



The Impact Of Tablet Devices On English Teaching In Intermediate-Phase Classrooms

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Abstract

Research shows that mobile computing like iPads and tablets has gained popularity in classrooms. While prior research has explored technology in education broadly, this study specifically focuses on the impact of tablets on English language teaching within the intermediate phase. The study was underpinned by the Technological Pedagogical Content Knowledge model. A qualitative approach was employed in this study for contextual inquiry, enabling a deeper understanding of the impact of tablet integration on English teaching and learning. The sample for this research consisted of five teachers selected through convenience sampling. These participants taught English within the intermediate phase at schools in Mpumalanga province, South Africa. Semi-structured interviews with open-ended questions were used to inquire educators about their teaching methods, challenges, and how tablets have affected student learning. Data were analyzed by developing themes. The findings of the study revealed that tablet integration led to improvements in pedagogical practices, and increased student engagement. However, challenges such as limited technological infrastructure, the need for teacher training, and the potential for tablets to introduce distractions and hinder critical thinking among students were established. We argue that to be effective, tablet integration requires equitable access, curricular knowledge, teaching methodologies, technological skills, and individualized learning for every student.

Keywords: Reading Comprehension, Recount Text, Concept Oriented Reading Instruction (CORI)

I. INTRODUCTION

The rapid evolution of technology has brought about profound changes in teaching methodologies and learning approaches (Hwang & Chang, 2021). In today's educational landscape, there exists a wealth of opportunities for incorporating Information Technology (IT) into the learning environment, aimed at creating an optimal setting for both students and educators (Arya, Christ, Chiu, & Li, 2024). This transformation extends beyond the classroom, evident in the widespread integration of technology across various professional domains (Leesakul et al., 2022). It is essential to underscore that the effectiveness of technology in the classroom is not solely determined by the type of technology employed but rather by how effectively it is harnessed (Amer, 2020; Hwang & Chang, 2021). To leverage technology as a valuable educational tool, educators must possess the knowledge and skills necessary to create an enriching learning environment for students while also enhancing their access to and processing information (EL University, 2021; Fabian, Topping, & Barron, 2018). However, Ditzler, Hong, and Strudler (2016), highlight that knowing what emergent technologies are on the market is not sufficient for educators who are

contemplating adopting certain technologies in the classroom. This study, delves into the specific impact of tablet devices on English learning within intermediate-phase classrooms, shedding light on the practical implications and advantages of this technological integration.

For educators in the intermediate phase, this research study is of great significance as it evaluates the most efficient tools for enhancing students' academic experiences and simplifying educators' roles in educating and supporting learners, particularly within the context of integrating tablets into the English classroom (Aziz & Dewi, 2019). Additionally, this research sheds light on potential challenges that schools may encounter when introducing technological approaches into the classroom to create a technologically integrated environment.

Tablet integration represents an opportunity to explore the potential benefits and challenges that emerge in the context of language education, particularly in intermediate-level classrooms. While numerous studies (Moodley et al., 2020; Sadan, 2016; Velchik, 2020) have investigated technology integration and tablet use in education, there remains a gap in understanding how these devices

specifically influence English language learning and teaching in the intermediate phase. Several studies conducted have explored the use of tablets in educational settings. For instance, Johnson and Smith (2018) examined tablet integration across subjects, highlighting its potential for fostering student engagement and improving learning outcomes. Additionally, Soalablai, Wilson and Baltes (2022) focused on elementary teachers' use of 1:1 tablets in lesson planning and presentation in a Western Pacific island school. However, limited research has concentrated on the intermediate phase in the context of English language learning, where the complexity of language acquisition and curriculum demands play a crucial role. In these prior studies, common findings include increased student motivation, engagement, and improved access to resources. Tablets were also noted to support diverse learning styles and facilitate collaborative learning environments (Liu, Shi, Pan, Li, Pan & Lopez, 2020). However, there is a need for more nuanced insights into the impact of tablet devices on English language learning and teaching within the intermediate phase. Understanding educators' perceptions about the impact of tablets is important as this can

provide information for future development and implementation of tablet technologies in the classroom (Hitch, Macfarlane, & Cockburn, 2016). Thus, a study in this domain would contribute by filling the gap in the literature, providing a focused understanding of how tablet devices influence English language acquisition in intermediate-phase classrooms.

This study aimed to investigate how tablet devices influence English language acquisition and pedagogy within the intermediate phase, with a focus on understanding their effects on student engagement, and teacher practices. This study is significant since it may offer insights into potential benefits, challenges, and strategies for optimised tablet integration, to enhance English language education in an increasingly technology-driven landscape. The literature gap covered is vital for other researchers and policymakers when considering mobile technology integration in teaching and learning. The study sought to address the following questions:

1. *How do educators perceive the impact of tablet device integration on their teaching methodologies within intermediate-phase English classrooms?*

2. *How do educators assess the effectiveness of tablet-based teaching materials and tools in enhancing English language learning?*
3. *What are the best practices for incorporating tablet technology to optimise teaching and learning benefits in English classrooms?*

II. LITERATURE REVIEW

Learning Advantages of Incorporating Tablets in the Classroom

Enhancing Teaching Methods

Tablets have emerged as a powerful tool for educators, enabling the design of interactive and captivating English lessons (Siddiq, Scherer & Tondeur, 2016). This transformation has the potential for a profound impact on the teaching methods employed in intermediate-phase English classrooms. One of the key advantages of tablets is their capacity to accommodate diverse learning styles, a critical aspect of English education (Johnson & Smith, 2018). Educators can harness the multimedia capabilities of tablets to create immersive learning experiences (Larson & Milman, 2017). By seamlessly merging various academic disciplines, technological integration through the use of tablets empowers students to gain a profound insight into the intricate interconnections and influences that shape the English language and literature (Prasojo et. al., 2018). For

instance, they can integrate interactive e-books, audio recordings, and videos into their lessons. These multimedia elements cater for various learning preferences, ensuring that students engage with the English language material through a multi-sensory approach (Cheung et al., 2021). A prime illustration of this is the use of interactive e-books, which empower students to instantaneously access word meanings and pronunciations. This feature significantly enhances comprehension as it provides immediate clarification of unfamiliar terms within the context of the text. As a result, students not only expand their vocabulary but also develop a deeper understanding of the English language content (Su, & Zou, 2020). Tablets play a pivotal role in reshaping English instruction in intermediate-phase classrooms. Through the integration of multimedia content, particularly interactive e-books, tablets foster an environment that enhances English language comprehension and engagement, aligning with the goals of effective education in this context (Taylor et al. 2020).

Increased Student Engagement

The ability of tablets to increase student involvement is one of the main

benefits of utilising them in English classes. Students can actively participate in lessons through the interactive and touchscreen capabilities. According to studies, active participation in the learning process considerably improves understanding and retention (Chauhan, 2017). Videos, interactive eBooks, and educational applications are just a few of the multimedia resources available on tablets that can be used to make courses more interesting and interactive (Larson & Milman, 2017). In this case, instructors can use applications that transform well-known works of literature into engaging interactive experiences, enabling students to investigate the text in innovative ways. This active interaction not only holds students' interest but also fosters a greater comprehension of the English language and literature.

Differentiation and Personalized Learning

Tablets have emerged as a game-changing tool that empowers educators to revolutionise personalised learning experiences (Hwang & Chang, 2021). This transformative aspect of tablet integration holds immense potential for enhancing English language instruction. By harnessing the capabilities of

adaptive learning applications, tablets allow educators to tailor learning experiences to the individual needs of each student (Xie et al, 2019; Zhang, Yang & Carter, 2020). These applications possess the unique ability to provide customised English exercises and assessments that adapt in real-time to match the student's progress and proficiency level (Garcia & Otheguy, 2019). For example, if a student is struggling with a specific English language concept, the application will adjust the difficulty of the exercises accordingly, ensuring that the student receives targeted practice to reinforce their understanding (Johnson & Smith, 2018). This personalised approach is particularly impactful in addressing learning gaps and challenges that may arise in the intermediate-phase English classroom. Educators can identify areas where students are struggling and provide them with focused exercises that cater to their specific needs. This not only helps students overcome obstacles but also fosters a deeper and more comprehensive grasp of English language concepts (Brown, 2016). As a result, the learning experience becomes more individualised and adaptive, allowing each student to progress at their own pace while receiving the necessary support and guidance. The

integration of tablets in intermediate-phase English classrooms has paved the way for a personalised learning revolution (Means, Penuel. & Gallagher, 2017). The utilization of adaptive learning applications empowers educators to tailor English exercises and assessments, enabling students to address learning gaps and challenges effectively (Hao, Wu, & Chiu, 2018). This personalized approach enhances the overall English language learning experience, leading to a deeper understanding and proficiency among intermediate-phase students.

Collaboration and Communication

Tablet devices have become powerful facilitators of collaboration and communication among students. This transformative impact is substantiated by recent research as tablets provide students with accessible tools for collaboration on group projects and peer feedback (Hwang et al., 2019; Gomez et al., 2020; Johnson & Smith, 2018). Collaborative apps and platforms integrated into tablets offer students the opportunity to engage in cooperative work (Chauhan, 2017; Zaripova, 2018 et al.). This not only enhances their language proficiency but also nurtures teamwork and communication skills, which are invaluable in the modern

world (Aldossary, Curwood & Niland, 2021; Su & Zou, 2020). Moreover, the digital environment created by tablets encourages students to actively discuss reading materials and provide constructive feedback to their peers (Su, & Zou, 2020). In English classrooms, where reading and comprehension are essential skills, this collaborative interaction plays a pivotal role in deepening students' understanding of the subject matter. Additionally, tablets empower educators to extend communication beyond the confines of the classroom. They can communicate with students outside of class hours, providing additional language support and resources (Hao, Wu, & Chiu, 2018). This continuous engagement not only fosters a constructive teacher-student relationship but also ensures that students have access to the guidance and materials necessary for improving their English language skills.

Cultivating 21st Century Skills

The introduction of tablets into English classes for intermediate-level students has shown to be an effective instrument for improving and encouraging students' 21st-century skills. The transformative effect of tablet inclusion on skill development is supported by recent research findings

which conclude that tablet devices encourage critical thinking and problem-solving, essential skills in the modern world (Lawson, O'Dwyer, & Avci, 2019; Johnson & Smith, 2018). Through interactive learning experiences, students analyse multimedia content, assess different perspectives, and make informed decisions, honing their ability to think critically and solve complex problems. Tablets also facilitate communication and collaboration, two fundamental pillars of 21st-century skills (Freya Abenti, 2020; Huang, Chen & Ho, 2018). Collaborative applications and digital discussion forums enable students to work collectively on English assignments, participate in discussions, and provide constructive feedback (Christ et al., 2020). These experiences not only enhance their communication and teamwork abilities but also prepare them for a collaborative workforce. Through digital storytelling, multimedia presentations, and video creation, students are encouraged to explore creative expression and present their ideas in imaginative ways, fostering a spirit of innovation. Additionally, tablet integration offers adaptive learning applications that cater to individual learning styles, promoting adaptability and self-directed learning (Blundell, Lee

& Nykvist, 2020). Students become adept at adjusting their learning approaches based on their needs, fostering independence and adaptability, crucial attributes for success in the 21st century.

Potential challenges with the integration of Tablets in Classrooms

Limited Technological Infrastructure

The implementation of tablets within South African schools faces significant challenges due to the country's inadequate technological infrastructure (Mlambo, Rambe, & Schlebusch, 2020). Research and reports highlight the profound effects of this infrastructure gap on educational initiatives (Karunaratne, Peiris, & Hansson, 2018; Mokgoare, & Nleya, 2014). South Africa struggles with a digital divide characterised by a lack of internet connectivity in a substantial number of schools (iWeb, 2022). This deficiency in internet access severely hampers the effective use of tablets as educational tools, as online resources and collaborative learning platforms become inaccessible. This complex problem emphasises how urgent it is to discover solutions to enhance educational strategies and procedures to guarantee that all students have access to high-quality education (Liu et al., 2020).

Instructional Design and Pedagogical Changes

Tablet integration, while promising, requires a significant shift in instructional design and pedagogical strategies (Abbott, 2016; Kim & Kim, 2017; Kim, Choi & Lee, 2019). Educators need to adapt their teaching methods to effectively leverage the technology (Hwang & Wu, 2019). This transition might be challenging, particularly for educators who are accustomed to traditional teaching methodologies. The mere presence of tablets does not guarantee improved pedagogical practices and there's a risk that technology can be used as a substitute for well-planned pedagogy, leading to shallow learning experiences (Ertmer & Ottenbreit-Leftwich, 2013). Moreover, technological glitches and connectivity issues can disrupt the flow of a lesson, impeding the seamless implementation of tablets (Lai & Bower, 2019). These technical challenges demand educators to possess troubleshooting skills and alternative strategies to maintain an effective learning environment.

Reduced Critical Thinking and Learning Outcomes

While tablets offer interactive learning experiences, they can also be a source of distraction, hindering

students' ability to engage in deep critical thinking (Taylor et al., 2020). The allure of social media, games, and other non-educational applications can divert students' attention away from the English lesson at hand, negatively impacting their critical analysis of language and literature (Sadan, 2016). In addition, the overreliance on tablets may result in a superficial understanding of English language concepts. Tablets often provide instant answers and information, reducing the need for students to engage in in-depth research or analytical thinking (Huang et al., 2018). This can hinder the development of critical thinking skills essential for problem-solving and advanced language comprehension. Furthermore, tablets may not always align with effective pedagogical strategies. Educators need to carefully design lessons that encourage critical thinking while integrating tablet technology.

Theoretical Framework

An important development in educational technology is the incorporation of tablets into English classes for intermediate students. The TPACK model, which stands for Technological Pedagogical Content Knowledge, serves as a theoretical framework for this integration.

Technology, pedagogy, and content knowledge (TPACK) are emphasised, providing instructors with an organised method for utilising tablets for English language instruction. The TPACK model, proposed by Mishra and Koehler (2006), is rooted in the idea that effective teaching requires the integration of technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK) into a seamless whole. The intersection of these components, represented in Figure 1, forms the heart of TPACK, emphasising the importance of balancing technology, pedagogy, and content knowledge.

Understanding tablets' characteristics, their operation, and the capacity to use numerous applications and programs tailored to teaching the English language are all facets of technological knowledge (Hao et al., 2018; Larson & Milman, 2017). For students to use tablets with confidence for English language assignments, educators should also help them develop their digital literacy abilities.

The pedagogical approaches and strategies required for successful instruction are included in pedagogical knowledge. It entails utilising tablets to create interactive and interesting learning experiences. Implementing active learning techniques using tablets,

such as group projects and interactive exercises, is a useful way to incorporate pedagogical knowledge (Hanna et al., (2020; Liu, et al., 2020).

III. METHODS

This study employed a qualitative research approach. The approach aligns with the Interpretivism paradigm, as it recognises the importance of context and social interaction in understanding how technology impacts teaching and learning (Blundell, Lee, & Nykvist, 2020); Creswell & Creswell, 2017); Ertmer & Ottenbreit-Leftwich, 2013). Furthermore, educators could voice their perspectives and share valuable insights, which might not be fully captured through quantitative methods alone. An exploratory case study design was utilized since it allows one to comprehend a certain event or investigate uncharted territory (Baxter et al., 2021; Creswell et al., 2018). Exploratory case studies are more flexible and concentrate on producing new information and understanding as opposed to confirmatory case studies, which evaluate pre-existing ideas or assumptions (Merriam & Tisdell, 2015).

Research Site and Sampling

The sample for this research consisted of five teachers selected through purposeful sampling. The

sample in this qualitative research tended to be small to support the depth of case-oriented analysis that is fundamental to this mode of inquiry (Robinson, 2014; Vasileiou et al., 2018). Similarly, Creswell and Poth (2017) emphasise the value of purposeful collection of information in qualitative research and claim that it enables the researcher to specifically choose participants who have the knowledge, experiences, or perspectives needed to answer the study questions. Vasileiou et al., (2018) stress that qualitative samples are purposive, that is, selected by their capacity to provide richly-textured information, relevant to the phenomenon under investigation. These participants taught English within the intermediate phase at schools in the Nkangala region in Mpumalanga province in South Africa. The educators were believed to have relevant experience and knowledge in integrating tablets in their lessons with the use of information and communications technology as necessary for the outcome of the study.

Data Collection Methods and Instruments

This method involved conducting participant interviews while employing a flexible interview guide that specifies

essential topics and queries while allowing for free exploration and follow-up questions depending on participants' responses. For data collection, this approach had various advantages, by allowing participants to go into greater detail about their ideas, experiences, and viewpoints, semi-structured interviews gave the researcher the chance to compile in-depth data (Seidman, 2013; Outlier Research & Evaluation, 2017). Semi-structured interviews were well-suited for capturing the richness and depth of participant responses, allowing for a comprehensive exploration of research questions (Braun & Clarke, 2016). The researchers were able to delve into specific aspects of the impact and challenges of implementing tablet devices in the classroom. Researchers also asked follow-up questions and encouraged participants to provide rich, contextually relevant information based on the participant's level of experience and knowledge of tablet use in English classrooms within the intermediate phase.

Data Analysis

Interview analysis involved paying close attention to the transcribed data, identifying important themes, and then coding, categorizing, and interpreting those topics. In this section. Thematic

analysis is a method for analysing data gathered from semi-structured interviews, as it provides an approach to identify and examine patterns and themes within the qualitative data (Braun & Clarke, 2016; Bryman, 2016; Robison 2014).

Understanding the interview data was the first step in the study of interview transcripts. It was important to carefully read through the interview transcripts of all study participants to fully understand their answers and the specifics of their situations. This method allowed the researchers to be deeply involved with the set of data, which made it easier to find insights and recurring patterns in the early stages of data analysis (Rubin & Rubin, 2012). The next step was coding, which was a strict process of naming and categorising parts of the interview transcripts in a way that made sense once the data had been thoroughly understood (Bryman, 2016). These sections were divided up based on how relevant they were to different parts of the study and with the assistance of coding, the researchers were able to figure out what themes, concepts, or ideas were most important in the interview transcripts.

The researchers then sorted the coded information into useful themes

guided by the research questions, (Braun & Clarke, 2016). These themes were subjected to a critical analysis by the researchers to establish links and differences between and within them. The researchers then analyzed the data after themes had been found which ranged from enhanced student engagement and learning to improved assessment and professional development.

Quality Criteria

This study's trustworthiness was raised by methods like ongoing participation and checking on members (Creswell & Creswell, 2017). Long-term engagement meant spending a great deal of time with participants to get to know them and learn more about their stories. We were involved in member checking, by showing the results to the participants and asking for their input and approval. Allowing other researchers to think about how the results might apply to their situations was made possible by giving detailed descriptions of the study's setting, participants, and data collection methods. Over time, reading and thinking about the journal entries in the records helped the researchers to find trends and make smart choices about how to deal with biases during the

research process (Morrow, 2005). This made the study more credible and unbiased.

Ethical Considerations

Engaging directly with people, gaining their personal experiences, and tackling delicate participants are frequent aspects of qualitative research (Merriam & Tisdell, 2015). The researchers began to conduct research by first obtaining ethical clearance from their institution’s Ethics Committee, to seek permission to conduct research from the Mpumalanga Department of Education, school principals, and educators. The researchers provided the participants with clear and comprehensive information about the study's purpose, procedures, potential risks, and benefits, for them to make an informed decision about their participation (Creswell & Poth, 2017). Participants were assured of confidentiality during the consent process, where they were briefed on the importance of keeping information confidential and secure. The researchers did not record any personal information, allowing their identities to be protected during data analysis and reporting by allocating a number to each participant. By adhering to these ethical considerations, the researchers

conducted a qualitative study that not only yielded valuable insights into tablet use in the English classroom but also upheld the well-being and rights of the participating educators..

IV. FINDINGS

Five experienced intermediate English language educators were interviewed on their experiences and knowledge of integrating tablets, into their lessons. As shown in Table 1, the participants consisted of four female educators and one male educator. The participants were also of different age groups ranging from 21 to 60 years of age.

Findings

Table 1: Biographic data of participants

Participants	Age Range of Participants					Gender	Teaching Experience	Experience in technology integration
	21-30	31-40	41-50	51-60	60+			
1				X		F	20+	Tablets
2		X				F	4	Tablets/Computers
3			X			F	7	N/A
4			X			M	12	Tablets
5				X		F	20	Tablets

Educators' Perceptions of the Use of Tablets

How tablet device integration influenced teaching methods

Examining the viewpoints of educators who integrated tablets into their teaching strategies offers valuable insights into the potential benefits of this technological intervention. Interviews with five experienced English educators revealed that the integration of tablet devices had a positive impact on their instructional methods, leading to enhanced student engagement and personalized learning. The literature supports these findings, as several studies have shown that the use of tablets in education can transform teaching methods, making them more interactive and effective, ultimately fostering higher levels of student engagement and improved academic performance (Johnson & Smith, 2018; Liu et al., 2020). These outcomes highlight the valuable role that tablet integration can play in optimizing teaching practices and promoting active student participation in the learning process. The study's participants have articulated the advantageous impact of tablet integration on both students and educators. Notably, participant 4 emphasised the transformative effect of this integration on instructional methods, stating:

It has influenced every aspect of my work and how I present my lessons.

These educators have also conveyed that the inclusion of tablets in the classroom has yielded several positive outcomes, including heightened student engagement, the facilitation of more dynamic and captivating lessons, and the cultivation of pervasive enthusiasm among the students. Participant 2 affirmed:

Students are very engaged in the lessons and can't wait to use the tablets for assignments and class activities.

This enthusiasm is attributed to the multimedia and interactive functionalities of tablets, which enhance the vibrancy and prominence of the learning environment.

Adjustments made to teaching approaches

Participants described specific changes and adjustments they made in their teaching approaches as a result of tablet integration. These adjustments include shortening assignments to make them more practical and conducive to digital completion, assigning tasks that utilise the tablet's functionalities, and allowing students to share devices during class time, especially when the number of tablets is limited. Participant 1 stated:

I had to adjust how assignments and tasks were structured, to make it shorter and more practical because students took a longer time to complete their assignments on a

tablet than on paper.

Participant 2 similarly mentioned:

The only adjustments or changes I have made in terms of my assessments are shortening the amount of work required to finish them because as students are still learning to use tablets, they take extremely long to finish assignments on time.

Additionally, educators formed integrated group tasks that involved sharing devices, fostering collaboration and teamwork among students. They also created interactive activities. Participant 5 stated:

I have, personally, had to adjust to using tablets in the classroom. I was used to “old-school” methods of teaching and had to learn how to operate tablets and give creative and interesting English lessons for students to want to learn.

These adaptive changes reflect an evolving pedagogical approach to leverage the potential of tablets effectively, an idea which is supported by Xie et al., (2019).

Student Feedback on Tablet Integration

The educators reported that their students demonstrated excitement and keen interest in the use of technological devices like tablets in the classroom. Participant 4 stated:

I have received a lot of positive feedback. My students enjoy working, playing and doing research on certain topics on the tablets. The students

find this an easy way to access information for tasks and assessments.

According to educators, students also appreciated the integration of tablets and expressed their desire to use technological devices more frequently in the learning process. Participants 1 and 3 confirmed:

I have received feedback from students who have some sort of technological device at home like a tablet, Chromebook or laptop and they enjoy doing research, and also looking up educational videos about what they learnt during class.

This feedback underscores the positive impact of tablet integration on students' learning experiences and aligns with the educators' conclusions that tablets have not only boosted engagement and interest but have also led to noticeable improvements in students' vocabulary, spelling, and writing abilities. Taken together, these research findings emphasize the transformative potential of integrating tablet devices, signifying a paradigm shift in teaching practices (Amer, 2020). This shift has the potential to revolutionise the educational landscape by fostering more engaging, enjoyable, and academically enriching learning experiences for students in intermediate-phase English classrooms.

Effectiveness of Tablet-integration in the Classroom

Educators reported that the incorporation of tablets in their classrooms

had a notable impact on student engagement, fostering more captivating teaching methods and heightening students' overall enthusiasm. Participant 2 articulated this:

My students are very positive and excited when working with the tablets in class. I think for the students it feels like they are connected with the “outside” world and it makes the students have a positive attitude towards their overall experience.

The influence of tablet usage on acquiring the English language has been evaluated by educators using a range of techniques, leading to numerous assessments of the tablets' efficiency. A range of instructional methods were employed, encompassing tablet-based quizzes, English writing assignments to be executed on tablets, conventional paper-based examinations and assessments, as well as observational methods. Participant 4 elaborated on this:

I have assessed their progression levels through assessments and tests while using the tablets, and also by observing and monitoring the eagerness of the kids when using tablets for different activities.

With this multifaceted method, educators may measure students' understanding of tablet technology while also closely monitoring and evaluating their development.

Beneficial tablet-integration practices

The educators' experiences and observations imply that the use of tablets has helped students' writing, spelling, and vocabulary to noticeably improve by stating:

The tablets have increased student's communication skills and also their ability to collaborate on different tasks in groups. I have also noticed an improvement in how students construct sentences when writing and also speaking.

Students can study language and literacy abilities at their own pace due to the tailored learning experiences made possible by the interactive nature of tablet applications and software (Velchik, 2020). This, in turn, motivates students to practice and enhance their language skills. Participant 1 emphasised the positive impact, stating:

My students' writing and reading skills have improved since using tablets in the class. I think it's because the students are more interested in using technology than what they are using traditional textbooks.

As a result, these educators have seen observable improvements in the reading, language, and general proficiency of their students.

Limitations and Challenges associated with tablet integration

Educators recognised various challenges and constraints related to the use of tablets in the classroom. Notably, they

highlighted the issue of unequal access to technological devices beyond the school setting, leading to disparities in learning opportunities among students. Participants emphasised this concern, stating:

Not every student or every school can afford to use tablets at school or home. It's a slow process to introduce as a learning tool in the classroom considering every student's unique circumstances and there isn't much that teachers can do within this situation.

Additionally, Participant 4 noted a specific financial challenge at their school, explaining:

Yes, the specific challenge that I am currently experiencing at my school is that they don't have the finances to give a tablet to each student, which makes incorporating tablets into the lessons and curriculum difficult at times.

When being interviewed, educators also expressed concerns about their limited expertise in leveraging tablets effectively for teaching, highlighting the need for continuous professional development within the realm of technological integration. Participant 3 indicated:

Because I have limited knowledge of using tablets, it has made it challenging to incorporate complex activities that use specific applications. The students have been wonderful in helping me figure out specific applications, but I am still trying to find a balance between traditional and technological modes

of teaching.

To address these challenges, educators have strived to create an inclusive environment by providing alternative resources in place of technological devices when necessary. The educators have also taken proactive steps to enhance their own digital literacy and instructional skills through training and peer collaboration activities.

Practices to Optimize Learning in the English Classroom

The research findings reveal a multifaceted perspective on the incorporation of tablet devices in the classroom. One common challenge expressed by educators pertains to the delicate task of striking a balance between incorporating tablets and traditional teaching methods to ensure a comprehensive English language learning experience. Notably, the availability of tablets for every student emerges as a significant hurdle, with some students not having their own devices inside and outside of the classrooms, resulting in the need to share or make use of collaborative activities. Also, there exists a varying option for more traditional teaching approaches among certain educators. However, a preference exists among others that achieving this balance can be facilitated by diversifying classroom activities. Another participant mentioned that educators find success by integrating tablets for research, skill mastery,

and interactive tasks, offering a nuanced approach that caters to students with varied learning styles and access to technology, by stating:

I have found that to balance tablets and traditional teaching methods in English language education, you need to embrace the use of technology while still focusing on the main aspects of teaching English.

Instead, many educators have acquired the skills to integrate tablets into their teaching methods through hands-on experiences and their pre-existing familiarity with technology. Participants shared their experiences, with one participant stating:

I have received training while in High School and also by exploring different technological devices.

This highlights a need for more targeted training and support to enhance educators' technological proficiency and their ability to effectively integrate tablets for educational purposes.

Two of the participants emphasised the importance of comprehensive student training programmes to ensure that tablets serve as valuable tools for enhancing educational experiences. Participant 4 expressed:

Technology is our future and I think that if every student had a tablet in class then it would be extremely beneficial to all. The best way to use

technology is by educating students on how to use technological devices, while also allowing them to explore the tablets to gain knowledge and experience of how to access information and work with a tablet.

Participant 2, agreed with similar views of Participant 4, also stated:

The best practice to effectively incorporate tablets to maximize learning is to educate every student on how to use a tablet for different assessments. In South Africa, it can sometimes be challenging because of limited resource allocation but practising on technological devices is the best way to learn.

V. DISCUSSION

The results of interviews with five English teachers who used tablets in their intermediate-level classrooms support the TPACK model in education. Amer, (2020) and Khalif, (2018) stress that in an era of highly valued technological knowledge, it is important that teachers develop an integrated knowledge of teaching, content and technology. The educators have changed the way they teach significantly, despite the fact they need official training and were experiencing trouble securing tablets enough.

The viewpoints of the educators highlight how crucial it is to provide equitable access to technological devices and efficient instruction on how to use tablets. The educators emphasised the importance of teaching digital literacy to students, which includes not only fundamental functions but

also efficient research and teamwork techniques. Erni, Siti, Hendra and Noritah, (2022) concur that educators need to implement pedagogical strategies that promote digital literacy. In contrast, other participants highlighted the significance of providing equal access to technical resources. The participants supported policies that guarantee that every student has access to computers, Chromebooks, or tablets outside of school hours. The participants revealed a need for regular access to tablets for homework, research, and skill development. Consequently, this would maximise the benefits of tablet technology since students can learn anywhere anytime. Subsequently, this could close the technological gap by making good use of technology and creating an inclusive learning space so that all students can have more interactive and dynamic English classroom experiences. In every aspect, these observations give a range of different views on the best ways to use tablet technology. They also show how important it is to have a complete plan that includes training and technology access.

These educators successfully combine technology with pedagogy and content by shortening assignments, giving students practical tablet-based tasks, letting them share devices, and planning group activities. Using tablets for tests demonstrates how technology can improve both assessment and teaching, but educators are aware of some

problems, including the fact that some students may not have easy access to technology outside of school and some students might be unaware of how to use tablets successfully. These issues prove how an understanding of how to teach and knowledge of technology can affect each other.

The educators' observations of increased student engagement, and improved vocabulary, spelling, reading, and writing abilities underscore the synergistic relationship between technological knowledge and pedagogical knowledge. Students' receptiveness to tablets as a learning tool reflects the successful integration of technology to enhance the pedagogical aspects of English language instruction.

The use of one research method and a small sample might have an impact on the generalisability of the study. Further research could be done to examine if the improvements in language understanding and student engagement that are seen in the short term are sustained over time and lead to better academic results.

VI. CONCLUSION

The findings of the research show how enthusiastically educators adopted using tablet devices in the classroom to improve student's English language proficiency. Additionally, the data indicates that the introduction of tablets resulted in a significant change in the instructional

strategies used in English teaching and learning at the intermediate phase. Furthermore, benefits such as; accommodating diverse learning styles, enhancing student engagement, and promoting collaboration were realised by educators through the integration of tablets. The TPACK model highlights how important it is to have a balance of technological knowledge, pedagogical knowledge, and subject knowledge to use tablets effectively in English classes. The study acknowledges issues including resource scarcity and the requirement for professional growth. To optimise learning in English classrooms, it's essential to strike a balance between traditional and tablet-based teaching methods, ensure equitable access to devices, and provide efficient instruction on tablet usage, including promoting digital literacy. Both educators and students should be digital literate and if they are not, they should be given prior training. Ongoing research initiatives to expand our understanding of tablet integration further and offer advice to educators and administrators are necessary to ensure that tablet use in English education is both effective and inclusive.

This study has far-reaching pedagogical and technological implications for policymakers, educators and academicians on technology integration. Educators found that the use of tablet-based tools enhanced language development,

student engagement, and the overall classroom atmosphere. The study found that tablets improved learning for students and increased teachers' ability to assess each student's progress and cater to their individual needs. Therefore, this study highlights the exciting prospects of tablet integration in English language learning for intermediate-phase students and provides valuable literature for other researchers on technology integration.

REFERENCES

- Abbott, R. (2016). Embracing digital technologies in classroom practice: The impact of teacher identity. *Australian Educational Computing*, 31(2), 1–26.
<https://journal.acce.edu.au/index.php/AEC/article/view/93>
- Aldossary, N., Curwood, J. S., & Niland, A. (2021). Fostering multilingual children's language development through iPad apps. *The Reading Teacher*, 75(3), 329–338.
<https://doi.org/10.1002/trtr.2057>
- Amer, M.E.M. (2020). Assessment for Secondary School Students' Experiences in Using Tablet in Classroom. *Journal of Education and Development* 4(2), 90-101.
[doi:10.20849/jed.v4i2.782](https://doi.org/10.20849/jed.v4i2.782)
- Aziz, I. N., & Dewi, Y. A. S. (2019). The Concept of Language Environment: a Descriptive Study at Madrasah Aliyah Keagamaan Gresik. *EDUKASI: Jurnal Pendidikan Islam*, 7(2), 1–23.
- Blundell, C., Lee, K., & Nykvist, S. (2020). Moving beyond enhancing pedagogies with digital technologies: Frames of reference, habits of mind and transformative learning. *Journal of Research on Technology in Education*, 52(2), 178–196.

- <https://doi.org/10.1080/15391523.2020.1726235>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Braun, V., & Clarke, V. (2016). (Mis) conceptualising themes, thematic analysis, and other problems with Fugard and Potts' (2015) sample-size tool for thematic analysis. *International Journal of Social Research Methodology*, 19(6), 739-43
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Chauhan, S. (2017). A meta-analysis of the impact of technology on learning effectiveness of elementary students. *Computers & Education*, 105, 14-30. doi:10.1016/j.comped.2016005
- Cheung, S.K.S., Kwok, L.F., Phusavat, K., & Yang, H. (2021). Shaping the future learning environments with smart elements: challenges and opportunities. *International Journal of Educational Technology Higher Education*, 18(16). <https://doi.org/10.1186/s41239-021-00254-1>
- Christ, T., Buxa, J., Arya, P., & Chiu, M.M. (2020). Patterns of digital text and tool integration in preservice teachers' literacy instruction. *Journal of Literacy and Technology*, 21(1), 159-203.
- Creswell, J. W., & Poth, C. N. (2017). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Brown, S. (2016). Young learners' transacting with interactive digital texts using e-readers. *Journal of Research in Childhood Education*, 30(1), 42-56. Doi:10.1080/02568543.2015.1105887
- Creswell, J.W., & Creswell, J.D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed.; SAGE Publications, Inc.: Thousand Oaks, CA, USA.
- EL Univeristy. (2021). *Contribution of Technology to Education in South Africa*. [Online] Available at: <https://www.eluniversity.co.za/blog/contributions-of-technology-to-education-in-south-africa/> [Accessed 26 March 2023].
- Erni, A., Siti, Z., Hendra, S., & Noritah, O. (2022). Enhancing creativity in genetics using three teaching strategies-based TPACK model. *A Journal of Mathematics, Science and Technology Education*, 18(12), 2-14.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2013). Removing obstacles to the pedagogical changes required by Jonassen's vision of authentic technology-enabled learning. *Computers & Education*, 59(2), 725-735.
- Fabian, K., Topping, K. J., & Barron, I. G. (2018). Using mobile technologies for mathematics: Effects on student attitudes and achievement. *Educational Technology Research and Development*, 66(5), 1119-1139. <http://dx.doi.org/10.1007/s11423-018-9580-3>
- Ferguson, J.M., & Oigara, J.N. (2017). iPads in the classroom: What do teachers think? *International Journal of Information and Communication Technology Education*, 13, 74-86.
- Freya Abenti, H., (2020). How do I teach you? An examination of multiple intelligences and the impact on communication in the classroom. *Language and Communications Journal*, 73, 29-33.
- García, O., & Otheguy, R. (2019). Plurilingualism and translanguaging: Commonalities and divergences. *International Journal of Bilingual Education and Bilingualism*, 23(1), 17-35. //doi.org/10.1080/13670050.2019.1598932
- Hanna, A., Punaji, S., Bambang, W., & Ery, D. (2020). Does Technological Pedagogical Content Knowledge Impact the Use of ICT In Pedagogy? *International Journal of Emerging Technologies in Learning (IJET)*, 15(3).
- Hao, Y., Wu, Y. T., & Chiu, D. K. (2018). Digital literacy and mobile learning:

- An integrated perspective. *Education and Information Technologies*, 23(5), 2141-2158.
- Hitch, D., Macfarlane, S., & Cockburn, A. (2016). *Assistive Technology in Education: A Critical Analysis*. Bloomsbury Publishing.
- Huang, T. C., Chen, Y. L., & Ho, S. H. (2018). An empirical investigation of mobile learning readiness in higher education: The case of a developing country. *Computers & Education*, 120, 97-113.
- Hwang, C.J., & Chang, S. C. (2021). Facilitating knowledge construction in mobile learning contexts: A bi-directional peer assessment approach. *British Journal of Educational Technology*, 52(1), 337-357. <https://doi.org/10.1111/bjet.13001>
- IWeb. (2022). *Disaster in the making as South African schools remain unconnected*. [Online] Available at: <https://www.itweb.co.za/content/KjlyrvwBzBXqk6am> [Accessed 2023 March 2023].
- Johnson, M. B., & Smith, J. A. (2018). The Role of Tablets in Education: Benefits, Challenges, and Recommendations. *Journal of Educational Technology*, 44(3), 215-238.
- Karunaratne, T., Peiris, C., & Hansson, H. (2018). Implementing small-scale ICT projects in developing countries – how challenging is it? *International Journal of Education and Development using ICT*, 14(1).
- Khalif, Z. (2018). Educators' Perceptions of Factors Affecting Their Adoption and Acceptance of Mobile Technology in K-12 Settings. *Interdisciplinary Journal of Practice, Theory, and Applied Research*, 35(1), 49-67.
- Kim, H.J. & Kim, H. (2017). Investigating teachers' pedagogical experiences with tablet integration in Korean rural schools. *Asia-Pac. Educ. Res.*, 26, 107-116.
- Kim, H.J., Choi, J., & Lee, S. (2019). Teacher Experience of Integrating Tablets in One-to-One Environments: Implications for Orchestrating Learning. *Education Sciences*, 9(87), 1-13. doi:10.3390/educsci9020087
- Lai, J.W.M., & Bower, M. (2019). Evaluation of technology use in education: Findings from a critical analysis of systematic literature reviews. *Journal of Computer Assisted Learning*, 36(1), 241-259. Doi: 10.1111/jcal.12412
- Larson, L. B., & Milman, N. B. (2017). Tablets for teaching and learning: A systematic review and meta-analysis. *TechTrends*, 61(5), 535-543.
- Lawson, J., O'Dwyer, L. M., & Avci, Z. Y. (2019). Designing effective professional development for technology integration in schools. *Journal of Computer Assisted Learning*, 36(2), 160-177.
- Leesakul, N., Oostveen, A.M., Eimontaite, I., Wilson, M.L., & Hyde, R. (2022) Workplace 4.0: exploring the implications of technology adoption in digital manufacturing on a sustainable workforce, *Sustainability*, 14 (6) Article No. 3311
- Liu, M., Shi, Y., Pan, Z., Li, C., Pan, X., & Lopez, F. (2020). Examining middle school teachers' implementation of a technology-enriched problem-based learning program: Motivational factors, challenges, and strategies. *Journal of Research on Technology in Education*, 53(3), 279-295.
- Means, B., Penuel, W. R., & Gallagher, D. J. (2017). *Designing for equity: Leveraging technology to support young children's learning*. Harvard Education Press.
- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054.
- Mlambo, S., Rambe, P., & Schlebusch, L., (2020). Effects of Gauteng province's

- educators' ICT self-efficacy on their pedagogical use of ICTS in classrooms. *Department Mathematics, Science and Technology Education, Faculty of Humanities, Central University of Technology, Free State (CUT), South Africa*, 6(4).
- Moodley, K., Callaghan, P., Fraser, W.J., & Graham, M.A. (2020). Factors enhancing mobile technology acceptance: A case study of 15 teachers in a Pretoria secondary school. *South African Journal of Education*, 40(Supplement 2), S2-S16. Art. #1791.
<https://doi.org/10.15700/saje.v40ns2a1791>
- Mokgoare, T., & Nleya, P. (2014). Capabilities of using mobile phone technology in secondary schools: adaptable possibilities for Botswana. *Mosenodi Journal*, 18(1), 1-15.
- Morrow, S.L. (2005). Quality and trustworthiness in qualitative research in counselling psychology. *Journal of Counselling Psychology*, 52(2), 250–60.
- Outlier Research & Evaluation. (2017). *BASICS study ECS teacher interview guide*. University of Chicago. Chicago STEM Education Outlier Research & Evaluation Center.
<http://outlier.uchicago.edu/basics/>
- Prasojo, L.D., Muminin, A., Habibi, A., Marzulina, L., Sirozi, M., & Harto, K. (2018). Learning to teach in a digital age: ICT integration and EFL student teachers' teaching practices. *Teaching English with technology*, 18(3), 18-32.
- Robinson, O.C. (2014). Sampling in interview-based qualitative research: a theoretical and practical guide. *Qualitative Research in Psychology*, 11(1), 25–41.
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data*. Sage.
- Sadan, E. (2016). Use of Tablets for English Language Learning: A Case Study of Form 2 (Grade 6) Students in Israel. *Computers & Education*, 96, 1-14.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers College Press.
- Siddiq, F., Scherer, R., & Tondeur, J. (2016). Teachers' emphasis on developing students' digital information and communication skills (TED-DICS): A new construct in 21st-century education. *Computers & Education*, 92, 1-14.
- Soalablai, S., Wilson, A. M., & Baltes, B. (2022). Elementary teachers' use of 1:1 tablets in lesson planning and presentation on a Western Pacific island. *Journal of Educational Research and Practice*, 12, 94–110.
<https://doi.org/10.5590/JERAP.2022.12.1.08>
- Su, F., & Zou, D. (2020). Technology-enhanced collaborative language learning: theoretical foundations, technologies, and implications. *Computer Assisted Language Learning*. 35(8), 1754–1788.
<https://doi.org/10.1080/09588221.2020.1831545>
- Taylor, D.B., Handler, L.K., Fitzpatrick, E & Whittingham, C.E. (2020). The device in the room: Technology's role in third-grade literacy instruction. *Journal of Research on Technology in Education*, 52(4), 515-533. Doi:10.1080/15391523.2020.174
- Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18(148), 1-18. <https://doi.org/10.1186/s12874-018-0594-7>
- Velchik, A. (2020). Digital Tablets in the Classroom: A Perspective from Students. *Journal of Education and Practice*, 11(15), 11-16
- Xie, H., Chu, H. C., Hwang, G. J., & Wang, C. C. (2019). Trends and development

- in technology-enhanced adaptive/personalized learning: A systematic review of journal publications from 2007 to 2017. *Computers & Education*, 140, 103599.
- Zaripova, R., Salekhova, L., Grigoriev, S., & Grigorieva, K. (2018). An ICT-mediated Constructivist Approach in Increasing Academic Motivation via CLIL. *Journal of Fundamental and Applied Science*, 10(4), 1113-1121.
- Zhang, L., Yang, S., & Carter, R. A. (2020). Personalized learning and ESSA: What we know and where we go. *Journal of Research on Technology in Education*, 52(3), 253-274.