

## The Networked Smart Gadgets and Their Role(s) in Enhancing Learning Autonomy in Higher Education's EFL Context

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### Abstract

*The present study explores the perceptions of EFL teachers in higher education on the role of handheld networked devices in promoting autonomous learning. In this project 43 male teachers from King Abdulaziz University (KAU) and the University of Jeddah (UJ) in Saudi Arabia (KSA) responded to a survey. Qualitative data, on the other hand, was gathered through a silent interview where informants answered five open-ended questions related to study's research questions. The findings revealed the participants value the usefulness of smartphones in enhancing autonomy in language learning. They were also of the view that smartphones have beneficial characteristics when used in actual classroom. In addition, the results show that most of the participants are for a purposeful and guided integration of this type of technology in order to help learners develop the required linguistic and extra-linguistic skills. Equally important was the finding that use the of smartphones along well-developed L2 learning applications in language learning cannot replace the teachers' vital and crucial role in the whole learning process.*

**Keywords:** Higher education, smartphones, EFL, language learning, autonomous learning

### INTRODUCTION

The year 2011 was marked by the introduction of the new term 'Industry 4.0', best known as the Fourth Industrial Revolution (Schwab,2021). Both terms refer to the radical shift from the old-fashioned mechanical and analog technologies to a totally new digitalized industrial world. This industrial revolution has brought to the surface the current wave of globalization4.0. With this wave, there are urgent calls for establishing another model of education that equips the workforce with new set of skills necessary to meet requirements of the digitized systems of communication, health, production and of transportation.

Hence, this globalization wave, with the widespread use of smartphones, palmtops, and many other types of networked handheld devices, had a direct impact the people's life. Moreover, the use of the smartphone technology seems to be changing our social landscape as everyone increasingly transforms the public space into a private one by means of smartphone communication practices (Campbell, 2006). With this unprecedented technological advancement, many students are constantly attempting to use their smartphones in developing and improving their skills in foreign languages, such as English. Thus, the integration of these devices in EFL context and pedagogy has sparked discussions for many studies and pushed researchers to shed light on the adoption of the

smartphone technology and to explore its effectiveness in EFL instruction. In other words, the recent advancements in smartphone technology have attracted special attention in the area of EFL instruction (Stockwell, 2010). It has been argued that, empowered by wireless internet connection, these devices have a significant impact on the teaching methodology and on the learning styles and skills, as well.

Moreover, it seems that most language teaching methods gained popularity in the previous two centuries are now being replaced by new methods (Dinçay, 2010). Similarly, with the passage of time, the instructional tools and the teaching methodologies are being constantly improvised in line with the latest technological development (Prasad, 2013). However, despite the increasing number of studies related to Mobile Assisted Language Learning, (MALL) it seems that very limited attention was given to the EFL educators' beliefs and views on the adoption of smartphones in foreign language pedagogy.

Based on the idea that there is a real tendency for a shift from an era of Computer Assisted Language Learning (CALL) to the new age of Mobile Assisted Language Use (MALU) (Jarvis, 2014), smartphone technology may offer new opportunities to learn foreign languages, such as English in more effective ways. However, it seems that almost all the benefits that can be gained from such a technology in EFL learning depend on the teachers' attitudes and perceptions towards the use of these devices in EFL education (Anggeraini et al., 2019). Their attitudes and perceptions are decisive in a successful integration of m-learning in the area of foreign language teaching and learning (Cheon et al., 2012).

### ***M-Learning***

As M-learning is a relatively new learning model, it seems that it has no agreed-upon definition in the literature. For some authors, it is always considered as a next phase of e-learning (Franklin, 2011), whereas some others relate its definition to its ubiquity, as leaning can take place anywhere and at any time. On the other hand, Wexler et al (2007, p. 21) stated that mobile learning refers to “any activity that allows individuals to be more productive when consuming, interacting with, or creating information, mediated through a compact digital portable device that the individual carries on a regular basis, has reliable connectivity, and fits in a pocket or purse”. On the other hand, Aljuaid et al (2014) stated that m-learning refers to an activity that takes place beyond the traditional boundaries of the classroom using portable digital devices.

The concept of mobile learning has been associated with different learning theories. For instance, the constructivist theory is one that best associates with this model of learning. It is argued that the learner, during the learning process, usually constructs new ideas based his or her actual and prior knowledge. Thus, all activities that are designed and based on this idea will help the learner to learn how to think in a creative way (Bruner, 1966). Further, Koschmann et al. (1996) argued the theory of problem-based learning urges the learner to be reflective by finding adequate solutions to given problematic situations and therefore it helps him/her develop critical thinking skills. Similarly, the theory of conversational learning was applied in studying mobile-based communication (Sharples, 2002). According to Sharples (2002), this model of learning is the outcome of a dialogue between two different sets of knowledge. Additionally, as collaborative work

was promoted among learners via mobile devices, it is argued that the concept of m-learning is associated with the theory of collaborative learning.

It has been argued that mastering a foreign language is not only about acquiring the four linguistic skills, but also about developing learning skills including creative thinking, collaborating with others, communicating as well as critical thinking (Trilling & Fadel, 2009). In other words, in 21<sup>st</sup> century, the job market and the global marketplace is always in need of experts who have a high level of imagination and creativity that lead them create new products and ideas that respond to needs of the global society. Therefore, in order to boost and improve the learner's ability to create, to innovate, to collaborate and to engage in complex communication, having effective and efficient access to information has become of a paramount importance (Trilling & Fadel 2009). Moreover, the 21<sup>st</sup> century learners, sometimes referred to as "digital natives", are constantly using networked devices. However, the question about the role of high-tech devices in enhancing autonomous learning in EFL classrooms is still without answer.

### **Autonomous Learning**

Autonomous learning is a concept that has been defined as the ability to decide what, when and how to learn Van Lier (1996). According to Holec (1981), an autonomous learner is someone who can take charge of his or her own learning. In this regard, it is stated that developing autonomy in second language learning is all about moving from a teacher- centred to a learner-centred model of learning (Dam, 1995). However, Little (1994) argues that autonomy in learning does not refer to the concept of learning in isolation. Moreover, according to Aoki (1999), the development of learners' autonomy does not refer to the exclusion of the teacher. He argued that even though students have access to learning materials, they still need the teacher to guide them, to evaluate, to encourage, and to give them the feedback they need and to make them feel that they are really autonomous. Similarly, Jones (2007, P.2) pointed out that "a student-centered classroom is not a place where the students' decide what they want to learn or what they want to do". Further, regarding the relationship between m-learning and autonomous learning Sharples et al. (2007, P.225) found that m-learning is "the processes of coming to know through dialogue across multiple contexts amongst people and personal interactive technologies". He, therefore, advocates the idea that ubiquitous technologies and interaction should lead to the creation of the learning context.

Literature seems to focus on a consensus that learning autonomy and effective learning are inter-related (Little, 1991; Benson 2010) in the sense that autonomous learning is all about the learner's responsibility, flexibility, and curiosity. In simpler words, autonomous learners, in general, are learners who are aware of their need to learn and they present positive attitude towards their learning process. They, therefore, self-reliant who know how to set their learning objectives and explore the adequate learning resources (Littlewood, 1999). They also demonstrate a strong awareness of their learning styles and their cognitive potential which enables them to monitor their progress and evaluate their learning outcomes ( Al-Saadi,2011).

In a nutshell , based on the previously mentioned definitions and features of learning autonomy, Al-Saadi ( 2011) argues that an autonomous learner, in general, makes use of

his metacognitive knowledge in a conscious and active way which makes it possible for him to gain more control over the whole learning process where dependency on the teacher is minimized through a gradual and constant development of self-reliance

### **M-learning in higher education**

For an effective integration of mobile learning Vincent (2012), recommended education professionals to select educational applications that are convenient not only in terms of their content but also in terms of the context where they are utilized. In other words, the choice of these application should be mainly bound by the degree of flexibility and customizability of the device itself. For instance, a good application should tell how well the learner's performance and progress is. In addition, Vincent's advocates that the best applications are those that not only are able to motivate and engage the learners but also give them the opportunity to share their work with their peers and with their teachers. Moreover, Vincent claims that the best applications are those that allow students to develop specific skills such as, critical thinking, creativity, evaluation, communicative, analytical skills.

Eppard, Nasser & Reddy (2016) investigated the main benefits of m-learning through conducting a qualitative study. Results revealed that the adoption of mobile learning is highly beneficial in the sense that it enhances thinking skills, collaborative skills, students' engagement, students' interaction, sharing feedback, along with other benefits such as the cost, relevance, and flexibility.

Equally important, the widespread of networked smart gadgets make learning ubiquitous which means that students can learn wherever and whenever (Bradley & Holley, 2011). Additionally, smartphones with wireless internet connection make it possible for learning to take place beyond classroom walls and therefore it boosts autonomous learning by making a wide range of learning resources available for the learners (Hsieh, Jang; Hwang & Chen, 2011).

Although many scholars and educational experts are constantly advocating the idea that networked smart gadgets have a wide range of beneficial characteristics, it has been claimed that the adoption of m-learning cannot be flawless. It has been noted that the use of mobile phones still has some limitations on different levels. First, pedagogically, many teachers see the use of networked smartphones within a classroom environment as distraction which has a negative effect on class management and on the normal flow of the lesson. For instance, learners being glued to their mobile phones for a long time are likely to lose concentration and their chances to better learning are likely to decrease. Similarly, playing games, texting, watching media and sharing live video during class time would certainly impede the learning process. In addition, the adoption of m-learning in a context where the teachers are unable to keep up with the technological innovations may have a direct impact on their teaching effectiveness (Catapano, 2015). Moreover, EFL educators are always considered to be the front lines of the teaching /learning process. They, therefore, need to keep abreast with the latest technological advancements in the field of foreign language learning so that they may empower themselves with the necessary

knowledge of these pedagogical innovations that leads to more autonomy and independence among language learners (Nguyen et al. 2018).

In addition, the use of mobile phones as learning resources are sometimes defective especially when learning materials are not well-prepared or not selected in a purposeful way (Oliver, 2007). Finally, it has been argued that content development can sometimes be costly and more time-consuming.

### **M-Learning in EFL Context**

Though m-learning is still in its infancy (Godwin Jones, 2011), research on EFL teachers, attitude towards m-learning, presents evidence that EFL teachers have a positive attitude towards m-learning and encourage the use networked digital devices for educational purposes. In this regard, the findings of a meta-analysis of some mobile learning aspects conducted by Wu et al. (2012) suggest that most of the emerging studies on m-learning show a favourable attitude towards the model of learning. For instance, Wang et al. (2009) investigated the determinants of m-learning acceptance. The study included 330 participants in Taiwan. Findings provided several important implications for m-learning acceptance and positive attitudes among the majority of the participants.

Moreover, Uzunboylu and Ozdamli (2011) conducted a study to measure teachers' perceptions on m-learning, in Cyprus. The research included 467 participants from 32 schools. The results revealed the sample of teachers had above medium levels of positive attitude towards m-learning.

Similarly, Oz (2015) conducted a research to investigate pre-service English teachers' perceptions of Mobile Assisted Language Learning. The study included 201 participants from EFL teacher education department in Turkey. He utilized Mobile Learning Perception Scale and interviews as data collection tools. The results of this study revealed that the participants had a very positive attitude towards using mobile phones in EFL instruction.

Abugohar, Yunus and Rashid (2019) investigated the perception of EFL teachers regarding the use of smartphones in teaching speaking skills. The research findings show that most of the EFL educators have a very positive attitude towards using smartphone in developing the learners' oral communicative skills in the target language. Similarly, the research results in the study conducted by Alzubi (2019) in Saudi Arabia revealed that most the participants (EFL teachers) acknowledged the integration of smartphones in the EFL classrooms. Alzubi and Singh (2017) attempted to assess the impact of using of language learning strategies mediated by smartphones on language autonomy in EFL reading context. The results support the important role of smartphones in enhancing autonomous learning, in the sense that language learners can have a better control over their learning process within an independent learning environment allowing an unrestricted access to learning resources of their own choice.

In a similar vein, (Kukulska-Hulme & Shield, 2008) reported that a review of publications about mobile-assisted language learning revealed that mobile phones have a significant role in supporting collaborative learning and boosting social context. It was also argued that these devices -when employed in listening and speaking activities- were found to be useful in creating the possibility of synchronous and asynchronous interaction among learners in an online and a distance learning context. According to Kukulska-

Hulme & Shield (2008, P.289) MALL is able ‘to support multimedia, collaborative listening and speaking activities and to allow learners to co-construct knowledge to solve problems and fill information gaps.’

On the other hand, Djoub (2015) investigated the way 42 English teachers utilized Mobile-Assisted Language Learning. The results showed that most participants had a limited use of their mobile devices. This study also reveals that language learners lack the skills and the knowledge of the proper use of smartphones as well as the required support from their teachers. The researcher believes that students are not likely to develop autonomous learning in such an environment and she recommended teachers to enhance the use Mobile-Assisted Language Learning.

Further, Serin (2012) conducted a study to investigate the perceptions of 355 prospective teachers, studying at a private university, on mobile learning. The findings of this research showed that that prospective teachers’ mobile learning perception level was extremely low and considerable number of the participants expressed their negative attitude towards m-learning. Some others appeared to have no idea about what m-learning was about. Thus, negative perception on the use mobile phone as a learning tool is related to some drawbacks and challenges. For instance, mobile phones are always seen as tools that cause distraction and cause disciplinary problems when used during class time (Martin & Ertzberger, 2013). Despite the popularity that smartphones and many similar handheld devices have gained in recent years in the field of education in general and in language learning in particular, it has been noted that they cannot replace the teachers’ vital and crucial role in the whole learning process (Zilber,2013). In other words, ‘it should remain that no products of technology replace the teachers.’ (Hajan & Padagas,2021. p 117).

### ***Research Questions and Hypotheses:***

Although literature on the perceptions and attitudes towards about m-learning is growing rapidly, it seems that research into the perceptions of English teachers towards the use of digital mobile devices in the classrooms, especially in Saudi Arabia, is still partial and scarce. Equally important, the number of those who possess smartphones in Saudi Arabia is growing. Recently, it has been reported that the number of smartphone users in Saudi Arabia is estimated to reach 20 million [in the year 2019](#) even though smartphone market growth has been slowing down due to the global economic conditions (Statista ,2020). Seeing this gap in literature and the number of adult students sitting in classrooms with their eyed glued to their hi-tech devices during class time, this study aims at extending this line of research and attempts to investigate the attitudes and perceptions of English language instructors in Saudi Universities about the use of smartphones in EFL context and their roles in enhancing autonomous learning.

To be specific, this research study is guided by the following research questions;

- 1- What are the attitudes of EFL teachers in the Saudi university on the use of smartphones use in EFL context?
- 2- Are there any learning skills that the language learner can gain from using his/her smartphone in language learning? If so, what are they?
- 3- What role(s) can smartphones play in enhancing autonomous learning in EFL context?

- 4- Can smartphones replace EFL teachers in higher education institutions in Saudi Arabia and why?

Thus, the following four hypotheses were tested:

H<sub>01</sub>: It is expected that most preparatory year English teachers do not have any positive attitudes towards the use of smartphones in Saudi EFL classrooms.

H<sub>02</sub>: It is expected that the language learner does not gain any learning skills from using his smartphone.

H<sub>03</sub>: It is expected that smartphones play a leading role in fostering language learning.

H<sub>04</sub>: It is expected that smartphones cannot replace EFL teachers in Saudi higher education institutions.

## **METHOD**

The purpose of this research was to investigate English teachers' attitudes and perceptions on the use of smartphones in EFL classrooms and their role in fostering the autonomous language learning process in Saudi Arabian universities. Questionnaires were employed to collect quantitative data to examine the participants' views on the research topic. In addition, interviews with selected teachers were used to collect qualitative data for a better understanding of their perspectives on the use of smartphones as language learning tools.

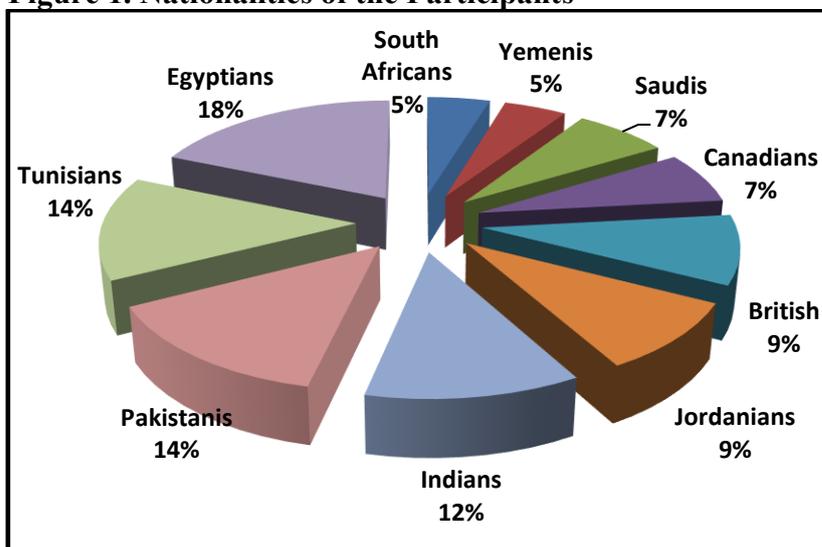
The choice of utilizing two different data collection tools in this study is justified by the argument that interpretations that are built upon triangulation have been proved to be to more powerful than those relying on a single method. In this regard, Dorneyi (2007, P.42) states that "over the past 15 years, mixed methods research has been increasingly seen as a third approach in methodology". The method has been endorsed by some of the most influential methodologists in the social science. This popularity is due not only to the fact of collecting and analysing two types of data, but also because it includes the use different approaches in tandem to make the findings of the study more robust than single methods studies (Creswell & Clark, 2007). Moreover, use of mixed methods enables the researcher to embed two types of data so that he/ she can analyse varied types of questions (Dorneyi, (2007).

In this study data was collected from a sample of English teachers serving for two different universities in Jeddah, Saudi Arabia: the University of Jeddah and King Abdulaziz University. First, the participants were invited to respond to a questionnaire. Then, a selected number of volunteers sat for interviews. Though the quantitative and qualitative data were analysed separately, in order to look for similarities and convergences, the results were combined. Additionally, the researcher utilized the qualitative data to contextualize and triangulate the quantitative data. According to MacIntyre et al. (2010, P.4), this triangulation is beneficial as it allows the researcher to "see more than what any one method can reveal on its own, but that in itself is not enough". Thus, this combination of results of qualitative and quantitative data helps eliminating each other's limitations. In the next two sections both approaches will be discussed.

Based on the literature review, a questionnaire was developed by the researcher and distributed on paper to 43 male participants with the job title of English Language Instructor at the preparatory year program. The questionnaire consisted of three main parts. The first part was used to collect some demographic details about the participants including age, nationality, place of work and teaching experience. Part B included 10 statements to assess the respondents' attitudes to the use of smartphones in EFL classrooms. These 10 statements were categorized into three main areas: advantages and shortcomings of smartphones as well as the teachers' attitudes towards the use of smartphones in EFL classrooms. This part was adopted from a questionnaire used by Oz (2015). Part C of the questionnaire, was adopted from a study carried out by Kashefian-Naini (2002) on autonomous learning and it consisted of 14 statements to elicit the participants' views on the role that smartphones may play in promoting autonomous language learning. Statements in part B and part C were adapted in a way that made them suit this study using a 5-point Likert scale: strongly disagree, disagree, do not know, agree and strongly agree.

The type of interview opted for in this study, was silent one during which responses are presented in writing rather than in speech (Delany, 1994). This way of conducting interviews is considered as a good alternative to questionnaires and oral interviews (Creswell, 1998). The interviews consisted of open-ended questions directly related to the research questions.

**Figure 1. Nationalities of the Participants**



A total number of 43 English language teachers working for the University of Jeddah and King Abdulaziz University in Saudi Arabia responded to the questionnaire. The respondents' age ranges between 26 and 67 while their teaching experience ranges from 2 to 33 years. Additionally, the participants came from 11 different countries as it is mentioned in figure(1). However, the only 11 participants who volunteered to be interviewed formed a sample that represented all ranges of age and of teaching experience.

In this study, two types of data were gathered. Once collected, the quantitative data was analysed through tabulation and calculation of percentages by means of software (SPSS) Version 24. However, all responses gathered through the silent interviews were listed and put into different categories according to the themes to which they are related.

## FINDINGS AND DISCUSSION

For the purpose of analysis, the responses to questionnaire’s statements as well as the answers to the questions of the silent interviews were presented below according to the guiding research questions of this project.

**Research question 1:** *What perspectives do preparatory year English teachers have on the use of smartphones in Saudi EFL classrooms?*

**Table 1. Responses to Satatments1-10**

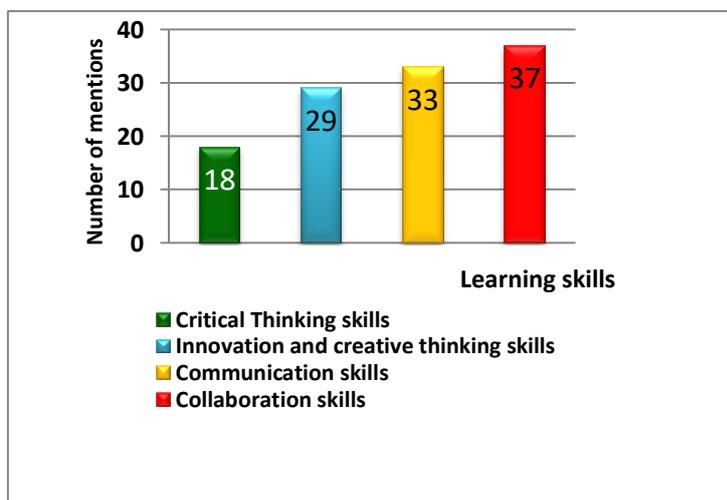
	Statements	SD	D	N	A	SA
1	I do not mind when students use their mobile phones during class time for educational purposes.	6 14.0 %	4 9.3%	0 0	14 32.6 %	19 44.2 %
2	The smartphone motivates learners if used for learning.	2 4.7%	1 2.3%	2 4.7%	16 37.2 %	24 55.8 %
3	The smartphone makes learners more active in the learning process.	1 2.3%	3 7.0%	7 16.3 %	32 74.4 %	1 2.3%
4	The smartphone helps adult learners concentrate on lessons better.	6 14.0 %	13 30.2 %	1 2.3%	13 30.2 %	10 23.3 %
5	Uncontrolled use of smartphones in lesson distracts the learners.	5 11.6 %	6 14.0 %	10 23.3 %	19 44.2 %	3 7.0%
6	Using the smartphone in lessons causes classroom management problems and causes disciplinary problems	2 4.7%	4 9.3%	11 25.6 %	17 39.5 %	9 20.9 %
7	The Smartphone may cause anxiety among students with poor ICT literacy.	1 2.3%	10 23.3 %	4 9.3%	20 46.5 %	8 18.6 %
8	I do not hesitate to use my smartphone for teaching purposes.	3 7.0%	4 9.3%	4 9.3%	18 44.2 %	14 32.6 %
9	I think smartphones should be commonly used in EFL classrooms	2 9.3%	9 20.9 %	9 20.9 %	18 44.2 %	9 20.9 %
10		1	0	14	23	5

I think smartphones can be used in every lesson at every stage.	2.3%	0%	32.6%	53.5%	11.6%
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As shown in table 1, most of the participants (76.8%) agreed that they do not mind allowing their learners to use their smartphone in the classroom for educational purposes. Similarly, the second statement about the role of smartphones in motivating the learners gained a very high percentage of agreement (90%). As for statement that “the smartphone makes learners more active in the learning process” more than (75%) of the participants expressed their agreement to this statement. Additionally, the statement that the smartphones help adult learners concentrate on lessons better elicited (30.2%) of agreement and (23.3%) of strong agreement. On the other hand, the statement that “uncontrolled use of smartphones in lesson distracts the learners” elicited a percentage of agreement equal to (51.2%). Similarly, the statement “using the smartphone in lessons causes classroom management problems and causes disciplinary problems” gained a very high percentage of agreement as (60.4%) is the total percentage of those who strongly agreed and agreed. Similar to the responses of the previous statement, (64.4%) of the teachers showed their agreement that “the smartphone may cause anxiety among students with poor ICT literacy”; Besides, there was an overall agreement (76.8%) among participants that they “do not hesitate to use my smartphone for teaching purposes”. Similar to the responses of the previous statement, most respondents (61.1%) agreed that “smartphones should be commonly used in EFL classrooms”. The final statement of part B in this questionnaire was about the possibility of using smartphones at every stage of the lesson. A total number who saw that it is possible was around (65.1%) of the participants

**Research question2:** *Are there any learning skills that the language learner can gain from using his/her smartphone in language learning? If so, what are they?*

**Figure 2. The Learning Skills That Learners Can Develop Through Using Their Smartphones in EFL Lessons.**



As shown in figure above, most informants agreed that apart from their role in improving the learner’s linguistic skills, smartphone help the learner develop a variety of learning skills. 37 respondents agreed that the learners can gain collaborative skills from using his /her smartphone. Similarly, communication skills were mentioned by 33 participants as the most important learning skills that the learner can develop through utilizing his digital networked phone. Moreover, 29 teachers said that smartphones enable the learner develop innovation and creative thinking skills. However, critical thinking skills got the smallest number of mentions (18) as skills that can be gained by learners using their smartphones.

**Research question 3:** *What role(s) can smartphones play in enhancing autonomous learning?*

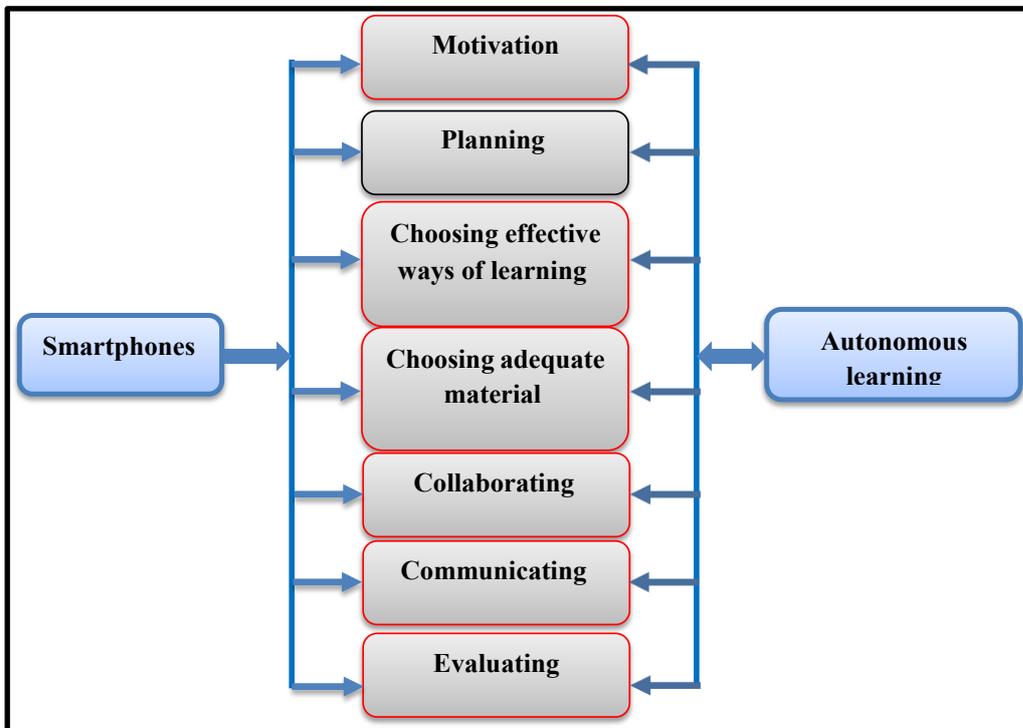
**Table 2. Responses to Statements 11-24**

Statements	SD	D	N	A	SA
12 The student can take photos of the notes from his peers, read, and understand them on his/her own.	1 2.30%	4 9.30%	6 14.00%	27 62.80%	5 11.60%
13 Students know how to study English through their smartphones.	7 16.30%	16 37.20%	12 27.90%	7 16.30%	1 2.30%
14 Smartphones can enable students to write in English in an accurate way.	6 14.00%	9 20.90%	1 2.30%	15 34.90%	12 27.90%
15 Students can get the necessary assistance in learning English from their smartphones.	2 4.70%	9 20.90%	9 20.90%	22 51.20%	2 4.70%
16 Students have a clear idea of what they need of English.	11 25.60%	17 39.50%	9 20.90%	6 14.00%	0 0
17 Students can find effective ways to learn the language through their smartphones.	4 9.30%	1 2.30%	13 30.20%	16 37.20%	9 20.90%
18 Students have to be responsible for finding their own ways of improving their English.	3 7%	9 20.90%	3 7%	20 46.50%	8 18.60%
19 Students should use much self- study materials to learn English.	0 0	2 4.70%	3 7.00%	23 53.50%	15 34.90%
20 A lot of language learning can be done without a teacher.	4 9.30%	8 18.60%	6 14.00%	14 32.60%	11 25.60%
21	2	9	4	19	9

	Smartphones foster individualized learning opportunities.	4.70%	20.90%	9.30%	44.20%	20.90%
<b>22</b>	Smartphones maximize the learner's exposure to the language.	2	9	4	19	9
		4.70%	20.90%	9.3	44.20%	20.80%
<b>23</b>	Smartphones provide the learners with more authentic learning materials than the teacher does.	7	12	9	7	8
		16.30%	27.90%	20.90%	16.30%	18.60%
<b>24</b>	The student can evaluate his language proficiency through his/her smartphone.	2	12	15	11	2
		4.70%	27.90%	34.90%	25.60%	4.70%
			%		%	

As shown in table 2, the majority of the respondents either agreed or strongly agreed the statement that “the student can take photos of the notes from his peers, read and understand them on his/her own” elicited a high percentage of (74.2%) of agreement Unlike in the previous statement, (53.50%) of the participants expressed their disagreement that “students know how to study English through their smartphones”. Moreover, the statement “the students can get the necessary assistance from their smartphones elicited percentage of agreement (54.9%). On the other hand, responses to the statement” students have a clear idea of what they need of English” showed that the vast majority of respondents expressed either their strong disagreement (25.6%) or their disagreement (39.5%). Furthermore, a large portion of the participants 58% believed that “students can find effective ways to learn the language through their smartphones”. Similarly, the statement that students have to be responsible for finding their own ways of improving their English received a high percentage of agreement (65.1%). Additionally, more than (50%) of the participants agreed that “A lot of language learning can be done without a teacher” whereas (27.9%) of the respondents expressed their disagreement regarding the same statement Besides, the statement that smartphones provide the learners with more authentic learning materials than the teacher does gained (43.90) % of disagreement and around (35%) of agreement. The final statement “the student can evaluate his language proficiency through his/her smartphone” elicited almost the same percentage of agreement (32.60%) and disagreement (30.30%)

**Figure 3. The Role of Smartphones in Boosting Autonomous Learning in EFL Context**

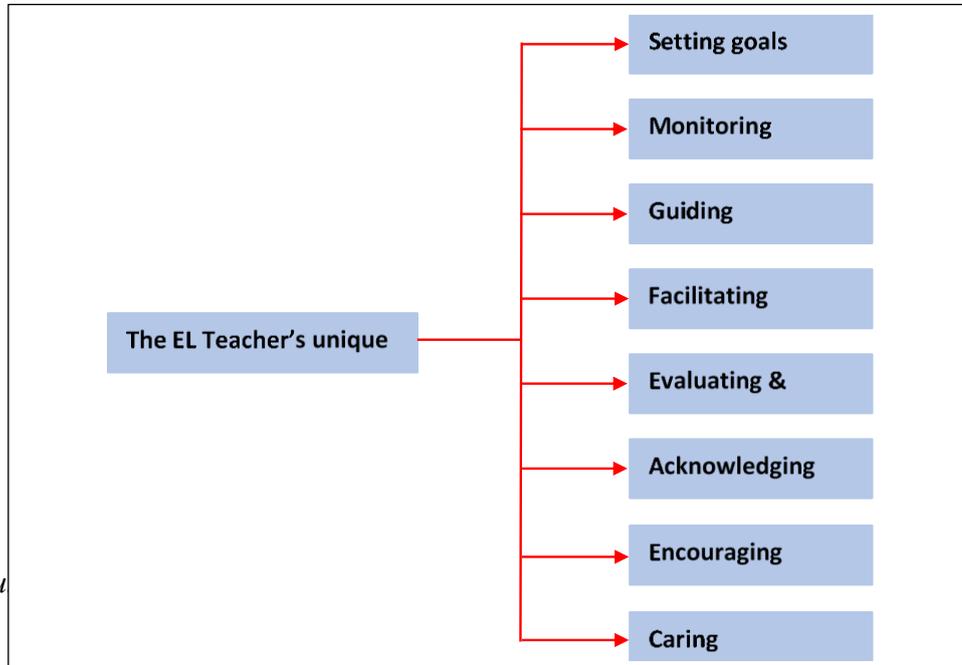


During the interviews, on the other hand, when responding to question about the role of smartphones in promoting autonomous language learning some participants listed four benefits: first, the smartphone gives the possibility of planning what, how, when and where to learn. Second, such digital gadgets provide the learner with a wide range of adequate primary and supplementary materials. Third, the learner can use his/her smartphone to engage in an informative discussion as well as in collaborative learning activities with peers or with teacher. Fourth, the smartphone enables the learner to work on his own anywhere and at any time.

However, some other participants, pointed out that smartphones are very motivating learning tools. Moreover, some respondents saw that smartphones help the learner make the sought progress by evaluating his/her efforts and his/her performance and by taking action towards finding out his own areas of strength and those of weakness.

**Research Question 4:** *Can smartphones replace EFL teachers in Saudi higher education institutions in Saudi Arabia and why?*

**Figure 4. The Teacher’s Unique Roles**



Figur

Besides the benefits they have mentioned, all interviewees agreed that smartphones cannot replace the teacher. As shown in figure (4), all the participants asserted that there is a variety of tasks and roles that unique to the teacher, for instance, setting learning goals, facilitating, guiding, acknowledging the learners’ efforts, evaluating...etc. are the main reasons that the informants have presented to stress their views that the teacher is an irreplaceable element in the EFL learning process.

### Discussion

**Research Question1:** *What perspectives do preparatory year English teachers have on the use of smartphones in Saudi EFL classrooms?*

The results of this study revealed that the majority of the preparatory year English teachers at the University of Jeddah and at King Abdul-Aziz University have strong positive attitudes towards the use of smartphones in EFL classrooms. These findings are in line with other studies where teachers were found to have favourable attitudes towards the use of mobile phones as learning tools ( Wu et al., 2012;Wu et al.,2012;Uzunboylu and Ozdamli 2011; Oz,2015; Wang et al.2009). However, based on the results of this research it has been found that EFL educators need to keep up with the latest educational smart technology because the slightest lack knowledge and training in this area may act as a barrier to an optimal and effective teaching as it has been shown in the literature review (Djoub 2015).

All in all, these findings brought enough evidence to consider the hypothesis that “English teachers do not have any positive attitudes towards the use of smartphones in EFL classroom” is invalid.

**Research Question 2:** *Are there any learning skills that the language learner can gain from using his/her smartphone in language learning? If so, what are they?*

The findings of this study showed that the use of smartphones gives the opportunity to the learner to develop – to a certain degree – new and useful learning skills including creative thinking, critical thinking, communication skills as well as collaboration skills. In other words, a purposeful use of smartphones in language learning may result in fostering the learner’s self-reliance and in making language learning a life-long process. Moreover, most respondents reported that smartphone technology could support student in building a new linguistic knowledge in different areas in the sense that it requires that the learner acquires the capability to solve problems, to create, ask, to find appropriate answers to questions, to be able to generate critical reviews and communicate effectively with others during collaborative learning tasks. Accordingly, these findings are supported by studies mentioned in the literature review section (Trilling and Fadel 2009; Sharples et al., 2007; Kukulska-Hulme & Shield, 2008). Overall, based on the results that are related to the learning skills that the learner can acquire from using his/her smartphone, “the learner cannot gain any learning skills from using their smartphones” was proved to be a false, too.

**Research Question 3:** *What role(s) can smartphones play in enhancing autonomous learning?*

Based on the results, most teachers agreed that using smartphones as learning tools in EFL classrooms can play a central role in promoting autonomous learning. Additionally, all participants asserted that the learner’s personal effort is the pivot upon which success in language learning turns. In this regard, the participants’ views are aligned with Joshi’s (2011) argument that autonomous learning depends – to a large extent- on the student’s desire and effort to learn the language. Moreover, all the informants agreed that adult learners in higher education are aware of the importance of learning English. Thus, smartphone can assist language learners in providing the necessary motivation and wide range of adequate material. Moreover, most participants pointed out that smartphones foster communication and collaboration with peers or with the teacher. In this regard, Sharples et al. (2007: 225) learning using digital devices is “the processes of coming to know through conversations across multiple contexts amongst people and personal interactive technologies” This point is also supported by similar arguments by Bruner (1966), Dam (1995).and Little (2007). Equally important, in EFL classrooms there is always the possibility of using smartphones in correcting the learner’s mistakes, raising their level of accuracy, explaining the meaning of unknown words, comparing, and evaluating their performance and progress (Little 1991; Benson, 2010; Al-Saadi, 2011;.

In a nutshell, interestingly, most of the participants responses reveal that their beliefs value the usefulness of smartphone technology in promoting language autonomy when utilized in foreign language learning context. Such results are aligned with previous studies that have proved the importance of the adoption of smart technology in enhancing autonomous learning in EFL classes (Bruner,1966; Dam,1995; Little 2007; Josh, 2011; Alzubi & Singh ,2017)

On the whole, the findings of this study showed that, smartphones can help the learner acquire useful learning skills, find the necessary learning material, increase his/her exposure to the language and promote his/her self-reliance. Hence, it seems to be quite reasonable to conclude that these smart networked palmtops play a central role in making the learner move to autonomous learning. Thus, it was proved the hypothesis that smartphones cannot play any roles in promoting autonomous language learning was not true.

**Research Question 4:** *Can smartphones replace EFL teachers in Saudi higher education institutions in Saudi Arabia and why?*

Based on the results, all the participants reported that smartphones cannot replace the teacher in language classrooms. They asserted that the learner's need for the teacher is endless. They pointed out that the teacher's expertise is of a crucial value in language learning: he/she the one who sets objectives for the learners and evaluates their progress and performance. Additionally, there was a total agreement among the participants that even if smartphones provide access to resources anytime and anywhere, students still need the teacher as he/she is the only one who can provide them with the feeling that they are autonomous. Moreover, it has been argued that being autonomous does not mean that practice should be neglected. Further, the learners still need to rely on the teacher who should always provide them with the encouragement, acknowledgment that they need. In other words, being autonomous does not mean that the learners have absolute liberty to do what they want, the way they want, whenever they want (Jones, 2007). Thus, the reasons why the learners- even after moving to autonomous learning – still rely on the teacher's expertise are in line with those listed by Aoki (1999). Consequently, Smartphones cannot replace teachers (Zilber,2013). These findings provide valid evidence that the hypothesis that smartphones cannot replace teachers is true.

## CONCLUSION

### Summary of Findings

Believing that language learning becomes enjoyable, motivating, and effective when students have fast and easy access to supplementary resources, preparatory year English teachers in Saudi universities have a favorable attitude towards the use smartphones in classrooms. In fact, the findings of this study present an evidence that the use of smartphones while learning in the classrooms students can acquire some valuable 21<sup>st</sup> century skills such as creative thinking skills, collaborative skills, communication skills and critical thinking. In a similar vein, from teachers' perspective it can be concluded

that smartphones help learners move towards autonomous learning through easy, quick and unlimited access to information. With that being said, of all areas, participants in this research have shown the least confidence in the beneficial characteristics of integrating smartphones in EFL classrooms.

However, it is worth mentioning that the shift towards autonomy in learning will remain unattainable unless it includes the teacher's expertise and guidance. In other words, although learners can access information, they always need someone who sets goals for them, facilitates, guides, and evaluates them and above all someone who provides feedback. Learning objectives are unattainable without the expertise of the teacher.

#### **Limitations of the study**

Similar to any other research, this study has its limitations, first, it targeted not only a very small population but also it focused only on male teachers without including female EFL practitioners. Second, the study covered 43 male university teachers. The findings of this research are -to some degree -context specific. However, in Saudi Arabia, there are around 28 government universities and many other private higher education institutions where thousands of teachers from all over the world (with different cultural specificities, and with varied teaching experiences) work. On the whole, the limits in the size and the gender of the sample of participants make it very difficult to generalize the finding of this study

#### **Implications of the study**

Knowing that the teachers' attitudes are very important and highly decisive in integrating smartphones as learning tools, the findings of this study imply a dire necessity to raise awareness and further positive attitudes among EFL teachers towards the use of smartphones in L2 instruction. Equally important, some action should be taken by the administration to revise some of the regulations that ban the use mobile phones during class time.

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