

A study on utilizing SPALT technology in the classroom



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ABSTRACT

The objectives of this study are to identify the use of smartphone-assisted language teaching in the classroom and to explore its importance and advantages. Computers, mobile phones, etc. are introduced in the classroom and various studies are being carried out in this area. When compared to such studies, the present study focuses on the use of smartphones in language teaching and also explores its importance. For the present study, data were collected from higher-educational institutions to identify the use of smartphones in classrooms using a structured questionnaire. 100 respondents participated. The findings of the study reveal that smartphone usage was found in classrooms and was useful for students.

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1. Introduction

A smartphone is one of the inventions and has been used widely in modern societies. It plays an important role in our daily life. It is an electronic device, which response to the input given. It makes human work easy and solves problematic issues. The features of smartphones are like the computer's speed, storage, accuracy, automation, and diligence.

A drastic revolution came to exist in the field of teaching and learning after the inclusion of computers in the classroom (Oke and Fernandes, 2020). It created an interaction facility with the introduction of multimedia in the classroom. It made the classroom colorful and also solved most of the teaching and learning issues. It also made the teaching and learning process an easy one. During this period computer-aided language teaching and learning was introduced in the classroom. Later, teaching and learning were introduced with software. At present smartphones have taken over classroom teaching and learning. These all were introduced because of the technologies used in the classroom.

A classroom is a place where teaching and learning take place using models or approaches or techniques usually happens in a closed indoors (Gavin, 2007). Classroom teaching implemented many methods to teach. Some of them are the

grammar-translation method, direct method, indirect method, and eclectic method. These eclectic methods of teaching are used widely. It is a mixture of many teaching methods used by a teacher to attract and motivate learners. Apart from these teaching methods, there are four main teaching approaches such as teacher-centered methods, learner-centered methods, content-focused methods, and interactive/participative methods. The teacher in a present classroom situation has to deliver the lecture, make students actively participate, involve them in individual or group discussions, and provide activities. These are not easy tasks for the teachers individually. So they started to introduce a smartphone in the classroom which has the ability to multitask works. The advantages of this type of teaching are enumerable. Because of the advantages like making teaching and learning easy, creating creativity among students, providing interaction facilities between the students and computers, etc., computer-aided language teaching (CALT) and computer-aided language learning (CALL) packages were introduced. CALL is an approach in which computer technology is used as an aid for presentation, reinforcement, and assessment of material to be learned, usually including a substantial interactive element (Yang 2010).

CALT played a huge role in the teaching and learning situation. CALT is an approach in which computer technology is used as an aid for presentation, reinforcement, and assessment of material to be learned, usually including a substantial interactive element (Beatty, 2013). Language technology didn't leave the usage of mobile phones in language teaching and learning. The use of mobiles in language teaching can be

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termed mobile-assisted language teaching. The mobiles used for such purposes are smartphones with android or windows operating systems. Mobile Assisted Language Teaching (MALT) is one of the latest inventions of technology (Yang, 2013). Though mobile was introduced to this world 5 decades back, it is introduced to the field of education only a decade earlier. The major purpose of using mobiles in teaching and learning is to enrich teaching styles and to make learning easy for students. At present smartphones started their role in learning and teaching in a classroom situation. They are being termed smartphone-assisted language teaching (SPALT). This study focuses on the use of SPALT in classroom teaching in higher educational institutions.

This study is based on two objectives such as to identify the use of SPALT in classroom teaching and to explore the importance and advantages of SPALT to the globe. The research questions of the study are, how are smartphones used in the classroom? And, what are the importance and advantages of using SPALT in the classroom?

2. Literature review

Han (2012) discussed the rapid development of information and communication technologies and the dramatic changes in the electronic environment are discussed. The author explains that these days mobile technology, with popular devices such as iPhones, Android phones, and iPads, is steering our learning environment towards increasingly focusing on mobile learning. Moreover, the author says Robots are produced for various purposes, and using them in learning can also be one of the purposes. The article elaborates, in the future, when mass production lowers prices, robots will bring about big changes in society. Also, the author focuses on educational service robots. Educational service robots for language learning and robot-assisted language learning (RALL) will be introduced, and the hardware and software platforms for RALL will be explored, as well as implications for future research.

Later, Derakhshan et al. (2015) clarified that CALL has begun as a revolution in the domain of language pedagogy. In front of technology, learning a language with the old methods could not meet the needs of the learners. The major purpose of the article is to introduce some features of CALL approaches to the globe. Also, the pros and cons of the pervasive approach are given in this article.

Miangah and Nezarat (2012) explained about the main characteristics of mobile learning are recognized as the potential for the learning process to be personalized, spontaneous, informal, and ubiquitous. Moreover, the article narrates some applications of mobile learning and some illustrations across various aspects of it. It also explains the advantages and disadvantages derived from using mobile technologies for students as well as professionals.

Leis et al. (2015) illustrated the advantages of using smartphones in an English as a foreign language (EFL) classroom. The article concluded that language teachers and learners should be encouraged to use smartphones in the classroom as a means of fueling the desire to learn.

The above-mentioned literature review states clearly the use of technology in the classroom situation. Starting from computer-assisted language teaching to smartphones assisted language teaching is being practiced throughout the globe in education departments (Hsu, 2013; Ma, 2017; Leis et al., 2015). Hence, this study is anticipated to contribute to the world of technology, especially in using the SPALT in the classroom. This type of study has never been performed by any institution or by any individual.

3. Method of research

The present study focuses on two common research methods, quantitative and qualitative. Quantitative research normally contains an experimental design with a hypothesis followed by quantification of data justified by numerical analysis. Qualitative research does not conduct stereotypical experiments as the data cannot be easily quantified. This study endeavors to integrate both methods in a judicious manner to elicit the use of SPALT in classrooms. As mentioned earlier, this study is a mixture of qualitative and quantitative research. Also, this is to explore the importance and advantages of SPALT to the globe. This study also involves providing graphs and presentation of tables based on the objectives and research questions. The simple quantitative mode is used for the calculation of the usage of SPALT in higher educational institutions from the collected data. A well-structured questionnaire is used as an instrument for this study.

4. Analysis and findings

Data are collected from 100 respondents. All the respondents belong to the local higher educational institutions of Malaysia. The data are analyzed and provided here. Percentages are calculated. Tables and figures are also presented.

4.1. Responses of the informants

All the informants were actively involved to fill out the questionnaire. Out of 100 informants selected, to respond to the questionnaire, all the informants responded properly (Fig. 1).

4.2. Gender classification

75 females and 25 males were selected as informants. The 75-25 variations are due to the student's availability in selected higher educational institutions (Table 1 and Fig. 2).

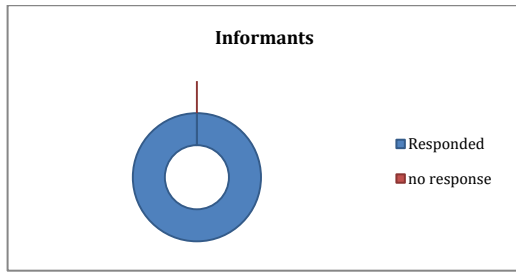


Fig. 1: Response

Table 1: Gender

Gender	No. of students	Percentage
Male	25	25%
Female	75	75%
Total	100	100%

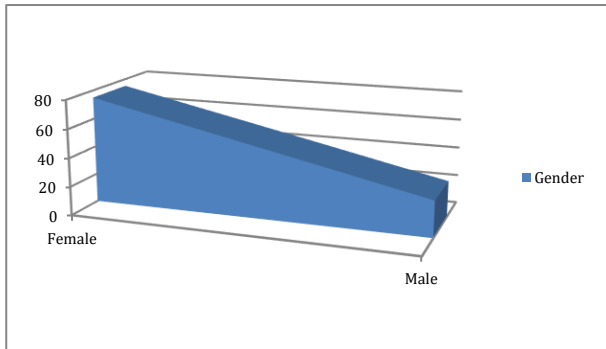


Fig. 2: Gender

4.3. Is the classroom equipped with technology?

This is one of the elements of the research instrument. When this question is asked, the researchers received varied responses. Some of the informants said, YES, and others replied NO. When further questioned by the informants who replied NO, they responded as soon the classrooms will be installed with the latest equipment. The responses of the informants are 80 and 20 respectively (Fig. 3).

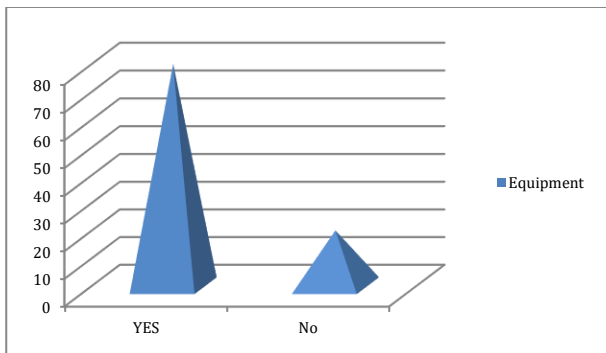


Fig. 3: Equipment in classroom

4.4. What kind of technology is equipped in the classroom?

This element has various options such as smartphones, laptops, and others. Where, others include digital boards, LED screens, television, CD players, games, and projector. Stowell (2015) discussed technology in the classroom including mobile devices and apps, classroom presentation software, digital recordings, social media, gaming,

and with future's Internet of Things. Since only one option is allowed to choose, 52 of the total informants responded as smartphones, 30 as laptops, and 18 as others (Fig. 4).

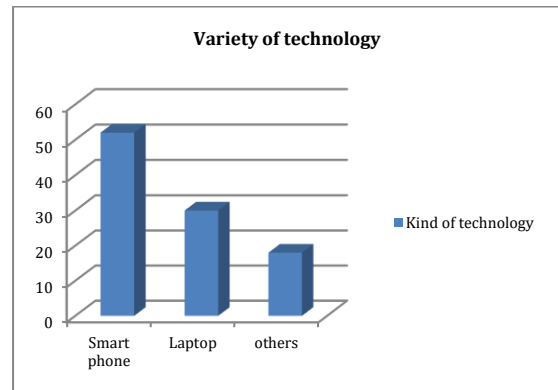


Fig. 4: Variety of technology

4.5. How many times will you use smartphone in classroom?

The informants responded according to the options given in the questionnaire. 45 informants responded 3 times, 30 as 5 times, and 25 as 7 times. This shows that smartphones are used in classrooms several times and it varies (Fig. 5).

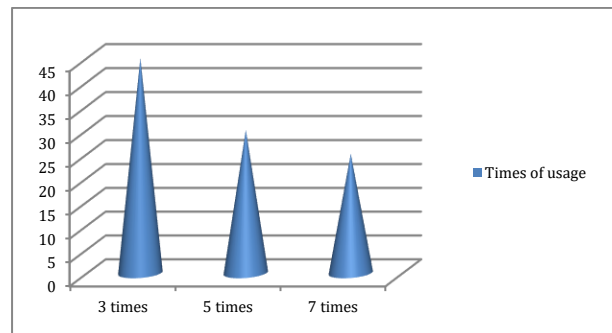


Fig. 5: Times of usage

4.6. What is the purpose of using smartphones in classroom?

The next element is about the purpose of using smartphones in classroom and their options are given. 48 of the informants choose APP, 41 for a dictionary, and 11 for games. All the informants use smartphones in the classroom for different purposes. Some use APP in the classroom, another set use dictionaries in the classroom, and a few use games in the classroom (Fig. 6).

4.7. Will you use Google on smartphone?

Google is a worldwide used software. It can be downloaded on smartphones and search for the information required by the user. 85 informants responded as they use Google in their classroom whereas 15 informants said they don't use it (Fig. 7). Zientek et al. (2018) resulted in Google being used by all academicians in schools and higher education institutions.

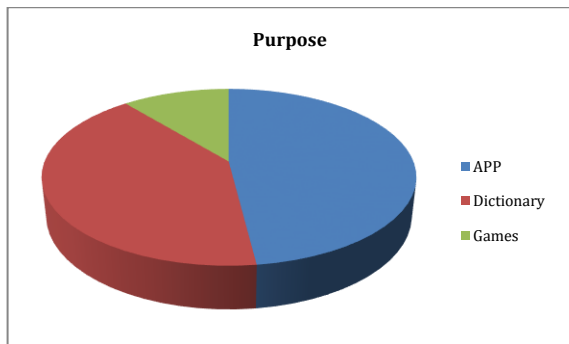


Fig. 6: Purpose

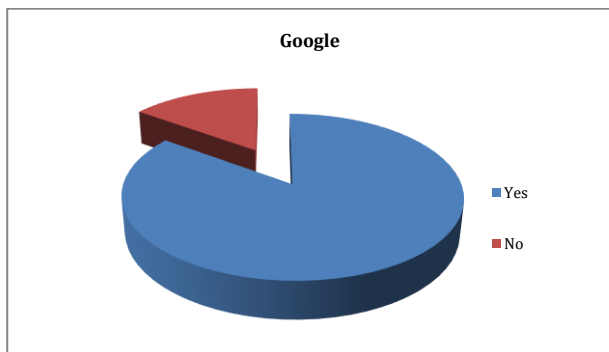


Fig. 7: Use of Google

4.8. What are the courses to be taught with smartphones?

Different courses are taught in higher educational institutions. Students learn courses according to the allocated courses in a semester and it varies from semester to semester. Sometimes it varies from year to year. In this study, language, science, and medical-related courses are preferred. 65 informants responded to language-related courses, 35 to science-related courses and none responded to medical (Fig. 8).

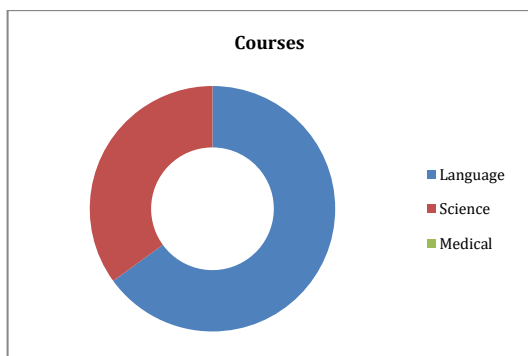


Fig. 8: Courses

4.9. What type of APPS do you use in classroom?

APPS is a form of application that can be downloaded and used through smartphones. There are different APPS that can be used in classroom teaching and learning. Most of the APPS are free and downloadable but a few are chargeable too. Responding to this element of the questionnaire, most of them responded as Kahoot. The informants' responses are of their own choice (Table 2).

APPS	No of usage	Percentage
Kahoot	89	89%
WhatsApp	5	5%
Facebook	2	2%
Instagram	1	1%
TikTok	1	1%
Telegram	1	1%
Others	1	1%

4.10. What type of game do you play in classroom?

Games play an important role in the language-learning classroom (Gozcu and Caganaga, 2016). There are different types of games that can be used in the classroom. Usually, students use Tongue twisters, bingo, maths game, and many more. Gozcu and Caganaga (2016) researched that games are one of the most important components in the classroom. Here, 98 of the informants replied yes and only 2 said no (Fig. 9).

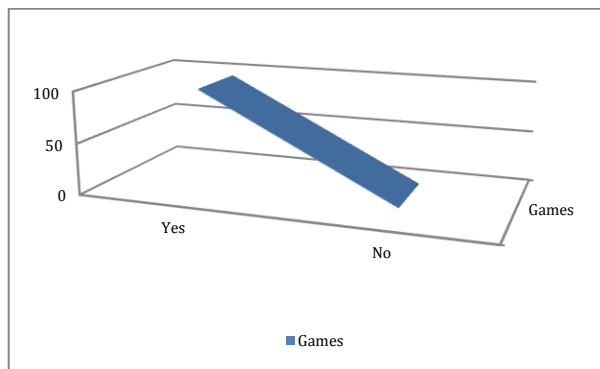


Fig. 9: Games

4.11. Why do you use dictionary in classroom?

A dictionary is essential to know the meaning of a new or difficult word found in the lessons. In smartphones many e-dictionaries are available. For this question, there are varied responses from the informants. 87 replied they use a dictionary to find the meanings, 10 said for pronunciation and 3 to find the usage (examples) (Fig. 10).

4.12. Do you think smartphones will help you in learning more?

Smartphones are the smartest inventions of the modern era. Its usage can be seen in the field of education. When this question is asked, 89 informants responded positively and 11 responded negatively. This shows that students are benefited from using smartphones in the classroom (Fig. 11).

5. Importance and advantages

As per the responses received through the questionnaire, it is clear that the use of smartphones has become essential in many higher education institutions. A few students do not the importance of smartphones in classrooms. Some of them are

smartphones that help students for instant access. Moreover, the required answers or replies are received as quickly as possible. Further students get assistance for doing classroom assignments and presentations.

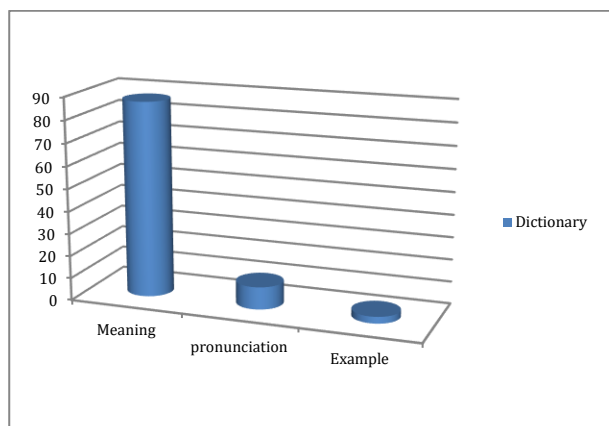


Fig. 10: Dictionary

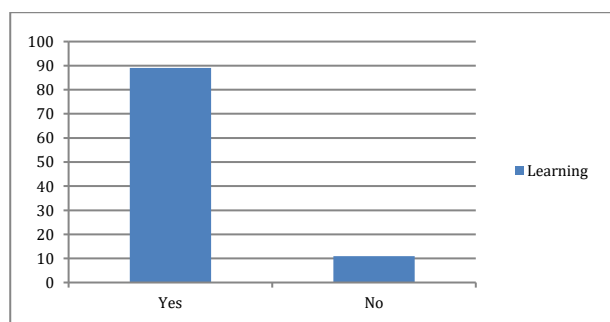


Fig. 11: Learning

Also, by using APPS like Kahoot, innovative ideas and thoughts emerge. Further, it creates interest and enthusiasm among the students. Darko-Adjei (2019) in the study on the use of smartphones in learning has described that the use of smartphones is gradually becoming a compelling learning tool used to enhance teaching and learning.

Apart from the importance of using smartphones in the classroom, there are a number of advantages too. Mohammadi et al. (2020) in their study, stated that, globally, there has been a growing trend of using mobile phones for educational purposes, and many groups, especially teachers and students, use these devices for sharing information, consulting dictionaries, and thesauri. There are 5 advantages to the usage of smartphones in classrooms such as an adviser/guide/instructor/teacher, getting to know what happens around the world, having doubts cleared as soon as you got one, great equipment in order to improve knowledge and very useful in emergency situations (Sung et al., 2016).

Moreover, smartphones are moving away from repetition memorization and text learning and focuses on education that involves more analysis and critical thinking. This is because of the widespread availability of information on smartphones. Also, smartphones enable access to an encyclopedia and digital libraries of knowledge. Another advantage is the potential for collaborative learning, for example,

group study or group projects. Students will be able to organize, share notes or information and connect with each other.

6. Conclusion

In different periods various approaches and principles are used to enhance the field of education, especially in teaching and learning processes. This era can be called a technological era since all fields or disciplines are occupied with the use of technology. Today's classroom is also equipped with technological equipment. The use of SPALT is more though it has disadvantages like wasting time on unwanted information, addiction, and so on. This study reveals that SPALT is used in many higher educational institutions. Moreover, it finds out that students are interested in using smartphones in the classroom for various purposes such as searching for information on Google, finding the meaning of new or difficult work, knowing the pronunciation of words, to play drills and exercises through games. No doubt in the future, all educational institutions will be equipped with technology, especially a smartphone. Teaching and learning through smartphones will be a need of future education.

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Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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