Motivating EFL Students Through Digital Application Technology

Kappalumakkel Thomas Baby*
*Assistant Professor, Department of English Language & Literature, CAAS, Dhofar University, PO BOX: 2509, Postal Code: 211,
SALALAH, OMAN. Email: thomas@du.edu.om,
ORCID ID: https://orcid.org/0000-0002-3148-5552,
SCOPUS ID: https://www.scopus.com/authid/ detail.uri?authorId=57809272900

ARTICLE INFO	ABSTRACT
	Generating motivation through digital application technology plays an important role in Language learning activity among EFL (English as a Foreign Language) students. Learners in language classrooms can be easily motivated through various digital application technology which will enhance student engagement leading to effective task completion. In other words, integration of mobile application technology will generate unprecedented opportunities to enhance the language skills of students in and out of classrooms to make them proficient users of English language. This paper will examine the theoretical foundations of motivation in language learning and how digital devices especially mobile application technology can be employed effectively for generating motivation and sharpening the cognitive skills of EFL learners. Current studies on digital learning technology demonstrates that mobile applications can provide personalized, interactive, and autonomous learning experiences. This study is specifically an experimental analysis of employing mobile application technology for grammar instruction to enhance learner motivation among EFL students. The success of this experiment is testified by the improved grammar scores and the motivation level achieved by students in the experimental group. Moreover, this study is a fine example of how digital learning technology can be effectively integrated into English Language curriculum. **Keywords**: Digital technology, EFL students, Grammar, Mobile Applications & Motivation

INTRODUCTION

Motivation is often thought of as the key to successful language learning; however, it is also recognized as the most difficult factor to manage effectively in language education settings. This study discusses the potential of utilizing digital technology as a method of motivating students who are learning English as a foreign language. Extensive research has shown that foreign language students are increasingly incorporating digital devices into their daily lives for various purposes. This research suggests that instead of focusing on the negative aspects associated with the use of digital devices within classrooms, educators should recognize the numerous benefits they embody for language learning activities.

Technology has now become an intrinsic part of the daily lives of most young people in developed countries, and this trend is also becoming prevalent across many developing nations. A significant number of young learners now rely on digital devices, especially mobile phones daily, often demonstrating a level of technological proficiency that surpasses that of their teachers. As a result, educators face a crucial dilemma if they should resist these evolving technologies and their integration into the learning process, or should they choose to work positively in conjunction with these tools. Although the student is undoubtedly at the center of language education, the majority of classroom activities remain predominantly teacher centered. The educational world needs fresh, innovative methods to increase student motivation and engagement. Alzubi (2021) claims that "mobile devices have become more effective tools in language learning, especially with the rise of formal learning management systems (LMSs) such as Moodle and Blackboard".

Digital application Technology in teaching EFL students represents just one compelling example of how this can be effectively achieved in a modern, 21st-century classroom. Therefore, this study aims to thoroughly investigate the profound impact that digital technology, especially the mobile apps can have on enhancing learner motivation among EFL students. The essay will begin by providing a comprehensive survey of the existing literature, which particularly focuses on the area of motivation and student engagement in EFL

Research Article

contexts as well as other foreign language learning situations where digital devices are utilized. Such an investigation will lay the groundwork for understanding the broader implications of integrating mobile technology into language education, highlighting opportunities for improved student experiences.

The primary reason for the success of any learning activity is the power of motivation inherent in the mind of the learner. Therefore, it is very important to understand and employ effective tools and methods for generating motivation among learners. A previous study by this author on generating internal motivation arrived at the conclusion that "integrating mobile applications in classrooms for educational purposes can enhance the motivation level of students because mobile devices have become an essential part of their everyday life. Consequently, an innovative teacher should think of integrating mobile applications in his curriculum resulting from a critical evaluation of his own current teaching practice" (Baby, 2019). Similarly, Ciampa (2014) claims that "it is very important to understand critically the scope of technology supported learning activities on aspects of motivation before implementing any learning programmes". As a result, the present study focuses on the effective application of mobile learning technology for enhancing the grammar skills of EFL students.

This study is a sequel to a couple of previous studies done by this author on the effectiveness of mobile learning technology for enhancing student motivation among EFL students. It is relevant here to recall the methods explained in a previous work:

In traditional grammar classes, the usual practice is to explain the rules of a given concept followed by distribution of worksheets to test students' understanding of specific grammatical concepts. The explanation of concepts lasting up to maximum 15 minutes is usually done at the beginning of the class. During this time, it was noticed that many students were secretly engaged with their mobile phones under the pretext of listening to the teacher. The above-mentioned episode is a clear instance of lack of motivation on the part of the students. On deep reflection, the author realized that it was the mobile phone and its different applications that attracted and engaged students more than the verbal explanations from the teacher. Therefore, it was decided that the initial part of learning the grammatical concept will be done independently by the students through their mobile phones. The teacher would only be a facilitator in this task by moving around the groups to make sure that students are using their mobiles phones only for the task of learning the concept. If they fail to find out all aspects of the concept, it would be supplemented by the teacher during the last five minutes of the session (Baby, 2019).

The method explained above proved to be very successful. It was corroborated by another study conducted by West (2012). He claims that "student engagement and mastery of important concepts can be easily achieved if learning with mobile devices is carefully designed to create more collaborative and participatory learning experiences." The author's experiment mentioned above resulted in a visible improvement in the scores achieved by students in their grammar tests chiefly due to the marked rise in the motivational level of learners who used mobile application technology. The positive outcome of this experiment is further testified by numerous other studies. For example, Looi et al., (2009) says: "the highly personalized nature of mobile phone provides an excellent platform for promoting learner autonomy and peer learning opportunities marked by flexibility, collaboration and active participation." Finally, this study focuses on how mobile applications can be integrated effectively within the traditional language curriculum. Furthermore, it is a practical demonstration of how mobile application technology can be effectively integrated into traditional ELT classrooms and generate internal motivation in EFL students.

LITERATURE REVIEW

The author's previous work on generating internal motivation through mobile learning technology provided fresh insights on innovative learning methods in EFL classrooms. Several other researchers like Froese et al., 2012; Huang et al., 2010; Lu, 2008; Thomas & Orthober, (2011) also testified the effectiveness of mobile application technology in EFL classes. Interestingly, a number of researchers such as Huang et al., 2010; Burkhardt & Cohen, 2012; Brett, 2011; Gedik et al., 2012; Navaridas et al., (2013) have given different and varying views on the impact of mobile learning technology in EFL classrooms. However, a seminal case study was conducted by Ciampa (2014), which affirmed that mobile application technology can enhance the internal motivation of students in EFL classrooms. Similarly, another research by Miller and Cuevas (2017) also testified that application of mobile devices are more effective than paper-based learning activities in EFL classrooms. In another study, Sung and Mayer (2013) claimed that students felt more satisfaction in using mobile applications for EFL learning activities. All these finding were used effectively by this author in his previous study on insights into English language acquisitions. (Baby, 2023)

Many recent studies also demonstrate that implementations of mobile applications in EFL learning environments have been reported as successful. One common consensus is that the integration of mobile

Research Article

learning has proved successful as a method to motivate students while enhancing their learning processes (Alzubi2021) (Chen, 2023) (Gao & Shen, 2021)(Panagiotidis et al.2023). To achieve this goal, researchers have employed different strategies in creating content while using a diverse variety of tools and applications. Positive outcomes of the introduction of smartphone tools and applications in language education exist among high school and adult students as well as children engaged in out-of-school learning. Such studies show an increased level of learner compliance, with students showing interest and expressing satisfaction in their language practice (Zain and Bowles2021) (Groenewald and Kilag2024) (Wei, 2022)(Dong et al.2022).

The applications of mobile phone provided an excess of benefits in personalizing learning and tracking irregularities in student progress. Indeed, recent use of a mobile application developed to enhance the academic writing of college English majors indicated sustained increases in student academic motivation and engagement with its technology (Imamyartha et al.2022) (Hwang et al., 2024) (Hwang et al., 2024). The senior faculty, who oversaw oral English education in an English department, also noted an overall improvement in English proficiency and listening competence at the end of the first year of its implementation.

RESEARCH METHODOLOGY

In various studies, implementations of mobile applications in EFL learning environments have been reported as successful. One common consensus is that the integration of mobile learning has proved successful as a method to motivate students while enhancing their learning processes. To achieve this goal, researchers have employed different strategies in creating content while using a diverse variety of tools and applications. Positive outcomes of the introduction of smartphone tools and applications in language education exist among higher education institutions. The applications provided an excess of benefits in personalizing learning and tracking irregularities in student progress. ***The present case study was done at an Arabian Gulf university to enhance the practical knowledge of grammar for improving the academic writing skills of EFL students. The study also indicated sustained increase in motivation and engagement among students with the use of digital technology.***

The research methodology used in this study is a fine combination of traditional versus modern language learning techniques. The study employs an experimental approach through mobile application technology. Although this case study was done by the author for his previous work, it is reproduced here again because it is still relevant as it is re-validated by several recent studies.

CASE STUDY DETAILS

Partial mobile learning in grammar was implemented in two undergraduate classes consisting of 29 and 32 students each. In the grammar classes, the usual practice was to explain initially the rules of the grammatical concept which would be followed by the supply of worksheets to test the students' understanding of the concept. The explanation of concepts lasting up to a maximum of 15 minutes is usually done at the beginning of the class. During this time, it was noticed that many students in Class A (29 students) were secretly engaged with their mobile phones under the pretext of listening to the teacher. More than 75% of them are boys in this class. In Class B (32 students), boys were only around 20%. In this female-dominated class, students were more motivated to learn as evident from the scores they achieved in the previous test before switching over to partial mobile learning. In both classes 15 minutes of initial explanation was shifted to mobile mode of learning. The students were allowed 10 minutes to learn the grammar topic independently through the free use of their mobile phones. The teacher would act only as a facilitator in this task by moving around the groups to make sure that students are using their mobiles phones only for the task of learning the concept. If they fail to find out all aspects of the concept, it would be supplemented by the teacher during the last 5 min of the session for the whole class after eliciting answers from the students. The socio- economic and cultural aspects of the learners are not taken into consideration in this study. (Baby,2019)

AN INNOVATIVE EXPERIMENT

The easiest method of generating motivation is engaging learners in activities that are interesting to them or using tools for learning which invite their attention. In this instance mobile application technology can easily generate internal motivation in students because every student nowadays uses smart phones with advanced features to carry out multiple functions of their daily life. Therefore, a mobile phone is an apt tool which can be used innovatively for language learning activity. Moreover, nowadays, innovative use of mobile applications in the classroom is gaining popularity as Shuler (2009) claims: "the cognitive process involved in mobile learning has witnessed unprecedented growth over the past decade. The universal availability of mobile phones and

their easy adaptability for educational purposes have brought in revolutionary changes in the education sector". According to Vanpatten & Benati (2015) "Motivation may vary based on individual differences; however, the effect of motivation can be measured by the degree of 'wanting to learn' and consequently, the degree of the 'realization of that desire'. Motivation is basically an inner urge caused by certain external conditions or specific events happening in one's own life or around the world".

According to Ellis (2015) "people are motivated by both external factors such as rewards, grades, or the opinions of others and by internal ones such as personal interests, curiosity, or experiencing an activity as personally satisfying or rewarding. When motivation is caused by internal factors, it is called intrinsic motivation and when it is caused by external factors it is called extrinsic motivation". In other words, when a person is satisfied within oneself with what he does and if he gets an inner sense of happiness and satisfaction from that activity it can be termed as intrinsic motivation and when certain external factors make a person do something it is called extrinsic motivation. Mobile application technology for language learning activity is fine combination of extrinsic and intrinsic motivation which can be used innovatively for language acquisition very effectively among EFL students.

The innovative experiment of learning grammar through mobile applications conducted in an experimental class of 29 undergraduate students proved to be very effective. Initially, the students were given some specific tasks about present perfect tenses. In two sessions of fifteen minutes each the students were asked to give important uses of present perfect tense using their mobile phones. Instead of the teacher introducing the topic, the student were given time to find out the rules of constructing present perfect sentences and their salient features. Students were asked to use their mobile phones to complete these activities which was followed by teacher led discussion. After the implementation of this innovative mobile learning technology in the class, the grammar test score of students showed considerable improvement. The primary reason for the improved test score of students was the enhanced level of motivation they achieved through the application of mobile learning technology. This change is evidently visible when the present score of students is compared with the scores they received when they learned the same material in the traditional manner.

RESULT AND DISCUSSION

One of the greatest benefits of using digital technology in grammar instruction is that it is interactive and provides opportunities for learners to progress at their own pace. Since it is learner centred, it provides ample peer learning opportunities for enhancing their linguistic skills. According to Yuniarti (2014) Mobile Application Technology in classroom offers "a new paradigm of learning and not just a new tool or a method of teaching and learning". However, some negative aspect of mobile learning has been observed nowadays. This experimental study has analysed students' behaviour patterns during the mobile learning sessions which revealed that many undergraduate students enjoy using their mobile phone for different purposes other than the intended educational purpose during class sessions. The result of the study showed clearly that the group of students under the experimental group who used mobile application technology showed visible improvement in test score and learner motivation during class hours. The following results were obtained from this experimental study.

CASE STUDY RESULTS

It was noticed that student engagement and participation in the group activities were at a higher-level leading to improved motivation especially in the male-dominated class as reflected in their higher test scores. Furthermore, in this class there was considerable score difference between tests 1 and 2. This result revealed that mobile learning technology is effective in enhancing the motivation level of low achievers. In class 2 where female students constituted around 80%, the difference between tests 1 and 2 was negligible. This result shows that if motivation level is high among students, the mobile learning application is not of much consequence. However, mobile learning application is very effective among low achievers for enhancing internal motivation as it promotes learner autonomy through peer learning opportunities. This simple observational experiment is highly useful for a class of low achievers with poor motivational level. Since this study doesn't use any scientific parameters to measure the motivation level of students, it is only an experimental or observational analysis based on the personal experience of the author vindicated by test scores achieved by the students. (Baby,2019).

The above experimental observation in EFL grammar classes revealed that mobile application technology can greatly enhance student motivation as new generation learners are adept at using modern digital devices for multiple purposes. In this experiment students were able to score higher marks than they would have normally scored in a traditional grammar class. "Although many learners are ignorant of the theoretical implications of

digital classrooms, most of them endorse the innovative use of the digital devices in classrooms" (Baby, 2023). To conclude, the result of this research or the experimental analysis, it can be assumed that the application of digital technology can enhance the motivation level of EFL students as evident from the improvements shown by low achievers in the experimental classroom. "Several other studies also have shown that teachers could perceive visibly the enhanced level of student motivation when mobile application technology is incorporated into their instructional strategies" (Santiago, & Touron, 2013). Similarly, Sung and Mayer (2013) also have shown that "participants using mobile devices for educational applications were more satisfied and motivated in their learning activities".

CONCLUSION

To conclude, this simple observational study of employing digital application technology for improving the grammar skills of EFL learners shows that low achievers make great progress in language acquisition through innovative digital learning experience described above. Although scientifically measurable parameters are not used for assessing the motivation level of EFL students, the learning outcome achieved by the experimental group is a clear indication of the efficacy of mobile applications for teaching grammar to EFL students. According to David Doherty (2012), the judicious use of mobile learning applications can be greatly beneficial for students in this digital era. Similarly, Ferguson (2017) claims that the motivation of EFL students can be improved considerably by using technology in an innovative manner. In short, different studies on mobile learning applications have shown that motivation of students in various learning activities can be generated and sustained effectively within any educational settings. Asa result, the classroom activities will also equip students to use these digital devices effectively for other important applications in their daily life.

The overall development of low achievers is the biggest benefit of mobile learning application in language classrooms. Moreover, mobile learning will promote learner autonomy and enhance better relationship among students through voluntary peer interaction. The following guidelines are very helpful for integrating mobile learning activities in EFL classrooms. First of all, teachers should decide what they want to achieve with the technology and then find and apply the right technology. Secondly, they should ensure that the technologies are for the service of curriculum, and not the other way around. They should never have to adjust their curriculum to serve the technologies. Thirdly, they should have a clear idea of students' technological ability and take into consideration the availability of technology, infrastructure, and budgets before implementing the program. Fourthly, they should give clear and easy-to-understand instructions during a hands-on session. Also, it would be beneficial to offer a help session before asking students to use the app on their own to eradicate adaptation barriers. Finally, when discussing learning objectives, they should be looking at what technology can do to help motivate students to achieve the objectives and how it can function better than a more traditional style of instruction.

REFERENCES

[1]   Alzubi, A. A. F. (2021). The role of mobile technologies in impacting learner autonomy in an EFL context: A systematic review. International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT), 11(3), 56-73. [HTML]
[2]   Baby, K.T. (2023) Insights into English Language Acquisition. https://www.generis-publishing.com/book.php?title=insights-into-english-language-acquisition-1337
[3]   Baby, K. T. (2019). Generating Internal Motivation through Mobile Application Technology. https://mts.intechopen.com/books/metacognition-in-learning/generating-internal-motivation-through-mobile-application-technology
[4]   Brett, P. (2011). Students' experiences and engagement with SMS for learning in higher education. Innovations in Education & Teaching International, 48(2), 137-147.
[5]   http://dx.doi.org/10.1080/14703297.2011.564008
[6]   Burkhardt, A., & Cohen, S. F. (2012). "Turn your cell phones on": Mobile phone polling as a tool for teaching information literacy. Communications in Information Literacy, 6(2), 191-201. http://dx.doi.org/10.7548/cil.v6i2.185
[7]   Chen, Y. (2023). The effect of using a game-based translation learning app on enhancing college EFL learners' motivation and learning experience. Education and Information Technologies. [HTML]
[8]   Ciampa, K. K. (2014). Learning in a mobile age: An investigation of student motivation. Journal of Computer Assisted Learning, 30(1), 82-96. http://doi:10.1111/jcal.12036
[9]   Dong, L., Jamal Mohammed, S., Ahmed Abdel-Al Ibrahim, K., & Rezai, A. (2022). Fostering EFL learners' motivation, anxiety, and self-efficacy through computer-assisted language learning-and mobile-assisted language learning-based instructions. Frontiers in psychology, 13, 899557. frontiersin.org

Research Article

[10]   Doherty, D. (2012). Beyond the Paperless Classroom. 2012. https://itunes.apple.com/us/book/ beyond-paperless-classroom/ id576211210?

[11]   Ellis, R. (2015). Understanding Second Language Acquisitions. (2nd ed.). OXFORD: Oxford University Press.

[12]   Ferguson, J. M. (2017). Middle school students' reactions to a 1: 1 iPad initiative and a paperless curriculum. Education and Information Technologies, 22(3), 1149-1162. https://doi.org/10.1007/s10639-016-9480-2

[13]   Froese, A.D., Carpenter, C.N., Inman, D. A., Schooley, J. R., Barnes, R. B., Brecht, P. W., & Chacon, J.D. (2012). Effects of classroom cell phone use on expected and actual learning. *College Student Journal, 46*(2), 323-332.

[14]   Gao, C. & Shen, H. (2021). Mobile-technology-induced learning strategies: Chinese university EFL students learning English in an emerging context. ReCALL. [HTML]

[15]   Gedik, N., Hanci-Karademirci, A., Kursun, E., & Cagiltay, K. (2012). Key instructional design issues in a cellular phone-based mobile learning project. *Computers & Education, 58*(4), 1149- 1159. http://dx.doi.org/10.1016/j.compedu.2011.12.002

[16]   Groenewald, E., & Kilag, O. K. (2024). Connecting Motivation and Technology: A Literature Review on EFL Learners in the Digital Age. International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE), 1(2), 77-83. researchgate.net

[17]   Huang, Y. M., Lin, Y. T., & Cheng, S. C. (2010). Effectiveness of a mobile plant learning system in a science curriculum in Taiwanese elementary education. *Computers & Education, 54*(1), 47-58. http://dx.doi.org/10.1016/j.compedu.2009.07.006

[18]   Hwang, G. J., Rahimi, M., & Fathi, J. (2024). Enhancing EFL learners' speaking skills, foreign language enjoyment, and language-specific grit utilising the affordances of a MALL app: A microgenetic perspective. Computers & Education. [HTML]

[19]   Imamyartha, D., Wahjuningsih, E., A'yunin, A., Santihastuti, A., Fauzie, D. L. T. A., & Andika, E. C. H. (2022). EFL learners' engagement and learning motivation in team-based mobile language learning through WhatsApp. Teaching English with Technology, 22(1), 82-103. icm.edu.pl

[20]   Looi, C. K., Wong, L., Hyo-Jeong, S., Seow, P., Toh, Y., Chen, W., Norris, C. (2009). Anatomy of a mobilized lesson: Learning my way. Computers & Education, 53, 1120–1132.

[21]   Lu, M. M. (2008). Effectiveness of vocabulary learning via mobile phone. *Journal of Computer Assisted Learning, 24*(6), 515-525. http://dx.doi.org/10.1111/j.1365-2729.2008.00289.x

[22]   Malone, T. W., & Lepper, M. R. (1987). Making learning fun: A taxonomy of intrinsic motivations for learning. In R. E. Snow & M. J. Farr (Eds.), Aptitude, learning, and instruction: III. Conative and affective process analyses (pp. 223– 253). Hillsdale, NJ: Erlbaum.

[23]   Miller, H.B., & Cuevas, J.A. (2017). Mobile learning and its effects on academic achievement and student motivation in middle grade students. International Journal for the Scholarship of Technology Enhanced Learning. 1 (2) 91-110.

[24]   Navaridas, F., Santiago, R., & Tourón, J. (2013). Opinions from teachers in the Fresno area of Central California regarding the influence of mobile technology on their students' learning. RELIEVE - e-Journal of Educational Research, *Assessment and Evaluation, 19* (2), 1-18.

[25]   http://dx.doi.org/10.7203/relieve.19.2.3047

[26]   Panagiotidis, P., Krystalli, P., & Arvanitis, P. (2023). Technology as a motivational factor in foreign language learning. European Journal of Education (EJED), 6(1), 69-84. ed.gov

[27]   Shuler, C. (2009). Pockets of potential: Using mobile technologies to promote children's learning. New York, NY: The Joan Ganz Cooney Centre at Sesame Workshop.

[28]   Sung, E. & Mayer, R.E. (2013). Online multimedia learning with mobile devices and desktop computers: An experimental test of Clark's methods-not-media hypothesis. Computers in Human Behaviour, 29(3), 639-647. https://doi.org/10.1016/j.chb.2012.10.022

[29]   Thomas, K., & Orthober, C. (2011). Using text-messaging in the secondary classroom. American Secondary Education, 39(2), 55-76.

[30]   Vanpatten, B., &Benati, A. G. (2015). Key Terms in Second Language Acquisitions. (2nd Ed.). London: Bloomsbury Academic an Imprint of Bloomsbury Publishing Plc.

[31]   Watfa, M. K., & Audi, D. (2017). Innovative virtual and collaborative teaching methodologies. Behaviour &in- formation Technology, 1-11. https://doi.org/10.1080/0144929X.2016.127580

[32]   Wei, Y. (2022). Toward technology-based education and English as a foreign language motivation: A review of literature. Frontiers in psychology. frontiersin.org

[33]   West, D. M. (2012). Digital schools: How technology can transform education. Washington, DC: Brookings Institution Press.

[34]   Yuniarti, W. D. (2014). Utilizing learning platform for paperless classroom. Vision: Journal for Language and Foreign Language Learning, 3(2), 105. https://doi.org/10.21580/vjv3i2295

[35] Zain, D. S. M., & Bowles, F. A. (2021). Mobile-assisted language learning (MALL) for higher education instructional practices in EFL/ESL contexts: A recent review of literature. Computer-Assisted Language Learning Electronic Journal, 22(1), 283-307. callej.org