Exploring Business Studies Teachers' Technology Self-Efficacy on their Technology Integration to Create Learner-Centred Teaching Environment

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Abstract. Developments in technologies continue to influence the education sector. As a result, teachers' instructional practices are influenced by the pervasiveness of technologies. Therefore, this study explores business studies teachers' technology self-efficacy on their technology integration to create a learner-centred teaching environment. This is a qualitative study that is underpinned by interpretivism paradigm. Exploratory case study research design was adopted in this study and framed using Bandura's Self-Efficacy Theory and Social Constructivism Theory. Six secondary schools in Mkhanyakude District in Kwa-Zulu Natal province of South Africa were randomly sampled. Six business studies teachers from the sampled schools participated in this study. One business studies teacher per school was selected. Semi-structured interviews and classroom observations were used to collect data from the participants. Data collected through interviews was analysed thematically while data generated through classroom observations was analysed descriptively. The study revealed that business studies teachers' initial exposure to technologies had an impact on their technology self-efficacy. Furthermore, it was revealed that some business studies teachers attempted to integrate technologies to create learner-centred teaching environments in their classrooms, while some teachers sustained teacher-centred teaching environments. Therefore, this study concluded that business studies teachers' technology self-efficacy does not influence how technology is integrated into their classrooms. The study recommended that business studies teachers be taken through continuous professional development programmes to help them understand how they can integrate technologies to promote

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learner-centred teaching environments. This would ensure consistency among teachers when integrating technologies in their classrooms and create a teaching environment that promotes learner involvement in their classroom practices.

1. Introduction

Many studies have confirmed that the integration of technologies in the classroom create a teaching and learning environment that enhances learners' learning (Winter et al., 2021; Masanta, 2020). This notion continues to foster different governments to encourage teachers to integrate technologies in their classrooms to support their instructional practices. In addition, the outbreak of Covid-19 pandemic exacerbated the need for teachers to integrate technology in their classrooms (Mafenya, 2021). Therefore, teachers are now compelled to integrate technologies into their classroom practices. The ubiquity of technology in education also exacerbates teachers' need to integrate technology in their classrooms. Hatlevik and Hatlevik (2018) add that the proliferation of technologies in teaching and learning requires teachers to integrate technologies to equip learners with skills demanded by the contemporary technology-infused society and technology-driven workplaces. This suggests that teachers are not only required to master basic technological skills, but they should be able to integrate technologies to enrich learners' learning. However, there is a growing demand for teachers to integrate technologies in a flawless manner in their daily classroom practices (Tshelane, 2017).

To promote meaningful integration of technologies in instructional practices, the International Society for Technology in Education (2017) developed new technology standards for teachers to integrate technologies to engage learners in meaningful learning. This indicates the heightened attention that is being paid to integrating technologies in teachers' instructional practices globally. Despite the sharp focus that is being dedicated to technology integration in education, the existing studies report limited to no integration of technologies in education by South African teachers (Sikhakha et al., 2021; Pakdaman et al., 2019). Several factors have been cited as contributing factors to teachers' integration of technology or lack thereof. These factors include a lack of technological infrastructure in schools (Chisango & Marongwe, 2021), a lack of ICT skills (Dlamini & Mbatha, 2018) and the inadequacy of teachers' technology self-efficacy (Joo, Park & Lim, 2018). Teachers still report a lack of confidence as a source of reluctance to integrate technologies in their classrooms (Arhin et al., 2022). Considering the magnitude of technology integration programmes that the South African government has rolled out, one would expect that teachers have developed adequate technology integration skills, and that should boost their technology self-efficacy. Bakar et al. (2018) argue that teachers' technology integration skills are insufficient to alter their behaviour towards integrating technologies in their classrooms, unless they are confident that they can integrate technology into their classroom practices. Chidiebere (2020) also found

that business studies teachers' beliefs towards their abilities to technology integration in their classrooms play a significant role in influencing their decisions to integrate technologies or not. The finding of this nature is profound because it underscores the importance of business studies teachers' technology self-efficacy towards their actual integration of technologies in their classrooms. Therefore, this study explored business studies teachers' technology self-efficacy on the integration of technologies in their classrooms to create a learner-centred teaching environment.

To achieve the aim of this study, three research questions were formulated to help in addressing the research problem: What are business studies teachers' perceptions on their technology self-efficacy in relation to their integration of technologies in their instructional practices? How do business studies teachers integrate technologies in their instructional practices to create learner centred teaching? How does business studies teachers' self-efficacy relate to their creation of learner-centred teaching environments?

2. Literature Review

The literature reviewed in this section sheds light on the impact of teachers' technology self-efficacy on their actual integration of technologies in their instructional practices. Studies that focus on the actual integration of the new technologies by teachers in their instructional practices to create learner-centred teaching are also reviewed.

2.1. Teachers' technology self-efficacy

Teachers' technology self-efficacy is concerned with teachers' perceptions on their ability to integrate technologies meaningfully and effectively in their instructional practices (Islam, 2020; Schlebusch, 2018). It can be inferred that teachers' technology self-efficacy is a self-reported competence in relation to the integration of technologies in instructional practices. Ma et al. (2021) opines that teachers' technology self-efficacy is subjective. Since teachers' technology self-efficacy is subjective in nature, it may influence the individual teacher's integration of technologies in their instructional practices. This is also confirmed by Omar and Ismail (2021) by stating that teachers' technology self-efficacy influences the teachers' actual integration of technologies in their classrooms. This simply means that if an individual teacher feels confident about his or her capability to integrate technologies in instructional practices, that teacher is likely to integrate technological resources. This is also evident in the study that was conducted by Li, Garza et al. (2018) that revealed that teachers with high level of technology self-efficacy integrated technological tools in their classrooms regularly. On the other hand, teachers with low levels of technology self-efficacy were reluctant to integrate new technologies in their classrooms (Omar & Ismail, 2021; DiGregorio & Liston, 2018).

Conversely, some scholars dispel the notion that the high technology self-efficacy of teachers is always coupled with the high rate of teachers' actual integration of technologies in their instructional practices. For example, the study conducted by Ikwuka et al. (2021) found no positive relationship between teachers' high technology self-efficacy and the actual integration of technologies

in classrooms. This is also supported Šabic et al. (2022) by arguing that teachers' technology self-efficacy is necessary but insufficient to determine their actual integration of technologies in their classrooms. Studies reviewed in this section indicate that there is no consensus among scholars on the impact of teachers' technology self-efficacy and the integration of technologies in their instructional practices. Some studies found that teachers' technology self-efficacy influences teachers' actual integration of the new technologies in their classrooms, while others dispel the notion. Nevertheless, those scholars who hold a view that teachers' technology self-efficacy influences teachers' actual integration of technology are convinced that these teachers integrate technological tools to create a lesson that is more learner-centred (Mlambo et al., 2020).

2.2. Teachers' integration of technologies to promote learner-centred teaching

Learner-centred teaching can be defined as teaching that enables active learner participation during the lesson, learner commitment towards the learning process and the construction of own knowledge (du Plessis, 2020). Darsih (2018) views learner-centred teaching as a teaching in which learners have control over the learning process. It can be deduced from the above discussion that learner-centred teaching puts the learner at the centre of the teaching and learning process. In the environment where learner-centred teaching is adopted, the role of a teacher changes from being the source of information, as is the case with teacher-centred teaching, to that of being a facilitator of learning (Periara & Sithole, 2020). In other words, in a learner-centred environment, the teacher plays a role to guide and coach learners towards discovering new knowledge and making meaning from what they are learning. The need for the adoption of learner-centred teaching in business studies teaching is also compounded by the era of technological innovations and changes in the contemporary business environment (Okoye, 2021).

Business studies teachers should integrate new technologies to create a learning environment that enables learners to be actively involved in learning activities. Masanta (2020) claims that teachers' technology self-efficacy influences teachers' ability to integrate technologies to enable learner involvement in the teaching and learning process. Teachers with high technology self-efficacy allow learners to search for information independently using various technologies within and outside the classroom (Masanta, 2020). This view insinuates that teachers with high technology self-efficacy allow learners to use new technologies to discover new information on their own without relying on the teacher. Kumari (2021) further suggests that teachers with high technology self-efficacy understand the potential of new technologies in enriching the teaching and learning process. Learners use the new technological tools to access the internet and hypertexts to explore new knowledge.

Furthermore, teachers with high technology self-efficacy integrate technologies into their instructional practices to promote collaborative learning among learners (Babu & Senepaty, 2020). In other words, teachers with high technology self-efficacy appreciate that new technologies can improve knowledge sharing among learners and enrich their learning experiences. Business studies teachers should embrace the role of new technologies in promoting collaboration among

learners because collaboration in businesses is prioritised (Brown et al., 2019). Teachers with high technology self-efficacy can group learners into smaller groups so that meaningful collaboration and sharing of information can occur. Kumari (2021) notes that integrating new technologies in instructional practices encourages small group activities among learners, promoting interaction and cooperation among them (learners). In this way, learners learn to motivate, challenge, and evaluate each other's contributions and ideas (Mahapatra et al., 2015). By using new technologies during learning, learners can discover new information to clarify any misconception about a particular business studies concept during interactions and discussions amongst themselves. Teachers' role in such cases would be as facilitators of learning activities among learners.

On the other hand, the literature indicates that teachers with low technology self-efficacy are likely not to integrate technologies into their instructional practices. The study that was conducted by Cansiz and Cansiz (2019) revealed that teachers with low technology self-efficacy tend to adopt traditional methods of teaching that the teacher dominates. Although these teachers integrate new technologies in their instructional practices, they integrate them more representationally (Mlambo et al., 2020). The representational use of technologies is when teachers integrate technologies into learning activities but with little or no construction of new knowledge (Hakonson & Hooper, 2000). In this case, technological tools are used for demonstrations rather than pedagogical tools (Padayachee, 2017). Integration of technology in a manner that does not inspire the creation of new knowledge among learners may be attributed to teachers' low technology self-efficacy. Teachers who have low technology self-efficacy may be reluctant to explore technology integration in a manner that may expose him/her to learners. Unlike, teachers with high technology self-efficacy who integrate new technologies in challenging ways (Lai & Lin, 2018).

Generally, it can be deduced from the literature reviewed in this section that teachers' technology self-efficacy does impact teachers' integration of technologies in their instructional practices to a certain extent. It also transpired from the literature that the level of teachers' technology self-efficacy influences the learning environment that the teacher creates for learners in his/her classroom. The literature concluded that teachers with high technology self-efficacy tend to create a learner-centred learning environment (Kumari, 2021), while teachers with low technology self –efficacy prefers traditional teaching methods that are mainly dominated by the teacher and integrate little or no technologies (Mlambo et al., 2020). Although existing studies focus on the phenomenon under investigation, it is important to indicate that the existing studies do not focus on business studies teachers. Therefore, the researcher deemed it important to explore the impact of business studies teachers' technology self-efficacy on their integration of new technologies in a bid to create a learner-centred learning environment.

2.3. Theoretical framework

This section discusses the theoretical frameworks adopted in this study. Self-efficacy theory was adopted to understand the impact of business studies teachers' technology self-efficacy on their technology integration in their classrooms. On the other hand, Social Constructivism theory was employed to understand how business studies teachers promote a learner-centred teaching environment in their classrooms by integrating various technologies. A detailed discussion of each theory is provided below.

2.3.1. *Self-efficacy theory*

Self-efficacy theory emanates from Bandura's social theory (Bandura, 1997). According to Yamamoto and Yamaguchi (2016), self-efficacy is individuals' belief in his or her competence to carry out necessary actions to produce the desired outcomes. In this study, self-efficacy refers to business studies teachers' beliefs on their abilities to integrate technologies in their instructional practices to create learner-centred teaching environments. Bandura (1994) notes that individual's self-efficacy determines how he/she feels, thinks, motivates him/herself and behaves towards a particular task they are supposed to perform. In other words, business studies teachers' technology self-efficacy may determine how each teacher feels and perceives technology integration in their classes to enrich learners' learning. Arhin et al. (2022) maintain that people's appraisal of their skills to arrange and execute a particular course of action is necessary to achieve a specific sort of performance.

Bandura (1977) identified mastery experiences, vicarious experiences, social persuasion, and emotional state as the main drivers of an individual's self-efficacy. **Mastery experiences** are made up of performance and imaginal experiences. Mastery experiences are about recollections of prior successful experiences that people may recall when confronted with current or future challenges (Arhin et al., 2022). In this study, business studies teachers' may recall their prior success experiences regarding technology integration in their instructional practices. Prior successful technology integration experiences may boost teachers' technology self-efficacy and encourage them to continue integrating technologies into their instructional practices. The second element is **vicarious experiences**, which are about peer or model observation. In this case, an individual compares himself or herself with others performing a particular task (Bandura, 1977). For instance, a business studies teacher can observe his/her counterpart integrating technologies in instructional practices. Seeing a counterpart succeed in a particular activity can boost one's self-efficacy while failing can decrease one's self-efficacy. This suggests that if business studies teacher sees his/her counterpart succeeding in integrating technologies in their classrooms, their technology self-efficacy can be improved.

The third element that determines the individual's self-efficacy is **social/verbal persuasion**. Social persuasion includes positive or verbal reinforcement, where an individual receives feedback after engaging in a particular task (Arhin et al., 2022). In this regard, business studies teachers can receive positive feedback from their peers during or when integrating technologies into their classroom practices. Finally, **emotional, or physical states** is about one's belief in their

abilities to perform a task and produce desired outcomes (Bandura, 1977). Individuals' feelings regarding performing a certain task can boost one's self-efficacy. For example, when business studies teachers believe they can integrate technologies meaningfully in their instructional practices, their technology self-efficacy is likely to improve, while the feeling of failure and despair may weaken their technology self-efficacy. The diagrammatical representation below depicts Bandura's self-efficacy.
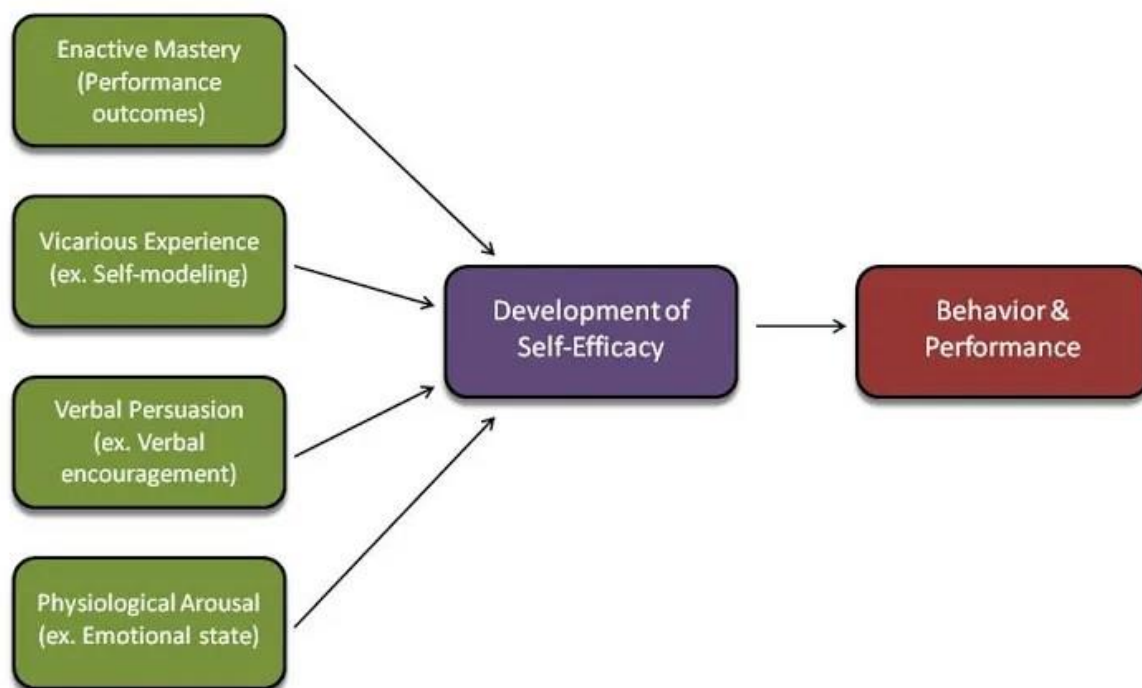
Sources of Self-Efficacy

Enactive Mastery (Performance outcomes)

Vicarious Experience (ex. Self-modeling)

Verbal Persuasion (ex. Verbal encouragement)

Physiological Arousal (ex. Emotional state)

Development of Self-Efficacy

Behavior & Performance

Figure 1: Nature of Self-Efficacy by Bandura (1977)

2.3.2. *Social Constructivism Theory*

Social Constructivism Theory was propounded by Lev Vygotsky in 1968 (Akpan et al., 2020). Social constructivists see knowledge as what learners construct in collaboration with their peers, teachers, and other knowledgeable individuals (Akpan et al., 2020). This view insinuates that business studies learners should socially construct knowledge for meaningful learning to occur. For business studies learners to meaningfully construct knowledge with their peers and teachers, the environment where the teaching and learning process occurs should be conducive. According to constructivists, learning should happen in an environment that is dominated by interaction, collaboration, and active learning (Shah, 2019). Interaction during teaching and learning enables learners to articulate their ideas clearly and collaborate on tasks effectively by sharing ideas (Chand, 2016). Collaboration during learning help learners to work together to complete learning activities, and during this process, learners get an opportunity

to learn from their peers (Brindley et al., 2009). Constructivists also believe that learners should be actively engaged in learning activities by engaging in thinking, creating, and constructing their own knowledge (Chand, 2016). Therefore, business studies teachers should ensure that they create learning environments that facilitate full learner participation to ensure meaningful learning.

The existing literature reveals that Social Constructivist theory is compatible with technology integration in teaching and learning (Mhlongo et al., 2017; Kharade & Thakkar, 2012). Constructivist orientation in teaching offers multiple possibilities for technology integration in education (Mhlongo et al., 2017). This view suggests that teaching environments that reflect the principles of Social Constructivism theory may easily accommodate the integration of technologies. Dhindsa and Emran (2016) note that integrating technologies in teaching and learning creates an environment for learners to collaborate inside and outside the classroom. With the pervasiveness of technology, teachers can integrate technologies that enable learners to collaborate even outside the four walls of the classroom. Furthermore, the literature indicates that the role of a teacher remains crucial in learning environments supported by Social Constructivism. In such classrooms, the teacher act as a guide, coach, and facilitator of learning (Mukhari, 2016). Mhlongo et al. (2017) further add that the teacher gives direction to learners during the process of teaching and learning; hence their roles cannot be underestimated.

3. Methodology
This section outlines the methodology that was adopted in this study.

3.1. Research approach and design
This is a qualitative study that is rooted within the interpretivism paradigm. An exploratory case study research design was employed in this study. Creswell and Creswell (2018) indicate that a case study is an in-depth investigation of contemporary phenomena in a real-life context, designed to address how and why questions of the research. Since this study aims to explore the impact of business studies teachers' technology self-efficacy on integrating technology to create learner-centred teaching environments in their classrooms, a case study research design was deemed appropriate. Therefore, adopting qualitative research approach helped researchers to study the phenomenon under investigation deeply. Hence, this study is located within interpretive paradigm which assisted the researchers in understanding teachers' lived experiences in their natural setting.

3.2. Sampling
Purposive sampling was employed to select six secondary schools located in Mkhanyakude District in Kwa-Zulu Natal province, South Africa. The schools were selected on the basis that they offer business studies as a subject, and they also have technologies by teachers for instructional purposes. One business studies teacher per school was sampled. This resulted in a sample of six business studies teachers who served as the participants in this study. The six teachers that were sampled teach business studies in Grades 10-12 and integrate

technologies in their business studies classrooms. Table 1 below depicts the profile of the participants.

Table 1: Background of Business Studies teachers

Participants	Gender	Age Group	Highest Qualification	Teaching experience
Teacher A	Male	30-40	Bed Honours	9 years
Teacher B	Female	30-40	Bachelor of Education	7 years
Teacher C	Male	40-50	Bed Honours	10 years
Teacher D	Female	30-40	PGCE	15 years
Teacher E	Female	50-60	Diploma	28 years
Teacher F	Female	40-50	Bachelor of Education	20 ears

3.3. Research instrument
Face to face semi-structured interviews and non-participatory classroom observations were used to collect data from the participants. Semi-structured interviews enabled researchers to collect rich data since this form of data collection method allowed researchers to ask follow-up questions. Face-to-face semi-structured interviews lasted for 30-45 minutes per participant. Interviews were audio recorded to ensure that everything said by the participants was captured. On the other hand, classroom observations enabled researchers to observe teachers' in-action, integrating various technologies in their classrooms. One lesson per teacher was observed and each classroom observation lasted for 45-60 minutes.

3.4. Data collection procedures
All interviews occurred in schools where the participants were teaching. The researchers arranged with individual teachers to have an interview after school hours to ensure that the process of teaching and learning is not interrupted. The interview schedule contained twenty standard interview questions that were asked to all the interviews. Due to the flexibility of semi-structured interviews, the researchers ended up asking more questions, including follow-up questions. For classroom observations, the researchers arranged with the teachers to visit their schools for classroom observations. Researchers used observation schedules to help guide them on aspects to observe during classroom observations. Having an observation schedule helped researchers to have a focus during classroom observations.

3.5. Data analysis
Thematic analysis was adopted to analyse data. Data analysis processes began with the transcription of the recorded interviews. The researchers then familiarised themselves with the raw data by reading it while listening to the interview recordings. After that, the process of coding began. Researchers

engaged in open coding, and categories were developed, reviewed, and clustered into themes. The themes that emerged during data analysis were then used to report the study's findings. Data generated through classroom observations was analysed descriptively.

3.6. Ethical considerations

Researchers obtained ethical clearance from the university where they are based. They also obtained permission to conduct a study from the Kwa-Zulu Natal Department of Education and from the specific research sites (schools). Ethical issues such as confidentiality and anonymity were clearly explained to the participants before and during the research process. Researchers ensured that they upheld research ethics throughout the process of conducting the study. Permission to record the interviews were also obtained from the participants. Pseudo-names were used when reporting the research findings to ensure that the participants' identities were not disclosed.

4. Findings

This study sought to explore the impact of business studies teachers' technology self-efficacy on their technology integration to create a learner-centred teaching environment in their classrooms. During data analysis, three themes that capture business studies teachers' perceptions on their technology self-efficacy and integration in their classrooms emerged. These themes are as follows: technology integration skills, integration of technology and learner-centred environment through technology.

It is important to note that **Teacher A, Teacher B, Teacher C, Teacher D, Teacher E** and **Teacher F** were used as pseudo names to present the views of business studies teachers that participated in this study.

Pseudo names **School A, School B, School C, School D, School E** and **School F** were used to refer to the schools where the study was conducted.

4.1. Technology integration skills and abilities

During interviews, teachers were asked to reflect on their beliefs about their ability to integrate technologies in their classrooms. It transpired that teachers have different beliefs about their abilities to integrate various technologies in their classrooms. Some believed that they possess the required skills in integrating technologies in their business studies classrooms, while others reported that although they have acquired some technology integration skills, they still need more training. Teachers' views are captured in the following excerpts:

"Yes, I have been using technologies for a number of years now, I can say the skills that I have are adequate for me to use technology in my classes"- **Teacher D.**

Teacher F also added that she possesses sufficient competencies to integrate technologies in her business studies classroom. She said:

"With the ICT skills that I have, I hope it help me in my classes. I started using technology back in the years. I was also exposed to technology even before I became a university student. I did a computer course before going to the university, and when I

was a student, I used computers to do my assignments. Now also, I still use technologies most of the time in teaching"

In the same vein, Teacher A believes that his experience in using technology in the business studies classroom improves his confidence in technology integration to enhance his instructional practices. He stated:

"You know, I have been using technology since I started teaching. I think I have gained experience and confidence over the years. I can safely say that the skills I have acquired make me say I can use technology meaningfully in my classes to teach business studies."

Based on the views expressed by teachers in the above excerpts, teachers believe that the time they spent integrating technology in their instructional practices makes them believe that they possess adequate technology integration skills, which results in high technology self-efficacy. It can be noticed from the teachers' expressions that they attribute their self-efficacy to their early exposure to technology. Although it is not clear from their articulations whether their exposure to technologies was for the purposes of teaching or only to complete academic activities, it can be deduced from their discussions that teachers' exposure while at the university boosted their confidence in integrating technologies into their classrooms.

On the other hand, some business studies teachers reported that they usually integrate technologies in their classrooms, but they still need to acquire more skills in technology integration. These teachers indicated that they believe that further training on technology integration in education may enable them to declare their technology self-efficacy as adequate.

Teacher C said:

"I always use technology in my class using the skills I have acquired so far. I was introduced to technology while I was already a teacher, I continue to learn from my colleagues, especially the CAT teacher. But mmhhh… I still need formal training on ICT integration."

Teacher E added:

"I use technology in my class, and I think I have skills, but I don't think the skills I have are enough for me to say I have self-efficacy, I think we need training as teachers, especially those who are old like me, for new teachers, yes, maybe they cannot benefit a lot. But with us who are old, we really need training."

It was interesting to learn that teachers acquired the skills they use to integrate technologies in their business studies classrooms from their colleagues. This was a common response among the three teachers who indicated that they were introduced to technology after joining the teaching profession. Teacher B said:

"I never received any formal training as I said earlier, but I learned from my colleagues. You know, when you are at work, you need to do things using technology. You need to set tests, and look for papers, so you learn so you can do it yourself. Even with teaching with technology, I learnt that way"

It also transpired that teachers who teach Information Technology (IT) and Computer Application Technology (CAT) played an integral role in providing informal training to their business studies counterparts. Teachers regarded trainings that were provided by their CAT and IT counterparts informal but developmental and continuous. They indicated that as much as the pieces of trainings are informal, they(training) are beneficial to them because they (teachers) have a liberty to receive ongoing assistance from their colleagues who are readily available in their respective schools.

"IT teacher assists me a lot because there are always new gadgets coming in and so the teacher helps me to integrate them into my lessons, for example, we used to use CDs to teach, but now we have USBs, data projectors and so on...so the teacher help me to understand how to use those in my classrooms; hence I say the training is developmental." - **Teacher C.**

"I continuously get assistance from the CAT teacher because he is also a technician, so he is knowledgeable on technology issues, and he is familiar with integrating technologies when teaching" **- Teacher B.**

It also appeared from deliberations with the teachers that teachers who claimed to have adequate technology integration skills are continuously receiving training from their IT and CAT teachers to enhance their integration skills. Teacher F mentioned:

"I attend workshops where the IT teacher introduce us to various methods of using technologies in our classrooms. He taught us how to use technologies such as Interactive White Boards (IWBs) in our classes."

Teacher F's remarks are intriguing because they indicate that even teachers who believe they have adequate technology integration self-efficacy continue to seek more knowledge to improve their technology integration skills. This is because technology develops continuously; hence teachers need continuous training on technology integration. For business studies teachers, this is even more important because they have a responsibility to prepare learners for the current business environment that is continuously influenced by technological advancements.

4.2 Integration of technology
In this theme, teachers' views on their actual integration of technologies are reported. The individual interviews revealed that business studies teachers integrate different technologies in their classrooms. They integrate technologies as early as the lesson preparation stage. Technologies play a critical role in supporting business studies teachers' lesson preparations. Teacher E indicated:

"I start using technologies during lesson preparation where I look for videos that I would integrate into my lesson to be more understandable to learners" - **Teacher E**

Teacher D shared similar sentiments:

"I use technologies during preparation where I decide on the videos, I will use to enhance my teaching. I take videos from the learning channels, but now some are outdated. I also

download clips during lesson preparation then during the lesson, I show learners those clips by playing them and linking them with the content I teach"

While Teacher A integrates technology to write lesson plans:

"I use technology during lesson preparation to write my lesson plans and some notes using a computer."

Based on the teachers' responses, it can be inferred that teachers start integrating technologies at the preparation stage of their lessons. The integration of technologies during the preparation stage enables teachers to search for resources they can use to support their instruction. Business studies teachers should be commended for integrating technologies as early as the preparation stage in their lessons because this gives them (teachers) time to plan how and when they will integrate technology in their lessons. Teachers who do not plan their lessons properly are likely to integrate technological resources haphazardly in their lessons. This may end up defeating the good intentions of integrating technology in the classroom.

Furthermore, business studies teachers expressed their integration of technologies during the lesson. Teachers indicated that they integrate technologies in different ways. Teacher D narrated how she integrates technologies in her classrooms. She said:

"In our school, we have a Wi-fi, so since we have computers, I sometimes access and project a real business problem for learners. Sometimes I give learners a link to follow so they can see the business problem from a certain website in real-time. After reading a business problem, I then ask them to discuss it in relation to the topic being covered in the class"

Teacher B also shared how she integrates technological resources in her classroom:

"Our textbooks sometimes contain case studies that are not relevant to our context. Remember, we are in a rural-based school, so textbooks are designed for people who come from different backgrounds. Through using technologies such as the computer, I take the case study that is written in the textbook and edit it to fit the context of my school and the learners. There are things that learners cannot understand because they are not exposed, but if I change and use what they know, they understand better."

"ICTs such as videos and data projectors assist me in showing learners production systems that happen in real production factories on how each production system is done or works" **– Teacher E.**

From the data presented above, it transpired that business studies teachers use technologies mainly to expose learners to real business problems or challenges. The integration of technological resources allows teachers to obtain real business scenarios and teach learners practical content that exists in the real business world. In addition, Teacher B highlighted that she integrates technological resources to access recent content that is not available in the textbooks. It is evident that technology integration plays an important role in ensuring that

teachers and learners get access to recent information that is not contained in textbooks. Depending only on textbooks may hinder learners and teachers from accessing recent information because it takes time to revise a textbook. Given the current era where information easily becomes obsolete, the integration of technologies in business studies can be advantageous to learners.

4.3. Learner-centred environment through technology integration
This theme reports the findings that were generated through interviews and classroom observations. It focuses on technology integration by business studies teachers to create a teaching environment that promotes learner-centred learning. It emerged from the interviews that teachers believe that technology integration enables them to create learner-centred teaching environment. Teachers conceded that learner-centred teaching created through integrating different technologies allows learners to participate in learning activities actively.

"Technology integration gives learners an opportunity to access computers or phones during the lesson, they engage in learning activities, ask questions from the teacher and also acquire information from their phones and computers" – **Teacher B.**

Apparently, Teacher B suggests that integrating technology in her classroom allows learners to use different technologies for learning purposes. Since learners are allowed to use computers and cell phones in their classroom, this can allow them to discover new knowledge on their own and share with their peers. To create a learning environment that permits learners to share knowledge among themselves, Teacher B further mentioned that she encourages learners to share knowledge by using the collaborative learning teaching method in her business studies classroom.

"I encourage collaborative learning in my classrooms most of the time. Collaborative learning helps learners work together to do activities in the class as they learn. In business studies, collaboration among learners is prioritised…. so, I make sure I include learning activities that will make learners work together"- **Teacher B**

Likewise, Teacher A adopts collaborative learning and technologies to create a learner-centred teaching environment. She stated:

"I usually share the content on WhatsApp group especially the content we haven't yet covered and ask learners to study on their own and share what they understand through sending voice notes in a WhatsApp group. When we get to class during my period, I allocate learners in groups or pairs and instruct them to discuss the content shared via WhatsApp. I then monitor them while discussing. After that I address learners' misunderstandings and emphasise important points"- **Teacher A**

Seemingly, Teacher A promotes a learner-centred teaching environment in the classroom and in the WhatsApp group of his subject. This is detected in his expressions, as he indicates that learners engage in discussions through sharing their ideas through WhatsApp. He further takes the discussion that ensued in WhatsApp to the classroom, where learners actively engage in classroom discussions. This means that learners take centre stage in learning activities.

Furthermore, business studies teachers were observed engaged in actual integration of technologies to create learner-centred teaching environment. It appeared from classroom observations that some teachers did not engage in many learner-centred activities using technologies. For instance, Teacher A's lesson was dominated by the discussion method of teaching with very limited integration of technologies. In other words, although Teacher A created a learner-centred atmosphere by incorporating discussion as a teaching method, there was less integration of technologies during discussions in the classroom.

On the other hand, Teacher C integrated technologies such as a laptop, data projector, and an Interactive Whiteboard, and his instructional practices were teacher centred. Teacher C came with prepared slides and focused on explaining notes written on the presentation slides throughout the lesson. Learners were only involved in the lesson towards the end when Teacher C asked them to differentiate between the forms of ownerships depicted on the slides. Teacher C divided learners into two groups and asked them to discuss the characteristics of the form of ownership that were depicted on the PowerPoint presentation. Seemingly, this was part of oral assessment to gauge learners' understanding of the lesson. Although such exercise had some elements of learner-centredness, it was not sustained for a longer period because the teacher took over and summarised the lesson's key points and concluded the lesson.

Teachers who attempted to integrate technologies to create a learner-centred teaching environment were Teacher B, D, E, and F. Elements of collaborative learning were visible in their classrooms and used group discussions to enable learners to interact with their peers. Learners' engagements in Teacher B and D classrooms culminated to classroom presentations. During classroom presentations, learners were sharing with their classmates what they were discussing with their peers. Teacher B and D allowed learners to make use of technologies as they were engaging in discussions. Maybe this was possible in their classrooms because they were teaching in venues equipped with technologies such as desktop computers that learners had access to. During classroom presentation, Teacher B and D guided learners, either to correct their misconceptions or to scaffold learners presenting.

Below is the excerpt from Teacher B's lesson correcting some of the misconceptions that appeared during oral presentations:

> *Learner: Ok, now coming to number two which is profit sharing in the public company. The shareholders are entitled to the profit made by the company, and we see this as a success factor because it means as a shareholder, you get double returns from your investments, which is in the form of dividends and the profit share.*

> *Teacher B: Sorry group C, that's not true. Remember a public company is a legal entity. Group C, remind me, what is meant by a legal entity?*

> *Learner: Legal entity means the company is independent from the owners.*

> *Teacher B: shareholders in this case!*

Learner: yes mem

Teacher B: So, this means since the company is a legal entity, all profits made by the company belongs to……...?

Learners (Group C): owners/shareholders

Teacher B: Exactly! So as much as what you said is not too astray, but you need to understand it correctly. We are saying, this is a success factor because all profit made by the company belongs to the company which the company can use to buy new assets or expand.

In Teacher E and F classrooms, collaboration among learners dominated their classroom activities, with teachers facilitating the lessons. Although learner-centred activities dominated Teacher E and F classrooms, when they were conducting collaborative learning activities, less technologies were integrated. In other words, collaborative learning activities that learners engaged in were not fully supported by technology. For example, Teacher E in her classroom played a short educational video that served as a precursor of collaborative activities in the classroom. After watching a short educational video, learners were asked to work in pairs and draft an essay explaining a public company's success/failure factors. While in Teacher F's classroom, a data projector was used to depict a question from the previous question paper and learners were asked to answer the questions in pairs. As learners were collaboratively answering the questions Teacher F provided guidance to individual learners where there was a need. In both collaborative learning activities from Teacher E and F's classrooms, technology was used as a demonstration tool to help learners engage in collaborative learning activities.

5. Discussion of findings
This study intended to explore business studies teachers' technology self-efficacy on their technology integration to create learner centred teaching environment. The study discovered that business studies teachers' initial exposure to technology influenced their beliefs on their technology self-efficacy. It transpired that teachers who were exposed to technologies before joining the teaching profession claimed to have adequate technology self-efficacy. This finding corresponds with the study conducted by Islam (2020), which revealed that teachers' prior experiences in the context of technology integration impact their technology self-efficacy. It also transpired from this study that some business studies teachers were exposed to technologies after joining the teaching profession. Despite what may be perceived as late exposure to technology integration, these teachers took the initiatives to acquire technology integration skills from their counterparts. This is in line with Hatlevik and Hatlevik (2018) that unearthed that collegial collaboration in technology integration improves teachers' technology self-efficacy for pedagogical practices. Interestingly, the current study revealed that the technology integration of business studies teachers was not linked to their technology self-efficacy. This is because all teachers that participated in this study indicated during interviews that they integrate technology to create learner centred teaching environment, regardless of their technology self-efficacy.

On the contrary, during classroom observations, it appeared that although some of the participants integrated technologies into their classrooms, they still maintained a teacher-centred teaching environment. This finding is against the findings of the study conducted by Masanta (2020) that revealed that teachers with high self-efficacy integrate technologies to promote a learner-centred environment. This is because some of the teachers who claimed to have high technology self-efficacy during interviews integrated technologies in a representational manner in their lessons that were observed. There were some participants also who successfully integrated technologies to create a learner-centred teaching environment in their classrooms. Teachers, such as Teacher B and D succeeded in integrating technologies to create a learner-centred environment. It was fascinating to observe some of the teachers who claimed to have inadequate technology-self efficacy integrating technologies in a manner that promoted a learner-centred teaching environment. The finding of this nature is against the study conducted by Mlambo et al. (2020), which found that teachers' technology self-efficacy plays a significant role in influencing teachers' way of integrating technology in education. This study also revealed that some of the teachers incorporated teaching methods that promoted discussions and collaboration among learners to promote learner- centred teaching environment. This finding is in accordance with Social Constructivism theory, which advocates for teachers to encourage learners to engage in discussions and collaborative learning to construct their own meaning from the learned content.

Furthermore, some of the findings of this study are in line with the principles of the Bandura's self-efficacy theory. The finding of this study that business studies teachers who were introduced to technology before joining the teaching profession claimed to have a high level of technology self-efficacy is in line with the first principle of self-efficacy theory. These teachers indicated that they used technological resources to do their academic tasks. It can be assumed that as they are integrating technologies into their instructional practices, their mastery experiences contribute immensely to boosting their technology self-efficacy. This study also revealed that some business studies teachers acquired their technology integration skills through learning from their counterparts. This finding can be linked to the second principle of self-efficacy, vicarious experiences. It can be assumed that as teachers receive informal training from their counterparts, it involves business studies teachers observing their peers' integrating technologies in their classrooms. As they observe their peers in action, their technology self-efficacy might have been impacted; hence, they can now integrate technologies in their classrooms. The same finding can be linked to the third principle of self-efficacy, social persuasion. As business studies teachers receive informal training on technology integration from their peers, it can be assumed that they also get positive feedback which continues to boost their technology self-efficacy. Linked with the final element of self-efficacy (emotional and physical state) is the finding that indicated that some business studies teachers are of the view that they have adequate technology self-efficacy. Teachers' views on their level of technology self-efficacy are likely to be informed by the technology integration skills that they have acquired so far.

6. Conclusions and Recommendations

Based on the findings of this study, it can be concluded that business studies teachers are at different levels of technology self-efficacy. Some indicated that they believe they possess adequate technology-self efficacy, while others indicated inadequate technology self-efficacy. Interestingly, business studies teachers' technology self-efficacy had no bearing on the way teachers integrated technologies to create a learner-centred teaching environment. It transpired that there were some of the teachers who claimed to have adequate technology self-efficacy, but they integrated technologies in a manner that promoted a teacher-centred centred teaching environment. On the other hand, there were some teachers who indicated that they had low technology self-efficacy, but they managed to integrate technologies in a way that promoted learner-centred teaching.

The study also revealed that some business studies teachers still believe in a teacher-centred teaching approach. This study showed that although some of the teachers integrated technologies in their classrooms, they still maintained some elements of a teacher-centred teaching environment. Therefore, this study recommends that business studies teachers be continuously taken through professional development programmes to familiarise them with teaching methods that promote a learner-centred teaching environment in a technology-enhanced classroom. This will expose all teachers on how learner-centred teaching methods can be used when technology is integrated in business studies classroom. Above all, this will ensure that there is consistency among business studies teachers when integrating technology in their classrooms.

For future research, this study recommends that a quantitative study be conducted where many participants can be sampled so the findings can be generalised to different contexts. Finally, a similar study should be conducted using mixed methods where both qualitative and quantitative data can be generated.

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