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O POTENCIAL DE USAR O SMARTPHONE NO ENSINO E APRENDIZAGEM DA LÍNGUA INGLESA

THE POTENTIAL OF USING SMARTPHONES IN TEACHING AND LEARNING OF ENGLISH LANGUAGE

EL POTENCIAL DE USAR UN TELÉFONO INTELIGENTE EN LA ENSEÑANZA Y EL APRENDIZAJE DEL IDIOMA INGLÉS

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RESUMO

Este artigo revisa a literatura sobre o potencial do uso do *smartphone* no ensino e aprendizagem da língua inglesa. Centra-se nos benefícios, percepções, desafios e considerações para a incorporação de *smartphones* em educação. Por meio de pesquisa on-line, foram analisados 21 artigos empíricos e teóricos, estudos de caso e pesquisas que defendiam o uso de um *smartphone* no ensino e aprendizagem da língua inglesa. Os resultados do estudo mostram que os *smartphones* têm potencial para melhorar o ensino e a aprendizagem do inglês entre os professores e alunos. A pesquisa provou que as habilidades de idiomas do aluno melhoram através da comunicação instantânea e constante com seus professores e entre si. A disponibilidade de muitos aplicativos de idioma, como o Duo Lingo, ajuda os alunos a aprender facilmente um novo idioma de qualquer lugar e a qualquer momento. No entanto, também é revelado que é necessário estabelecer formas pedagógicas eficazes de usar os *smartphones* para reduzir a indisciplina, a distração e os casos de cyberbullying, já que algumas pesquisas relatam que os estudantes tendem a usar o *smartphone* para acessar conteúdo não censurado. Além disso, o artigo indica a importância de treinar o professor para se familiarizar totalmente com a tecnologia e o *smartphone* em particular, a fim de aproveitar o seu papel crucial e posição na educação.

PALAVRAS-CHAVE: *Smartphone*. Percepções. Disafios. Ensino de inglês.

ABSTRACT

This article reviews the literature on the potential of using Smartphones in the teaching and learning of English Language. It focuses on the benefits, perceptions, challenges, and considerations towards incorporating smartphones in education. Through online research, 21 empirical and theoretical articles, case studies, and surveys defending the use of a smartphone in the teaching and learning of English language were analyzed. The results from the study show that smartphones do have the potential to improve teaching and learning of English amongst the teachers and students in different educational levels. The research has proved that student's languages skills improve through instant and constant communication with their teachers and among themselves. The availability of many Language applications such as Duolingo helps students to easily learn a new language from anywhere and at any time. However, it is also revealed that there is need to establish effective pedagogical ways of using the smartphones in order to reduce indiscipline, distraction, and cases of cyberbullying as some research has reported

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that students tend to use smartphones to access uncensored content. Furthermore, the article indicates on the significance of training the teacher to be fully acquainted with the technology and smartphones particularly in order to harness its crucial role and position in education.

KEYWORDS: Smartphone. Perceptions. Challenges. English Teaching.

RESUMEN

Este artículo revisa la literatura sobre el potencial del uso de teléfonos inteligentes (Smartphones) en la enseñanza y el aprendizaje del idioma inglés. Se centra en los beneficios, las percepciones, los desafíos y las consideraciones para incorporar los teléfonos inteligentes en la educación. A través de la investigación en línea, se analizaron 21 artículos empíricos y teóricos, estudios de casos y encuestas que defienden el uso de un teléfono inteligente en la enseñanza y el aprendizaje del idioma inglés. Los resultados del estudio muestran que los teléfonos inteligentes tienen potencial para mejorar la enseñanza y el aprendizaje del inglés entre los maestros y los estudiantes en la educación. La investigación ha demostrado que las habilidades lingüísticas de los estudiantes mejoran a través de la comunicación instantánea y constante con sus maestros y entre ellos. La disponibilidad de muchas aplicaciones de idiomas, como Duo Lingo, ayuda a los estudiantes a aprender fácilmente un nuevo idioma desde cualquier lugar y en cualquier momento. Sin embargo, también se revela que es necesario establecer formas pedagógicas efectivas de usar los teléfonos inteligentes para reducir la indisciplina, la distracción y los casos de acoso cibernético, ya que algunas investigaciones han informado que los estudiantes tienden a usar teléfonos inteligentes para acceder a contenido sin censura. Además, el artículo indica sobre la importancia de capacitar al maestro para que conozca completamente la tecnología y el teléfono inteligente en particular para aprovechar su papel crucial y posición en la educación.

PALABRAS CLAVE: "Smartphone". Percepciones. Desafíos. Enseñanza de ingles.

INTRODUCTION

Today, the Smartphone has become one of the most powerful and important devices in the educational field. With its capability to connect to the internet and provide people with access to browse millions of websites, and access to a variety of both commercial and non-commercial, online and offline apps from Android, iOS and Windows platforms which accounts to over 5 million Applications (www.statista.com), makes it an ideal substitute for a physical library or physical classroom. Smartphones have and keep impacting the way people learn things. For instance, with apps such as telegram, WhatsApp, Facebook, YouTube, etc., students can connect with different experts from different fields of learning whilst in their hospital beds, from the comfort of their own homes, and convenient zones, on the go, and from different time zones and geographical positions with ease.

The smartphone capability of taking photos, videos and storage capacity gives it a huge educational value in promoting social, interactive and collaborative learning. Students can share new learning, curiosity, findings, and reports through different multimedia means such as video Also, since smartphones promote mobile learning, learning, therefore, becomes a continuous process which extends from the physical classroom to wherever the person (learner) might be.

In language education such as English, smartphones have a significant role in improving and increasing the speed at which the learners may learn a new language. Applications such as Google Translate may help students to learn a new language instantly and effectively due to its ability to provide not only the translation, but also the synonyms, and correct audio pronunciation of the words. Apps such as Hello Pal and Duolingo have created a huge community of language students who wish to learn languages other than their mother tongues. They can interact and learn exchange-ably with the languages.

As smartphone usage increases due to its affordability, and internet connectivity keeps spreading to almost everywhere around the globe, from developed to developing countries, it is, therefore, not surprising to see both teachers and students owning a mobile or smartphone even in developing countries such as Mozambique. Embracing this development is paramount to improving the quality of teaching and learning of English language in the schools of Mozambique.

It is, therefore, the aim of this paper to review the literature on the potential of using the smartphone in the teaching and learning of English language. Specific questions seeking answers to are:

- What is the potential of using the smartphone in the teaching and learning of English language?
- What perceptions do teachers and students have of the use of smartphones in teaching and learning of English language?
- What challenges do teachers and students face in the teaching and learning of the English language through the use of smartphones?

These questions come in a way to specifically find out how smartphones have been used and could be used in English language teaching and learning after observing that the devices are now available among teachers and students. In educational institutions such as secondary schools and vocational training colleges where both students and teachers possess smartphones and have access to the internet, it is senseless that these technologies stand parallel to teaching and learning.

METHOD

This is a literature review study. It used secondary sources of information such as scientific journal articles, conference papers, books and websites which provided critical information around the topic. The papers were sampled from Google scholar, Eric, Directory of Open Access Journals (DOAJ), and other search engines such as Google. This method allowed the
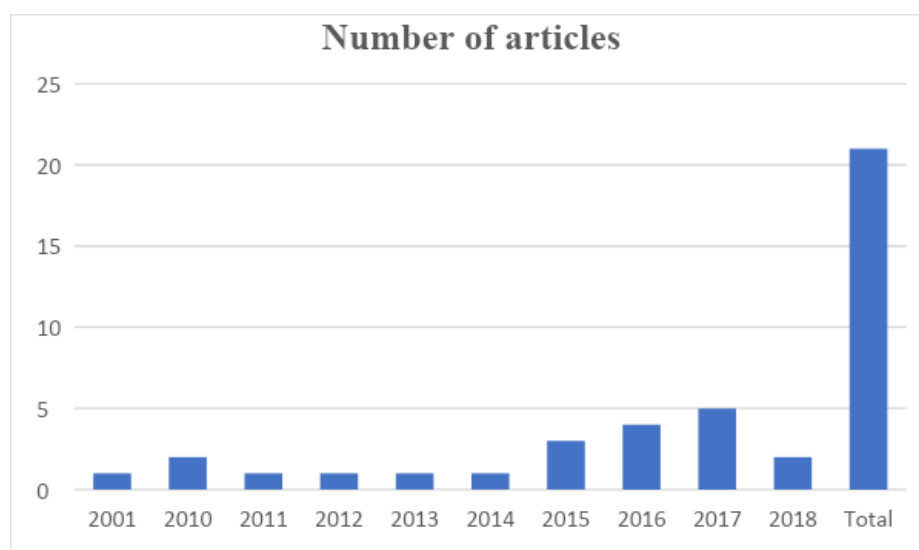
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researcher to analyze the depth of the research around the topic and informed him of the results which helped or revealed discoveries, perspectives, and direction of new or expansion of the research around the topic.

To get the articles sampled for this review, specific questions or keywords guiding this review were used in the selected databases and search engines. A quick study of the article's abstract and skimming of the whole article helped to fully decide whether the paper was significant to the research questions or not, and besides, it controlled the level of quality of evidence and arguments.

From the search results, 21 papers which include 15 journal articles and 2 conference papers, 2 dissertations, 1 book, and 1 site were carefully selected for a thorough review. At least 10 of the articles are from 2015 and 2018 (See the graph).

Graph 1. Number of articles vs. year of publication

Of the 21 selected articles, 12 have discussed the use of mobile phones/devices/technologies in language learning with only 6 specifically targeting the English language. Two (2) articles directly focused on teaching and learning English in secondary schools and the rest have targeted higher education and language schools or classrooms in general. Three (3) papers which include the two bachelor thesis have discussed the use of mobile devices and technologies without specifying the subject or discipline. However, while reading through the papers, some of the examples put forward were related to language teaching and learning.

In general, 19 articles including the two bachelor thesis tackled the three questions guiding this review which are the potential uses, teacher-student perceptions and challenges faced by both teachers and students in adopting or using the smartphone in teaching and learning, in particular, English language. But concretely, 7 papers focused on perceptions of teachers and

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students on mobile/smartphone/technology use. Four papers had a focus on the impact of mobile/smartphone use in language learning. On the potential uses of smartphones, 7 papers had indicated such focus. Two papers had been general information but related to smartphone use. One website article was selected to provide concrete statistics around the number of applications available in the stores.

The results have revealed that research around the topic has taken place in many western and Middle Eastern countries compared to Africa. However, when search term/keywords included Africa, results, but not specific to the topic, show that some sub-Saharan countries such as Tanzania and in West Africa, Nigeria, have done some research on the similar topic. Perhaps this is because most African countries are still in the developing nation class.

LITERATURE REVIEW

The advent of digital technology such as smartphones and internet connectivity has influenced the global society in its way of conducting business, communication, socializing and in particular learning. With smartphones, formal business and educational environments seem to have less significance as these activities are, or, can be conducted literally from anywhere and at any time, virtually across the globe. Smartphones, "with their ever-expanding and multi-functional nature" (Calabrich, S. 2016, p.120), will probably be in the hands of each and every student around the world (Senel, 2016), as it can explicitly be observed that students brought with them digital devices or smartphones in particular, in today's classrooms as part of their extension (Aldrich, 2017). This also means that smartphones can eliminate the physical gap that exists between typical working hours for teachers and students to a point where learning is not a stern or fixed process where it should only take place in a four-walled infrastructure but rather a fluid process with no territory.

The handheld, lightweight, display, and touch input characteristics (KLJUNIC; VUKOVAC, 2015) make smartphones the best choice for mobile communication and learning. The ubiquitous nature of the smartphones among the school population (SENEL, 2016) outsmarts the desktop forms of computers which are difficult to embed in and outside the classrooms unless computer laboratories are established (EL HARIRY, 2015) which not all schools can afford (CALABRICH, 2016). The mobility and connectivity of smartphones links well with the fact that learning by nature is mobile too. El Hariry (2015) cites Soloway et al, (2001) on the three ways in which learning is linked to mobility by contending that; (a). it occurs whether at the workplace, home, and recreation places; (b). it affects all dimensions of our lives; (c). and it occurs at all times, 24/7/365.

Potential uses of Smartphone in teaching and learning of English language

A lot of research conducted mostly in western countries has documented quite benefits about the potential of the smartphone in general and in particular to language learning such as English. Calabrich (2016) mentions that smartphones offer a wide choice of ways of supporting English learning in the classroom as well as beyond the classroom. This is concretely supported by Senel (2016) who also posits that smartphones provide liberty to students in terms of time and

place of study since they can use their free time and informal situations in which they find themselves to learn a foreign or second language. Shrestha (2011), contrasts the benefit of using mobiles or smartphones in teaching and learning the English language over desktop types of the computers from the perspective of mobility and flexibility. Besides the opportunity of 24 - hour learning, material access and teacher feedback (EL HARIRY, 2015), is paramount when it comes to students' choice among communication technologies. Nalliveetil & Alenazi (2016) also mentions the importance of mobile devices especially those with internet access which provide an opportunity of "access to millions of websites with a higher degree of accuracy" (p. 264). Of over 5 million Applications (www.statista.com), found on both Google Play and Apple Store, there exists a good number of applications which when integrated with the teaching and learning process within and outside the classroom can impact the learners' speed and efficiency at learning different subjects such as Mathematics, Science and languages. Hashenmi & Abbasi (2013) proved in their study that with mobile phones, vocabulary retention increased among the students. Chhkara (2015), Bllaca (2016) and Lekawel (2017) support this by adding that language skills such as reading, listening and speaking improves as students interact with smartphone applications such as WhatsApp, Quick Reads and MindNode.

Among other uses of mobiles and smartphones in language learning include text messaging, voice response, and access to both online and offline content via the applications (SHRESTHA, 2011). Reinders (2010) described twenty ideas for using mobile phones in language classroom which included "phlogging", where language learners may "call a number and leave a message on a website" (p. 23) and this activity is similar to Google AI – speech to text where one can practice speaking and the app transcribes the audio into text which can give an opportunity to improve both oral and written skills in English learning. Chhikara (2015) cited an example where students when using a smartphone do get word suggestions, correct spelling, punctuation, and correct pronunciation. Cochrane & Bateman (2010) add that smartphones contribute to the social constructivist way of learning. The ability to capture/record images/videos and share or follow news events in real-time helps to create an authentic learning environment where both visual, audio and texts are combined to give a concrete meaning of the concept, idea, or event occurring.

Teacher – Students perceptions of smartphone use in English language learning

The presence of smartphones in learning environments is perceived differently by teachers and students. A study by Joyce-Gibbons et al (2018) in Tanzania revealed that the teachers "were more alarmed at the potentially negative aspects of mobile phone use than they were attracted by the benefits of using them" (JOYCE-GIBBONS; GALOWAY et al. 2018, p.76). Simiraly, Aamri & Suleiman (2010) reported that most of the teachers at Sultan Qaboos University denied their students the use of mobile phones except for some situations in English language learning. Aldrich (2017) points out that the student community of today has grown up with technology and regard it as a right to use it, therefore they expect that the digital devices such as smartphones should be used in learning as they have an educational function (p.1). Prensky (2001) and Mahrooqi & Troudi (2014) regard the students of today as "digital natives" for the fact that with digital technology, they interact and experience many things compared to the generation before digital technology and therefore they "think and process information

fundamentally differently from their predecessors" (PRENSKY, 2001, P.1). When students are digital natives, those gone before digital technology, therefore become **"digital immigrants"** (PRENSKY, 2001). However, these digital immigrants are divided, where one group holds the opinion that mobiles or smartphones are distractive tools in learning where others can adapt to the opportunities that come with the devices at improving their teaching and learning practices. Nalliveetil & Alenazi (2016) contends that students' overdependence on mobile devices discourages the cognitive skills and students instead of brainstorming they may just Google from their phones. Joyce-Gibbons, (2010) also mentions some perceptions that teachers have which include the fear that the students may be using smartphones in the manner that deteriorates good behavior such as viewing and sharing pornography or socializing via facebook, and other social media platforms instead of learning. Despite these different perceptions, among teachers and students on the use of the smartphone in teaching and learning, Hockly (2013) cited in Senel (2016) stresses the need to integrate mobile phones in learning environments and urges teachers to shift their thinking towards mobile learning.

Challenges of Smartphone use in Teaching and Learning of English language

No technological invention, in spite of its vast number of benefits goes without its challenges. As for mobile technologies, smartphones, in particular, there are some challenges we should be aware of. Shrestha, (2011) presents three challenges that come with mobile technologies which include; resources, stressing that though the devices are regarded as ubiquitous, its availability in the developing nations is comparable to the developed nations. Also, lack of human resource which can "repurpose" or "adapt" the available resource to fit the different learning environments. Secondly, while mobile or smartphones may be available, there may be a lack of content which is significant to the users need. For instance, many of the applications found from the app stores have been produced from technologically advanced countries such as Europe, USA, Canada, and South Africa, and therefore the content and context base is from such specific countries. Socio-cultural context is another challenge that Shrestha (2010) points out, wherein some societies, teachers still have the power to transmit knowledge to learners and this contradicts with the use of smartphones where students may wander through cyberspace in search for what they deem relevant in their learning. Nalliveetil & Alenazi (2016) also mentions a disadvantage of mobile technology citing that students may spend a huge amount of time surfing irrelevant stuff which then may affect their educational performance. Similarly, Aldrich, (2017) mentions that due to the size of mobile phones, typing errors are common and in some cases technical glitches such as failure to connect to the internet. Aldrich (2017) adopts additional challenges which include technicability and "how easily a student is distracted" (p. 26) while using the devices for learning.

Technical challenges while using smartphones for learning may also be the reasons for both teachers and students to put away their devices. Kljunic & Vukovac (2015) presents that diversity of smartphones among the students makes it difficult to adapt learning content for each type. The cost of internet access especially in the less developed countries puts a limit on some teachers and students to opt for using the smartphones in their learning. Apart from technical challenges, Kadiri & Ibrahim (2018) and Raiskinmaki (2017) mention the important challenge of content control where it is difficult for teachers to control what the students are

viewing from the internet when in or outside the classroom. Fakokunde (2017) reported of the probability that students may be exploring uncensored content instead of learning.

CONCLUSION

The analysis from the previous research proves to consider the potential of smartphones in teaching and learning. In this review concerning teaching and learning of the English language, it is clear from the examples given that both students and teachers may benefit a lot from the use of the smartphone. It is clear that communication among students and teachers improves. Through the use of different apps such as Voice-to-text, WhatsApp, Mind Node etc, students improve their language skills. For those who want to learn new a new language, the android and iOS platforms have quite a huge number of content applications which aid in teaching and learning. It is also noted that smartphones may not only aid in the teaching and learning of English but in almost all different subjects as long as the specific methods of using smartphones in teaching and learning are stipulated.

Despite the positive uses of smartphones in teaching and learning of English language, the research has also indicated some challenges which include; students' use of the devices to watch pornography other than classwork, spending more time socializing and texting instead of learning, lack of human resource to improve the available content to fit specific learning environments and traditional thinking that teachers are the source of knowledge. Teacher attitudes also play a role in deciding whether to use smartphones or not. The digital immigrant teachers may have a strong attitude that smartphones are a source of class distraction The research has also demonstrated that some challenges are technical in the way that where teachers lack the knowledge of how to use the smartphone, it might be obvious that they may not choose to use them. Also in cases where not all students and teachers possess smartphones, the potential to be utilized becomes less.

CONSIDERATIONS

Smartphones have a huge potential in teaching and learning of not only languages but all disciplines. However, in order to harness the full potential, challenges that come along with the use of smartphones must be addressed. The following paragraphs explains the possible ways of addressing the challenges.

Firstly, apart from the already existing methods or ways in which smartphones can be used to teach and learn English in schools, there is still a need to explore, experiment and recommend

other pedagogical methods in relation to the continuous advancement of technologies that come with smartphones. This would help to document the concrete methods and techniques of using smartphones in teaching and learning which could be integrated into the school curriculums.

Secondly, it is important that all stakeholders from parents, to teachers, internet service providers to educational superiors, to deliberate on potential uses of smartphones and possible ways in which negative behavior against its use may be controlled or eliminated in order to harness the potential of smartphones in an educational context. Despite the challenge to addressing the question of indiscipline among students when using smartphones, students should be warned of the impact of smartphone dependency and internet immersion so that possible ways of safety could be suggested and promoted in order to create safe smartphone use and online behavior Also, it is the responsibility of the teachers to establish clear learning objectives and provide creative and innovative ways in which teaching and learning can occur without distraction due to the use of smartphones.

Thirdly, Profound policies with concrete strategies should be established to help teachers to build their capacity in handling teaching and learning of languages, English in this case, to allow sound guidance amongst students on the use of smartphones. When teachers are acquainted with "tech-knowledge", they avoid the risk of being digital immigrants amongst the digital natives which are the students. Perhaps it is reasonable to view smartphones from the perspective that the use of the technologies is what matters rather than the technology itself (Senel, 2016).

NEXT STEP

The results have raised some questions of whether Mozambique's situation is the same as what previous research has found from their respective geographical positions. This includes, how teachers and students in Mozambique perceive the use of smartphones in teaching and learning in general and in particular English Language teaching and learning. It is in this case that the next step will be to design a full research which adopts an exploratory method where the specific objectives will be put to guide the exploration and find the appropriate results which possibly might help to design a future model or curriculum that puts smartphones into their effective use in the teaching and learning of English language in Mozambican Schools.

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