



## THE USE OF MOBILE PHONES IN PEER TEACHING AND LEARNING OF ENGLISH LANGUAGE AMONG UNIVERSITY STUDENTS: THE CASE OF BOMET UNIVERSITY COLLEGE, KENYA

**Wayong'o John Wanjala<sup>i</sup>**

Lecturer of English Language Education, Dr.,  
Department of Curriculum, Instruction, and Education Management,  
School of Education,  
Bomet University,  
Kenya

### **Abstract:**

Mobile phones are one of the most successful technologies of the past two decades. More and more educators are using them as an educational tool. Language learners are day by day more motivated by the individualized learning needs, not only those arising from greater mobility and frequent travel. Many researchers have argued that mobile devices are appropriate for supporting social contacts and collaborative learning opportunities. Interactivity in the classroom is reported to promote a more active learning environment, facilitate the building of learning communities, provide greater feedback for lecturers, and help student motivation. Allowing the use of primarily social technology, such as instant messaging or mobile phones, can focus student attention away from the classroom (Roschelle, 2003; Peck, B., Deans, C., & Stockhausen, L., 2010), acting as an 'intruder' and removing the lecturer's centrality in communication (Mifsud, 2002; Cavus, 2009). During the COVID-19 pandemic in 2019, many learning institutions turned to blended learning as a way of managing the spread of the Virus. One of the technologies that was crucial for both lecturers and learners was the mobile phone. It became an option for the chalkboard that required physical classes. However, even before the outbreak of the virus, some institutions around the globe were advocating for a green economy as a new way of life. Furthermore, some institutions around the world, particularly Bomet University College in Kenya, have adopted the green economy as their niche area. Therefore, the use of technology, particularly the internet, was a way of reducing paperwork, hence a clean environment, free from much paperwork. The present paper sought to investigate the use of mobile phones in peer teaching and learning in the English language among university students in Kenya. A review of research on the use of mobile phones in learning has been done to get useful insights and findings discussed and presented.

---

<sup>i</sup>Correspondence: email [johnwayongo@bu.ac.ke](mailto:johnwayongo@bu.ac.ke)

**Keywords:** smartphone, peer teaching and learning, English language, university students, Bomet University College

## 1. Introduction

Mobile phones have become an important tool in teaching and learning among university students today. Since the outbreak of corona virus, the world of teaching and learning shifted gradually to technology as a new normal to ensure that teaching and learning went on uninterrupted while curbing the spread of the virus. It became almost mandatory that all students needed to use either smartphones or laptops to attend classes online. The smartphone was preferred because of its portability, as well as its cost-effectiveness and the need to communicate. Many students are enthusiastic about using the smartphone since it gives them an opportunity to explore ideas around the world through Facebook, Instagram, X accounts, among others.

Using technology may improve the process of teaching and learning English (Kessler, 2007; Machmud & Abdulah, 2017). Alrefaai (2019) says that learning through smartphones makes learning a more attractive process. It builds learners' awareness through interaction with others. Many researchers mention some advantages of using smartphones in learning, such as flexibility, portability and easy access to the learning materials (Alrefaai, 2019; Kukulaska-Hulme & Petit, 2009; Kukulaska-Hulme & Shield, 2008). According to Papadakies (2018), smartphones' characteristics can make the learning process more meaningful and comfortable. Language learning is a continuous process that needs some new instruments to make it easy and successful such as integrating some technological tools to "*motivate students as well as teachers to do their traditional jobs in different and attractive ways*" (Ta'amneh, 2017, p. 143) using smartphones and their applications in learning may help students and teachers to develop and improve educational procedures needed for teaching and learning and give helpful ideas that encourage students to study and learn better (Cui & Wang, 2008; Kizito, 2012; Wang, 2017). They can use them in listening, speaking, reading and writing. Besides, they can share information with their peers and others all over the world without looking for traditional ways to check their learning.

## 2. Statement of the Problem

English language teaching and learning require careful use of technology by both the teacher and the learner so as to achieve the desired objectives. The COVID-19 outbreak meant that teaching and learning in institutions across the globe shut down. However, many of these institutions resorted to technology so that teaching and learning could go on. In Kenya, universities turned to technology for teaching and learning to proceed. One such tool that both teachers and students found crucial was the smartphone. Many students at the university have resorted to the use of smartphones to learn the language. Lecturers, on the other hand, use peer teaching and learning as the best method to cover

the course outline and to involve students in teaching and learning. At the heart of peer teaching and learning is the smartphone. Research has shown that smartphones can be an effective tool for teaching and learning English. This study, therefore, aims to explore the use of smartphones in peer teaching and learning of English among university students.

### **2.1 Purpose of the Study**

The study investigated the use of mobile phones in peer teaching and learning of English among university students.

### **2.2 Objectives of the Study**

The study aimed to achieve the following objectives:

- 1) To establish how university students use mobile phones during group discussions.
- 2) To establish the opportunities and challenges university students face while using mobile phones in group discussions.

### **2.3 Significance of the Study**

The study investigated the use of mobile phones in peer teaching and learning of English among university students. The results are useful to students, lecturers and researchers when using mobile phones in peer teaching and learning. The results also help lecturers in organizing group work for students during English lessons, which will improve their teaching.

### **2.4 Limitations of the Study**

The results of the study are limited to university students at Bomet University College, Kenya. The study was limited to the 2022/2023 academic year. A longer period may yield different results.

## **3. Literature Review**

Available literature shows that using smartphones in learning English provided learners with new opportunities and various learning techniques; including the relationship between instructors, students and learning items (Babiker, 2015). The use of smartphone technology in learning motivated learners and supported their own learning process (Alqahtani & Mohammad, 2015; Tal and Gross, 2014). Some researchers found that integrating technology in learning created new learning strategies, supported students' achievements and reduced students' anxiety (Babiker, 2015; Thinley, Reye and Geva, 2014; Luo, Lin, Chen & Fang, 2015; Ebrahim, Ezzadeen and A.K., 2015). English language skills *"can be learned more effectively using technological tools"* (Ta'amneh, 2014, p. 188). Smartphone technology played an important role in facilitating the process of learning and teaching English.

Pulla (2020) believed that learning activities and actions could be contextualized through smartphone technology. *"The EFL teachers almost have good behavior in learning English through mobile devices. Besides, they believe that M-learning can support learning English effectively through a high percentage of scales"* (Vo & Vo, 2020, p. 12). Students might face some educational problems or difficulties while learning a foreign language. *"One of the most important roles of the instructors is to help students understand their materials and achieve their objectives successfully. Sometimes the instructors need extra information and more time to achieve the objectives of the course"* (Ta'amneh, 2020, p. 83). Using smartphones in learning English provided opportunities for teachers and students to enhance learning and change the ways of learning (West, 2012). They could be helpful and beneficial for students in different ways (Wail & Omaid, 2020). The characteristics of smartphone learning, which depended on collaboration with peers and instructors inside and outside the classroom, made this kind of learning efficient and well-organised (Gangaiamaran & Pasupathi, 2017; Klimova, 2019). Some researchers, like Chen (2016), considered mobile learning as an important strategy for learning language skills. He asserted that *"mobile learning apps provide multiple channels and modalities for adult learners to practice language skills"* (2016, p. 40). The following is a number of studies investigating the role of smartphones in learning English language skills.

Aamri (2011) examined the effectiveness of using mobile phones in English learning. One hundred male and female students from different academic colleges at Sultan Qaboos University participated in this study. The researcher concentrated on the students' behavior, attitudes and problems in using their mobiles in learning English. The results showed that students prefer using their smartphones in the classroom, but they were not given permission by teachers to use them. The results also revealed that mobile phones were considered effective learning tools when students used them appropriately. The researcher, at the end of the study, advised three (3) educationists, practitioners, teachers, and decision-makers to look positively on this kind of learning.

Abbasi and Hashemi (2013) examined the effect of cell phone use on learners' vocabulary retention and the role of gender in vocabulary retention when using mobiles. The results showed that vocabulary retention was affected by using mobiles. The results also revealed that the participants' vocabulary retention was not affected by gender. In the same vein, Kanchana and Saha (2015) explored the role of smartphones in learning English in India. They found that integrating mobile phones in learning and teaching made teaching more successful. They advised EFL instructors to change their styles and techniques in teaching a foreign language depending on internet connectivity and educational applications on smartphones. Besides, the researchers asserted that using smartphones made learners eager to learn as independent learners.

Leis and Tohei (2015) investigated the merits of using smartphones in an English classroom. The participants were divided into two groups. The first one was prohibited from using their mobiles in the classroom, while the second was supported to utilize them for learning purposes. The results revealed that the second group had a desire to learn more outside the classroom and were more independent learners than those who were

prohibited from using smartphones inside classrooms. The researcher advised instructors to encourage students to use their smartphones inside the classroom while learning the English language. In their study, Nalliveettil and Alenazi (2016) investigated students' perceptions about using mobile phones in learning the English language at Aljuf University. The participants consisted of fifty-two undergraduate EFL students. A self-report and questionnaire were used to know the participants' perspectives about the effectiveness of this kind of learning. The researchers, depending on their findings, suggested that instructors and practitioners introduce new techniques and imaginative materials for the English class. They found that teachers were positive and students were supportive towards using their smartphones in learning the English language. Using a sample of Najran University students, Elfeky and Masadeh (2016) examined the effect of mobile learning on the progress of educational success and conversational skills. The researchers divided the participants into control and experimental groups. Fifty students participated in this study. The results showed that the achievements and skills of the participants were affected positively as a result of using their mobiles in English learning. Depending on the results, the researchers suggested using mobile phones inside classrooms.

Basal, Tanriverdi and Sari (2016) explored the effectiveness of mobile applications in teaching vocabulary. They examined the efficiency of mobile applications on teaching forty figurative idioms compared to traditional ways for four weeks. They used a pretest and a posttest to discover the differences between the two groups. The results indicated that the experimental group performed better in their learning than the control group. In addition, the researchers recommended using smartphones and their applications in the process of vocabulary teaching. Similarly, Alkhezzi and Al-Dousary (2016) conducted a study to explore the role of using mobile phones and their applications in the process of teaching and learning English in an ESP context. The results revealed that using mobile phone applications affected students' comprehension of vocabulary and grammar. They also indicated that teaching and learning vocabulary could be done outside the classroom using mobile phones in many different ways, whereas teaching grammatical rules and writing skills required specific plans due to certain limitations.

Ababneh (2017) conducted a study to explore students' perspectives on using their mobiles in English learning. The researcher aimed to know the importance of utilizing cell phones in learning English and the effect of academic major and gender on students' perspectives towards using their phones in the process of learning. One hundred and one (101) students responded to the questionnaire. The results showed a high usage of mobile phones in their learning. They also revealed that the participants had positive feelings while using their mobiles in English learning. The students' gender and the academic major had no significant effect on participants' attitudes towards utilizing mobiles in their learning.

Al Fawareh and Jusoh (2017) did a study to discover the effects of smartphones on academic staff at Northern Border University. They did a survey study using questionnaires distributed to sixty-six academic staff having smartphones. The results

showed that smartphones were used instead of computers. The academic staff used smartphones for knowledge sharing, teaching, and learning through social media applications. The results also revealed that smartphones had negative effects on the academic staff. They had feelings of discomfort when smartphones were not with them. Machmud and Abdulah (2017) investigated the effects of using smartphones in teaching and learning English. Sixty-three (63) students participated in this study. The researchers categorized students into two groups depending on a questionnaire of the foreign language anxiety classroom scale. The results showed that both groups of students (high and low anxiety groups) who used smartphones got higher score comparing with their scores while using the traditional model of teaching. The study concluded that using smartphones in teaching reduces the students' anxiety in learning speaking skills.

Farrah and Abu-Dawood (2018) investigated the usage of mobile phone applications in educational processes to identify the advantages, disadvantages, and difficulties of using smartphones. They used a questionnaire to know the general students' perspectives about the effects of using mobiles inside the classroom. Besides, they used interviews to show the participants' attitudes towards the troubles and the explanations. The results revealed that the majority of students responded positively to utilize mobile phone applications in their learning. Additionally, the results showed that learners study better when using their mobiles and mobile phone applications.

Alshabeb and Almaqrn (2018) explored the use of social media applications in language learning among university students. They focused on the use of mobile devices in students' learning. One hundred and two students responded to a questionnaire, and five participants were interviewed to know their responses about the use of social media in facilitating the process of learning. The results showed that students had positive attitudes towards using and integrating technological tools in their English courses. The researchers advised decision-makers to use this kind of learning, which depended on educational technology, to help students in their learning. Ozer and Kılıc (2018) investigated the effects of mobile learning environment on educational achievement, acceptance of mobile learning devices and cognitive load of learners. The researchers used data in this study to recognize the effects of mobile learning. Seventy-one (71) students participated in this study. The results showed that the experimental group was better than the control group in academic achievements. The study also revealed that the students in the control group were cognitively overloaded compared with students in the experimental group. Depending on the qualitative data, the themes pointed to the good and bad sides of the mobile-assisted learning environment.

Alrefaai (2019) conducted a study to discover the attitudes of students towards using mobile phones in English language learning and to find their problems and obstacles while using them in the educational setting. Seventy (70) students at King Khalid University responded to a questionnaire. The results showed that students had positive attitudes towards such learning. They also showed that the majority of participants encountered many problems, *"such as technical problems, the small size of the*

*screen, distraction, the accuracy and authenticity of the information, health problems, becoming less patient, and getting tired"* (p.82).

Alshamsi, Al-Mekhlafi, Albusaidi, & Hilal (2020) carried out a study to discover the effect of using mobile learning on improving students' listening skills in Oman, to explore their attitudes, and to find the difficulties they faced while implementing this kind of learning. The participants of this study consisted of thirty-one (31) students. They were divided into two groups (experimental and control). The results showed that the participants in the experimental group performed better than those in the control group in their learning as a result of the mobile learning strategy. They also revealed that the students had positive attitudes towards using this kind of learning in dealing with listening materials. According to the researchers, mobile learning increases students' motivation and simplifies the learning process. On the other hand, the results showed some difficulties related to mobile learning, such as screen sizes of mobile phones, connections, and the suitability of the listening content.

## **4. Methodology**

### **4.1 Research Design**

The study adopted a case study research design focusing on Bomet University College students studying courses in English.

### **4.2 Participants of the Study**

The participants in the study were randomly selected from students at Bomet University College enrolled in the first semester of the academic year 2022/2023 in different English courses taught at the university college, Kenya. The sample consisted of five hundred (500) students enrolled in various English courses during the semester. Stratified sampling was used to categorize students taking courses in English according to their years of study. Simple random sampling was used to select a sample of five hundred students to be used in the study.

### **4.3 Instrument of the Study**

The researcher designed an interview schedule on the use of smartphones in peer teaching and learning of English. It consisted of twenty statements that the participants were asked to respond to. The questions were both closed and open-ended.

### **4.4 Data Collection**

This study was conducted at Bomet University College in the middle of the first semester of the academic year 2022/2023. Consent to interview the students was sought and given. Simple random sampling was used to select five hundred (500) students for the study from a population of 1450 students. A twenty-item interview schedule was used to explore the students' opinions about the use of smartphones in peer teaching and learning of the English language. The researcher explained the objectives of the study to

the students to ensure that they gave true responses and asked them to answer the interview items. Five hundred (500) students took part in the interview.

#### **4.5 Data Analysis**

Responses from the interview schedules were coded, and data were analysed thematically.

### **5. Results**

The purpose of this research was to explore the use of mobile phones in peer teaching and learning of English among university students at Bomet University College, Kenya. It was established that all the respondents in this study had a smartphone. When asked why they bought a smartphone, ninety eight percent (98%) said they were motivated by the need to use the phone in learning at the university: mainly to join online classes during the Covid-19 pandemic and the need to do research.

Data also showed that respondents preferred the mobile phone over laptops because of their portability, ease of use, communication functions, high power storage ability and other functions that they could not access easily using a laptop.

To answer the first question, "How do you use your smartphones during group discussions in learning English language skills?", they said that using smartphones made the learning process easier through downloading their educational applications and helped them in breaking the routine of traditional learning. The use of phones made group discussions very lively, as every member had a chance to contribute to the topic of discussion. Respondents also argued that using mobile phones boosted the confidence of group members since every member had an opportunity to find answers to questions raised in a group or given by the lecturer. The students also argued that they feel more confident to learn when tasks are shared in groups by their lecturer. This way, the course content is covered within the right time and even allows them more time to prepare for their end-of-semester exams. Many students feel that the use of smartphones has made learning more student-oriented since much of the coursework is done in groups by the students. Once they have finished the tasks given to groups, each group makes a presentation to the whole class. Learning using smartphones is more individualized than attending lectures. The use of smartphones has also reduced paperwork among students and lecturers since the work that is done in groups is shared with others through WhatsApp or email. Students argue that it is very easy to follow the proceedings of a lecture once they have the notes. It is also easy to revise for end of semester exams since the notes shared in soft copy are mainly free from typographical errors. The argument here is that these notes are prepared by a group and therefore they are read by many eyes, hence few errors. The students argue that smartphones have become their personal teachers. For example, they use them in learning the correct pronunciation and spelling of English vocabulary.

According to the students, smartphone use could make them independent learners. They help them in changing their thinking when dealing with new topics by researching different sources using the internet to understand the issues in the course topics. They can share information and applications to understand the topics discussed with their teachers and classmates in the classroom. It was also established that many students face no difficulty in using smartphones. Using smartphones in learning according to the students' answers do not pose any problems for the learners. They use them in their daily life events easily. Smartphones have become part of their academic life in the university college. Given this, they are able to complete their assignments, supplementary exercises to enhance their understanding, and homework by use of their smartphones. The only challenge is the internet fluctuations and a lack of enough money to buy bundles. Sometimes, those who stay far from the university have issues with WIFI connectivity due to distance from the source. As a result, many of them hover around university college premises long after lectures have ended to use WIFI provided by the university college.

## 6. Discussion

The results of this study show that students depend heavily on smartphones to learn English in groups. This result might be an indicator to decision makers and curriculum designers to make use of smartphones and their applications while developing and improving the English curriculum. They should "*shift from traditional curricula to include new technology in the teaching process*" (Ababneh, 2017, p. 127). They might include them as supplementary tools to support students' learning, since most have up-to-date smartphones. This step may help students to be independent learners and motivate them to think, search and find enough data needed to understand topics discussed inside the classroom. This result is consistent with the results of Ababneh (2017). It is clear from these findings that using smartphones in learning English has a positive effect on learners.

This conclusion is supported by a number of past studies, including works by Abbasi and Hashemi (2013), Kanchana and Saha (2015), Nalliveetil and Alenazi (2016), Elfeky and Masadeh (2016), Alkhezzi and Al-Dousary (2016), Machmud and Abdulah (2017), Farrah and Abu-Dawood (2018), Alshabeb and Almaqrn (2018), Alrefaai (2019), and Alshamsi, Al-Mekhlafi, Albusaidi, & Hilal (2020). On the challenges of using smartphones in peer teaching and learning of English, students had no difficulties using the smartphones. This result corresponded with results of past studies, which found that smartphones could be used to motivate students and enhance English language learning (2013), Kanchana and Saha (2015), Nalliveetil and Alenazi (2016), Elfeky and Masadeh (2016), Alkhezzi and Al-Dousary (2016), Machmud and Abdulah (2017), and Farrah and Abu-Dawood (2018). On the other hand, this result did not match the result of Al Fawareh and Jusoh (2017), who found that smartphones had negative effects on the academic staff who were uncomfortable without smartphones.

## 7. Conclusion

The use of smartphones in peer teaching and learning has become the norm to students. Smartphones have individualized learning of English. Students can learn on their own and even correct previous errors in the process of English language use. This is a trend that cannot be reversed. The phones have facilitated peer teaching and learning, making English language teaching easier.

Their responses confirmed that using their smartphones may facilitate learning and motivate them to engage more in classroom interactions. The researcher suggested that other researchers conduct similar studies using larger samples in other regions to obtain more comprehensive results.

## 8. Recommendations

- 1) Curriculum designers should purposefully design teaching and learning materials with the technology use as a key component.
- 2) Lectures should make use of peer teaching and learning in English as a crucial teaching and learning strategy, since students have been enabled in this strategy through the smartphone.
- 3) Institutions of higher learning should make a policy on the use of technology in teaching and learning that will incorporate the use of smartphones.
- 4) Institutions of higher learning should embrace individualized learning, as this is key to encouraging creativity among learners.
- 5) Institutions of higher learning should provide a stable internet to learners so as to encourage more individualized learning among learners.

### 8.1 Implications of the Study

This research may lead other researchers to conduct more comprehensive studies about the effects of using smartphones on students' learning. A similar research with a larger number of students may give more new insights. Students' attitudes towards such learning are positive. Depending on this result, teachers have to encourage students to utilize their smartphones and other educational technological tools in classrooms since they facilitate their overall learning and make the EFL setting more attractive. Moreover, the use of smartphones and their educational applications is helpful in the process of teaching and learning the English language. Several implications may enhance and develop students' EFL learning outcomes:

- 1) Encourage students to use their smartphones purposefully to improve their English skills rather than the traditional educational techniques based on conventional classrooms.
- 2) Help the students to use their smartphone applications correctly and purposefully, and help them in solving any educational future problems.

### **Creative Commons License Statement**

This research work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0>. To view the complete legal code, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.en>. Under the terms of this license, members of the community may copy, distribute, and transmit the article, provided that proper, prominent, and unambiguous attribution is given to the authors, and the material is not used for commercial purposes or modified in any way. Reuse is only allowed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

### **About the Author(s)**

Dr. Wayong'o John Wanjala, Lecturer of English Language Education, Department of Curriculum, Instruction, and Education Management, School of Education, Bomet University, Kenya. Dr. Wayong'o John Wanjala holds a PhD in Education (English Language Education) from the University of Nairobi, Kenya, a Master of Education degree (English Language Education) from Moi University, Kenya and a Bachelor of Education degree (English and Literature) from Moi University, Kenya. He is an accomplished lecturer in English language Education with vast experience in teaching, training, research, and quality assurance at the university level. He has published several articles on English language teaching and learning and is currently training and supervising postgraduate students in English language education. He has also conducted research and presented at several conferences in Kenya and around the globe. He is a member of the Kenya Universities Quality Assurance Network (KUQAN).

### **References**

- Aamri, A., & Suleiman, K. (2011). The Use of Mobile Phones in Learning English Language by Sultan Qaboos University Students: Practices, Attitudes and Challenges. *Canadian Journal on Scientific & Industrial Research*. 2(3), 143-152. Retrieved from <https://stu.westga.edu/~bthibau1/MEDT%208484-%20Baylen/final%20report/13.pdf>
- Ababneh, S. (2017). Using Mobile Phones in Learning English: The Case of Jordan. *Journal of Education and Human Development*, 6(4), 120-128. <https://doi.org/10.15640/jehd.v6n4a14>

- Abbasi, M., & Hashemi, M. (2013). The Impact/s of Using Mobile Phones on English Language Vocabulary Retention. *International Research Journal of Applied and Basic Sciences*, 4(3), 541-547.
- Al Fawareh, H., & Jusoh, S. (2017). The Use and Effects of Smartphones in Higher Education. *International Journal of Interactive Mobile Technologies*, 11(6), 103-111. Retrieved from <https://online-journals.org/index.php/i-jim/article/view/7453>
- Alkhezzi, F., Al-Dousari, W. (2016). The Impact of Mobile Learning on ESP Learners' Performance. *The Journal of Educators Online*, 13(2), 73-101. <https://doi.org/10.9743/JEO.2016.2.4>
- Alqahtani, M., & Mohammad, H. (2015). Mobile Applications' Impact on Student Performance and Satisfaction. *TOJET: The Turkish Online Journal of Educational Technology*, 14(4), 102-112. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1077662.pdf>
- Alrefaai, I. (2019). Exploring EFL Graduate Students' Attitudes toward, and Use of, Mobile Phones in Language Learning. *Arab World English Journal, Special Issue: The Dynamics of EFL in Saudi Arabia*. 70-84. Retrieved from <https://doi.org/10.2139/ssrn.3512507>
- Alshabeb, A., & Almaqrn, K. (2018). A Study of EFL Saudi Students' Use of Mobile Social Media Applications for Learning. *Arab World English Journal (AWEJ) Special Issue on CALL*. (4), 214-226. <https://dx.doi.org/10.24093/awej/call4.17>
- Alshamsi, A., Al-Mekhlafi, A., AlBusaidi, S.A., & Hilal, M. (2020). The Effects of Mobile Learning on Listening Comprehension Skills and Attitudes of Omani EFL Adult Learners. *International Journal of Learning, Teaching and Educational Research*, 19(8).16-39.<https://doi.org/10.26803/ijlter.19.8.2>
- Babiker, M. (2015). For Effective Use of Multimedia in Education, Teachers Must Develop their Own Educational Multimedia Applications. *TOJET: The Turkish Online Journal of Educational Technology*, 14(4), 62-68. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1077625.pdf>
- Basal, A., Yilmaz, S., Tanriverdi, A., & Sari, L. (2016). Effectiveness of Mobile Applications in Vocabulary Teaching. *Contemporary Educational Technology*, 7(1), 47-59. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1105763.pdf>
- Chen, X. (2016). Evaluating Language-Learning Mobile Apps for Second-Language Learners. *Journal of Educational Technology Development and Exchange*, 9(2), 39-51. <https://doi.org/10.18785/jetde.0902.03>
- Cui, G., & Wang, S. (2008). Adopting Cell Phones in EFL Teaching and Learning. *Journal of Educational Technology Development and Exchange* 1(1), 69-80. Retrieved from <https://aquila.usm.edu/cgi/viewcontent.cgi?article=1061&context=jetde>
- Ebrahim, S., Ezzadeen, K., & Alhazmi, A. (2015). Acquiring Knowledge Through Mobile Applications. *International Journal of Interactive Mobile Technology*, 9(3), 71-74. <https://doi.org/10.3991/ijim.v9i3.4495>

- Elfeky, A., & Masadeh, T. (2016). The Effect of Mobile Learning on Students' Achievement and Conversational Skills. *International Journal of Higher Education*, 5(3), 20-31. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1102679.pdf>
- Farrah, A., Abu-Dawood, A. (2018). Using Mobile Phone Applications in Teaching and Learning Processes. *International Journal of Research in English Education*. 3(2), 48-68.
- Gangaiamaran, R. & Pasupathi, M. (2017). Review on Use of Mobile Apps for Language Learning. *International Journal of Applied Engineering Research*, 12(21), 11242-11251. Retrieved from [https://www.ripublication.com/ijaer17/ijaerv12n21\\_102.pdf](https://www.ripublication.com/ijaer17/ijaerv12n21_102.pdf)
- Kanchana, & Saha, P. R. (2015). Integrating Smart Phones in Teaching Listening, Speaking, Reading and Writing Skills. *International Journal of English Language, Literature and Translation Studies (IJELR)*, 2(1), 8-11. Retrieved from <http://www.ijelr.in/vol.2.s1/8-11%20s.%20kanchana.pdf>
- Kessler, G. (2007). Formal and Informal CALL Preparation and Teacher Attitude Toward Technology. *Computer Assisted Language Learning*, 20(2), 173-188. <https://doi.org/10.1080/09588220701331394>
- Kizito, N. (2012). Pre-Testing Mathematical Concepts with the Mobile Phone: Implications for Curriculum Design. *The International Review of Research in Open and Distributed Learning*, 13(1), 38-55. Retrieved from <https://files.eric.ed.gov/fulltext/EJ979628.pdf>
- Klimova, B. (2019). Impact of Mobile Learning on Students' Achievement Results. *Education Sciences*, 9(2), 1-8. <https://doi.org/10.3390/educsci9020090>
- Kukulska-Hulme, A. & Shield, L. (2008). An Overview of Mobile Assisted Language Learning: From Content Delivery to Supported Collaboration and Interaction. *ReCALL*, 20(3), 271-289. <https://doi.org/10.1017/S0958344008000335>
- Kukulska-Hulme, A. (2009). Will Mobile Learning Change Language Learning? *ReCALL*, 21(2), 157-165. <https://doi.org/10.1017/S0958344009000202>
- Kukulska-Hulme, A., & Pettit, J. (2009). Practitioners as Innovators: Emergent Practice in Personal Mobile Teaching, Learning, Work and Leisure. *Mobile learning: Transforming the delivery of education and training*, 135-155. Retrieved from <https://auspace.athabascau.ca/handle/2149/1233>
- Leis, A., Tohei, A. & Cooke, S. (2015). Smartphone-Assisted Language Learning and Autonomy. *International Journal of Computer-Assisted Language Learning and Teaching*, 5(3), 75-88. Retrieved from [https://www.researchgate.net/publication/281102772\\_Smartphone\\_Assisted\\_Language\\_Learning\\_and\\_Autonomy](https://www.researchgate.net/publication/281102772_Smartphone_Assisted_Language_Learning_and_Autonomy)
- Luo, B., Lin, Y., Chen, N. and Fang W.(2015). *Using Smartphones to Facilitate English Communication and Willingness to Communicate in a Communicative Language Teaching Classroom*. 2015 IEEE 15th International Conference on Advanced Learning Technologies, 320-322. Retrieved from <https://ieeexplore.ieee.org/document/7265339>
- Machmud, K., & Abdulah, R. (2017). Using Smartphone-Integrated Model of Teaching to Overcome Students' Speaking Anxiety in Learning English as a Foreign Language.

- Journal of Arts & Humanities*, 6(9), 1-11. Retrieved from <https://theartsjournal.org/index.php/site/article/view/1249>
- Nalliveettil, G., & Alenazi, T. (2016). The Impact of Mobile Phones on English Language Learning: Perceptions of EFL Undergraduates. *Journal of Language Teaching and Research*, 7(2), 264-272. <https://doi.org/10.17507/jltr.0702.04>
- Ozer, O., and Kılıç, F. (2018). The Effect of Mobile Assisted Language Learning Environment on EFL Students' Academic Achievement, Cognitive Load and Acceptance of Mobile Learning Tools. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(7), 2915-2928. <https://doi.org/10.29333/ejmste/90992>
- Papadakis, S. (2018). Evaluating Pre-service Teachers' Acceptance of Mobile Devices with Regards to their Age and Gender: A Case Study in Greece. *International Journal of Mobile Learning and Organisation*, 12(4), 336-352. <https://doi.org/10.1504/IJMLO.2018.095130>
- Robb, M., & Shellenbarger, T. (2012). Using Technology to Promote Mobile Learning: Engaging Students with Cell Phones in the Classroom. *Nurse Educator*, 37(6), 258-261. Retrieved from [https://journals.lww.com/nurseeducatoronline/abstract/2012/11000/using\\_technology\\_to\\_promote\\_mobile\\_learning\\_.16.aspx](https://journals.lww.com/nurseeducatoronline/abstract/2012/11000/using_technology_to_promote_mobile_learning_.16.aspx)
- Ta'amneh, M. (2014). The Effect of Using Educational Websites on First-Year Students' Achievement in English Grammar in Badr Community College. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*. 5(2), 184-189. Retrieved from <https://www.scholarlinkinstitute.org/jeteraps/articles/The%20Effect%20of%20Using%20Educational%20Websites.pdf>
- Ta'amneh, M. (2017). The Effect of Using WhatsApp Messenger in Learning the English Language among University Students. *International Research in Education*, 5(1), 143-151. <https://doi.org/10.5296/ire.v5i1.10801>
- Ta'amneh, M. (2020). The Effect of Blackboard Learning on the Development of English Writing Skills among University Students. *Journal of Education and Practice*, 11(19), 83-91. <https://doi.org/10.7176/JEP/11-19-12>
- Tal, H. M., & Gross, M. (2014). Teaching Sustainability via Smartphone-Enhanced Experiential Learning in a Botanical Garden. *International Journal of Interactive Mobile Technology*, 8(1), 10-15. <https://doi.org/10.3991/ijim.v8i1.3441>
- Thinley, P., Reye, J., & Geva, S. (2014). Tablets (iPad) for M Learning in the Context of Social Constructivism to Institute an Effective Learning Environment. *International Journal of Interactive Mobile Technology*, 8(1), 16-20. <https://doi.org/10.3991/ijim.v8i1.3452>
- Vo, L. V., & Vo, L. T. (2020). EFL Teachers' Attitudes towards the Use of Mobile Devices in Learning English at A University in Vietnam. *Arab World English Journal*, 11(1) 114-123. <https://dx.doi.org/10.24093/awej/vol11no1.10>
- Wali, A. & Omaid, M. (2020). The Use of Smartphones as an Educational Tool in the Classroom: Lecturers' Perceptions. *International Journal of Emerging Technologies in*

- Learning (IJET)*. 15(16), 238-247. Retrieved from <https://doi.org/10.3991/ijet.v15i16.14179>
- Wang, B.T. (2017). Designing Mobile Apps for English Vocabulary Learning. *International Journal of Information and Education Technology*, 7(4), 279-283. Retrieved from <https://www.ijiet.org/vol7/881-C09.pdf>
- West, D. (2012). *Digital Schools: How Technology Can Transform Education*. Brookings Institution Press. Retrieved from <http://www.jstor.org/stable/10.7864/j.ctt6wpdm6> (November 5, 2020).