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RESEARCH ARTICLE

# Enhancing Digital Literacy for Learners in Inclusive Primary and Secondary Education in Lesotho

Motlalepula Alphonci Khumalo*

## ABSTRACT

**Digital literacy is a vital skill for empowering diverse learners in a digitally inclusive education environment. It encompasses the proficiency to utilise, gauge, and interact with technological tools, ranging from fundamental operations such as emailing to more intricate activities. In 2021, the Ministry of Education and Training in Lesotho implemented the Lesotho Basic Education Curriculum Policy (LBECP) to improve digital literacy in primary and secondary schools. Teachers are key to imparting these skills; however, many lack familiarity with digital literacy practices, negatively impacting learner education. This study aims to enhance digital literacy in inclusive education in Lesotho. It involved two rural schools, primary and secondary, with three teachers and principals. Participants took part in semi-structured interviews about their digital literacy practices. The qualitative case study grounded in Bloom's Digital Taxonomy revealed that teachers are not adequately prepared to utilise digital literacy, which hinders curriculum implementation. Additionally, the lack of technological tools like computers and smartphones and inconsistent electricity complicates this issue. Teachers emphasised that the Ministry of Education and Training should allocate essential resources to every school, ensuring that diverse learners have access to the quality education they deserve. A nationwide study to support the effective implementation of the Lesotho Inclusive Education Policy 2018 is recommended to improve digital literacy for diverse learners in primary education.**

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*Department of Educational Foundations, Faculty of Education, National University of Lesotho.*

***Corresponding Author:**
e-mail: alphoncikhumalo@gmail.com

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## 1. Introduction

In recent decades, learners with diverse needs should not fall behind while governments introduce digital literacy skills technologies in inclusive schools, and the Lesotho Government is no exception. The government of Lesotho, through the Ministry of Education and Training (MoET), has established the Lesotho Basic Education Curriculum Policy (LBECP) 2021 (Ministry of Education and Training, 2021). The policy aims to promote digital literacy skills in both primary and secondary schools. The existing MoET policy sees the curriculum as the main element behind educational transformation.

The policy that the Lesotho government establishes is in line with the treaties of the United Nations (UN). The United Nations (UN) and other prominent organisations advocate for the integration of technology into education. Through its Sustainable Development Goal (SDG) 4, the UN emphasises the importance of providing inclusive and high-quality education for all (UNESCO, n.d.). SDG 4 specifically highlights the role of technology in enhancing educational quality, particularly at the primary school level. It is essential for the UN to recognise technology's potential to support the learning of an inclusive and adaptive curriculum across various subjects. Furthermore, the UN acknowledges the need to improve digital literacy skills in Lesotho by integrating technology into classroom environments. In addition, the African Union Agenda (AUA) 2063 aims to foster unity and collaboration across the African continent. Aspiration 2.25 of the AUA envisions a well-developed information and communication technology (ICT) sector that is integrated into education, ensuring a standardised approach (African Union Commission, 2015).

Lesotho, as a member of the United Nations, established the National Strategic Development Plan (NSDP) II for the period from 2018/19 to 2022/23. The strategy harmonises with the Sustainable Development Goals (SDGs) and serves as a framework for improving the country's education system. One of its key objectives is to promote information and communication technology (ICT) across various sectors, including education (Government of Lesotho, 2016). Furthermore, the Lesotho Basic Education Curriculum Policy of 2021 integrates digital literacy skills into the curriculum. This initiative aims to develop environmental competencies, enhance understanding of global physical and human landscapes, and emphasise the interconnectedness of societies (Ministry of Education and Training, 2021).

Promoting digital literacy and social justice in primary and secondary schools is critical in today's increasingly digital culture. Digital literacy refers to the ability to search, evaluate, and create digital content. This skill set is required for success in contemporary life and the workplace (Sharma *et al*., 2014). Concurrently, social equity in education, ensuring that all learners have equal opportunity for learning and success regardless of their background, is a basic component of a just society, as highlighted by Eden *et al*. (2024). However, a chronic problem, which is uneven access to digital resources, exacerbates existing social disparities, and teachers' lack of skills may be a hurdle for learners to access inclusive/adaptive curriculum in the classroom. These limitations encompass insufficient financial resources to invest in new technology, inadequate ongoing professional development to support effective technology integration, and a lack of sufficient digital knowledge and skills (Makuru & Jita, 2022; Mohlomi, 2022). Therefore, this study aims to promote digital literacy skills in an inclusive/adaptive curriculum education. By examining the initiatives that could be taken by the Ministry of Education and Training, teachers and policymakers could glean valuable insights and implement effective strategies to ensure that all learners have the opportunity to thrive in the digital age.

## 2. Statement of the Problem

Numerous studies have explored various aspects of technology in education, including Chere-Masopha's (2018) examination of teachers' professional identities related to digital technology adoption in Lesotho schools, Makumane and Mpungose's (2022) investigation of secondary school learners' experiences with educational technologies, and Morena *et al*.'s (2024) study focused on part-time primary school teachers in Lesotho. However, no research has yet investigated the integration of digital literacy skills into Lesotho's curriculum in alignment with the Lesotho Basic Education Curriculum Policy (LBECP) 2021 for primary and secondary schools. In today's world, significant technological transformations, such as advancements in artificial intelligence (AI) and cybersecurity, have led to global efforts aimed at exploring innovative technology applications to enhance educational experiences (Fisher *et al*., 2022).

Lesotho has responded to the growing demand for technological integration by implementing various policy initiatives that emphasise the incorporation of information and communication technology (ICT) into education. The LBECP 2021, along with earlier frameworks like the 2006/11 Science and Technology Policy and the 2005 National ICT Policy, advocates for developing ICT skills, building human resource capacity, and improving educational infrastructure (Gillwald *et al*., 2017). These policies position ICT as a crucial tool for achieving national development goals and identify educational institutions as key stakeholders in this effort. Specifically, the aim is to integrate ICT across all levels of the formal education system, highlighting the role of educational institutions in fostering ICT literacy, enhancing pedagogical practices, and using technology to expand access and improve educational quality. Moreover, these policies stress the importance of providing universal, equitable, and affordable access to ICT infrastructure and services. This includes establishing a Universal Service Fund (USF) to promote accessible ICT applications and services for schools at a reasonable cost. This strategic focus demonstrates Lesotho's commitment to transitioning from traditional teaching methods to a technology-driven approach. However, despite these positive initiatives, the effective integration of technology into teaching processes continues to face challenges—particularly the lack of clear mechanisms within these policies to embed digital literacy skills into an inclusive and adaptive curriculum.

## 3. Research Questions

Research questions on promoting the use of digital literacy for learners in inclusive education primary schools include:

1. How can digital tools enhance learning for learners with disabilities?
2. How does access to digital resources affect engagement and performance in inclusive education?

## 4. Literature Review

### *4.1. Digital Literacy Skills*

Literacy can be defined as a person's ability to read, write, understand, and analyse the information they need to operate in the world. Messiou and Galbally (2022) explain that literacy involves not only the mechanical skills of reading and writing but also the use of language, symbols, and texts in many social and scientific contexts. Digital literacy is defined as a person's ability to use the internet as a means of communication and a source of important information. Nascimbeni and Vosloo (2019) describe digital literacy as the ability to benefit from and avoid the negative effects of digital content. Proper Internet use entails understanding the advantages and disadvantages of each platform, as well as the devices and skills required for each. According to Bawden (2008) (as mentioned in Hariati, 2021), digital literacy is divided into four levels: basic literacy abilities (reading and writing),

background information knowledge, mastery of ICT capabilities, and attitudes and perspectives.

### *4.2. Importance of Digital Literacy Skills in Schools*

Digital technology allows individuals to access more information in less time when other sources cannot. The internet has opened a window to a wide array of educational content, such as articles, e-books, tutorials, videos, and online courses from various disciplines (Pratiwi, 2022). Digital technology plays an important role in improving modern literacy by providing wider and easier access to various sources of information, such as online time machines. Through the internet, information can be accessed with just a few clicks, expanding one's horizons and literacy skills (Mascorella & Emmi, 2023). According to Azzahra and Amanta (2021), the advancement of technology in the modern era has made it a part of our daily lives, particularly among the younger generation, who are already familiar with the digital world. However, the authors warn that there is a lot of inappropriate content on the internet. Based on this observation, understanding the digital world and developing digital literacy abilities should be recognised at a young age. There are various advantages to being digitally literate. Learners can think critically, evaluate credible stuff on the internet, and accept and believe it. Teachers can also employ a variety of images and materials to encourage online learning if students have previously mastered digital literacy (van Laar *et al*., 2019).

### *4.3. Promoting Digital Literacy Skills in Lesotho Schools*

The literature review on promoting digital literacy skills in Lesotho lacks clarity; however, studies on digital literacy skills could be promoted in schools. For instance, UNESCO (2020) suggests numerous approaches to increase digital literacy in Lesotho. Firstly, promoting parental awareness about digital learning involves educating parents about digital literacy and its importance in children's growth. Secondly, governments and schools can create web portals and visit lists to help parents support their children during online learning. Besides that, UNESCO states that school infrastructure is crucial for knowledge transfer through learning, observation, and play activities. Internet access introduces proper use and provides opportunities for deep observation and cross-cultural understanding. As stated by UNESCO, providing students and teachers with various resources is an investment for schools. Additionally, teachers' training should incorporate digital literacy skills and 21st-century demands to promote and develop learners' digital literacy. Lesotho's digital literacy is new and requires time to develop and maintain, highlighting the importance of these skills and resources (UNESCO, 2020).

### *4.4. Technology Infrastructure and Digital Capacity in Primary and Secondary Schools*

Lesotho's 2005 ICT Policy aims to connect government and public sector institutions, including schools, to ICT infrastructure while also enhancing the energy and electrical power infrastructure through the national grid (Ministry of Education and Training, 2006). The policy encourages investment in computer technology and promotes collaboration with private sector companies to assist in the procurement of ICT resources for educational purposes. Similarly, the 2006–2011 Science and Technology Policy emphasizes the importance of acquiring and providing access to relevant scientific and technological resources to support teaching, learning, and demonstrations (Ministry of Education and Training, 2006). Additionally, the guidelines advocate for the establishment of public ICT access points and internet connections in all educational institutions. This effort is further bolstered by the 2012 Communications Act, which mandates that all Lesotho citizens have access to basic internet and telecommunications services, including radio and television broadcasts. Notably, the 2020 Education Sector Response Plan facilitated collaborations with Econet and Vodacom to eliminate fees for online distance-learning platforms during the COVID-19 pandemic. This initiative ensured that students, instructors, and parents with internet connectivity could access educational materials at an affordable rate (Ministry of Education and Training, 2020).

### *4.5. Learners and Teachers*

The 2005 ICT Policy aims to create an ICT-literate society in Lesotho by incorporating ICT literacy and training programs into the core educational curriculum (Ministry of Education and Training, 2006). Educational institutions are dedicated to supporting teaching and learning while fostering a community that can provide local ICT goods and services. Specialized ICT training programs are offered to individuals with disabilities, youth, and women. Additionally, the 2006–2011 Science and Technology Policy integrates science and technology into school curricula to benefit all citizens, as outlined by the Ministry of Education and Training (2006).

### *4.6. Challenges of Teaching Digital Literacy Skills in Lesotho*

The literature review indicates that Lesotho faces numerous challenges that impede the successful integration of technology in classrooms (Makumane & Mpungose, 2022; Makuru & Jita, 2022; Mohlomi, 2022). However, there is limited understanding of the specific obstacles related to incorporating technology into primary education in Lesotho. To address this gap, an in-depth exploration of the practical challenges hindering the effective development of digital literacy skills in Lesotho's schools is necessary. This aligns with the findings of Selialia and Kurata (2023), who emphasise that unclear policies, resource limitations, inadequate professional development, and weak monitoring and evaluation mechanisms significantly hinder successful integration. The failure to tackle these issues undermines students' skill development and conflicts with the core educational objectives that schools aim to achieve.

Additionally, insufficient funding for connectivity poses a significant barrier to technology integration. According to Brandao (2020), the high costs associated with obtaining and maintaining technology infrastructure and

software licensing lead teachers to rely on traditional teaching methods (Dotong *et al*., 2016). Another major issue is the lack of sufficient professional development for instructors. Turugare and Rudhumbu (2020) note that instructors may struggle to utilise technology effectively without adequate training. Furthermore, Kalanda (2012) points out that the Ministry of Education rarely conducts training due to budget constraints, which severely impedes successful technological integration. Even when schools have access to technology, inadequate teacher training can lead to frustration and compromise effective digital literacy instruction.

Moreover, the absence of clear policies further complicates technology integration. Atabek (2019) highlights the lack of guidelines and the slow adaptation by the government. Supporting this view, scholars such as Chere–Masopha (2018) and Ruggiero and Mong (2015) stress that unclear policies create uncertainty, making it challenging to plan and implement technology initiatives. Lesotho currently lacks specific policies that guide teachers on how to integrate technology in subjects like geography education. Turugare and Rudhumbu (2020) argue that this absence of guidelines hampers technological integration. In addition, Osborne *et al*. (2020) express concern that existing policies cannot keep pace with technological advancements. This lag indicates that outdated educational policies obstruct successful technological integration. Without technology in the classroom, students miss critical opportunities to develop important digital skills, hindering collaborative learning, creativity, and critical thinking (Lisene & Jita, 2018).

## 5. Theoretical Framework

The arguments presented align with the concept of Digital Blooms (Terrell, 2018), which highlights how educators are supported in developing a curriculum that enhances students' use of technology tools, ultimately fostering their inventive and research-oriented critical thinking skills. The purpose of Bloom's Digital Taxonomy is to guide teachers on how to effectively utilise technology and digital tools to enhance learners' learning experiences and outcomes (Sneed, 2016). It aims to expand upon the skills associated with each level as technology becomes an increasingly essential component of education. This adapted version, along with the examples of tools it presents, emphasises that the focus should not be solely on the tools themselves but rather on how these tools can serve as vehicles for transforming learners' thinking at various levels. This framework on digital learning underscores the necessity for learners to acquire essential digital competencies, thereby preparing them for the fourth industrial revolution. Similarly, Puentedura *et al*. (2017) echo this perspective through their work on Bloom's and SAMR theory tasks. They discuss the integration of Bloom's taxonomy with the SAMR model, emphasising how these frameworks can enhance educational practices by categorising and evaluating technology use in the classroom. In particular, the SAMR model, developed by Puentedura in 2010, provides a structure for assessing the effectiveness of technology in education through four levels: substitution, augmentation, modification, and redefinition. They emphasise the importance of striving for higher-order thinking skills alongside the requirements for student outcomes, with SAMR serving as a model designed to help teachers implement technology-infused learning effectively.

## 6. Method

### 6.1. *Study Design and Data Collection*

The qualitative method of phenomenology is a powerful tool for educational research, allowing researchers to uncover the deeper meaning of individual participants' personal experiences (Alhazmi & Kaufmann, 2022). In this paper, my use of a case study design provided an in-depth exploration of participants teaching in mainstream schools in Lesotho, offering valuable insights into the specific situation within its context (Yin, 2018; Thomas, 2021). By employing this method, I was able to gather detailed descriptions of the participants' experiences from their unique social group standpoint. It is important to note that in a case study, there is no single reality or right or wrong answer (Heale & Twycross, 2018; Thomas, 2021), making it an ideal approach for this study.

Two primary and two secondary teachers and their principals were purposefully chosen for the study in a rural area. The participants were directly asked questions about their perceptions of promoting digital literacy skills in primary schools. Interviews were used to gather data, and a semi-structured interview plan was utilised. According to Laverty (2016), researchers employ semi-structured interviews because they are comprehensive. Each participant signed a consent form to take part in the study voluntarily. The researcher included open-ended questions in the interview schedule to establish credibility. The questions were worded to encourage maximum engagement and allow participants to answer using their own language. To portray the participants' genuine statements and experiences, the researcher also gave them the chance to confirm all the information gathered. In this way, the participants were able to rectify any factual inaccuracies or misunderstandings.

### 6.2. *Data Analysis*

The study employed inductive thematic content analysis, a robust method designed to uncover and analyse patterns and themes in alignment with the phenomenological approach (Babbie & Mouton, 2010). Adhering to a qualitative approach, the study utilised direct quotes extensively to firmly establish findings and interpretations (Creswell & Creswell, 2018; Smith, 2011). Rigorous discussions on reliability and accuracy underscored the investigation. The researcher meticulously categorised remarks in line with the research questions to maintain consistency while also independently examining the data to mitigate interpretation risks. Any contradictions were thoroughly addressed by diving into relevant data. Moreover, participants were actively engaged and given the opportunity to review transcripts and provide additional explanations as necessary.

## 7. Ethical Consideration

The researcher obtained authorisation to conduct the study from the Ministry of Education and Training headquarters in Teyateyaneng, Berea. Teachers and principals, who were the main participants in the interviews, were assured that their experiences and perspectives would be kept strictly confidential. They were also informed that participation was entirely voluntary and that they had the right to withhold any information they felt uncomfortable sharing (Barrow *et al*., 2021; Sotuku & Duku, 2015).

## 8. Results

Five key themes accompanied by direct quotations emerged from the participants' responses. Primary teachers are designated as TP1 (Teacher Primary 1), TP2 (Teacher Primary 2), and TPP (Teacher Primary Principal). Secondary teachers are identified as TS1 (Teacher Secondary 1), TS2 (Teacher Secondary 2), and TSP (Teacher Secondary Principal).

**Theme 1: Integration of Digital Literacy Skills into the Curriculum**

When asked how digital tools can be effectively integrated into the curriculum to enhance learning outcomes for learners with disabilities, TP1 vividly stated:

> *Including digital tools in the curriculum, for example, learners with learning disabilities benefit from computer-assisted education in spelling, expressive writing, reading, and other academic outcomes because it reduces distractibility and improves learning*.

TP2 emphasised:

> *Integrating technology into the curriculum enhances learners' digital abilities and literacy. A well-designed activity by the educator in the adaptive technology, whether tablet, smartphone, or laptop, helps them to learn how to traverse digital platforms, critically evaluate information sources, practice digital citizenship, and acquire skills for the modern workforce*.

TPP explained:

> *Integrating technology into the curriculum could provide learners with convenient access to various educational resources related to literacy, such as online libraries, digital textbooks, educational websites, and multimedia. This would thereby enhance comprehension and facilitate the exploration of diverse perspectives*.

TS1 indicated:

> *The tools should be designed in such a way that flashcards, printed words, word puzzles, and spell checkers should be included in the digital literacy curriculum to assist students with pronunciation, unscrambling, identifying, and locating words*.

TS2 further explained:

> *Technology facilitates active learning experiences in literacy by engaging learners in interactive and hands-on activities. Online simulations, virtual labs, educational games, and multimedia presentations can make learning more engaging, immersive, and interactive*.

TSP elaborated:

> *I think that by integrating digital literacy skills into the curriculum through these strategies, we can foster more inclusive learning environments that improve outcomes for students with disabilities. The combination of adaptive technologies, engaging interactive tools, and an emphasis on digital citizenship and critical thinking will empower these learners to navigate the digital landscape with confidence and success*.

The study highlights the benefits of integrating digital tools into the curriculum, particularly for learners with learning disabilities. It emphasises the reduction of distractions, the development of essential skills like digital citizenship, and access to diverse educational resources. The use of interactive tools like flashcards, word puzzles, and spell checkers aids in literacy development. Technology also supports active learning through online simulations, educational games, and multimedia presentations. The successful integration of digital tools in the curriculum can provide equal access to learning resources and improve educational outcomes, especially for students with disabilities.

**Theme 2: The Impact of Access to Digital Literacy Resources**

When participants were asked how access to digital literacy skills resources influences the engagement and academic performance of learners in inclusive education, TP1 indicated:

> *Access to digital resources helps influence learners because teachers can engage learners in a better fashion. If teachers can access the said resources, they have more opportunities to engage learners, thus creating a more inclusive and student-friendly classroom*.

TP2 explained:

> *Digital literacy gives students access to a great amount of knowledge, allowing them to learn independently. Learners with digital literacy skills can explore various websites and conduct mini-research for academic tasks or personal interests, which enhances their overall educational experience*.

TPP stated:

> *Digital literacy encompasses more than just consuming information. It equips students with the skills to evaluate sources, distinguish between credible and*

*untrustworthy information, and think critically about the content they encounter. These abilities are essential not only for academic success but also for making informed decisions in everyday life*.

TSI highlighted:

*In today's technologically-driven world, digital literacy is essential for success in the workplace. Proficiency with digital tools and platforms can open up new job prospects and provide a competitive advantage in the labour market*.

TS2 explained:

*Digital literacy is essential in today's educational landscape. It provides students with the skills needed to thrive academically, professionally, and personally in a digital world*.

TSP further explained:

*To equip our students for future challenges and opportunities, educators and parents must prioritise digital literacy both in the curriculum and at home*.

This underscores that access to digital literacy resources in schools significantly enhances educational outcomes. It allows students to engage in digital learning, which can improve literacy skills and better prepare them for future careers by fostering technical skills, critical thinking, and creativity. Educators can also adapt their instructional practices based on students' access to these resources, leading to a more tailored and effective learning environment.

**Theme 3: The Challenges Teachers Face in Implementing Digital Literacy Programs in Inclusive Settings**

Participants were asked to discuss the challenges that teachers encounter when implementing digital literacy programs in inclusive environments. Here are their responses:

TP1 explained:

*We are not trained in the usage of phones, and some do not even know how to use app tools on them. As a result, many students continue to struggle to receive a high-quality education at our schools. Few teachers from rich backgrounds own smartphones*.

TP2 highlighted:

*We face several challenges in implementing digital literacy programs in inclusive settings, including insufficient access to technology such as computers and reliable internet, which hampers our ability to deliver effective lessons*.

TPP further highlighted:

*Our schools have no electricity and this makes our work even more complex, especially when you need to help them create emails or use computers*.

In addition, TS1 stated:

*There are difficulties in addressing the diverse needs of students with varying abilities, which can complicate the integration of digital tools in a way that is engaging and beneficial for all learners*.

TS2 showed concern:

*Parents have no potential to support their children when they need computers or smartphones. Some of them are not working and these gadgets are very expensive. Even though we have a few of them, children are not able to use them because of their language complexity*.

TSP further explained:

*Furthermore, teachers may lack adequate training or professional development opportunities to effectively use digital literacy resources inclusively*.

The results demonstrate that teachers face challenges in implementing digital literacy programs in inclusive settings. These challenges include a lack of training in phone usage, insufficient access to technology, failure to address diverse student needs, and the lack of adequate training or professional development opportunities. This results in students struggling to receive high-quality education.

**Theme 4: The Support that Schools Receive from the Ministry of Education and Training to Enhance Digital Literacy**

When participants were asked how the Ministry of Education and Training assist schools in implementing digital literacy in schools, participants had different views on this aspect:

TP1 highlighted:

*The MoET offers teacher training on foundational literacy and numeracy, including in the mother tongue and sign language. The MoET also pilots service teacher training that focuses on multi-grade teaching and learning*.

TP2 indicated:

*MoET does not really show much support because most schools do not have facilities for digital literacy. Teachers have to improvise using their own cellphones when they teach, especially about topics related to technology*.

TPP highlighted:

*In my school, there is a lack of digital skills due to MoET's failure to supply schools with facilities that can enhance both digital teaching and learning*.

TS1 added:

*During COVID-19, schools were exposed to the scenario that there is a lack of digital literacy, including*

*technology infrastructure. Our schools lack hardware/software and connectivity, as well as a lack of educator and learner understanding of digital teaching and learning*.

TS2 stated:

*The MoET launched a digital platform for foundational literacy and numeracy that includes training materials and peer collaboration. However, this initiative failed because of a lack of technology infrastructure. Our Ministry has financial constraints, especially when it comes to resources that can support both teachers and learners*.

TSP suggested:

*The MoET should establish strategic planning and budgeting processes to ensure ongoing financial support for technology integration*.

The results reflect that the Ministry of Education and Training in Lesotho is actively working to address the skills gaps in information and communication technology (ICT). However, its primary focus is on improving foundational literacy and numeracy, especially for marginalised learners. Progress in establishing supportive infrastructure for digital learning has been slow, particularly in primary schools.

**Theme 5: The Benefits of Digital Literacy in Schools**

When participants were asked how digital literacy could benefit their schools, their responses were as follows:

TP1 shared:

*We think digital literacy in inclusive education provides numerous benefits, including bridging the digital divide and enhancing the overall quality of education. It promotes increased gender equality and inclusivity, allowing diverse learners to access resources and engage in learning*.

TP2 highlighted:

*If we expose our children to digital literacy skills, they can analyse content in a very short time*.

TPP emphasised:

*One of the things our learners can benefit from digital literacy skills is that they can synthesise the content to make a well-informed decision and solve problems both academically and socially*.

Additionally, TS1 stated:

*We think improved digital skills equip students with the necessary tools for academic success and better learning outcomes, which is particularly crucial in today's technology-driven environment. Ensuring all students have digital literacy skills also supports personalised learning and helps to accommodate various learning needs*.

TS2 elaborated:

*Another positive effect brought by digital literacy skills is that learners can assist learners obtain the information they need to learn while the teacher facilitates learning*.

TSP explained:

*I think learners who are exposed to digital literacy skills can improve their critical thinking as well as their communication skills*.

It could be concluded that digital literacy in inclusive education offers numerous benefits, including bridging the digital divide, enhancing education quality, promoting gender equality, and allowing diverse learners to access resources. Again, exposure to digital skills helps children analyse content quickly, synthesise content, make informed decisions, and solve problems. Improved digital skills do not only equip students with tools for academic success, personalised learning, and accommodating various learning needs but also improve critical thinking and communication skills.

## 9. Discussion

This paper aims to promote the use of digital literacy among learners in inclusive primary and secondary schools in Lesotho. The study identified five key themes, namely: the integration of digital literacy skills into the curriculum, the impact of access to digital literacy resources, the challenges teachers face in implementing digital literacy programs in inclusive settings, the support that schools receive from the Ministry of Education and Training to enhance digital literacy, and the benefits of digital literacy for students.

The findings suggest that integrating digital literacy into the educational curricula of schools in Lesotho is essential for equipping a diverse range of students, including those with disabilities, with the knowledge and skills required to thrive in a modern learning environment (Thelma *et al*., 2024). The use of digital tools positively influences student learning, particularly in literacy, as these tools facilitate interactive activities such as flashcards and spell checkers that specifically support learners with disabilities. Furthermore, courses structured around digital games may prove to be an effective learner-centred approach, as students are likely to be more engaged with the various gaming options available. This qualitative study concludes that teachers in inclusive primary schools in Lesotho struggle to effectively integrate digital literacy for learners within the inclusive education framework, as emphasized by the Lesotho Basic Education Curriculum Policy of 2021.

The study highlights that access to digital literacy resources greatly enhances individuals' ability to obtain

essential resources, education, and opportunities, ultimately improving their quality of life. It promotes better engagement in education, especially for primary school students, by making learning more interactive and accessible through digital devices and applications. Additionally, it streamlines the learning process compared to traditional methods, leading to greater efficiency in acquiring literacy skills. The findings support Puspita (2024), who highlights that digital literacy programs in rural communities of Indonesia have made a notable impact. These initiatives have improved access to information, effectively reducing the digital divide in underserved areas. They empower residents to obtain essential resources, education, and opportunities, thereby enhancing their overall quality of life.

The study further reveals that teachers in primary and secondary schools in Lesotho face several challenges when implementing digital literacy programs in inclusive settings. One significant issue is insufficient access to necessary technology, such as computers and reliable internet connectivity, which limits the effectiveness of teaching digital literacy. Additionally, inclusive classrooms often include students with varying abilities and learning needs, making it challenging for teachers to address all students effectively while using digital tools. Many teachers also lack adequate training in using ICT tools, which can hinder their ability to integrate these technologies into their curriculum. These factors create significant barriers that educators must overcome to incorporate digital literacy into their teaching practices successfully. Boonmoh and Sanmuang's (2024) qualitative study identifies several challenges that teachers face, such as selecting appropriate ICT resources, lacking sufficient digital literacy, needing pedagogical adjustments, facing inadequate training and support, dealing with infrastructure limitations, and struggling with time constraints. Again, Ministry of Education and Training (2024) asserts that, despite a significant number of qualified teachers, there is a deficiency in the fundamental competencies for teacher professional development, with only 51% of primary school teachers achieving digital literacy competencies and 31% meeting the standards set by the Ministry of Education and Training, as indicated in the 2020 Education Sector Analysis.

In addition, the study reveals that the Ministry of Education and Training (MoET) provides support to schools in enhancing digital literacy through initiatives such as piloting internet access and online support for teachers and students. They have introduced solar panels and school-based computers to facilitate this, although many students still lack personal devices. Moreover, there are ongoing discussions between the Ministry and partners to further promote digital literacy training in public primary schools. However, the Ministry of Education and Training in Lesotho is focused on improving foundational literacy and numeracy, particularly for marginalised learners. While progress has been made in teacher training and strategies to enhance literacy and numeracy skills, the establishment of supportive digital infrastructure in primary schools remains slow. This is consistent with the Ministry of Education and Training's report on enhancing the quality of teaching and learning for improved learning attainment in basic education. The report states that Lesotho has low levels of literacy and numeracy learning and learning inequities, with poor learning outcomes, including foundational literacy and numeracy skills, for both primary and secondary school students (Ministry of Education and Training, 2024).

The study further indicates that digital equity and inclusion guarantee that learners possess the knowledge and skills to utilise technology for educational purposes. They do not only engage with comprehensive and accessible content and programs but also recognise their identities reflected in the technologies they employ, as well as encounter significant opportunities that empower them as learners. Moreover, digital literacy encompasses the increasing necessity for the critical evaluation of digital content, instructing learners to appraise its origin, reliability, and quality. Additionally, digital literacy training stimulates students' cognitive capacities by challenging them to apply critical thinking skills to their activities, behaviour, and social involvement on digital platforms. With the fast expansion of social media, information literacy and digital literacy could become more significant components of digital literacy (Yazov, 2022).

## 10. Conclusion

The government of Lesotho, through the Ministry of Education and Training, has committed to promoting digital literacy skills in both primary and secondary schools (Ministry of Education and Training, 2021). The enactment of the Lesotho Basic Education Curriculum Policy (LBECP) 2021 symbolises that the Lesotho government wants to address all challenges that Basotho children face in various schools. The Policy sees curriculum as the main element behind educational transformation. Despite the complexities that the Ministry of Education and Training is facing in various schools, some progress has been made. To ensure that educators and students have access to a quality education that meets their intellectual, physical, social, and emotional needs, significant work must be done. For instance, the absence of digital tools like tablets, laptops, cellphones, and other gadgets in classrooms continues to be a barrier to learners receiving high-quality, pertinent instruction. Once more, students' use of digital literacy in the classroom is hampered by teachers' lack of professional abilities. Finally, teachers' inability to provide the present curriculum as required by the Ministry of Education and Training is also a result of the Lesotho government's lack of funding for purchasing digital gadgets for schools.

## 11. Recommendations

This study underscores the critical role those digital devices play in enabling learners' access to quality education. It recommends prioritizing the needs of schools, educators, and students with special educational requirements in order to foster an equitable learning environment. The Ministry of Education and Training should facilitate training and professional development for teachers on

effectively utilising digital devices, such as tablets, computers, Wi-Fi, and internet connections, to enhance digital literacy in the classroom.

Moreover, the Ministry of Education and Training should train teachers in digital literacy resources and critical thinking pedagogy as it is responsible for assisting teachers in incorporating digital literacy into the curriculum so that schools may offer students the tools, they require to prosper in the twenty-first century. Teachers should promote digital literacy in the classroom by incorporating technology in relevant ways, such as cross-curricular integration, project-based learning, and critical thinking. As a support system, universities and colleges should provide continual professional development to help instructors stay current with the evolving digital literacy scenario. Furthermore, to overcome digital gaps, schools should assist in building inclusiveness by providing access to digital tools and supporting digital skills and inclusion. Teachers have an obligation to get pupils ready for the digital age as digital literacy is an essential ability for pupils. Students' creativity, inventiveness, flexibility, and sense of global citizenship can all be fostered by it. Finally, the study recommends more studies on digital literacy abilities to encompass a wide range of the nation.

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## Contribution of the Article

The article aims to enhance teachers' understanding of the unique characteristics of learners with ASD in Lesotho.

## Conflict of Interest

I declare no potential conflict of interest.

## References

African Union Commission. (2015). *Agenda 2063*. African Union Commission.

Alhazmi, A. A., & Kaufmann, A. (2022). Phenomenological qualitative methods applied to the analysis of cross-cultural experience in novel educational social contexts. *Frontiers in Psychology*, *13*, 785134.

Atabek, O. (2019). Challenges in integrating technology into education. *Information Technologies and Applied Sciences*, *14*(1), 1–19.

Azzahra, N. F., & Amanta, F. (2021). *Promoting Digital Literacy Skills for Students through Improved School Curriculum. Policy Brief, 11*. Centre for Indonesian Policy Studies (CIPS).

Babbie, E., & Mouton, J. (2010). *The Practice of Social Research*. Oxford University Press Southern Africa.

Barrow, J. M., Brannan, G. D., & Khandhar, P. B. (2021). *Research Ethics*. StatPearls. https://www.ncbi.nlm.nih.gov/books/NBK459281/.

Bawden, D. (2008). Origins and concepts of digital literacy. In *Digital literacies: Concepts, policies, and practices*. Peter Lang Publishing.

Boonmoh, A., & Sanmuang, K. (2024). Challenges of ICT Teachers in integrating digital literacy Post-COVID-19 curriculum revisions in Thailand's English teacher education programs. *International Journal of Education & Literacy Studies*, *12*(3), 208–217. https://doi.org/10.7575/aiac.ijels.v.12n.3p.208.

Brandao, P. R. (2020). Cloud computing and e-learning (computer network laboratories for curriculum development in cloud computing). In K. Ciezyn (Ed.), *Innovative educational technologies, tools, and methods for e-learning* (vol. 12, pp. 390-400). University of Silesia.

Chere-Masopha, J. M. (2018). Personal landscapes of teacher professional identities versus digital technology adoption and integration in Lesotho schools. *International Journal of Learning, Teaching and Educational Research*, *17*(3), 28–42.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 5th ed. Sage.

Dotong, C. I., De Castro, E. L., Dolot, J. A., & Prenda, M. (2016). Barriers for educational technology integration in contemporary classroom environments. *Asia Pacific Journal of Education, Arts and Sciences*, *3*(2), 13–20.

Eden, C. A., Chisom, O. N., & Adeniy, I. S. (2024). Promoting digital literacy and social equity in education: Lessons from successful initiatives. *International Journal of Management & Entrepreneurship Research*, *6*(3), 687–696.

Fisher, M., Smiley, A. H., & Grillo, T. L. (2022). Information without knowledge: The effects of internet search on learning. *Memory*, *30*(4), 375–387.

Gillwald, A., Mothobi, O., & Deen-Swarray, M. (2017). *The State of ICT in Lesotho, 2016 ( Series 5: After Access–Assessing Digital Inequality in Africa )* [Policy Paper]. Research ICT Africa.

Government of Lesotho. (2016). National Vision 2020 (Report). Government of Lesotho. https://www.gov.ls/download/lesotho-vision-2020/.

Hariati, P. (2021). Implementation of digital literacy toward pandemic situations. *Budapest International Research and Critics Institute Journal ( BIRCI-Journal )*, *4*(2), 2920–2926.

Heale, R., & Twycross, A. (2018). What is a case study?. *Evidence-Based Nursing*, *21*(1), 7–8.

Kalanda, K. (2012). *An investigation of ICT in the Lesotho secondary and high school science classroom* [Unpublished doctoral dissertation]. University of South Africa, Pretoria. http://hdl.handle.net/10500/5808.

Laverty, C. (2016). Experiential education at a faculty of education library. In P. McDonald (Ed.), *Experiential learning in academic and research libraries*. Oxford University Press.

Lisene, L. N., & Jita, T. (2018). Exploring the integration of modern technologies in the teaching of physical science in Lesotho. *University of the Free State School of Education Studies*, *36*(1), 111–127.

Makumane, M., & Mpungose, C. (2022). Digital divide: Secondary school learners' experiences of using educational technologies. *Alternation Special Edition*, *39*, 214–238.

Makuru, B., & Jita, T. (2022). Information and communication technology practices in biology teaching in Lesotho high schools. *International Journal of Information and Education Technology*, *12*(7), 668–677.

Mascorella, J., & Emmi, M. (2023). Expanding teacher capacity and student engagement in digital literacies in the primary classroom: An informal explorative reflection. In T. Keane, A. E. Fluck (Eds.), *Teaching coding in K-12 schools* (pp. 207–224). Springer.

Messiou, K., & Galbally, L. (2022). Developing inclusive practices: The role of student-teacher dialogues. In K. Black-Hawkins, & A. Grinham-Smith (Eds.), *Opening pathways for inclusion in primary schools* (pp. 30–44). Routledge.

Ministry of Education and Training. (2006). *Lesotho Education Challenges in Lesotho: Overview and Country Perspectives* (pp. 18–25). Presented at the conference in June 2006, Singapore.

Ministry of Education and Training. (2020, September 14). *Schools Open*. Odigostou Politi. http://www.odigostoupoliti.eu/stis-14-septemvriou-2020-anoigoun-ta-scholeia-me-ypochreotiki-chrisi-maskas/.

Ministry of Education and Training. (2021). *Lesotho Basic Education Curriculum Policy*. Ministry of Education and Training.

Ministry of Education and Training. (2024). Enhancing the Quality of Teaching and Learning for Improved Learning Attainment at Basic Education (Report). Maseru, Lesotho: Ministry of Education and Training. https://www.globalpartnership.org/content/lesotho-partnership-compact-2024.

Mohlomi, N. (2022). Integrating design and technology with entrepreneurship in Lesotho. In P. J. Williams, & B. Von Mengersen (Eds.), *Applications of research in technology education* (pp. 203–217). Springer.

Morena, M. C., Mokhetsengoane, S. J., & Letseka-Manka, M. (2024). The experiences of part-time primary school teachers studying at one university in Lesotho. *European Journal of Education and Pedagogy*, *5*(2), 93–98.

Nascimbeni, F., & Vosloo, S. (2019). Digital Literacy for Children: Exploring Definitions and Frameworks–Scoping Paper (Report).

UNICEF. https://www.unicef.org/innocenti/reports/digital-literacy-children-exploring-definitions-and-frameworks.

Osborne, G. S., Eck, M., & Sugg, M. (2020). An assessment of geospatial technology integration in K-12 education. *Journal of Geography*, *119*(1), 12–21.

Pratiwi, F. S. (2022). Data sebaran kasus kejahatan menurut provinsi di Indonesia pada 2022 [Data on the distribution of crime cases by province in Indonesia in 2022]. *Data Indonesia*. https://dataindonesia.id/varia/detail/data-sebaran-kasus-kejahatan-menurut-provinsi-di-indonesia-pada-2022.

Puentedura, R., Churches, A., & Nelson, M. (2017). *The SAMR Model and Bloom's Taxonomy: Creating Meaningful Technology Integration in the Classroom*. International Society for Technology in Education (ISTE).

Puspita, I. (2024). Impact of digital literacy programs on information access in rural African communities in Indonesia. *African Journal of Information and Knowledge Management*, *2*(1), 13–26. https://doi.org/10.47604/ajikm.2266.

Ruggiero, D., & Mong, C. J. (2015). The teacher technology integration experience: Practice and reflection in the classroom. *Journal of Information Technology Education: Research*, *14*, 161–178.

Selialia, M., & Kurata, L. (2023). Practical challenges of integrating technology within Lesotho's secondary geography education: A conceptual analysis. *International Journal of Science and Research Archive*, *10*(2), 10161022.

Sharma, A., Gupta, B., & Patel, C. (2014). *The Role of ICT in Education*. Academic Press.

Smith, J. A. (2011). Evaluating the contribution of interpretive phenomenological analysis. *Health Psychology Review*, *5*, 9–27. https://doi.org/10.1080/17437199.2010.510659.

Sneed, O. (2016). Integrating technology with Bloom's taxonomy. *Teach Online: Resources for Teaching Online*.

Sotuku, N., & Duku, S. (2015). Ethics in human sciences research. In C. Okeke, & M. M. Van Wyk (Eds.), *Educational research: An African approach* (pp. 112–130). Oxford University Press.

Terrell, M. (2018). *Exploring Digital Learning: Bloom's Taxonomy in the 21st Century*. Digital Education Press.

Thelma, C. C., Sain, Z. H., Shogbesan, Y. O. S., Edwin, V., Phiri, E. V., Akpan, V., & Akpan, W. M. (2024). Digital literacy in education: Preparing students for the future workforce. *International Journal of Research*, *11*(8), 327–344.

Thomas, G. (2021). *Research Methodology and Scientific Writing (International Ed.)*. Springer.

Turugare, M., & Rudhumbu, N. (2020). Integrating technology in teaching and learning in universities in Lesotho: Opportunities and challenges. *Education and Information Technologies*, *25*(5), 3593–3612. https://doi.org/10.1007/s10639-019-10093-3.UNESCO. (2017). *Education for the 21st century*. UNESCO.

UNESCO. (n.d). *Education transforms lives*. UNESCO. https://www.unesco.org/en/education.

UNESCO. (2020). *Global Education Monitoring Report: Inclusion and Education, All Means*. UNESCO.

van Laar, E., van Deursen, A. J., van Dijk, J. A., & de Haan, J. (2019). Determinants of 21st-century digital skills: A large-scale survey among working professionals. *Computers in Human Behavior*, *100*, 93–104.

Yazov, B. (2022). The Importance of Digital Literacy in Education, International Students Webinar Series 5 (Presentation). ResearchGate. https://doi.org/10.13140/RG.2.2.33986.35522.

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods*. 6th ed. Sage.