers had little understanding of the concept. Some teachers could not provide their inputs on the concept except upon detailed explanations from me (see **Section 4.3.1.1, Teacher 2**). Earlier research has recommended the need for teachers to first receive full training on blended learning to gain understanding of the concept of blended learning and be skilled in combining traditional and technological approaches (Dangwal, 2017). Teaching presence is appropriate in this situation in that it is easier for Entrepreneurship teachers to implement a concept that one fully understands. This finding agrees with Anderson et al. (2001) that blended learning necessitates the formation of a collaborative community of inquiry, as well as an understanding of the principles of teaching presence that guide, engage, and successfully complete a worthwhile educational experience. Entrepreneurship teachers can benefit from a community of inquiry in a blended learning environment because it can allow teachers to collaborate with teachers from other schools by sharing notes and videos for a worthwhile educational experience which will benefit the learners.

Some of the participants' understanding of blended learning were very simplistic; with some viewing blended learning as simply incorporating technology into one's teaching. This indicated that there are still some uncertainties about what blended learning is amongst teachers. Some participating teachers seemed not fully understand the concept of blending probably because it was a new concept to them. The study by Norberg et al. (2011) affirmed that blended learning approach to teaching and learning is the "new normal", it is still relatively new in developing countries, particularly Sub-Saharan Africa and more specifically, Namibia. Mhlanga (2021) have stressed that the COVID-19 pandemic prompted a further digital transformation in the education sector, making blended learning inevitable for both higher education institutions and K-12 institutions (Aljedaani et al., 2021) and predicted that it would become our 'new norm'.

While teachers' responses to the term blended learning varied, there emerged one common understanding that blended learning includes the use of traditional face-to-face teaching combined with online learning. This finding corroborates Bhadri and Patil (2022) that blended learning as a technique integrates digital media and technology with traditional classroom activity; thus, making this group of teachers to demonstrate a clear understanding

of the concept of blended learning, which is defined as a combination of two teaching approaches. When teachers are showing an understanding of a concept, they are likely to deliver a fulfilling educational experience in their classrooms. The presence of the teacher is known to be the glue that holds meaningful progress, meaning, and shared understanding together (Garrison, 2016).

5.2.2 Blended learning and its incorporation

The second part of this theme was to find out how teachers incorporated blended learning when teaching entrepreneurship. Findings indicated that public and private schools implemented blended learning in their own ways. Participants from private schools reported successful implementation of blended learning. The tools used during the implementation of blended learning include ITS learning and Airdrop feature for sharing notes with learners, Microsoft Teams, YouTube videos and Kahoot online games (see **Section 4.3.1.1, Teacher 3**). These tools were used to create open communication among learners enhancing social presence in the Entrepreneurship teaching. Social presence as defined by (Krzyszowska & Mavrommati, 2020) is the ability of participants to identify with other members of the group and to align their learning goals and activities with those of the group. The use of these tools is documented to have enhanced blended learning through the uploading and sharing of files, allow the holding of online discussions and chats, administer quizzes and surveys, collection and reviewing of assignments, and tracking grades (Pachisia, 2022). The findings have further revealed that teachers from private schools showed a better understanding of blended learning compared to teachers in public schools.

It should be emphasized that the teachers' successful implementation of blended learning is also said to depend on how comfortable teachers are with the tools because teachers who are unsure of their ability to use technology tend to avoid it (Cheek et al., 2017).

5.2.3 Frequency of use

Findings revealed the frequency of use of blended learning by participants, and it was found this ranged from every lesson to only once in a month.

Teachers' responses on the frequency of use of blended learning showed that participants in the private school (see **Section 4.3.1.2 Teacher 3 and Teacher 4**) incorporated blended learning into their classroom instruction more frequently than participants from the public schools. This is likely so because private schools seemed to have reliable ICT (Information communication technology) and Internet access. Other considerations include finances.

Private schools in Namibia seemed to be more financially stable compared to state schools because of high school fees paid by their students monthly. Public schools seemed to have a fixed annual fee that is not mandatory, causing them to struggle with the provision of technology tools in the classrooms. Participants from public schools reported using PowerPoint presentations and YouTube videos occasionally only to introduce a new topic. This may mean that these are new tools or are still getting used to them.

As the findings showed, the implementation of blended learning may be affected by the provision of adequate support to teachers, tools such as laptops and Internet access. These factors may contribute to teachers lack implementing blended learning. Kentnor (2015) has indicated that various institutions faced challenges in implementing blended learning in their classroom as often as necessary such as lack of understanding of online pedagogy, online learning styles, a lack of administrative support for online education, the number of students enrolled, faculty qualifications, tuition rates, and programme length. A similar study by Shihomeka (2021) found that despite the use of blended learning, learners and parents in various communities have expressed concern that some students from previously disadvantaged communities felt excluded during the COVID-19 lockdown measures due to lack of understanding and resources at home.

5.2.4 Usefulness of blended learning in the classroom.

The awareness of the benefits of any innovation can be a key factor that can encourage teachers to be enthusiastic about that innovation. The teachers' responses on the implementation of blended learning in the classroom indicated that all participants who employed blended learning in their classroom believed that it was beneficial to both learners and teachers. Participants identified various benefits such as preventing repetition of lessons, and retrieving of previously missed lessons. Participants further indicated that blended learning prevents repetition of lesson since lessons can be recorded and learners can view them again at own time (see **Section 4.3.1.3, Teacher 4**). Other benefits that emanated as the findings showed even if students are absent, they can always catch up because assignments are recorded and posted on various platforms such as Google Classrooms and Microsoft Teams. Teaching presence as opposed to teacher presence is used to engage students through various technologies (Vaughan et al., 2013). Berga et al. (2021) also confirmed that blended learning can be used to meet the needs of individual learners, such as motivation levels and abilities, and it gives them scheduling flexibility as well as opportunities to repeat or review materials as needed.

Furthermore, findings indicated that the implementation of blended learning by the three participants from the public schools through various tools such as PowerPoint, YouTube videos, and Microsoft Teams was made possible by the support received (see **Section 4.3.1.3, Teacher 6**). As the findings revealed, these platforms are readily available, and most schools' IT personnel seemed to be familiar with them. Additionally, teachers' willingness to incorporate blended learning into classroom instruction seemed to be influenced by their level of comfort with the tools and availability of such tools.

Given the various applications available at private schools, this implied that private schools have more resources to support blended learning than public schools as already indicated by the findings. Interestingly, it appeared that the use of blended learning in an Entrepreneurship class may serve to become cost effective since schools will use less paper thus saving the environment because of the online presence.

Participants further reported that they were eager to implement blended learning as it enabled learners to be engaged in their own learning because technology fascinates them, and this motivates them to learn (see **Section 4.3.1.3, Teacher 2**). The aspect of self-directed learning featured in blended learning has the potential to shift away from teacher-led education to a student-led instruction, in which students have full control of their own learning because of technology (Becker, 2020). It is the duty of a teacher to create a conducive blended learning environment that supports and encourages communication among learners by designing thought-provoking activities.

Prior research has emphasized the significance of blended learning in Entrepreneurship education. For instance, Neck et al. (2014) recommended that teachers must use online learning systems to design technology-based entrepreneurship learning that is tailored to their students' needs. For teachers to implement blended learning willingly and successfully however, one must have the basic computer and technology skills. A study by Mhlanga (2021) showed to present a blended lesson successfully, teachers basic computer skills such as electronic presentation, internet navigation, network administration, and communication are essential.

5.3 Research objective 2: To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice

5.3.1 Access to blended learning technology tools

Based on the findings, all participants had access to a wide range of online tools which aid in the implementation of blended learning; however, teachers from the private schools had more access to more tools than those teaching at those participating public schools.

Teachers in those private schools reported primarily using smartboards, iPads, Google Classroom, Microsoft Teams tools, and ITS learning tools. (see **Section 4.3.2.1, Teacher 3, and Teacher 4**). The public-school teachers have reported to have used WhatsApp, YouTube, MS Teams, etc., as the standard tools. As Mhlanga (2021) highlighted, many learners seemed to be excluded from teaching and learning due to resource constraints such as a lack of Internet access, lack of learning management systems, and low-tech software.

Remarkably, the two participants: one from a private school, and another from a public school shared that when they started working at their respective school, they were given a laptop and that classrooms are equipped with smart and whiteboards (see **Section 4.3.2.1, Teacher 4, and Teacher 6**). One private school teacher reported that the successful implementation of blended learning is advanced by the fact that all learners at their school are in possession of an iPads (see **Section 4.3.2.1, Teacher 4**). As found in this current study, teachers seemed not to trust learners with these gadgets because they use it inappropriately. On the other hand, we should be aware of technology's known issues, such as students' lack of online learning skills or self-directed learning; technical issues; opportunities for cheating; overstimulation and distractions; mental health harm; and a lack of access for underserved communities (Garcia, 2021).

5.3.2 Models of blended learning

There are different types of Blended learning models namely the flipped classroom model, the enriched Virtual Model, the Individual Rotation Model, The Flex Model, among others (Staker & Horn, 2012). However, as the findings revealed, only one participant (Teacher 4) was aware of the type of blended learning model they used; the rest of the participants did not know what model of blended learning they were using. For example, Teacher 4 indicated using flipped classroom model of blended learning (see **Section 4.3.2.2, Teacher 4**). The teacher might have opted for flipped classroom because of its flexibility in use among learners and teachers.

Staker and Horn (2012) have suggested a rotation-model in which students rotate on a fixed schedule within a given course or subject (e.g., Entrepreneurship), and between face-to-face teacher-guided projects on campus during the standard school day, and online delivery of content and instruction of the same subject from home after school. Blended learning therefore necessitates the formation of a collaborative community of inquiry as well as an understanding of the principles of teaching presence that guide, engage, and successfully complete a worthwhile educational experience (Anderson et al., 2001). Teachers in a blended learning are part of the community and need to be aware of their role in it, being a facilitator and a guide.

Other participants failed to articulate the types of models and simply provided learning management systems such as Microsoft Teams, Google Classroom, and Savings Bank where notes and homework are posted. This could be because teachers did not receive training upon its implementation, and they were not aware of the available blended learning models. Smith and Hill (2018) argued that teacher training should be provided prior to the implementation of blended instruction. As previously stated, the concept is still relatively new, and teachers are still grappling with it.

5.3.3 Factors influencing Entrepreneurship teachers in using web-based assessment techniques in the lesson

According to the findings of the interviews, two of the participants reported using web-based assessments but not keen to use the results for formative or summative assessments because students frequently cheat. Some teachers were not willing to use web-based assessments because it led to learners copying tests or examinations from their peers or allowing family members to take them on their behalf when at home. This is consistent with Garcia (2021) who cautioned teachers about some of technology's known issues such as students' lack of online learning skills or self-directed learning; technical issues; opportunities for cheating; overstimulation and distractions; mental health harm; and a lack of access for underserved communities.

To make learning more fun and interactive, one teacher from a private school had experimented with a variety of web-based assessment tools, such as the Kahoot online game and Google forms (see **Section 4.3.2.3 Teacher 4**). These games feature an automated grading system that provides instant feedback to the learners. This finding is consistent with Pachisia's (2022) view that blended learning provides students with immediate feedback, which is important in education because it motivates students and is

based on readiness principles. Furthermore, online assessment increases productivity, transparency, and speed of evaluation systems, resulting in greater dependability and objectivity.

The study showed that in the Entrepreneurship class, web-based assessment was used as an informal assessment tool to encourage motivation and competitiveness. These findings are in line with Swan et al. (2020) who revealed that social presence is associated with student satisfaction as well as perceived and actual learning in online and blended classes. This finding backs up Pachisia's (2022) claim that web-based assessments make it easy to upload and share files, host online discussions and chats, administer quizzes and surveys, collect and review assignments, and track grades. Another study by Garrison and Vaughan (2008) found that cognitive presence entails exchanging information, linking ideas, and determining the viability of solutions.

Through assessment they will share ideas and solutions towards the subject. The ability of participants to identify with other members of the group and to align their learning goals and activities with those of the group is defined as their social presence (Krzyszowska & Mavrommati, 2020). Baragash and Al-Samarraie (2018) agreed that the most effective learning environment is blended learning which combines traditional teacher-led instruction with a programme that distributes assignments and grades and a website where students can research topics, participate in discussions, take online quizzes, and corroborate with others. In social presence, students can convey humanity in a genuine way; even in a blended environment, they can communicate in ways that foster trust and develop associations by expressing individual personalities (Garrison & Arbaugh, 2007).

5.3.4 User friendliness

Four teachers reported to have recognized the value that blended learning provides to teachers. Some participants claimed it to be fast, time saving, eco-friendly, user friendly and convenient (see **Section 4.3.2.4 Teachers 1,3, 5 and 6**). All the participating teachers reported that learners easily become bored with the traditional approach, and with blended learning, one can incorporate videos into the lesson to avoid having them listening to the same person all day. Vaughan et al. (2013) observed that teaching presence improves when participants become more metacognitively aware and are encouraged to take greater responsibility and control over their learning. Madhavan and Lindsay (2015) also maintained that computers are rapidly becoming the dominant technology in education. As computing evolves, they become omnipresent in the classroom.

Blended learning has therefore shown to have numerous benefits for teaching and learning. It allowed learners to participate actively in their studies by conducting research and studying at their own pace. These findings corroborate Becker's (2020) observation of a shift away from teacher-led education toward student-led instruction led to students' engagement in their own learning. Learners can retrieve information lost while they were absent.

As the findings have shown, the participating teachers have found blended learning to be useful in the sense that it reduces the time to prepare lessons for multiple classes. As discussed earlier, blended learning offered learners an opportunity to become more involved in their learning.

Another intriguing finding from the study pointed to the fact teachers shared resources and ideas about helping their learners (see **Section 4.3.2.4 Teacher 4**). As Shen and Ho, (2020) noted, e-learning allowed teachers to connect with colleagues from other schools by sharing notes and activities if they get stuck on a particular topic or theme.

Participating teachers have further reported that COVID-19 was a major factor in populating the widespread use of blended learning in most schools (see **Section 4.3.2.4 Teachers 1, 2, 3 and 6**). Ratten and Jones (2020) acknowledged that although education crises are not new, COVID-19 had the greatest impact on educational practices when compared to other crises. These authors asserted that COVID-19 was the driving force behind the adoption of blended learning in many educational institutions. Notwithstanding, blended teaching and learning were viewed as alternative mode of instruction and practical option for maintaining continuity during lockdowns and beyond (Mahaye, 2020). In a recent study on the impact of COVID-19 on education in South Africa in 2021, Mhlanga (2021) argued that it was critical in implementing blended learning in schools with limited space.

During COVID-19 lockdowns in many countries, it was essential for teaching and learning to continue (see **Section 4.3.2.4 Teacher 6**). Al-Hunaiyyan, AlHaijr and Bambi (2020) reiterated that distance learning became mandatory as one of many measures being taken to control the spread of the COVID-19 pandemic and for teaching and learning to continue. Alessa and Salhi (2021) on the other hand, observed that the spread of COVID-19 has forced teachers out of their comfort zone and placed them in a position where e-learning is in charge.

5.3.5 Management support towards the implementation of blended learning

The participating teachers from both private and public schools as the findings showed, acknowledged the support received from the school management in the implementation of blended learning. Additionally, management at a private school seemed to be extremely supportive. Two private school teachers reported receiving strong support for the successful implementation of blended learning as their schools went as far as hiring a full-time IT specialist to ensure that all technology issues are handled properly and in a timely manner (see **Section 4.3.2.5 Teacher 3 and Teacher 4**). These findings corroborated assertions made by Cheok et al. (2017) that the more help a teacher receives, the more effort the teacher will put forth to integrate classroom technology. Similarly, Tondeur et al. (2017) contended that the relationships between teachers' beliefs and technology uses, influenced teachers' beliefs and feelings of blended learning implementation.

The study also revealed the public-school management willingness to meet all the teachers' needs in terms of improving the use of computers in the Entrepreneurship classroom and buying technological resources that are required despite tight budgets (see **Section 4.3.2.5 Teacher 1**).

For example, one participating teacher at one public school reported being given a laptop. That could be seen as booster to implement blended learning with confidence (see **Section 4.3.2.5 Teacher 6**). The same school as the findings showed had access to the Internet and paying monthly subscriptions to ensure a continuous connection. All classrooms were fitted with projectors and whiteboards to ensure that the Entrepreneurship class receives a thorough lesson. Mahaye (2020) emphasised that management can help by installing computers in classrooms or buildings, thus allowing students to study independently while consulting with their teachers on a regular basis.

5.4 Research objective 3: To Examine Challenges, Opportunities, And Successes in the Implementation of Blended Learning

Among the challenges highlighted were high levels of distraction associated with using devices such iPads in the classrooms and its negative dependence if not managed properly. According to Palvia et al. (2018), most African students access the Internet and related educational resources via mobile devices. The negative impact of smartphone dependence must be considered when developing policy to ensure better educational outcomes. This could imply that learners will always be learners despite everything else, and that strict supervision and facilitation should always be stressed to ensure continuous learning. Garcia

(2021:3) likewise stated that "it is undeniable that mobile technologies are changing world," and our teaching approach must change to keep up.

Some participants indicated that access is limited due to the unavailability of Wi-Fi at their respective schools some days, thus forcing teachers to use their own mobile phone data, and use their own laptops (see **Section 4.3.2.1, Teacher 2**). Access to technological tools, data, and a good online learning environment are the components that drive teachers to adopt blended learning. Dangwal (2017) argued that fully equipped computer laboratories, Internet access, and video-conferencing capabilities are required for effective blended learning.

5.4.1 Lack of learners' ownership of cell phones

One challenge associated with the implementation of blended learning is lack of ownership of cell phone by the learners. One participating teacher reported how a lack of a personal cell phone among learners, access to Wi-Fi devices, and too large of downloadable files served as the main challenges faced by their learners. The study results have found that not all learners were able to own a cell phone (see **Section 4.3.3.1 Teacher 2**). This implies that blended learning will not succeed if those devices are not in place. Furthermore, the study found that learners were sent too large files of data via WhatsApp to access the notes or homework while at home, thus making it difficult for the learners to open the work due to the size of some of their phones (see **Section 4.3.3.1 Teacher 1**). Some teachers reported that for learners to take blended learning seriously, materials must be made available to all (Mhlanga, 2021).

5.4.2 Inappropriate use of phones

It was found in this current study, especially in the private schools, that Entrepreneurship teachers allowed learners to bring iPads to school; however, this had led to distraction among the learners (see **Section 4.3.3.2 Teacher 3 and Teacher 4**).

5.4.3 Uncompromised school rules

The ban of cell phone from the school premises was seen as another challenge. Teacher 6 reported that learners were not allowed to bring phones to school. (see **Section 4.3.3.3 Teacher 6**). Considering blended learning, Teacher 6 suggested that any new invention should be accommodated in the rules of the institution. Transitioning teachers to blended learning implementation thereby necessitates more than simply learning new skills or switching pedagogical roles (Philipsen et al., 2019).

5.4.4 Successes in implementing blended learning in the classroom

Participating teachers from both private and public schools said that the availability of tools such as smartboards, projectors with whiteboards, MS Teams for education, and PowerPoint presentations was one of the most important factors in their ability to successfully implement blended learning (see **Section 4.3.3.4 Teachers 1, 2 and Teacher 5**). It has been suggested that simply knowing how to use a computer as well as having a personal interest in technological advancement can influence the successful use of blended learning. This finding supports Abubakar and Adetimirin's (2015) report that regardless of what has been extrapolated, e-learning and blended learning success is highly dependent on learners, and teachers have the potential to gain confidence and capability to participate in blended learning. Meanwhile, technology has become a crucial part of students' lives, offering them access to unlimited resources on their own schedule (Garcia, 2021).

5.4.5 Benefits of blended learning

The findings showed that blended learning make teaching more interesting by allowing teachers to use practical examples from Internet (see **Section 4.3.3.5 Teacher 4**). As Hidayat (2018) claimed, blended learning has the potential to foster innovation, creativity, and adaptability while also preparing students for learning challenges in complex and unstructured domains. Through the various platforms, work can be shared with absented students, and teachers can collaborate with their colleagues by sharing homework and notes. It is deducible that teachers also feel a sense of community, that they can openly communicate with others and are able to achieve a common goal of providing quality blended education.

Blended learning, according to findings gives teachers confidence in their teaching because information is always available at the tip of their fingers when they need it (see **Section 4.3.3.5 Teacher 3**). Another advantage of e-learning is the convenience of learning remotely, saving money on transportation, and having up-to-date information at the touch of a button (Liu et al., 2016).

It was revealed in this study that incorporating blended learning into one's teaching makes learning more inclusive in the sense that learners with different learning styles can be addressed (see **Section 4.3.3.5 Teacher 1**). Berga et al. (2021) insisted that blended learning can accommodate different learning styles. Bates (2015) stressed that blended learning breaks the barrier of one-size-fits-all as technology allows learners to tailor their learning environment to a large extent to their preferences and needs. This means that

different learners with varying learning abilities can be fully included in the teaching and learning.

5.4.6 Teachers' confidence in integrating Entrepreneurship teaching with content knowledge of blended learning

The findings demonstrated teachers' confidence in using blended learning. Teacher 4 reported being confident with the implementation of blended learning in Entrepreneurship because of being familiar with the various education applications, and that learners were also trained to use the tools (see **Section 4.3.4.4 Teacher 4**).

One teacher reported to feeling uneasy at first, but after a few lessons, the system had become familiar to the point that teaching was almost impossible without it (see **Section 4.3.4.4 Teacher 2**). This could be possibly because teachers said that they were first trained before they could use the tools, thus removing many doubts among both teachers and learners. As Smith and Hill (2019) argued, teacher training should be provided prior to the implementation of blended instruction.

On the other hand, Garcia, (2022:3) bemoaned a "lack of teacher training, and negative attitudes toward technology" to influence teachers' confidence in the implementation of blended learning. Archambault et al. (2016) however acknowledged that online and blended learning are not often explicitly taught or practiced in teacher preparation programmes, which continue to separate pedagogical instruction from technology training.

5.4.7 Lessons learned by teachers through blended learning

The findings revealed that Internet access is a key to the successful implementation of blended learning. Five participants suggested that providing Internet access to all learners would benefit everyone in efforts to incorporating blended learning. The participating teachers suggested that government and the private sector should collaborate to provide Internet connectivity to all schools (see **Section 4.3 Teachers 1, 2, 3, 4 and 6**). This was also echoed by Dangwal (2017) that all stakeholders, including NGO's, private sectors, and industries, should be encouraged to contribute financially to schools. The provision of Internet access was not the only assistance needed at school; however, the study suggested the provision well-trained teachers and computers or laptops for teachers' usage. The findings suggested that parents should be encouraged to buy smartphones or iPads for their children.

Teacher 2 observed that making suggestions for improvements could be difficult because technology is constantly changing, and no one knows what applications will be introduced next; and that there are financial obligations involved (see **Section 4.3 Teacher 1**). This is consistent with the findings of Hiralaal (2012), who discovered that blended learning allows teachers to keep up with educational advancements in a non-threatening manner while still interacting face-to-face with students. As the findings revealed, most teachers insisted on continuing to use it because the potential benefits outweigh the downsides.

Teachers have said that one can improve if they continue to explore new applications and see how technology can improve their lives. To ensure implementation of blended learning, parents, learners, industry, and society must change their mind set and attitude by creating forums to discuss the benefits of blended learning. To address this issue, school policy statements, mentor initiatives, and adequate information technology infrastructure are needed. Meanwhile, the Ministry of Education, Arts, and Culture as well as other educational institutions are expected to revise their e-learning policies and materials to ensure that teaching and learning do not completely stop (Shihomeka, 2021).

5.5 Observations

5.5.1 The prevalence of blended learning in the schools

The three schools visited revealed that blended learning was allowed at varying degrees. Although it was not the aim of the study to compare the schools, the findings showed that private schools were fully supported. The fascinating discovery at the private school was that all students had an iPad, and at the end of the lesson, the teacher airdropped them homework to be done at home.

5.5.2 Resources for the successful implementation of blended learning

The findings showed varied support to public schools. It was discovered that at a public school where Teacher 5 and Teacher 6 taught were provided with laptops who did not have their own and working WIFI. At other public school, teachers had to bring their own laptops if they needed to connect to the school Wi-Fi, which was often unavailable or unstable; and learners were not allowed to bring cell phones or laptop to school. The work that was sent to their class WhatsApp group could only be accessed at home.

As reported earlier, the private schools where Teacher 4 and Teacher 3 taught were technologically advanced. All classrooms were equipped with smartboards, and all learners

had an iPad, and their teachers had MacBooks and iPhones personally as well as an IT specialist to monitor their Wi-Fi to avoid overload was onsite.

5.5.3 The use of various learning management systems to provide a seamless blended learning education

The four participants from the public schools were observed using MS Teams and some Google classrooms. D6 connector was also used on the platform to send question papers and class work. MS Teams and Google Classroom were the most popular LMS for assigning tasks and sending YouTube videos to the learners.

The participating private school's teachers were exposed to a variety of LMS-like resources for added reading in the form of digital textbooks such as BUKU. The schools pay a yearly subscription fee for both students and teachers to have access to such textbooks. These subscriptions can be made away with by making use of Open Education Resources (OERs). These findings contrast what was reported by Bates (2015) that open textbooks are digital textbooks that students (or instructors) can download for free, and thereby saving students a significant amount of money on textbooks. It is deducible that if such subscription is embraced, technology can take off a load from parent's shoulders and supply access to free resources. The results showed that using ITS learning had been found to be expensive, and the schools were then considering dropping or unsubscribing the ITS learning service.

5.5.4 Online and offline activities to facilitate blended learning

The two participants from the private schools ensured that work completed in class was posted to the class group, and learners could access it via their iPads at any time during and after school. In public schools, the work was posted on MS Team and Google Classrooms for learners to access only after school when they got home. If learners at public schools could be allowed to bring their phones or iPads to school and only be restricted on what they could access during school hours, then blended learning would be implemented smoothly.

5.5.5 Web-based assessment tools

Web-based assessments were used by the public schools' teachers, and formative assessments only because according to the participating teachers, other family members or friends could use it to aid learners to answer the questions for them. Teachers could only send the work to the learners' class WhatsApp groups, mark it on the phone, and only send feedback to the students for short answer questions.

Teacher 4 from a private school experimented with Google forms for short answer such as True or False as well as multiple-choice questions that were self-marked. Kahoot online game was used where learners could play while learning, and see each other's work. This application has a potential to make learning fun because learners get excited when they won. Furthermore, these applications can be used by teachers to allow learners to share knowledge and helping each other achieve better marks. This agrees with Garrison (2016); Garrison, Anderson, and Archer (2000) on cognitive presence that it is linked to critical thinking, reflection, and collaborative discourse.

5.5.6 Comfort level

All participants in this study appeared to be comfortable with the technological tools they were using in their effort to implement blended learning. These tools are Microsoft Teams, WhatsApp, and Google Classroom. It was found however that one teacher seemed to use only the overhead projector to show work and never provided any online activities or videos to supplement the lesson.

5.6 Document analysis

The curricular document was examined, and it was discovered that in Grade 9, it is investigating how to increase the use of technology in business. By incorporating technology, learners will gain confidence in the subject; and further encourage students to become entrepreneurs when seeing how technology can make their business profitable. Notably, cross-curricular issues are significant because they give students confidence in how they use ICT in their classrooms, and allow them to have the confidence needed to run a successful business. The lesson preparation and CASS forms were also examined, and it was found that teachers used MS word to complete them (**See Appendix, F**).

Triangulation of data sources is a central process in the qualitative study (Patton, 2002). This can be achieved by comparing and cross-checking the consistency of information derived at different times and means within the study (Patton, 2002). The transcripts of all interviews and further documents such as continuous assessment forms (CASS) and lessons were used to enrich the total data collected in the study. Thus, the documents provided excellent additional data sources for the interview. Furthermore, these documents were used to validate the interview data and provide detailed descriptions and contexts of each participant's school.

5.7 Conclusion

In Chapter 5, I interpreted and discussed the findings that emerged from data analysis presented in the previous chapter. This discussion was supported by relevant literature already reviewed in Chapter 2. The theoretical framework of COI was also discussed in line with the teacher practice.

In the following chapter, I draw conclusions based on the research questions and objectives I formulated in Chapter 1 and reflect on the limitations I met. The study concludes with recommendations for future research.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The purpose of this study was to investigate how Entrepreneurship teachers implemented blended learning in three Namibian high schools in the Khomas Region. The study was guided by a research question, sub-research question, and objectives outlined in Chapter 1 to achieve the objective as mentioned below.

Research question: How do Entrepreneurship teachers implement blended learning in their teaching in Namibia?

Sub-question 1: What are the implications of blended learning implementation for Entrepreneurship Education?

To structure and anchor the research, the interpretivist paradigm and case study design were employed. The findings of the study were obtained using qualitative research design techniques. To validate the findings, data collection tools like interviews and observations were used, followed by document analysis. The COI framework was used to frame and anchor the study.

I summarized the study's findings in this final chapter, highlighted connections, contradictions, gaps, and new insights. When answering the research questions, I drew conclusions, highlighted potential contributions of the study, and reflected on some limitations I encountered during the study. The chapter concluded with recommendations for implementing blended learning in Entrepreneurship classrooms, as well as areas for future research and study conclusions.

6.2 Overview of preceding chapters

In **Chapter 1**, I provided a general overview of the current study. I began the chapter by describing the research context, objectives, and my own professional motivation for the study. A brief explanation of some of the key developments in blended learning was discussed. I then went over the key concepts in the blended learning classroom. Furthermore, the COI theoretical framework and qualitative methodological approach used in the form of a case study were described. Following that, I provided an overview of the research process I employed as well as the ethical considerations and quality criteria I adhered to.

In **Chapter 2**, I conducted a literature review on the research topic. I investigated current trends, debates, and pertinent topics concerning the implementation of blended learning in Grade 8-12 Entrepreneurship classrooms. I also investigated how COVID-19 affected the implementation of blended learning in Grades 8-12. I discussed the challenges and benefits of blended learning from the perspective of teachers. Finally, with a focus on EE, I investigated the use of various technologies in the blended learning environment.

In **Chapter 3**, my chosen research methods were described and justified. I focused my research on the interpretivist paradigm and used a qualitative research approach. Following that, I discussed my case study design as well as my data collection and documentation methods, which included semi-structured interviews, observation, and document analysis. I went over the steps I took to complete an inductive content data analysis. All these choices were related to the study's objectives. Finally, to ensure that the research was conducted ethically and that the results were credible, I had to ensure that ethical considerations were in order and that they were followed.

In **Chapter 4**, I presented the findings of the study. This chapter described how teachers at various schools used blended learning in their classrooms. The presentation was discussed considering the study's themes and categories. I presented the quotes from the participants verbatim.

In **Chapter 5**, I discussed the study's findings. Given what was already known about blended learning, I discussed the significance of my findings. I also shared any new developments or insights into the problem. As discussed in Chapter 2, I compiled a synthesis of interview quotes and interpreted the findings using evidence from the literature. The results discussion was contextualized within existing literature as a backdrop to the conclusions I reached when answering the research objectives and research questions. I have highlighted any gaps, comparisons, or contradictions that I found. The new perceptions revealed by the study were also emphasized.

In **Chapter 6**, I concluded the study by summarizing the findings and emphasizing connections, contradictions, gaps, and new insights. I drew conclusions, highlighted potential contributions of the study, and reflected on some challenges encountered when responding to the research questions. The chapter concluded with some recommendations for incorporating blended learning in Entrepreneurship classrooms based on the findings as well as potential future research areas.

6.3 Overview of findings and discussion

This section summarizes the findings of the study, which were discussed in Chapter 5. As a backdrop to the conclusions, I reached when answering the research questions, the discussion of the results was contextualized within existing literature. It was also based on the COI theoretical framework. Throughout the study, I highlighted connections and contradictions as well as gaps that I discovered. In addition, I highlighted new findings from the study.

My findings discussions were organized around the themes that I discovered during the interviews, classroom observations, and conceptual ideas linking theoretical framework (COI) with blended learning. These discussions were then used to address the research question, sub-research question, and objectives that I had assigned to each theme.

6.3.1 Addressing research objective 1: To examine Entrepreneurship teachers understanding of the concept of blended learning

I was interested to find out how the six Entrepreneurship teachers were incorporating blended learning into their classroom instruction in the three schools. According to the interview results, teachers had little understanding of the concept of blended learning. Teachers should be well-versed in the concept of blended learning, as well as fully trained and skilled in combining both traditional and technological approaches (Dangwal, 2017). Further findings showed that mostly public-school teachers could not give a clear definition until they were probed further. Some other teachers from the public school demonstrated a simple understanding of the concept, which was also one-sided, simply by stating that it was about incorporating technology into one's teaching. This notion pointed to teachers' ambiguity about what blended learning meant to them. Teachers assumed that incorporating technology alone meant using blended learning. This answer could be attributed to the fact that it is a novel concept and teachers are still figuring out how to work around it.

Teachers from both private and public schools demonstrated a somewhat understanding of the concept of blended learning. These teachers defined it as a combination of online and face-to-face learning.

Teachers in both private and public schools used blended learning in a variety of ways. Private school teachers demonstrated successful blended learning implementation by utilizing various LMSs such as ITS learning, Microsoft Teams, Kahoot online game, and MS Office 365 for education. Although it was not the purpose of the study to compare teachers

from the two institutions, the research revealed that private school teachers had a better understanding than public school teachers.

Private school teachers have been shown to use blended learning teaching in their Entrepreneurship classrooms more frequently. This could be because private schools have more infrastructure than public schools, necessitating the smooth implementation of blended learning approaches. This could also be because they have a better chance of securing enough funds to hire a trainer to come to their institution and train all the teachers.

The availability of tools or gadgets, stable Wi-Fi connectivity, and tight budgets all influence the smooth implementation of blended learning in public schools. Most teachers also lack technological training, making it difficult for them to properly implement blended learning in entrepreneurship classrooms. Most of them demonstrate a lack of awareness in technology use, which leads to a lack of implementation. Access to smartphones for students and their ability to use them at school is another barrier to the successful implementation of blended learning.

For public school teachers, the frequency of use blended learning is determined by their school's budget's ability to pay for monthly internet subscriptions and provide internet access that allows them to use it seamlessly and frequently.

6.3.2 Addressing research objective 2: To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice

The teachers in private schools have demonstrated greater access to a wider range of tools than the teachers in public schools. The use of smartboards, iPads, Google Classroom, Microsoft Teams, ITS learning, Buku, MS 365 for Education, and having an IT specialist on call to handle all their IT needs were some of the tools used by the teachers from the private schools. Teachers at the private school also reported receiving a laptop upon employment, so they had no need to look for a personal laptop or make excuses for not successfully implementing blended learning in their Entrepreneurship practice. This could imply that blended learning was being implemented smoothly by the Entrepreneurship classrooms at those private schools. In contrast, the public-school teachers have primarily used WhatsApp, YouTube, MS Teams, and the standard D6 Connector.

One teacher who used blended learning models in the form of flipped classrooms cited flexibility in its use among teachers and learners. This model allowed the teacher to facilitate and guide learning in the sense that learners were given research to conduct at home, but

the teacher allowed them to ask questions on the platform when they got stuck. Having included the teaching and social presence of COI, lack of training and awareness of its implementation and novice concept by the Entrepreneurship classroom could be responsible for teachers' inability to understand what the models of blended learning are. Others failed to define blended learning models and instead mentioned LMSs such as Google Classroom, Savings Bank, and Microsoft Teams.

In terms of assessment, participating teachers reported using Web-based assessment for formative assessment because students cheat a lot. Online assessment contributes to a more formative, transparent, and rapid evaluation system (Dangwal, 2017).

To encourage motivation and competition among students, private school teachers experimented with the Kahoot online game, which was used for informal assessment. During classroom observation, the Entrepreneurship teacher stated that she designed the questions for the Kahoot game well in advance and displayed them on the smartboard in class so that all learners could clearly see who was winning and reflecting while playing. In this case, the two phases of the teaching presence of setting climate and selecting content were addressed. Some teachers have reported using web-based assessment techniques such as Google forms to self-mark, to reduce their assessment loads, particularly during the COVID-19 lockdown.

Blended learning is said to be more effective than traditional face-to-face teaching because it is faster, it saves time, it is environmentally friendly, it is user-friendly, and convenient, among other benefits cited by Entrepreneurship teachers. It is further revealed that blended learning improves teaching presence because it allows teachers to become facilitators, allowing learners to be more involved in their own learning. Furthermore, it promotes independence among students by allowing them to conduct research and study at their own pace. As lessons taught can be saved for later use, preparing lessons for multiple classes in a blended format saves time.

Notably, COVID-19 forced teachers to use blended learning, and the participating teachers from the private schools were found to be more advancing at implementing blended learning better maybe because they have access to a stable data connectivity compared to those recruited from the public-school teachers. Access to the internet or data connectivity as previously reported was found to be a barrier.

Additionally, COVID-19 forced Entrepreneurship teachers in using blended learning which most of them were unaware of before the pandemic. This has given birth to a new way of

teaching which came to be known as blended learning which transformed the education ecosystem. Until COVID-19, it was found that teachers were unaware of the full scope of blended learning in Grade 8-12 Entrepreneurship classrooms particularly in the developing world. This could be due to the digital divide among the developing countries among which Namibia is one. Entrepreneurship teachers, as was the focus of this study, were obliged to continue teaching during the country lockdowns. Blended learning was therefore, seen as panacea to teaching and learning.

Management was found to be supportive to both the participating private and public-school teachers, with private school teachers receiving more support due to the provision of technical resources (tools) and human resources (IT specialists). Although there are challenges in the form of tight budgets, some public-school administrators have proven to be willing to support blended learning. With their limited budgets and to ensure a smooth implementation, some public-school administrations provided Entrepreneurship teachers access to school laptops upon employment which could be used on schedule.

6.3.3 Addressing research objectives 3: To examine challenges, opportunities, and successes in the implementation of blended learning

Among the challenges cited by teachers are a lack of devices (cell phones), and access to internet connectivity. Due to the high cost of cell phones, it has been difficult in public schools for Entrepreneurship teachers to successfully implement blended learning in their classrooms since it was hard to successfully shift teaching to the online environment.

Participating teachers from private schools reported that, although all students had iPads, this was seen as a distracting factor rather than a blessing because students divert their attention away from the lesson and onto other unimportant websites. As a result, the teacher had to walk up and down to ensure that everyone is paying attention. This made the teachers role in an online and blended learning environment to be that of a facilitator and a guide of the teaching and learning. Garrison and Kanuka (2004) claimed that while facilitation is important, teachers should be careful not to get too involved by allowing students to figure things out on their own.

The training of teachers on the use of blended learning was deemed necessary for seamless implementation of blended learning. The ban of cell phones from public schools was seen to impede the successful implementation of blended learning in their Entrepreneurship classroom. The availability of technological tools in the schools however contributed to the implementation of blended learning in the Entrepreneurship classroom.

Other teachers have suggested that simply knowing how to use a computer and having an interest in technology influenced the use of blended learning. Blended learning is beneficial in the classroom because it allows teachers to use practical examples from the Internet. It gives them confidence in their teaching because information is readily available at the tip of their fingers. It makes learning more inclusive because teachers can incorporate different teaching styles when using blended learning. Here, we could detect cognitive presence as a way applying new ideas, exchanging information, and connecting of ideas by the teacher. They can use the internet to validate the information shared by their teacher during the face-to-face interaction. Cognitive presence is a cycle of practical inquiry, according to Garrison (2016) in which participant's progress from problem understanding to application, exploration, and integration.

It has been reported that many teachers in private schools were more at ease with the available tools because they had been trained to use them. One public school teacher reported feeling uneasy when the technological tools was first introduced. After a few lessons of teaching using blended learning in their classrooms, they could not imagine teaching without it. Many participants suggested the provision of the Internet access to all learners as a condition for successful implementation of blended during teaching and learning.

As the findings have suggested, the government and private sectors should work together to provide equal access and to close the digital gaps between the private and public-school teachers. The findings also suggested proper training for those teachers because blended learning is a novel approach to teaching and learning. Learners should also be guided on how to use the tools and software applications solely for educational purposes.

Some of the participating teachers were not able to make any suggestions on the preferable technological tools use in the classroom because technology changes quickly and some tools become outdated. As a result, they were willing to use the current available ones while waiting for the next innovation.

Additionally, to ensure the successful implementation of blended learning, parents, learners, industry, and society must change their mind set and attitude toward the use of technology by becoming more engaged by creating forums to discuss the benefits, challenges as well as successes of blended learning. Teachers with a broader perspective and a positive attitude toward change are required for the success of any innovative idea or method

blended learning process (Dangwal, 2017). The continuation of investigating new technologies in improving education delivery remains the key.

Blended learning therefore necessitates the formation of a collaborative community of inquiry as well as an understanding of the teaching presence principles that guide, engage, and produce a worthwhile educational experience. Entrepreneurship teachers must cultivate both social and cognitive presence to optimize the learning environment. Meanwhile, the goal of higher levels of learning, a sense of community, and belonging will be maintained, all of which must exist on both a cognitive and social level.

6.4 Reflecting on the COI framework

The COI framework was employed to anchor the study. Even though it is prevalent in the e-learning environment, it has also proven to be appropriate in a blended learning context. When the three components of teaching, social presence, and cognitive presence are integrated, a process for creating deep and meaningful educational experiences is discovered. Teachers must be equipped with the knowledge necessary to empower learners with strategies for learning online and in a blended setting. The summary below indicates how these components overlap (see Figure 1, Chapter 1).

Teaching presence has shown to be significant to EE, and specifically to the blended learning environment as it helps the teacher in designing, facilitating, and guiding the curricula that are of high order and which delivers focused and exceptionally educational experience (see **Section 5.3.4 Chapter 2**). Teaching presence was shown to be more than just a teacher presence but a guide, facilitator and setting of curricula that focuses classroom discussion to achieve the lesson objectives in a blended learning environment. Teachers have shown to be well-versed with the selecting of content fitting in the blended learning some have been reported to have selected YouTube videos and saving banks with notes.

Social presence was achieved mostly at private schools in the blended learning since learners have been reported to all be in possession of iPad and could meet in different online platforms where they need to collaborate. It is the duty of the teacher to set a conducive environment and climate for collaboration and risk-free expression among learners (see **Section 5.3.3 Chapter 2**). It is the teacher's role to ensure that open communication is enforced to ensure a smooth transition and a meaningful education experience.

To operationalize cognitive presence, teachers have adopted the Practical Inquiry Model (PIM) (see **Section 2.14.3 Chapter 2**) paradigm, which supports the dynamics of reflective

thought and a collaborative inquiry process. This is identified through frequency types of discourse namely triggering event, exploration, integration, and resolution. These activities and assignments provide opportunities for critical **discourse** and reflection. Establishing and maintaining cognitive presence necessitates both social and teaching presence, and both do not only enhance students' cognitive presence, but also predict students' perceived cognitive presence.

6.5 Reflecting on the limitations and challenges that I experienced

This research, like others, had some limitations or challenges. To begin with, the 2020 witnessed the outbreak of the COVID-19 pandemic, which changed how people interacted with one another. In my case, I had to follow all pandemic protocols to prevent the virus from spreading further. For example, due to the potential for a pandemic, I had to wait for one principal to make her teachers available before continuing with classroom observations, and interviews in that school.

Furthermore, the study was limited to one region and only focused on schools that had better technological infrastructure relevant for teaching and learning. The study's findings could not be generalized to other parts of the country because they were not a true representation of the study. The researcher may not generalize the case beyond what is necessary, but rather as a benchmark for future research (Bertram & Christiansen, 2015).

6.6 Recommendations for further research

Since this study focused on the implementation of blended learning in Entrepreneurship classrooms with a smaller sample size of three schools in a single region (Khomas Region, Namibia), findings could not be generalized to other parts of the country. To obtain a fair representation and generalizable results, the researcher proposed conducting a similar study with a large sample across 14 regions in Namibia.

More technology training or workshops are needed for teachers to improve their technology and digital skills to keep them up to date with technology use. Teachers are encouraged to teach learners the correct and incorrect online behaviours because learners get to be distracted in the online environment. Teachers must collaborate with both learners and parents to address what is not permissible in the online space and to encourage self-monitoring among learners.

Another recommendation is to create awareness on different current technology trends available as many private school teachers used My Hub, BUKU, ITS learning all of which

are paid subscriptions. Their management could also introduce them to Open Educational Resources (OERs), which can benefit both teachers and learners.

6.7 Final conclusions

The study examined the implementation of blended learning among Entrepreneurship teachers in three Namibian high schools in the Khomas Region. The findings were derived from the three main data collection strategies namely semi-structured interviews, observations, and document analysis in response to the research objective and question, as described in Creswell's data analysis procedures. The observation was intended to find out how the various documents were used, and how blended learning was incorporated into the teaching of Entrepreneurship Education (EE).

The study was guided by the following objectives.

- To examine Entrepreneurship teachers understanding of the concept of blended learning.
- To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice.
- To examine challenges, opportunities, and successes in the implementation of blended learning.

Blended learning is beneficial to Entrepreneurship Grade 9 teachers in such a way that it gives them a sense of responsibility towards their subject content, as they prepare for the lesson. Blended learning is significant in the Namibian education system if well-planned, well-organized, and implemented properly. It has the potential to be the future of our educational system provided teachers adopt positive attitudes, receive proper training, and proper funding from both the government and private sectors.

Given the variety of LMS available in private schools, this could imply that many private schools have more resources to support blended learning than public schools. Interestingly, the use of blended learning in schools may serve to be more cost effective because schools will use fewer papers, thus saving the environment. (Due to the online presence).

The COI framework is significant to this study as it enables a successful implementation of teaching in a blended environment by looking at the three linking presences namely teaching presence, social presence, and cognitive presence. One could argue that for a successful online learning environment to take place, those three presences must be integrated and

fully understood by both teachers and learners. Although COI is more commonly found in the online or e-learning environment, it can be used in the blended learning Entrepreneurship classroom to create an exceptional educational experience.

6.8 Concluding reflections

When I first began this journey, I was a complete beginner in master's research, hoping to learn, grow, and develop as both a researcher and a professional teacher. As this study comes to an end, I would like to say that my academic growth has improved. My expectations were also met, and I imbibed some pedagogical experiences which were accruable from past research, classroom experiences, and other issues while conducting this study. As I conclude this research, I would like to share some of my views.

- **Why did I initially become interested in this topic?**

In 2019, I travelled to India for a two-weeks course on Transforming the Education Ecosystem Through Blended Learning. There, I was introduced to the concept of blended learning as well as the various technology tools that can be used to ensure a successful implementation. I became very interested in learning more about it, particularly whether it is applicable in our African classrooms. With the outbreak of COVID-19 in 2020, I noticed that most academic institutions implemented the concept of blended learning to ensure continuity in teaching and learning. My interest in learning more about it was spurred then, and I was curious to know specifically whether teachers were aware of the new concept that emerged during the pandemic. As a result, I deemed it appropriate to investigate this newly learned concept, and how it can be implemented in African context.

As a technology enthusiast, I was curious to find out the level of technology use in our education system at both public and private schools. I then sought to find out Grade 9 Entrepreneurship teacher's perceptions of blended learning and to what extent they implemented blended learning in their classrooms.

- **What did I enjoy most about this study?**

The passion Entrepreneurship teachers have for using technology, specifically blended learning, in their classrooms at the private school, the number of technology tools they used and have at their disposal, and IT support was a highlight for me. The fact that all learners in the classrooms had iPads and smartboards for teachers, as well as seeing how comfortable they are with the blended learning tools was also fascinating.

What I liked best about public schools was that even if teachers did not have high-tech tools, they could use the ones that were available to ensure that their learners were kept up to date with the advancement of technology integration in the classroom. The attitudes of many Entrepreneurship teachers towards the available technological tools at the school level, and the teacher's commitment in using them have encouraged me to strive for the best despite the limited resources. Their willingness to try and succeed despite the challenges was a pinnacle for me.

- **How did this study impact my life?**

It has made me realize that to successfully implement blended learning, all stakeholders, including parents, government, and private institutions must get involved. I also learned that education is a shared responsibility. The government's education policy on ICT integration must also be investigated to determine how it fits the current trends, especially the use of cell phones by learners at school.

I have learned that the use of technology in classrooms is no longer a luxury but a necessity. The schools should thus revise their school rules to accommodate this current trend by allowing learners to bring own laptops and/or cell phones to school to be used for educational purposes. Learners should also be involved at all levels to understand the importance of using cell phones in particular for educational purposes.

It is an open secret that the majority of the public schools in Namibia lack sufficient technology tools to implement seamless blended learning; therefore, efforts must be made to enable all the schools to successfully implement blended learning. Entrepreneurship teachers should also become creative in using technology tools at their disposal and utilizing them to benefit all learners. As the saying goes, less is more.

- **What have I become interested in because of this study?**

Various findings that emerged from this study have influenced my thinking about upcoming technology tools in education, and how they will affect Entrepreneurship teaching. I would like to know how Artificial Intelligence (AI) can impact teaching and learning, specifically in the fields of Economics, Management, and Sciences, and how one should prepare for that transformation. I would also like to know whether AI will have a positive or negative impact on education, and how to deal with it. "Robots are out there to take our jobs," as one unknown author puts it. Another topic worth researching is the Fourth Industrial Revolution (4IR) tools used in Namibian education system, particularly after COVID-19 by outlining its

challenges and opportunities. It is believed that doing the above will necessitate the involvement of multiple stakeholders to benefit both teachers and students. As a result, we will be able to bridge the digital divide and educate responsible citizens with a variety of disabilities (e.g., autism, blindness, deafness etc.) using blended teaching and learning strategies.

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LIST OF APPENDICES

APPENDIX A: CONFIRMATION OF RESEARCH ETHICS APPROVAL



CONFIRMATION OF RESEARCH ETHICS APPROVAL

REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

5 July 2022

Project number: 23771

Project Title: Entrepreneurship teachers' implementation of blended learning: case studies of three secondary schools in Namibia.

Dear Mrs HT Shifotoka

Identified supervisor(s) and/or co-investigator(s):

Dr CG America

Your response to stipulations submitted on 15/06/2022 19:33 was reviewed and approved by the Social, Behavioural and Education Research Ethics Committee (REC: SBE).

Your research ethics approval is valid for the following period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
30 March 2022	29 March 2025

GENERAL COMMENTS PERTAINING TO THIS PROJECT:

INVESTIGATOR RESPONSIBILITIES

1. Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.
2. Your approval is based on the information you provided in your online research ethics application form. If you are required to make amendments to or deviate from the proposal approved by the REC, please contact the REC: SBE office for advice: applyethics@sun.ac.za
3. Always use this project ID number (23771) in all communications with the REC: SBE concerning your project.
4. Please note that the REC has the prerogative and authority to ask further questions, seek additional information, and monitor the conduct of your research and the consent process, where required.

RENEWAL OF RESEARCH BEYOND THE EXPIRATION DATE

You are required to submit a progress report to the REC: SBE before the project approval period expires if renewal of ethics approval is required.

If you have completed your research, you are required to submit a final report to the REC: SBE to close the active REC record for this project.

Project documents approved by the REC:

Document Type	File Name	Date	Version
Research Protocol/Proposal	Tuyoleni Hileni Shifotoka 28 July 2021 submission latest	20/09/2021	1
Default	RESPONSE LETTER shifotoka 2022	03/03/2022	2
Proof of permission	doc04877220220331071015	31/03/2022	1
Proof of Ethics Clearance	doc04877220220331071015	31/03/2022	1
Data collection tool	Semi structured Interview questions Tool March	03/04/2022	3
Data collection tool	Observation Tool March 2022	03/04/2022	2

Default	RESPONSE LETTER 2022	03/04/2022	3
Data collection tool	Semi structured Interview questions Tool March	03/04/2022	1
Default	RESPONSE LETTER 2022 30. 04	01/05/2022	4
Informed Consent Form	STELLENBOSCH UNIVERSITY latest written consent 2022 updated June	11/06/2022	4
Request for permission	APPLICATION LETTER FOR INSTITUTIONAL PERMISSION Delta Secondary June updated	11/06/2022	3
Request for permission	APPLICATION LETTER FOR INSTITUTIONAL PERMISSION Windhoek Gymnasium updated	11/06/2022	3
Request for permission	APPLICATION LETTER FOR INSTITUTIONAL PERMISSION Windhoek High School updated	11/06/2022	3
Default	RESPONSE LETTER 2022 June	13/06/2022	5

If you have any questions or need further help, please contact the REC office at applyethics@sun.ac.za

Sincerely,

Mrs Clarissa Robertson (cgraham@sun.ac.za)

Secretariat: Social, Behavioral and Education Research Ethics Committee (REC: SBE)

*National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.
The Social, Behavioural and Education Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.*

Principal Investigator Responsibilities

Protection of Human Research Participants

As soon as Research Ethics Committee approval is confirmed by the REC, the principal investigator (PI) is responsible for the following:

Conducting the Research: The PI is responsible for making sure that the research is conducted according to the REC-approved research plan. The PI is jointly responsible for the conduct of co-investigators and any research staff involved with this research. The PI must ensure that the research is conducted according to the recognised standards of their research field/discipline and according to the principles and standards of ethical research and responsible research conduct.

Participant Enrolment: The PI may not recruit or enrol participants unless the strategy for recruitment is approved by the REC. Recruitment and data collection activities must cease after the expiration date of REC approval. All recruitment materials must be approved by the REC prior to their use.

Informed Consent: The PI is responsible for obtaining and documenting affirmative informed consent using **only** the REC-approved consent documents/process, and for ensuring that no participants are involved in research prior to obtaining their affirmative informed consent. The PI must give all participants copies of the signed informed consent documents, where required. The PI must keep the originals in a secured, REC-approved location for at least five (5) years after the research is complete.

Continuing Review: The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, **it is the PI's responsibility to submit the progress report in a timely fashion to ensure a lapse in REC approval does not occur**. Once REC approval of your research lapses, all research activities must cease, and contact must be made with the REC immediately.

Amendments and Changes: Any planned changes to any aspect of the research (such as research design, procedures, participant population, informed consent document, instruments, surveys or recruiting material, etc.), must be submitted to the REC for review and approval before implementation. Amendments may not be initiated without first obtaining written REC approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

Adverse or Unanticipated Events: Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research-related injuries, occurring at this institution or at other performance sites must be reported to the REC within **five (5) days** of discovery of the incident. The PI must also report any instances of serious or continuing problems, or non-compliance with the REC's requirements for protecting human research participants.

Research Record Keeping: The PI must keep the following research-related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence and approvals from the REC.

Provision of Counselling or emergency support: When a dedicated counsellor or a psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

Final reports: When the research is completed (no further participant enrolment, interactions or interventions), the PI must submit a Final Report to the REC to close the study.

On-Site Evaluations, Inspections, or Audits: If the researcher is notified that the research will be reviewed or audited by the sponsor or any other external agency or any internal group, the PI must inform the REC immediately of the impending audit/evaluation.

APPENDIX B: APPROVAL TO CONDUCT RESEARCH



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Enquiries: Mr. G. Munene
Tel: +264 61 -293 3202
Fax: +264 61- 293 3922
Email: Gibson.Munene@moe.gov.na
File no: 13/2/9/1

Luther Street, Govt. Office Park
Private Bag 13186
Windhoek
Namibia

Mrs. Hileni T. Shifotoka
Email: hileni.tuyoleni@gmail.com

Dear Mrs Shofotoka,

SUBJECT: PERMISSION TO CONDUCT ACADEMIC RESEARCH IN KHOMAS REGION

The Ministry wishes to acknowledge receipt of your letter dated 16 February 2022 seeking for permission to conduct academic research in Khomas region for Masters of Education studies which is focusing on: *"Entrepreneurship Teachers' Implementation of Blended Learning: Case Studies of Three Secondary Schools in Namibia."*

Permission to visit schools has been granted to you. However, you have to seek for further clearance from the Khomas Regional Director of Education, Arts and Culture where the research will be carried out to ensure that:

- teaching and learning during the normal working hours is not disrupted during your interviews;
- participation is voluntary; and,
- parental consent should be granted by the parents / guardians of all participants who are under the age of 16 years.

Furthermore, you are kindly requested to share your research findings with the Ministry after completion of the research project. You may contact Mr. G. Munene on the above provided contacts at the Directorate: Programmes and Quality Assurance (PQA) for submission of your research findings at the above indicated details.

We wish you the best in conducting your research and the Ministry looks forward to hearing from you upon completion of your studies.

Yours sincerely,

 EXECUTIVE DIRECTOR



APPENDIX C: CONSENT FORM



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvennoot • your knowledge partner

STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

You are invited to take part in a research project. Please take some time to read the information below which will explain the details of this research project.

Please feel free to contact the researchers about any part of this project that you do not fully understand. It is very important that you are completely satisfied that you clearly understand what this research is about and how you could be involved.

Your participation is completely voluntary, and you are free to decline to participate. In other words, you may choose to take part, or not. Saying no will not affect you negatively in any way whatsoever.

You are also free to withdraw from the study at any point, even if you do agree to take part initially. When withdrawing from the study please inform the researcher about your intention to withdraw. If you have completed partial questions, please inform the researcher on how to proceed with the data already collected. This study is considered as **Low risk** by the Stellenbosch University Research Ethics Committee and will only be used for the study purposes.

The Research Ethics Committee: Social, Behavioural and Education Research at Stellenbosch University has approved this study (Project ID #: 23771]. We commit to conduct the study according to the ethical guidelines and principles of the South African Department of Health Ethics in Health Research: Principles, Processes and Studies (2015) and will ensure that the set guidelines/code of conducts will be followed properly.

1. WHO IS CONDUCTING THIS STUDY?

This research study is conducted by Mrs Hileni Tuyoleni Shifotoka, from the Curriculum Studies at Stellenbosch University.

2. WHY DO WE INVITE YOU TO PARTICIPATE?

I would like to invite you to participate in a research project entitled ***Entrepreneurship teachers' implementation of blended learning: case studies of three secondary schools in Namibia***. The research is intended for Entrepreneurship teachers who are implementing blended learning in their classroom instruction.

3. WHAT IS THIS RESEARCH PROJECT ABOUT?

This study aims to investigate how the Entrepreneurship teachers are implementing blended learning in their classroom's instruction.

4. WHAT WILL BE ASKED OF ME?

If you agree to take part in this study, you will be asked to do an interview which will take less than 30 minutes. I will also ask for an opportunity to visit your classroom to observe your Entrepreneurship lesson.

5. ARE THERE ANY RISKS IN MY TAKING PART IN THIS RESEARCH?

Be rest assured that your identity will not in any way be revealed, and only a code will be used to protect your identity.

6. WILL I BENEFIT FROM TAKING PART IN THIS RESEARCH?

Your participation in this study will enable me to add to the body of knowledge to fill the research gap about blended learning implementation at high school level in Namibia. To make it possible for me to complete my research study. The findings from this study will be used as recommendations to the education stakeholders on the integration of technology (blended) in education and assist in drafting blended learning policies of high schools. Future researchers will also use it to benchmark their studies on blended learning implementation in Namibian high schools.

7. WILL I BE PAID TO TAKE PART IN THIS STUDY AND ARE THERE ANY COSTS INVOLVED?

There will be no payment, lucky draws or compensation of any kind participating in this study.

8. WHO WILL HAVE ACCESS TO MY INFORMATION?

- Any information you share with me during this study and that could possibly identify you as a participant will be protected.
- The data collected will be kept strictly confidential in a locked cardboard, and the interview data will be stored on the Stellenbosch MS OneDrive cloud.
- And the information will only be used for the purpose of the study and will only be available to the researcher and the assigned study leader who will supervise the study.
- All information will be kept strictly anonymous and confidential.

9. HOW DO I MAKE CONTACT WITH THE RESEARCHERS?

If you have any questions or concerns about this study, please feel free to contact the researcher, Mrs Hileni Tuyoleni Shifotoka at 24524686@sun.ac.za, and/or the study supervisor Dr Carina America at camerica@sun.ac.za.

10. RIGHTS OF RESEARCH PARTICIPANTS

If you have questions, concerns, or a complaint regarding your rights as a research participant in this research project, please contact Mrs Clarissa Robertson [cgraham@sun.ac.za; (+27) 021 808 9183] at the Division for Research Development.

DECLARATION OF CONSENT BY THE PARTICIPANT

As the participant, I declare that:

- I have read this information and consent form, or it was read to me, and it is written in a language in which I am fluent and with which I am comfortable.
- I have had a chance to ask questions and I am satisfied that all my questions have been answered

- I understand that taking part in this study is voluntary, and I have not been pressurised to take part.
- I may choose to leave the study at any time and nothing bad will come of it – I will not be penalised or prejudiced in any way.
- I agree that the interview with me can be [video-recorded / audio-recorded].

By signing below, I _____ (*name of participant*) agree to take part in this research study, as conducted by Mrs Hileni Tuyoleni Shifotoka.

Signature of Participant

Date

DECLARATION BY THE RESEARCHER

As the **researcher**, I hereby declare that the information contained in this document has been thoroughly explained to the participant. I also declare that the participant has been encouraged (and has been given ample time) to ask any questions. In addition, I would like to select the following option:

	The conversation with the participant was conducted in a language in which the participant is fluent.
	I did/did not use an interpreter. (If an interpreter is used then the interpreter must sign the declaration below.)

Signature of Principal Investigator

Date

Signature of Interpreter (if applicable)

Date

APPENDIX D: INTERVIEW QUESTIONS TOOL

Individual interview form – After classroom Observation

INTERVIEW PROTOCOL

Semi structured Interview questions

Research topic: *Entrepreneurship teachers' implementation of blended learning: case studies of three secondary schools in Namibia.*

Principal Researcher: Mrs Hileni Shifotoka

Institution: Stellenbosch University

Department: Curriculum Studies, Faculty of Education

Thank you for agreeing to participate in this research study. The main objective of this study is to investigate how Entrepreneurship teachers implemented blended learning in their classrooms at three schools in the Khomas Region. My interest is to learn how the teachers understood the concept of blended learning, to what extent are they implementing or implemented it in their practice, and what challenges, opportunities, and successes they have had in doing so. You are free to express any views or feelings you want, and if you get uncomfortable in any way, please let me know. If you prefer not to answer a certain question, please indicate so when the question is posed.

SECTION A: BIOGRAPHICAL INFORMATION

I will start with the background information.

1. What is your gender?

Male	Female

2. How old are you?

20-25	26-30	31-35	36-40	41-45	46-50	51-55	56-59

3. How long have you been in the teaching profession?

2-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	21-25 yrs.	26-30 yrs.	31-35 yrs.

4. How long have you been teaching at high school?

2-5 yrs.	6-10 yrs.	11-15 yrs.	16-20 yrs.	21-25 yrs.	26-30 yrs.	31-35 yrs.

5. How long have you been teaching Entrepreneurship?

6. What kind of technology did you employ regarding blended learning?

7. Did you receive any training on it?

8. How many years of experience do you have with integrating technology in your classroom?

SECTION B: MAIN QUESTIONS

Research objective 1: To examine Entrepreneurship teachers' understanding of the concept of blended learning.

1. How do you understand the term "blended learning"?

2. How do you incorporate blended learning in your classroom instruction?

3. How many times per week do you include blended learning into your classroom instruction?

4. Based on your implementation experience, what is your opinion of blended learning in your classrooms?

Research objective 2: To explore the extent to which the Entrepreneurship teachers are implementing blended learning in their practice. (Given the current situation when last did you implement blended learning?)

1. Do/did you have access to blended learning technology tools?

2. What models of blended learning have you tried out so far?

3. In your blended classroom, what web-based assessment techniques have you used/ or do you use?

4. What aspects of technology make it simple to use and/or beneficial to you?

5. What are the factors that influence the use of blended learning in your classroom?

6. How supportive is management towards the implementation of blended learning thus far?

Research objective 3: To examine challenges, opportunities, and successes in the implementation of blended learning.

1. What are the major challenges you have faced when implementing blended learning in your classroom instruction?

2. What are the major factors that enabled you to successfully implement blended learning thus far?

3. How useful do you think blended learning is to your teaching?

4. How comfortable are you in carrying out a blended lesson in Entrepreneurship?

5. Do you see yourself using blended learning after covid-19? What improvements can you suggest?

6. Please let me know if you have any further thoughts, improvement, or suggestions on the subject.

Thank you for your time and cooperation. If you need more information do not hesitate to contact me at 0812884720.

Probing questions include:

- (a) Yes, didn't you say a moment ago...?
- (b) Do you believe that...?
- (c) Can you give some examples...?
- (d) Does it follow then that...?
- (e) Could one also say...?
- (f) What about...?
- (g) Do you mean/ in other words...?
- (h) How does that relate to...?
- (i) Would it be correct to say...?

APPENDIX E: CLASSROOM OBSERVATION TOOL

Individual form – classroom Observation Class: Entrepreneurship Grade:

Lesson:

Date:

Teacher no.4

Research topic: *Entrepreneurship teachers' implementation of blended learning: case studies of three secondary schools in Namibia.*

Principal Researcher: Mrs Hileni T. Shifotoka

Institution: Stellenbosch University

Department: Curriculum Studies, Faculty of Education

1. Is blended learning/education permitted in the school/classroom?

Are the resources listed below in place to carry out a successful blended education?

YES	NO
-----	----

• Access to the Internet / WIFI at school and home

• Both students and teachers have access to personal laptops, tablets, and smartphones.

2. Are teachers well-versed in the use of various

YES	NO
-----	----

 Learning management systems (LMS) to provide a seamless blended education?

YES	NO
-----	----

3. What LMS do they use in the classroom?

4. How are synchronous and asynchronous blended activities taking place?

5. What web-assessment tools are used to evaluate the activities of learners?

6. Teachers' comfort level with using blended learning to deliver lessons.

APPENDIX F: LESSON PLANS

LESSON PLAN

Grade: 9

Subject: Entrepreneurship

Date: 06 – 07 April 2022

Lesson Duration: 80 minutes (Double lesson)

Syllabus Learning Objectives: Define social entrepreneurship.

Identify and describe opportunities for enterprise and job creation in the immediate environment.

Direct Instruction: Teacher gives an overview of social entrepreneurship.

Teacher shows learners a video of social entrepreneurship to lay the scope for the study on the power point.

Learners are asked about the school's social enterprise efforts.

Explain opportunities for enterprise and job creation in Namibia.

Learners input on new learned social entrepreneurship concepts.

(All class materials will be posted on teams for absent learners and for students to study at home)

Closure: Watch a video reinforcing learner's understanding and summarizing of work covered.

Required materials: Laptop, TV, Ipads, smart board

Assessment: 10-minute self-mark online quiz Google

Entrepreneurship

Lesson Plan:

Grade: 9

Lesson Duration: 40 minutes

Big Idea: **Challenges faced by an entrepreneur**

Learning Objectives: Students will learn to:

Objectives: Students will:

- Identify challenges faced by an entrepreneur
- Learn solutions to challenges faced by entrepreneurs
- Identify challenges faced by women entrepreneurs

Resource & Technology to be used

Smart TV

Ipads

Laptop

Classroom activity: Kahoot game in the last 8 minutes of the lesson to wrap up the learning content of the day

APPENDIX G: DESCRIPTION OF DATA SOURCE

Data sources	Activity	Rationale	Timeline
Bookings to see education officials	An application was made to the Office of the Executive Director and the Director of Education, Arts and Culture for permission to conduct research at the schools.	The researcher first sought permission from the Executive Director's office to request permission to visit the schools to conduct research with the teachers, and to present the following documents research proposal, ethics approval letter, application letters to the schools as requested before the application could be finalised.	16 February 2022- 25 March 2022
The researcher approached the principals of the three High schools to obtain permission to begin with the data collection.	Emails were sent to the principals of the three schools requesting a face-to-face meeting to explain the purpose of the study.	Acknowledgement was gotten from the principals to grant permission to the researcher to engage with the participating teachers to schedule a face-to-face meeting. This meeting was held in succession with the Head of Department of Commerce and the participants.	28 March 2022-1 April 2022
Participants consent	Briefing of the participants on the purpose of the study. Consent forms were read before participating teachers could consent to participate in the study.	The consent of the participating teachers to participate in the study signified the start of the data collection.	04 April 2022 – 12 th May 2022
Interviews and classroom observation	Interviews were scheduled with the participants, which were later followed by classroom observation.	For collecting data through interviews and classroom observations, all interviews were scheduled in the afternoon, after the learners had returned home or in their hostels. The classroom observations were done after the interviews.	5 April 2022-12 May 2022

APPENDIX H: EDITING AND PROOF-READING CERTIFICATE



November 12, 2022

To Whom It May Concern

EDITING AND PROOFREADING OF A MASTER'S THESIS

This is to certify that I, (Olumuyiwa A. Kehinde) edited and proofread a Master's thesis by **Hileni Iuyoleni Shifotoka** titled: *Entrepreneurship Teachers' Implementation of Blended Learning: Case Studies of Three Secondary Schools in Namibia*.

Specifically, I commented on the grammatical anomalies in MS Word Track Changes and review mode by the insertion of comment balloons before I returned the document to her. Corrections were made in respect of grammar, punctuation, spelling, syntax, tense and language usage, sense and flow, syntactic and semantic cohesion, clarity of expressions, appropriate use of reference style, typing format and layout.

I have a doctoral degree in English, a Master's degree in English, a Bachelor's degree in English Studies, a Diploma in Communication Science, and a Teachers' Grade II Certificate. I have been teaching Advanced English Courses for the past 9 years. I also teach English for IELTS and TOEFL examinations. Furthermore, I have been regularly editing and proofreading academic, research dissertations, theses, articles, and other documents for the past 7 years in different disciplines for publishing/editing firms, schools, and individuals.

I trust that the document will prove acceptable in terms of editing, formatting, and proofreading criteria.

Thank you.

Yours faithfully,

Dr. O.A. Kehinde

Writing Splendour Services & Consultancy

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