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Pre-Service Teachers' Professional Competence in Integrating ICT in Business Education in Lesotho: A Systematic Literature Review

Mamosa Thaanyane* **and Thuthukile Jita**
University of the Free State
Bloemfontein, South Africa

Abstract. Information and communication technology (ICT) is a concern in educational settings in developing and developed countries. Studies have shown that the increasing interest in integrating ICT into teaching practices has pressed teacher education institutions to incorporate 21st-century skills in training pre-service teachers to develop these skills for their classroom instruction in the future. However, studies on the integration of ICT in business education are lacking. The purpose of this study was to examine pre-service teachers' professional competence in integrating ICT into business education during teaching practice, in Lesotho. A systematic literature review examined pre-service teachers' professional competence in integrating ICT into business education. Hence, an integrative method of analysis was used to extract the influencing factors on the competence of pre-service teachers in integrating ICT in the teaching of business education. The findings revealed that pre-service teachers' ICT professional competence is influenced by self-efficacy, which relates to the beliefs they hold about their capabilities to integrate ICT into business education. Furthermore, the findings revealed that professional competence is influenced by attitudes toward using ICT, inadequate training, and institutional infrastructure. Teacher education institutions should improve their training programmes to adequately meet the needs of pre-service teachers and develop policies regarding the integration of ICT in their curriculum. If teacher education does not address these issues, pre-service teachers will continue struggling with the integration of ICT in their teaching. Therefore, teacher education should refine its curriculum and support the integration of ICT into business education.

Keywords: Pre-service teachers; ICT; integration; self-efficacy; teacher education

* Corresponding author: Mamosa Thaanyane; 2015258938@ufs4life.ac.za

1. Introduction

Although information and communication technology (ITC) has grown favourably in reputation, it is a concern in educational settings in developing and developed countries. As a vital tool, it needs to be seen as an important aspect of teaching in the 21st century, requiring developing countries to invest in it (Malik & Hooda, 2022). Hence, teacher education institutions are expected to provide pre-service teachers with the necessary tools and support for them to acquire the skills and knowledge needed to learn how to integrate technology into their teaching instruction. Equipping them with the necessary skills will help them make their lessons interactive, while also preparing students for the technology-driven world. Since the developments of ICT have changed society and the workplace, higher education institutions are bound to restructure their teacher education programmes and provide classroom facilities to decrease the teaching and learning gap with ICT between now and the future (Ranta et al., 2022; Thephavongsa & Qingtang, 2018).

The use of ICT has gained a growing reputation and become a great concern in educational settings globally (Aydın & Gürol, 2019; Heine et al., 2023; Pozas & Letzel, 2023). Studies have shown that the increasing interest in integrating ICT into teaching practices has pressed teacher education institutions to incorporate 21st-century skills in their training to help pre-service teachers integrate it into their classroom instruction in the future (Heine et al., 2023; Sutton, 2011; Teo et al., 2015). The modern educational system strives to provide pre-service teachers with more enhanced learning opportunities so they may transfer these to their students. Another reason for this growing interest is that students insist on having ICT so that they can access information in their daily lives, connect with others, and share information within the school learning environment through what is called e-learning (Aydın & Gürol, 2019).

The restructuring process requires the development of skills to support ICT integration into the existing context to provide pre-service teachers with knowledge of specific subject areas that promotes meaningful learning and enhances professional productivity (Gülbahar, 2008). Hence, training must mainly focus on acquiring competencies and skills on how to integrate ICT into the teaching and learning process to make it easy for pre-service teachers to transfer those skills to their learners (Heine et al., 2023).

Heine et al. (2023 further argued that lecturers (facilitators) and pre-service teachers are also expected to develop new informal learning and entrepreneurial skills to maintain continuous learning. These are the skills needed in the 21st century and which give meaning to learning business education. Having observed the increased rate of unemployment among business education graduates, I can conclude that there is a mismatch between the world of work and what is taught, which calls for revision of the curriculum to meet the demands of employees. Since ICT has the potential to accelerate, enrich, and deepen the acquisition of 21st-century skills, motivating and engaging pre-service teachers in learning can help them relate school experiences to

work practices in the future (Ranta et al., 2022; Sutton, 2011). This would mean that pre-service teachers can now determine which applications can be used in teaching and learning and how much time to spend on them.

Despite the attempts by teacher education to develop pre-service teachers' ICT integration skills and to assess their professional competence, the use of ICT has been failing because the issue has received insufficient attention. Hence, this study examined pre-service teachers' professional competence in ICT integration and its usage as a learning tool, in Lesotho. Understanding how these factors hinder or facilitate ICT usage and integration can help teacher education institutions improve on training quality teachers with necessary knowledge and skills. This study will also assist policymakers and educators in developing countries to adopt an educational plan that can cope with highly competitive market needs.

Institutions can adequately prepare pre-service teachers to be able to integrate ICT into the teaching and learning process. If teacher education can implement and integrate ICT properly in its education system, ICT can enrich, enhance, and develop the teaching and learning process, while also assisting pre-service teachers to develop and master 21st-century skills. Teacher education needs to restructure its programmes and redefine its mission to fully embrace the integration of ICT in teaching and learning and preparation for quality teachers. Teacher education must develop strategic plans for managing the technology that will enhance the learning experience. It also requires instructors to use technological tools to instruct and guide pre-service teachers to better understand the subject matter. As such, this study investigated the influences of pre-service teachers' professional competence in ICT integration.

2. Literature Review

2.1. Technological Pedagogical Content Knowledge

This study is framed by the technological pedagogical content knowledge (TPACK) which was introduced by Mishra and Koehler in 2006. This model is built upon Shulman's pedagogical content knowledge (PCK) framework of 1986, furthering its interrelation with content, pedagogy, and technology (Soong & Tan, 2010). According to Mishra and Koehler (2006), this framework is used to describe how technology can be effectively used to promote a better understanding and retention of information. The domains of TPACK are that PCK deals with how to teach content-based material; technological pedagogical knowledge (TPK) deals with how to use technologies in teaching; and technological content knowledge (TCK) is concerned with selecting and using technologies to communicate content knowledge. TPACK empowers pre-service teachers with a profound understanding of how the using technology can be harnessed and tailored to their needs.

When a teacher uses certain knowledge to transform pedagogical strategies and content representations for teaching a particular topic and how these tools and representations affect students' understanding of topics, then TPACK is achieved. It

is therefore important for pre-service teachers to acquire TPACK to be effective in their teaching. Since it is based on three primary forms of knowledge, it helps pre-service teachers understand the best practices for teaching specific content. It also helps pre-service teachers know how their students learn by selecting appropriate strategies that will meet their needs. In this way, TPACK helps them identify available technological tools to teach such content. TPACK is the specific knowledge that supports content-based technology integration in the classrooms.

This framework identifies three domains of knowledge that pre-service teachers need to possess to successfully integrate technology into the content to be taught. One domain of TPACK is PCK, which incorporates content and pedagogy into understanding topics, problems, or issues organised for the diverse interests and abilities of the learners. In other words, it refers to learning how to teach the content of a particular subject matter, which requires the development of appropriate instructional strategies and skills for the learner (Mishra & Koehler, 2006). According to Mishra and Koehler (2006), TPACK theory focuses on designing and evaluating teachers' knowledge, emphasising effective student learning in various content areas. Thus, it is used to frame thinking about what knowledge pre-service teachers must have to integrate technology into teaching and how they might develop this knowledge. The theory is relevant to this study as it informs the reader (and teacher education) about the knowledge pre-service teachers must possess to integrate ICT into the teaching and learning process. TPACK is also used in this study to understand pre-service teachers' professional competence in integrating technology into teaching and learning and how this has impacted the professional development experiences of pre-service teachers. Teacher education must, therefore, consider strategies that will effectively prepare pre-service teachers to integrate technology into their teaching.

2.2. ICT Integration in Teaching

Research has shown that the integration of ICT in the classroom is becoming increasingly important in schools and teacher education, to the extent that pre-service teachers' professional competence in ICT is targeted development (Heine et al., 2023). This means that pre-service teachers must acquire technological knowledge to master and perform teaching-related tasks. As ICT and its tools have the potential to fundamentally transform the teaching and learning process, teacher education must prepare pre-service teachers to make links between technological, pedagogical, and content knowledge for effective integration. Having all kinds of knowledge can enable them to use it more often. ICT plays an important role in enhancing business education. The integration of ICT tools and facilities can indeed greatly benefit students by improving their access to information, data management, and presentation skills (Oluwalola, 2021).

However, challenges such as electricity interruptions and poor implementation policies can hinder the effective integration of ICT in educational institutions (James, 2013). Adequate funding is crucial to ensure that schools have the necessary ICT

equipment for teaching business education effectively. The argument that teaching business education with a focus on ICT skills can develop valuable competencies that are in demand in the job market is quite valid (Ratheeswari, 2018). As technology continues to play a significant role in business operations, having a strong foundation in both business principles and ICT skills can indeed make students more competitive and prepared for the workforce. Overall, integrating ICT into business education can not only enhance students' learning experiences but also contribute to the development of essential skills that can drive entrepreneurship and economic growth in countries. Institutions and policymakers need to address the challenges in implementing ICT effectively to ensure that students are well-equipped for the demands of the modern business world.

3. Methodology

This is a qualitative study that adopted a systematic literature review to examine pre-service teachers' ICT professional competence focusing on the factors that influence its usage. Hence, the systematic review was determined to be an appropriate method to closely examine the ICT integration of pre-service teachers as a mode of instruction. The study was a systematic review of literature that has been organised thoroughly and systematically, effectively conveying important insights that can guide various stakeholders in improving the integration of technology, particularly in the field of business education. This study provides a comprehensive examination of the factors influencing the competence of pre-service teachers to integrate ICT into their teaching and learning practices. The study adopted an integrative literature review by Souza et al. (2010); Grove et al. (2013); Smith et al. (2011); and Whittemore and Knafl (2005). The process commenced by using a research question formulated to identify the gap in the literature.

To sample the appropriate literature, which was the selection of studies to be included for critical appraisal, a thorough search strategy was used to select the appropriate studies through selected keywords or key terms. The abstraction for each study through titles and abstracts was done independently to ensure that there was a fair selection as abstracts summarise the findings of each study (Hopia et al., 2016; Smith et al., 2011; Whittemore, 2005). The search resulted in a large number of studies that were eligible for the inclusion and exclusion criteria of an integrative literature review. Only qualitative studies were included.

The next step was to refine and narrow down the search of studies. This was done to ensure that only relevant and unbiased studies were included in the selection to extend the precision of the search (Cronin & George, 2023; Grove et al., 2013). A critical analysis was done using a comprehensive tool to appraise thoroughly each relevant study selected (Cronin, 2023). This means studies that did not meet the criteria of inclusion were considered irrelevant to the current study based on their abstracts and titles which included, in some cases, reading the full text.

The final selected studies were thoroughly read and the findings of each, the focus of the study, and conclusion were considered as the criteria for inclusion. Data synthesis included summarising the findings from individual studies integrated to form new findings or constructs (Whittemore & Knafl, 2005). A total of 25 studies were identified and grouped thematically, resulting in five major categories (named themes) that were presented and discussed as new knowledge generated. Finally, the findings for this study were presented and discussed as available evidence as a means of documenting the entire integrative literature review (Cronin, 2023; Grove et al., 2013).

4. Results and Discussion

Pre-service teachers' low professional competence in integrating ICT into their instruction during training is multifaceted. It has been identified that although pre-service teachers are trained to integrate ICT into their learning, a discrepancy limits their full application. This discrepancy depends very much on their low professional competence in using ICT in instructional learning. The findings from the systematic review responding to the research question on "*What Influences Pre-service Teachers' Professional Competence in ICT Integration*" were presented and discussed thematically (Souza et al., 2010; Whittemore & Knafl, 2005.

Theme 1: Limited Infrastructure

Infrastructure may refer to limited technologies at some rural institutions, which can influence the use of ICTs in the lecture room and this can affect pre-service teachers' use of technology during initial training. Limited infrastructure can also inhibit other activities that must be done online, such as discussion forums and collaborative writing that need the use of ICT tools. This agrees with Chisango and Marongwe (2018) and Heine et al. (2023) that integrating ICT in instructional learning promotes teacher-centred teaching, which is discouraged because it does not promote creative thinking among pre-service teachers.

Acquiring the necessary equipment enables lecturers to create an inclusive classroom atmosphere that fosters open communication with pre-service teachers as a curriculum development initiative. The unavailability of some ICT tools, such as data projectors, microphones and computers in lecture halls, and poor network connection in other areas, are also barriers that can lead to the lecturer resorting to the traditional mode of teaching pre-service teachers. Resorting to the traditional teacher-centred mode negates pre-service teachers call for training programmes due to a lack of skills and knowledge on how to integrate ICT into learning and, hence, this will affect their competence in the future. Similarly, lecturers are not able to develop these skills because they do not have laptops to use at home or even access to the Internet. This makes their work even more difficult because they cannot access the information needed to effectively prepare for lecturing. This affects pre-service teachers' training concerning technological knowledge in their future teaching and even their interaction with their peers as a way of consultation.

When the integration of technology, pedagogy, and content is left to the discretion of individual lecturers, it limits ICT integration for instructional purposes and there are inconsistent interpretations of how it can best be used in the classroom (Zyad, 2016). This implies a revision of the training programme to adequately equip pre-service teachers with relevant skills for integrating ICT in business education. However, pre-service teachers feel challenged to effectively integrate ICT in the classroom because it requires the application of complex TPACK that needs to be incorporated into the training programmes.

This finding agrees with Heine et al. (2023), Ramirez (2020), Uslu and Ersan (2020), and Mishra and Koehler (2006), that facilitators are challenged to foster learning that helps pre-service teachers to meaningfully integrate content and pedagogy. In other words, they fail to nurture 21st-century skills in these pre-service teachers. As such, the effectiveness of pre-service teachers in the future can be blamed on the rigid training and impactful preparation they receive. Hence, teacher education programmes need to be designed in such a way that they equip pre-service teachers with knowledge and skills on effective technology integration in their future classrooms. As indicated by Peng et al. (2023) and Mishra and Koehler (2006), different strategies of content and delivery can be used to prepare pre-service teachers for TPACK.

Sometimes, laboratories for teacher education may lack computers and software for the pre-service teachers to practise and this can seriously limit what they can do in the classroom with regards to integrating ICT**.** This proves that there is a need for teacher education institutions to improve their infrastructure so that it allows pre-service teachers to practise, as well as the required support from their facilitators. Restructuring and facilitator support can help pre-service teachers to easily integrate ICT into the content of their teaching subjects and, hence, their ICT competencies can also improve. This coincides with Ersoy et al. (2016), who explained that integrating ICT into teaching and learning not only requires the acquisition of up-to-date technology but also needs to consider various variables, including administrative, educational, and institutional policy on the use of ICT.

When all these factors are in place, the quality of teacher education can be improved, which in turn helps lecturers perform their duties. This implies that pre-service teachers must be competent and possess several skills and techniques for providing successful teaching (Bhattacharjee & Deb, 2016; Mishra & Koehler, 2006). Evaluating teacher education training helps to identify which ICT tools need to be included at which stages of training activities by teachers and the competency levels within the training process. This is why pre-service teachers are still struggling to integrate ICT into teaching and learning. Without these initiatives, pre-service teachers will still be immersed in challenges of this sort when trying to integrate ICT into learning.

Theme 2: Pre-Service Teachers' Attitudes

The transformation of the mode of delivery in higher education has brought significant change in the roles that teachers play as the key implementers when it comes to the integration of ICT in the teaching and learning process. This transition has prompted a change in teaching instruction, from lecturing to electronic teaching and learning. These changes have also necessitated changes in the attitudes of pre-service teachers to fully embrace the use of ICT in teaching and learning. It can even change pre-service teachers' attitudes and enable them to explore trends in education and tailor them to teaching business education. For effective and successful ICT integration, instructors must also change their attitudes so that they influence pre-service teachers to use ICT more frequently. In that way, pre-service teachers will be encouraged to use technology in their learning often because they would have been trained on how to integrate it. Proficiency in the use of ICT empowers pre-service teachers to close the gap that exists between theory and practice.

The findings of previous studies have established that pre-service teachers' professional competence is associated with their attitudes toward ICT integration. This is evident in Bariu and Chun (2022), Cabellos et al. (2024), and Rastogi and Malhotra (2013), who showed that those who use technology regularly have positive attitudes because they can regularly search for teaching materials on the Internet. On the contrary, those with negative attitudes might be subjective to their previous use and access to technology. This implies that pre-service teachers need training that will motivate them to use and facilitate the use of ICT in class in the future, which in turn will meet the needs of society in the Information Age.

Theme 3: Inadequate ICT Training

It has been identified from the literature reviewed that pre-service teachers' inability to integrate ICT into their learning emanates from inadequate teacher education training. This inability is the consequence of a lack of TPACK, that is, the knowledge of how to integrate ICT into the lecturers' instruction, which indicates that they will not be able to transfer it (knowledge) to their learners in the future. As Bhattacharjee and Deb (2016) indicated, ICT can be successfully integrated when lecturers know how to use technological tools to transform pedagogical strategies and present the content of their subjects in such a way that pre-service teachers understand it.

When pre-service teachers are not provided with proper training to use recent technology in the classroom, they feel challenged in their teaching profession and fail to prepare students for the workplace. This means that they can only commence their roles as competent teachers when their competencies as teachers have been developed adequately. Hence, their training has to be improved, as inadequate training has the potential to limit pre-service teachers' ability to integrate ICT into their instructional practices. It is, therefore, crucial for pre-service teachers to learn and acquire the TPACK of the subject they will be teaching in the future.

The study also identified that, due to irregular use of ICT, pre-service teachers' professional competence is low because of inadequate training received. Sometimes, the inadequacy results from instructors who lack technological skills and just upload notes or materials with the assumption that they have used ICT in teaching and learning (Zyad, 2016). This implies that they will not use or integrate it in their teaching and learning in the future. Consequently, the students of these teachers are likely to seldom use ICT, like their teachers. This coincides with Akaadom (2020) and Peng et al. (2023), who found that pre-service teachers are not able to use technology for instruction during their training because of their instructors or lecturers' incompetence in using technology. They do not possess the knowledge of how to use ICT skills for instructing pre-service teachers. This deficiency is reflected in the pre-service teachers' low professional competence in using technology because they are not well trained and, hence, they too do not know how to integrate it. The findings also indicate that pre-service teachers have reported not being adequately competent in integrating ICT into their learning during training because integration is not discussed in depth during teacher education training. This is why pre-service teachers still struggle to integrate ICT into their learning. Hence, this study was conducted to close the gap between training and application.

Theme 4: Pre-Service Teachers' Self-Efficacy

Another personal factor identified in determining the professional competence in ICT integration of pre-service teachers is self-efficacy. Self-efficacy in this context refers to the beliefs that pre-service teachers hold about their ability to integrate ICT into learning activities (Pozas & Letzel, 2023). The findings indicated that their self-efficacy serves as an indicator of how confident they are in using ICT tools for learning as they recognise their capabilities. This means that pre-service teachers can effectively choose the appropriate ICT tools to use for certain content of their subject areas. Pre-service teachers' self-efficacy is vital in developing entrepreneurial skills that allow them to use ICT in their instructional learning. This finding corresponds with Jita and Sintema (2022), who indicated that pre-service teachers will be able to actively participate and flourish in the future if they can choose appropriate ICT tools to use for certain content. Similarly, self-efficacy has been found useful and contributes significantly to pre-service teachers' use of ICT tools. It involves them in professional development programmes during their teaching practice because they have sufficient time to practise integration. This helps in testing their professional competence, which enables teacher education to decide on the kind of training to offer. This also means that pre-service teachers have high self-efficacy and may be eager to learn how to integrate ICT in the future. It also means that such teachers possess TPACK. In this regard, it means that pre-service teachers possess knowledge of how to use technology in teaching.

As an element of TPACK, pre-service teachers would show that they possess PCK, which refers to knowledge of how to teach particular content based on the materials available. Being able to select appropriate content and tools for teaching using ICT proves teachers' competence in ICT integration and shows that their self-efficacy is

high. In contrast, pre-service teachers with low self-efficacy in using ICT tools are not eager to use them for learning or even to access ICT resources at university. This shows that they are not likely to use it even during their teaching practice and in their future practice. This means that various initiatives have to be established to better prepare pre-service teachers for these challenges.

Sometimes, teachers need to take advantage of ICT and its integration as they have the appropriate skills to incorporate it into teaching and learning. This is substantiated by Ranta et al. (2022), that integration of ICT and its related changes in education are dependent on a pre-service teacher's ability to incorporate technology into creative pedagogy. It also depends on the development of an active learning environment that will integrate technology. Being able to integrate ICT into teaching and learning implies that pre-service teachers possess TPACK, which refers to the technical knowledge, skills, and content that are necessary for the integration. Pre-service teachers' failure to integrate ICT into teaching and learning demonstrates the ineffectiveness of their training.

Theme 5: Perceived Ease of Use and Usefulness

Given the pivotal role played by ICT in teaching and learning, it is important to examine and understand factors that can influence pre-service teachers' professional competence in using ICT in the teaching and learning process. This implies that teacher education programmes should ensure that pre-service teachers are equipped with the necessary skills to use ICT, specifically in teaching their subject matter content during their training; to provide an enriched learning environment during training will ensure meaningful learning, retention, and transfer in the future.

Since ICT involves the use of networks, expert systems controllers of ICT must be trained to provide support and make it easy for pre-service teachers to use. This agrees with what Teo et al. (2015) explained, that when pre-service teachers tend to use technology more actively, they can find it easy to navigate and manage it. Therefore, the perceived ease of use of ICT influences attitudes toward its use in the classroom and, hence, it is a determinant of pre-service teachers' professional competence in integrating technology in learning. Consequently, this study agrees with Jadhav (2011) that the effective integration of ICT in teaching and learning by pre-service teachers lies in their capacities. This is about using ICT tools for instruction, accessing information, and any other activity that relates to teaching and learning, and not just accessing material from websites. Furthermore, when pre-service teachers persistently use ICT tools, it can influence their knowledge about their subject content and how ICT is related to it, to the extent that they can identify areas that need ICT integration.

This study further identified that pre-service teachers can integrate ICT into teaching and learning when they find it useful and easy to access. Integrating ICT in teacher education training also helps pre-service teachers to be aware of technological tools and how they can be usefully applied in the future for the benefit of their students

(Heine et al., 2023; Jita & Sintema, 2022). Therefore, ICT tools have to be used in teacher education to empower pre-service teachers with the knowledge and skills that will help them teach their various subjects at schools in the future. These skills are the fundamental requirements in teaching in the current period of the 21st century. It also implies that pre-service teachers have to consider ICT as one of the ways that enhance quality and effective teaching in schools. Studies have identified that teaching using ICT tools helps students develop positive attitudes toward learning and understanding concepts easily (Gülbahar, 2008; Jita & Sintema, 2022; Harju et al., 2019). In this way, empowering pre-service teachers with the necessary skills and knowledge will help them select the appropriate methods and content that need integration. This will make it easy for pre-service teachers to integrate technology into teaching as it makes teaching and learning interactive.

5. Conclusions

The study examined pre-service teachers' professional competence in integrating ICT into business education in Lesotho. The study findings revealed that as pre-service teachers are the ultimate decision-makers on what to teach, they need training on how to integrate ICT into the teaching and learning of business education. It was highlighted that professional competence is influenced by the attitudes that pre-service teachers hold about using ICT in teaching and learning in the future. The findings revealed that they feel ill-prepared to integrate ICT into their learning because of a lack of TPACK. A lack of technological knowledge can inhibit them from easily integrating ICT. They are not used to interacting with ICT tools and do not know which tools to use and when. The findings further revealed that they sometimes do not integrate ICT because they do not know how to do so. This influences them not to try integrating ICT into teaching and learning.

Institutional infrastructure was also considered to influence effective integration since it inhibits other educational activities. The unavailability of ICT tools, such as projectors and computers in the lecture rooms, and poor connections are some other influences that inhibit pre-service teachers from integrating ICT into their instructional learning. Their attitudes toward ICT integration might be a problem for them to integrate ICT into their learning. They have not fully embraced the use of technology and, hence, fail to even search for learning materials on the Internet. This proves that they cannot integrate it into their learning.

Lastly, inadequate training has also been identified as a factor influencing pre-service teachers' inability to integrate ICT into learning. Inadequate training results from lecturers who are not knowledgeable about technology and who continue using traditional teaching methods, which does not allow in-depth discussions of ICT during training. In this way, pre-service teachers remain inadequately trained in the use of ICT in learning. This affects their TPACK and the students they will be teaching in the future. On this basis, teacher education needs to restructure its programmes and redefine its mission to show that it has fully embraced the integration of ICT in teaching and learning in preparation for quality teachers.

6. Recommendations

Since the findings of this study cannot be generalised, we recommend that teacher education should offer ICT as a compulsory course for all pre-service teachers. That is, it should be included in the curriculum to enable pre-service teachers to develop skills and technological knowledge to some extent since TPACK is associated with effective teaching. Thus, pre-service teachers must also be provided with adequate training to become competent enough to integrate technology into their learning. Teacher education has to embrace and maintain the use of technology by implementing appropriate strategies and policies to orient pre-service teachers' professional competence in using ICT. Universities should therefore equip their lecturers with ICT skills so that they can easily include ICT it in their teaching. The curriculum should also include teaching through ICTs. Furthermore, they should select schools that are well equipped with ICT tools to place pre-service teachers to provide them the opportunity to practice and transfer their skills to learners. In Lesotho, an effective control and management of management learning platforms such as *Thuto*, are recommended to reduce chances of electricity cut-offs leading to disconnection. Addressing infrastructure challenges such as having no ICT tools in the classrooms is recommended as it leaves pre-service teachers with inadequate technological skills, which also affects their self-efficacy in integrating ICT in business education.

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