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Using Smartphones in Teaching English to Secondary School Students in South Africa

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Abstract: *This study aimed to explore teachers' experiences of using smartphones in teaching and learning English in Capricorn South Circuit, Limpopo Province. We used a qualitative research approach and adopted a case study design to conduct the study. Purposive sampling strategy was used to select data from six teachers. Data were collected through three methods, namely; interviews, observation and a reflective journal. We adopted Strauss and Corbin's Model to analyse data. Thus, the study generated three findings: (a) reluctance among some teachers to use smartphones in teaching and learning; (b) challenges experienced at schools such as contextual factors (e.g., poor network coverage) and disruptive learners; as well as (c) strategies used by teachers to plan and implement the use of smartphones in teaching and learning to determine its success. These findings have major implications for the use of smartphones in teaching English in schools. Therefore, the study recommends that there be training for teachers regarding the use of smartphones in teaching. Additionally, the study recommends that the school management should be supportive and actively involved in the implementation of using of smartphones for teaching and learning in schools. In conclusion, teachers should ensure that timeous and thorough planning is done to ensure success if the use of smartphones is to succeed. This study is significant because it emphasises the need for a shift in teaching from a teacher-centred approach to a learner-centred approach that incorporates the use of technology in classroom.*

Keywords: Information Communication Technologies, smartphones, teaching, learning, English language.

1. Introduction

Most teachers are fixated on the traditional methods of teaching, which entail chalk and duster; hence, there is a need for a shift from the traditional teaching approach to a more learner-centred approach (Ornstein & Pajak, 2011). The type of learners we have worldwide today, who are constantly enquiring and discovering, differ drastically from those of 20 years ago. Recently, curiosity has been developed on how education can effectively and efficiently be improved by using computers and the internet. It was concluded by Charbonneau-Gowdy (2015) that the contemporary education system requires teachers who can incorporate Information Communication Technology (ICT) in teaching. Charbonneau-Gowdy (2015) further argues that the inclusion of ICT in schools can result in positive social change. Nonetheless, some teachers are apprehensive about utilising ICT. The problem arises when teachers are reluctant to use smartphones in teaching and learning. Fortunately, not all teachers are apprehensive about using smartphones in the classroom for teaching and learning. Bharti (2014) notes that technologically skilled teachers use smartphones as tools for teaching and learning. In their study of the impact of professional development programme on smartphone integration among Turkish teachers, Uslu and Bumen (2012) observed that the use of smartphones in classrooms has increased. Teachers who attended assessed professional development programme were inclined to motivate their students to use information technologies

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more fully (Brinkerhoff, 2006). This assessed professional development programme involved a variety of methods to evaluate long-term development in teachers as well as improving their use of computer skills in the classroom.

Although learners use smartphones in their daily lives, teachers are hesitant to utilise smartphones for learning and teaching in their classrooms (Kalpana, 2014). In addition, Kalpana (2014) observes that many teachers do not use ICT in the teaching and learning process because they are not confident in using devices such as laptops and smartphones. Thus, teachers need to change their attitude towards the use of ICT if they are to keep abreast with the changes in education (Charbonneau-Gowdy, 2015). The present study assumed that in low socio-economic areas, teachers are not adapting ICT, especially smartphones for teaching. However, in South Africa, no study has explored this option as a possibility for improving learning, especially in rural schools where most learners have smartphones. Recent studies indicate that a greatest percentage of South African children obtain internet access through mobile phones (Global Kids Online, 2016). Furthermore, more than 75% of the people in low-income groups, in the age group of 15 years and older, have mobile phones (Czerniewicz & Brown, 2014). Despite the high levels of poverty experienced in Eastern Cape, Limpopo, and Mpumalanga provinces, these provinces are reported to have high percentages of mobile phone usage in South Africa (MyBroadband, 2013). It is possible that with such high ownership of mobile phones, teachers could incorporate them in teaching and learning in rural schools.

Literature review has proven that there are research gaps regarding the knowledge of how technology can be used to enhance learning and teaching in schools. Hence there is a need for teacher training programmes to acquaint teachers with skills of using ICT in teaching and learning. This should also be included in initial teacher education programmes. However, there is still a lot to be done to align teacher training with the needs of all learners. This is because most teachers in African countries are still unable to support learners through technology even after being equipped with knowledge on the use of ICT in the classrooms during their initial training. Most countries seem not to have a strong, clear and focused stand about the use of ICT in the classrooms to enhance education and training. Teacher training curricula should change to include the use of ICT in classrooms and should be aligned to pedagogy. In many cases, teachers at teacher training institutions are not compelled to use ICT in their teaching before becoming qualified teachers. This leads to teachers with varied skills and competencies (Modipane &Themane 2014). On-going curriculum improvement is important for improving learners' academic achievement and their holistic development. It also serves to develop the competencies of teachers. Modipane and Themane (2014) further argue that the need to improve both the academic achievement of learners and the competencies of teachers is evident in interventions that are meant to bring curriculum change. Teachers that are unlikely to use ICT in the classroom will not handle the needs of the techno-savvy learners effectively. Teachers should incorporate different teaching styles to include smartphones as a learning and teaching tool. Further, there should be a clear connection between the use of smartphones in the classroom and the educational objective teachers aim to achieve in using smartphones.

This study will be significant in three ways: Firstly, it will encourage teachers to use ICT effectively to add variety to their lessons and prevent learners from being less interested in learning. Secondly, it will help policymakers who are hesitant on enforcing useful aspects of the Fourth Industrial Revolution to know the benefits of incorporating technology in learning and teaching. Rapid technological advancement means that both learners and teachers need to be technologically savvy. Lastly, this research will assist schools to develop ICT policies. Schools would be encouraged to plan training programmes so that teachers can be knowledgeable and adaptable to the latest technology. Constant training for teachers will broaden their knowledge and contribute to a sense of professionalism. However, the study aimed to explore teachers' experiences of using smartphones in the teaching and learning of English in Capricorn South Circuit, Limpopo Province.

1.1 The research question

The specific question formulated to address the research problem is:

- What are teachers' experiences in using smartphones to teach English to Second Language speakers in selected secondary schools in Limpopo Province, South Africa?

1.2 Research objectives

To answer the above research question, the following objectives guide this study:

- The study explores the experiences of teachers in integrating smartphones into their teaching.
- The study investigates how teachers manage the use of smartphones in their teachings.

2. Literature

This literature review situates this study within its proper context. This section addresses aspects: the Fourth Industrial Revolution; the integration of educational technology into teaching with specific reference to smartphones; and the use of mobile phones in schools.

2.1 The fourth industrial revolution

The traditional approaches to learning involve the teacher merely disseminating knowledge, whereas the technologically advanced approaches allow learners to take responsibility for their learning. Technology should be integrated into the curriculum to ensure that meaningful learning takes place. Agyei and Voogt (2012) argue that the concept of educational technology facilitates an active learning environment, and that through adequate planning the integration of smartphones in learning can be a smooth process. In the active learning environment, learners are actively involved in preparing and researching for their lessons using smartphones.

Additionally, the Fourth Industrial Revolution has introduced the world to a new paradigm in content, and as part of this, new social media content is used by adapting mobile environmental devices. The Fourth Industrial Revolution has brought a dynamic shift from the traditional methods of teaching to the use of technology in teaching (Butler-Adam, 2018).

Teachers can post work on WhatsApp and allow learners to use the internet function to download information pertaining to their respective learning areas. This is quick and convenient and can be done in the classroom situation. Charbonneau-Gowdy (2015) avers that there has been growing use of technology in teaching and learning which indicates that there are changes in teaching practices. These changes involve the teacher making use of technology as a teaching tool. In other words, learners are no longer passive recipients of knowledge but active participants in the learning process (Agyei & Voogt, 2012).

Further than that, the use of smartphones has gone beyond expectations, with a greater percentage of South Africans owning mobile phones. South Africa is also the continent's leading country in app downloads. This is an indication of higher smartphone adoption, with 34% of phone users making downloads from app stores (World Economic Forum, 2017). In other words, the educational potential of mobile phone technology is very high. Recently, the US-based television channel Cable News Network (CNN) declared that mobile technology had 'immense' potential to transform Africa's "dysfunctional educational system as mobile phones are cheaper to own and easier to run than PCs – gain ground as tools for delivering teaching content" (Godwin-Jones, 2017, p.16). Significantly, mobile phones are still disliked and outlawed in South African schools despite the clear benefits of using mobile phones in teaching and learning. Mavhunga et al. (2016) observed that in most South African schools (both public and private), learners are required to switch off their mobile phones when entering school premises. If a learner is caught using a mobile phone, the phone is immediately confiscated. In some schools, the confiscation can last for the whole year. The reasons for confiscating

the phones are that the phones can be disruptive in classrooms and can be misused by learners to access unacceptable content from the internet. Collectively, all major stakeholders in the education sector believe that the use of mobile phones has negative consequences since learners tend to write in abbreviated texts as when typing messages. Chaka and Govender (2017); Tagliamonte and Denis (2008); Vosloo (2009); Wood et al. (2009) concur that the source of mistrust of mobile phone technology in the classroom stems from its potential contribution to the deterioration of grammar, poor language use, bad spelling, and lack of good writing by English language learners. However, with correct training and application of digital tools in the classroom, the use of smartphones can have a positive outcome. This is confirmed by the Bangladesh teacher training pilot project which revealed that mobile learning increases classroom interaction because it is learner-centred, and it increases access to information (Valk et al., 2010).

In the past 10 years, technology-assisted learning and teaching have drawn the attention of most researchers, but the use of smartphones has not received adequate attention even to date. Thus, this research explored the use of smartphones to enhance the educational process. Due to the lack of attention given to smartphones, the World Bank's Information Development Programme secured funding for a global survey of the use of mobile phones in education in developing countries. The United Nations Educational, Scientific and Cultural Organisation - UNESCO (2013) reports that there are approximately 5.9 billion mobile phone subscriptions on a planet of 7 billion people. UNESCO (2013) shows that the use of smartphones–which is by far the most ubiquitous interactive Information and Communications Technology (ICT) on earth, can be used to deliver and improve education. Furthermore, UNESCO (2013) found that with their mobile learning campaign the cost of a paper and ink book is far more costly than the data connectivity fees that are required to read an open-access book. Mobile reading can be 300 to 500 times cheaper as it can cost as little as 2 or 3 cents. Mobile books are easier to distribute and update. Therefore, UNESCO seeks to expand mobile reading and this will greatly assist the education sector. Trucano et al. (2012) concluded that ICTs carry a tremendous potential to assist learning among people everywhere. The present study focused on the use of smartphones in class for educational purposes. The study insists that smartphones should primarily be used during school hours for learning and teaching purposes.

2.2 Integrating ICT in English classrooms

Learners use technology daily; their smartphones are a part of their daily lives. This use of technology should be molded by the teacher to support the curriculum for learners to expand on the true use of technology in learning language skills (Costley, 2014).

Integrating technology into the classroom begins with the teacher preparing lessons that use technology in meaningful and relevant ways, using technology to support the curriculum rather than dominating it. Technology should assist the teacher to create a collaborative learning environment and to transition from the role of facilitator to that of a learner.

A major goal would be to allow students to use technology, experiment with real-world problems, and manipulate them to see what different scenarios would do to the problem. Thus, students would think about possible outcomes if the variable is changed. So, when teachers integrate technology into their classroom lessons, they can teach the basic concepts and then have the students work with the computer or other technology to learn about the concept. As such, everyone can gain from using smartphones if teachers are taught how to successfully integrate them into the classroom. Ranasinghe and Leisher's (2009) belief that smartphones hinder students' learning has been proven wrong because students can be taught to use technology as a useful learning tool. In addition, Raihan and Lock (2012) believe that the use of smartphones is far more effective than a lecture-based classroom. Thus, the use of technology in classroom has changed the way teachers teach English. These approaches make lessons more interesting and to be carried out within the current technological advancements (Patel, 2013).

2.3 Mobile phones in schools

Mobile technology is rapidly evolving not only for affluent schools but also for poor-resourced rural settings where education systems cannot meet societal demands. Mobile technology provides new learning opportunities. Mcnulty (2017) concurs that South Africa has been embracing these devices to expand educational curricula and to increase the efficiency and quality of education. Van Weert (2005) also claims that mobile technology represents an important avenue for reducing the gap between the poor and the rich in contemporary society where access to knowledge and information is increasingly vital. In line with the previous views, Godwin-Jones (2017) argues that mobile learning is expanding the learning environment and that mobile phones are not going away anytime in the foreseeable future. The education potential of mobile phone technology is very high. Although many schools in South Africa have banned the use of smartphones, recent information revealed that in some provinces like Gauteng, high school learners were provided with iPads by the Department of Basic Education. John (2012) reported that iPads have brought about a new attitude to learning at schools in the Gauteng Province. The iPads share similar functions with smartphones, and this includes that: thirty four calls can be made, they contain apps, they have internet access, and many more functions. Thus, the question is why then ban smartphones? The current literature seems inadequate to address this question, hence the present study aims to fill these gaps by advocating for teachers' use of technology to create more interactive lessons. Teachers are thus required to follow a more constructivist (inquiry-based and student-centered) approach (Niederhauser & Stoddart, 2001) to enhance collaborative engagement that encourages students' active participation throughout the learning process (Hattie, 2013).

3. Theoretical Framework

The Constructivist and Social Constructivist theories were used as the theoretical framework of this study. Constructivism emphasises the role of learners as active participants in the education process. It states that learners are actively involved and responsible for their learning. Jansen (2000) posits that in constructivism, learners are active participants in their learning and construct their own knowledge about a subject matter. Thus, educators impart skills that are needed by learners so that learning takes place through the everyday experiences that help learners to acquire knowledge. The constructivism theory offers teachers opportunities to use different teaching methods such as cooperative learning and guided discovery to enhance critical thinking and social skills. Relatively, the use of technology offers flexibility, adaptability and reflective pedagogies across various learning models based on constructivism.

Constructivism triggers the learner's curiosity about the world around them and how things work. Learners do not reinvent the wheel, rather, they attempt to understand how it turns and how it functions. Thus, learning involves a construction of knowledge rather than its acquisition. In other words, knowledge is constructed based on one's personal experiences of the environment, and is tested through social negotiation. This implies that a learner is not a blank slate (tabula rasa), but brings past experiences and cultural factors to the situation. Learners need to find out knowledge for themselves. Hence, constructivists believe that all knowledge must be constructed through the learners' previous knowledge but should not dismiss the active role of the educator or the value of expert knowledge. Constructivism modifies the role of the educator so that educators can help learners to construct knowledge instead of reproducing a series of facts. This theory believes that a constructivist educator provides tools such as problem-solving and inquiry-based learning activities with which learners formulate and test their ideas; draw conclusions and inferences; and pool and convey their knowledge in a collaborative learning environment. Therefore, the role of a constructivist teacher is to ensure that time is a crucial part of constructing new knowledge. The teacher needs to plan learning in a way that would best assist the learner, and an appropriate time,

the teacher should provide additional materials necessary to assist the learner in constructing knowledge.

In a constructivist learning environment, feedback is also an essential component of the process because it provides the learners with the opportunity to filter out and obtain additional information necessary to construct knowledge. This implies that the teacher continually adjusts the steps for the learner to be successful in a given task, thus, supporting learners by bringing all the principles of constructivist learning together. Constructivism transforms the learner from a passive recipient of information to an active participant in the learning process. Always guided by the educator, learners construct their knowledge actively rather than just mechanically ingesting knowledge from the educator or the textbook. Thus, learning in constructivism is as shared responsibility among teachers and learners, and allows for active learner participation with the teacher as a facilitator of the learning process. Desai et al (2008) state that "Technology is also often assumed to be the catalyst of new pedagogical change". This research examined the pedagogical change impacted by technology within three constructivist-based learning theories: activity theory, social constructivism, and situated learning.

This study was guided by the social constructivist theory of Vygotsky (1978). According to Vygotsky (1978), individuals are participants in the creation of their own knowledge (Schreiber &Valle, 2013). In addition, Elliott et al. (2019, p.256) believe that constructivism is an "an approach to learning which assumes that people actively construct or make their own knowledge and that reality is determined by the experiences of the learner". The use of smartphones as a means of facilitating learning allows learners to learn from each other as well as from their shared experiences and knowledge. Learners acquire knowledge through socialisation–which is crucial in developing new information and creating meaning (Kalpana, 2014).

Learners are expected to interact with each other, as well as with the internet material on their smartphones. Making learning a part of social activity which allows learners to interact with each other and to use smartphones could lead to self-discovery–which would make learning meaningful. This interactive use of smartphones in teaching and learning is best explained by the social constructivists who believe that cognitive development is greatly influenced by social interaction (Vygotsky,1978). Therefore, knowledge is developed according to how socially and culturally orientated we are, and it is a human product (Gredler, 1997). Social constructivists believe that reality is constructed through human activity with learning being a social process (Kukla, 2000). In this study, learners are expected to interact with each other and with the material which is on their mobile devices. This interactional nature in the English classroom is best explained in the social learning theory (Vygotsky, 1976). In addition, reading is a socially interactive process which involves learners actively interacting with the texts through electronic devices or print. Thus, with English being a universal language, it is of utmost importance that it be taught in ways that will help learners not just to speak, write and listen, but to communicate with others effectively. Hence innovative methods help in bringing a change and most of the time for the better. Therefore, the study aimed to explore teachers' experience with the use of smartphones in teaching and learning English in Capricorn South District, Limpopo Province.

4. Methodology

This study adopted the qualitative research approach and used a case study design. This qualitative research was influenced by the interpretivist paradigm. This approach was suitable because we wanted an insider perspective of teachers' experiences regarding the use of smartphones for teaching and learning. This allowed us to understand teachers' use or non-use of smart phones in their teaching. We were enabled to explore the experiences of teachers in their native contexts. We found the design suitable, in the terms of Leedy and Ormrod (2013), to understand the experiences of participants from their own viewpoints.

In qualitative research, individuals are generally selected to participate based on their experience of a phenomenon of interest (Lusardi, 1996). The issue of smartphones in teaching and learning could thus be best captured in a qualitative way where knowledge, feelings, and perceptions are expressed freely in a manner that generates more understanding. For example, in our interaction with the teachers, we were given an opportunity to gain an insider perspective that other research designs cannot offer. We were able to ask questions such as: What are your challenges when using smartphones in teaching? How do you feel about using smartphones as a tool for teaching and learning? These and more other questions of this nature helped us to enter the world of teachers and gain a better understanding of their experiences.

Six teachers from three secondary schools (two from each school) were recruited to participate in the study through a purposive sampling strategy. This is a sampling strategy where participants are selected because of their potential to provide data relevant to the research question (Onwuegbuzie & Leech, 2007). The reason for sampling six participants was because they were deemed suitable to provide the required data and to answer the research questions. These teachers were known by their schools to have been using smartphones in their teaching. This helped in understanding the meanings that teachers attached to their English language teaching activities. Another selection criterion that was used to include the selected teachers was that they taught English. Other subjects are easily adaptable and plausible to teaching through smartphones. Teaching English is not merely content-based, but an active and critical learning process that encourages an active and critical approach to learning, rather than rote and uncritical learning. Using purposive sampling also allowed the researchers to select cases that were likely to have rich and relevant information (Gall et al., 2007). Braun and Clarke (2013) also argue that purposive sampling generates insight and obtains an in-depth understanding of the topic of interest. All participating schools allowed the use of smartphones during learning hours. According to the proponents of new innovative ways of learning, mobile phones facilitate methods for personalised learning in that learners are responsive to the difference and diversity how their learning occurs, however, opponents would differ (Valk et al,2010).

4.1 Data collection

Interviews, observation and reflective journal were employed to elicit information from participants. Semi-structured interviews were used as the method of data collection. The interview method serves to compare the interviewer's perceptions and specific aspects of a situation to gain an understanding of the range and variety of significant experiences from the interviewees' point of view (Mokoena, 2013). Interviewees responded to questions and commented on their viewpoints and personal encounters. This technique was helpful for investigating participants' theoretical and practical understanding of information as well as personal encounters. This assisted in understanding the thought processes of participants. In gathering qualitative data, the researcher used a digital recorder to capture the interviewees' words verbatim. Researchers carefully studied the tapes to verify participants' statements, and this eliminated the possibility of misrepresenting interviewee responses. All participants were asked for permission to record the interviews. Thus, the recorded interviews were transferred to a computer and were kept safe in a password-protected folder. The interviews were later transcribed and the data were segmented, coded and categorised into themes and sub-themes relevant for the analysis using phenomenological data analysis procedures. To ensure conformability and dependability, the researchers maintained an audit trail of the data collection and analysis process, wrote field notes and noted non-verbal clues, observations, and impressions about each interviewee in a diary to aid in the interpretation of the gathered data.

In this study, the researchers observed the actual lessons in classrooms. Thus, teachers were observed in their social settings, i.e., in their classrooms where they taught using smartphones. This enabled us to understand the participants' options and measures that they put into place in their teaching.

The researchers compiled a check list and observed the following: class sizes, discipline, the use of smartphones, learner involvement and success in using smartphones for teaching and learning.

Upon completion of the interview session, we implored teachers to write reflective journals about their personal views, perceptions and experiences regarding the use of smartphones when teaching English. The reflective journal, as argued by Ortlipp (2008), was useful in that it enabled the teachers to make their thoughts, feelings, and experiences known to the researchers. According to Ortlipp (2008), reflective journals are also be seen as an acceptable methodology from a constructivist perspective. We were advised to use reflective journals by the words of Al-karasneh (2014) who states that reflective journals are an encouraging tool for critical thinking about experiences. The use of the reflective journal is resourceful, significant, and generally a valid method of data collection because it provides respondents with the opportunity to express feelings, values, and thoughts (Ortlipp, 2015). The study adhered to ethical guidelines as researchers were granted permission to conduct the study by the Limpopo Department of Education. McMillan and Schumacher (2014) argue that a credible research design should adhere to research ethics. As such, all participants signed informed consent forms containing ethical guidelines. Code names were used to protect participants' identities. The researchers informed participants that they were allowed to withdraw from the study whenever they wish to do so. McMillan and Schumacher (2014) emphasise the importance of informed consent, confidentiality, anonymity and privacy. Hence, these ethical guidelines were followed in this study to protect participants' rights, privacy and dignity.

5. Findings and Discussions

The study sought to explore teachers' experiences in the use of smartphones to enhance teaching and learning in English language classes. Participants were coded as Teacher 1, Teacher 2, Teacher 3, Teacher 4, Teacher 5 and Teacher 6. The following themes emerged from data analysis and interpretation: planning and implementation of the use of smartphones in teaching and learning; reluctance to use smartphones; strategies implemented when using smartphones; and challenges experienced when using smartphones.

5.1 Planning and implementing the use of smartphones

We found that teachers in our sample regularly planned and implemented specific English activities using smartphones. Most teachers emphasise the importance of thorough planning. Below are responses from some of the participants.

> Teacher 1: "Planning takes a lot of time so most teachers shy away from using smartphones for activities even though it is so beneficial".
>
> Teacher 2: "The CAPS curriculum syllabus is so long and content oriented that I feel that the use of smartphones provides a variety. Further to this, I use WhatsApp a lot with my learners, especially if I did not complete an aspect that I planned to finish in class.
>
> Teacher 3: "I feel that teachers sometimes feel a bit intimidated using smartphones in their teaching as they are not confident enough with their content. Learners can be nasty and can call an educator out on any incorrect information conveyed to them".
>
> Teacher 5: "I use group work in my classes and I find it works well for me especially with the use of smartphones. When you assign roles to the learners they become confident and strive to do their best. It also makes them more responsible and they take responsibility for their learning. I have seen it being beneficial to the learner and teacher when using cell phones as a tool of teaching and learning the outcome is productive".

> Teacher 6: "I plan in-advance and I find using smartphones in teaching and learning is a wonderful tool. I use it constantly especially if I am marking activities in class, and if the bell rings at the end of lesson and I am not done, I merely post the answers in our WhatsApp group for the learners to complete at home".
>
> "I also enjoy using group work in my class as the size of the class is also small and this cuts down on space. I find that it is also easy to manage the use of smartphones by the learners in groups. This has to be structured, hence, the response to assigning roles to learners in doing group work has to be clear-cut. Once these roles are clear-cut, it allows for a productive lesson".

The teachers selected activities that allowed learners to use their smartphones in, for example, the setting of assessment tasks and designing assessment tools. *Teacher 5 and 6* used group work when giving assessment tasks. Learners were assigned different roles in the group activities, i.e., a timekeeper, group leader, scriber, and presenter. *Teacher 5* agreed with *Teacher 6* that it is easy to manage the use of smartphones in groups and group-related tasks. Teachers planned comprehensively for assessment to ensure that there is clarity, validity, reliability, and relevance of the assessment procedures. During classroom observations and interviews, it was clear that using smartphones in class activities involves intense, thorough and comprehensive planning for authentic learning to take place. The use of smartphones for teaching and learning seemed to help learners expand their knowledge and allows them to be active in the teaching and learning environment. *Teacher 5* indicated that when learners were asked to research a new concept and present to the class, they were confident, eager and enthusiastic to present. Learners who were normally seen to be shy were then confident to present in front of the class. *Teacher 6* also indicated that the use of smartphones sets the scene for an interesting and exciting lesson as learners uses the dictionary software, and were able to make video recordings, thus being granted access to visual stimuli. Learners' video recorded their speeches and sent them to the teacher through WhatsApp. This saved time and enabled learners to showcase their creative energies.

5.2 Strategies implemented in using smartphones

Participants employed various strategies to sustain the use of smartphones in teaching and learning. The Participants responded as follows:

> Teacher 1: "I find that cell phones are an excellent tool in teaching and learning. I use the cell phones to leave voice notes and forward any information to my learners".
>
> Teacher 2: "Time is of an essence especially in an English class so I ask my learners to record themselves doing their speech via their cell phones and I assess them at my leisure".
>
> Teacher 3: "English is a universal language and I tend to use numerous resources with my learners to not tie them down with just one resource. As a result, the use of the cell phones by the learners in their English class has been nothing but beneficial for me. Literature is now such a pleasure to teach".
>
> Teacher 4: "I do ask my learners to record themselves saying their speeches and forward it to me. I did find that the learners are very technologically advanced as the quality of work presented in the recording compared to the traditional way of assessment was a great difference. I would settle for the recording anytime and it saves a lot of time".
>
> Teacher 5: "I have forwarded my learners a PDF copy of their set book in November to read and prepare for the next year, this enabled them to read it at

> their pleasure during their holidays and they are well knowledgeable on the novel when we are discussing it. The cell phones allow for easy communication as well as an excellent teaching tool. I also find working in groups helps tremendously". "I find assigning my learners in groups' works well. Cooperative learning works for me. I find this also overcomes the shyness of the shy learners, who now become cooperative".
>
> Teacher 6: "In poetry, I teach the poem in class and I forward their notes via WhatsApp or sometimes I send voice recorded power point presentations to my learners. I was teaching a poem titled Vulture, and the learners did not know what a vulture looks like. So I requested them to take out their cell phones and google a vulture. I found this was an extremely meaningful exercise".

This study proved the importance of using smartphones in teaching and the need for teachers to employ appropriate strategies to create an effective learning environment. The strategies employed should stimulate learners' interest to learn and participate in classroom activities. For example, when teaching drama, learners can watch scenes from their smartphones to ensure a visual stimulus–which would in turn facilitate effective classroom discussions. Teachers can also use audio recordings played on the learners' smartphones for listening comprehension in English. This limits the confines of the traditional teaching methods in which teachers only read passages to learners without providing cues and clues that help learners to develop an understanding of the text.

Teachers' use of smartphones depends on how comfortable they are with a given technology. Their expertise in using technology often affects how they use it as well as how they design lessons and learning environments. Teachers use multiple strategies to stimulate learning, and it was evident in this study that some teachers chose to work with their learners in groups when using smartphones. This promoted the acquisition of English language among learners in a sense that the devices helped learners to be confident in producing and using English when working in small groups. Learners acquired new learning methods by observing how their peers solve problems that involve learning English. When teachers assigned learners to various groups, they formed groups that comprised of learners with different levels of knowledge and abilities. Thus, all learners in a group had something to contribute to the overall success of the group, be it a question, clarifying information or new information. The roles assigned to members in the group therefore encouraged learners to practice English by assuming different responsibilities in the group. It is also important to vary who is on what team since this allows learners to hear and work with peers of various levels of English abilities.

5.3. Reluctance of teachers using smartphones in teaching

Some teachers are reluctant to use smartphones in teaching for various reasons which include, but not limited to: issues regarding learners' discipline and lack of training and confidence. Discipline proved to be an important theme. The researcher assessed the learners' active involvement and the number of times the educator reprimanded them for misusing smartphones especially in a large class. Learners worked productively when clear-cut instructions were given and adhered to directives. This led to the productive use of cell phones and enhanced the process of teaching and learning.

The responses below capture teachers' view about discipline:

> Teacher 1: "Prior to the use of cell phones, I found that there were learners who did not focus. As a result, they became bored or distracted and this gave rise to misbehaviour. However, when I used cell phones as a tool of teaching and learning, the learners were interested and productive. It stimulated and motivated the learners as it was something new in the classroom and something

> they were used to outside the classroom. It was different from the norm of teaching and was beneficial".
>
> Teacher 2: "I experience a huge discipline problem. Since our class sizes are large, it becomes difficult to maintain order. At times, it hinders me from using cell phones in the class as I feel it is going to be a nightmare because learners will not cooperate. I feel the management needs to address the problem of our class sizes, and once we have smaller classes, the use of cell phones in classes will be an excellent teaching tool".
>
> Teacher 3: "Some learners use this as a platform to 'show off' and want to impress their friends with their fancy cell phones and discuss unrelated topics and make noise. This becomes frustrating to the educator since there are other groups to deal with, especially when working with groups. Furthermore, instructions must be clear, if it is not, then the learners will lose track and end up making a noise".
>
> Teacher 5: "I have no problem with noise, I tell my learners: if you can spell the word, you know how to do it and if I can hear you then you are loud. They soon abate and when they are talking their minds are active and they are discussing their research collectively".
>
> Teacher 4: "Learners are governed by peer pressure so they want to impress, hence they speak. By asking learners to research on their phones and provide feedback to the class, this form of speech is constructive and educational. So, in this light, it can be seen as positive because they are providing feedback to the class using cell phones".
>
> Teacher 6: "I do not have discipline problems, since I zone out. If I see that learners are working constructively with their cell phones, I do not have a problem with noise".

Classroom observations provided the researcher with first-hand information about the use of cell phones in learning and teaching. In most classes, learners sat calmly and quietly during the lesson. Participants suggested reasons for teachers not wanting to use cell phones in teaching. Firstly, some teachers are set in their conservative, traditional, chalk and talk form of teaching. When using cell phones learning and teaching require more time and planning. Thus, some teachers are not willing to make such investments. Additionally, teachers lack adequate training and do not want to embarrass themselves in front of their learners.

Participants' responses below indicate why some teachers do not use cell phones for classroom learning and teaching:

> Teacher 1: "Lack of training in the use of ICT plays a major role in the implementation of cell phones in teaching. Teacher training institutions need to make ICT training part of the curriculum. Further to this, schools need to provide adequate training for existing teachers".
>
> Teacher 4: "I do feel intimidated when I use ICT in teaching as I am not well versed in the use of technology. I am afraid that I might do something wrong and the learners might make fun of me".
>
> Teacher 5: "I am a bit of a traditionalist in my teaching methods for many years. However, my learners have set up a WhatsApp group and I have been posting information for my learners. I am taking the initiative to keep up with the times.

> I have noticed that some teachers enjoy just the traditional way of teaching because it involves additional preparation to use ICT in teaching".
>
> Teacher 6: "I enjoy using cell phones and any type of technology in teaching. I am not very techno savvy but I include my learners in assisting me if I am unsure about something. Believe me, this actually makes them feel needed and worthwhile. We have very productive lessons".

5.4 Challenges when using smartphones in teaching and learning

The use of cell phones creates rich contexts and enables teachers to present learners with authentic tasks, encourages active and autonomous learning, stimulates cooperative learning, and the curriculum is adapted to the needs and capabilities of learners. These characteristics are important when cell phones are used as a tool in teaching and learning. The response below indicates the views of the participants.

> Teacher 1: "We have learners who absent themselves regularly or even bunk lessons, with the school's management support this can be rectified".
>
> Teacher 3: "We have large class sizes, and the management does not seem to be too concerned about our issue. My biggest class is 54 learners, when it is my lesson with this class I have to seek a bigger venue".
>
> Teacher 2: "Discipline is a huge problem as this ties in with large class sizes".
>
> Teacher 4: "Our lesson time is insufficient as a result most of the activities are carried over".
>
> Teacher 5: "Management support is also a huge challenge as school activities are given preference over our academics".
>
> Teacher 6: "The management has made no provisions in providing Wi-Fi in our school. As a result, this stunts us when we want to use cell phones as a tool for teaching. Most of the time we are using our own data".

The above responses suggest that with the necessary managerial support to solve challenges related to class sizes and mobile data availability, cell phones can be used successfully in teaching and learning. In agreement to this study, Darong and Niman (2021) believe that using technology in teaching and learning does not only allow knowledge and competencies to be advanced, but also stimulates problem solving and presenting skills. In addition, Hashemi and Ghasemi (2011) advocate that mobile learning is the most important tool in ICT. It is further stated that learning through technology (smartphones and computers) can be extremely beneficial where traditional methods of teaching and learning fail. Thus, Huk (2012) claims that a mobile phone with the option of browsing the internet provides new teaching methods for learners as learners can confront and extend information far beyond the classroom limitations.

6. Conclusion and Recommendations

This study sought to explore experiences of teachers regarding the use of smartphones in English classes to enhance teaching and learning. This was done by using social constructivist theory as a microscope for the study. Adoption of a qualitative research approach and case study design contributed to the collection of rich-descriptive data. Data collection methods for this study produced significant data which effectively addressed the research questions. In conclusion, it was evident in this study that teachers firmly believe that the use of smartphones as a tool for teaching and learning is beneficial and improves learners' academic performance. The study further concludes that there is a need to capacitate teachers, HODs, and Management in the effective use of smartphones. The study

also revealed that there were contextual factors within the schools hindering the effective implementation of smartphones in teaching and learning. These included learners' lack of commitment, chronic learner absenteeism, language barriers, and lack of internet access–Wi-Fi. This study recommends the following: there is a need to train teachers in the use of smartphones to teach English to meet the demands of the Fourth Industrial Revolution. School Management Teams (SMT) need to become actively involved in the implementation of the use of smartphones in schools. For example, Wi-fi needs to be made available, and the time needs to be created during lessons to allow the use of smartphones to stimulate learners' interest in language learning activities.

7. Limitations

The data collected for this study were limited to Polokwane in Limpopo Province. It would have been useful to extend the study to other areas, including rural and boarding schools in Limpopo Province for the results to be more generalisable. However, due to limited time and shortage of funds, the study was limited to Polokwane. Due to the Covid19 pandemic, there were challenges regarding time constraints and the availability of educators in schools.

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