



ICT-Based Language Learning Strategy ESL/EFL: A Meta-Analysis in Developing Classroom Language Activities through Gamification

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Abstract

The rapid advancement of technology has made a significant change in English Language learning, especially with the use of a number of various social media applications. The learning process merges along with the communication activities and has resulted in the integration of the four language skills through multi-mode. The study is aimed at attempting to investigate how this could bring a positive contribution to the development of English Language Teaching strategy. The study has been conducted through the results of a number of journal articles across different non-English-speaking countries and digital articles. The result indicates that gamification is the potential to boost language use in active communicative interaction in the classroom.

Keywords: Information Communication Technology, gamification, ESL/EFL, learning and teaching strategy, social media, language classroom activities

Introduction

The rapid development of technology has brought substantial changes in almost all aspects of life including the beliefs in language learning. A great number of studies and research have addressed this issue promoting new theories in English Language Teaching (ELT), especially for non-native English users. Now, ICT (Information and Communication Technology) has been used in almost all fields of life, including in education. In education, computer technology has become so essential that the government put ICT as one of the curricula (Filgona, 2020) (Liu, 2021) (Jean B. Schumaker, 1982) in Indonesia's education. The utilization of ICT in education has recently started to appeal to the potential and significant progress in language learning. It has become a major issue in the education world and has been used from preschool through to university that could facilitate students and teachers in the teaching and learning process.

The study includes 10 articles related to ICT and ELT which deal with language classroom gamified activities, learning motivation and awareness in the English language use and the implication of the teaching and learning strategies. In search for the relevant articles, there actually are over 10 similar articles and others are website articles, blogs, and slides under ICT and gamification. However, about 8 articles are more related to communication in general and that gamification has a positive impact on enhancing motivation, especially in business and management.

The purpose of the study proposed is to address a number of questions which, on the other side of the proposed notions in these articles, may lead to a number of potential problems. Thus, the issues can serve anticipatory actions to take especially in relation to the negative impacts as well as readiness in the technical conditions. The questions are as follows:

1. What are the factors which can guarantee that ICT and the gamification can give better result in language learning?
2. What may the constraints be that ICT and gamification are standardized both in the curriculum and application of the technology given that in developing countries the facility is not evenly distributed?

Theoretical Framework

The centre concern of ESL/EFL learning strategy has been mulling over the exploration of learning effectiveness in the measured process (Schumaker & Deshler, 1992). Basically, most models are learner's-based preferences to acquire the skill. Thus, the learning motivation plays a significant role being imbedded in the strategy as asserted by Jacob Filogna, et.al, (2020). Accordingly, the emotional factors will as well follow the drive as in enjoyment and less pressure. One way to reach both enjoyment and motivation is through the involvement of games, or gaming element-containing activities. Fei Liu, et.al, (2021) in their survey of measuring willingness to communicate in English using games finds out that most of the teachers in this study believe that games have a positive influence on the students' attitudes towards learning English and that using them in class serves many educational purposes.

As ICT is developing, the influence both in the fashion of communication and learning digital media as well as the internet uses is becoming more prominent. The European Centre for Modern Languages states that "Language education is an area where open-access resources, online courses, virtual classrooms, and social networks based on information and communication technology (ICT) are being increasingly used to give learners access to information, promote interaction and communication, and enhance digital literacy skills." (Retrieved from Use of ICT in support of Language Teaching and Learning (ecml.at) at 23:05 pm 04/02/2023). In addition, the term gamification has then been important as well in language learning. Hence, the learner-centered activities such as PBL and self-inventory have now adopted gamification.

Method

The study is based on the result of 10 different research articles under the topic of ICT and gamification in language learning and teaching strategy especially in formal setting of the classroom activities. The analytical approach is based on the comparative assumptions and the outcome of the 10 research, particularly in how they come up with the application of ICT and gamification.

The study imposes an assumption that apart from the positive impact of the development of ICT in language learning, none of them have addressed the potential constraints specifically when integrated in the formal curriculum. The first assumption is that none of them has either attempted to conduct an experimental research design involving two variables through the T-test to prove that

the notions are more effective than the conventional strategy. Secondly, in terms of the availability of technical facilities, many schools or educational institutions in developing countries may have difficult access to the internet connection, for example, or the devices to support the luxury of a technological educational approach. Lastly, the authority may have to find possible ways and yet still reasonably effective to sustain the learning activities.

Md. Shahadat Hossain Khan (2012) states that in Bangladesh, as an example of a developing country, one barrier that first comes is funding.

Effective implementation of technology into education systems involves substantial funding, that is very hard to manage in developing countries like Bangladesh, where many people are living below the international poverty line. ICT-supported hardware, software, internet, audio-visual aids, teaching aids, and other accessories demand huge funds. Mumtaz (2000) stated that many scholars proposed that the lack of funds to obtain the necessary hardware and software is one of the reasons teachers do not use technology in their classes. Afshari, Bakar & Su-Luan et al. (2009) state that efficient and effective use of technology depends on the availability of hardware and software and the equity of access to resources by teachers, students and administrative staff. These costs are in most cases inflated and cannot be provided by most developing countries, including Bangladesh. (Hosseini, 2012: 68)

The above issue raised in Bangladesh may as well occur in other developing countries such as Indonesia. This may lead to a domino effect in the sense that if the fund is poor, the direct effect is the facilities including the bandwidth and the readiness of the human resource such as the teachers, school management, and technicians. In other words, the infrastructure and superstructure can be the most potential barrier. Other possible factors such as preferences of typical young learners who tend to go for fun factor in gaming than gamifying serious matters which again need collaboration between the stakeholders such as parents, providers and educational institutions.

The result and findings are tabulated to bubble up the intriguing points of arguments and beliefs of each article. From this, all the positive and supporting notions are analyzed and investigated to see if it is debatable with relevant arguments within the context of factual data such as in Bangladesh or even Indonesia.

The articles are dominantly universal across the Asia, Middle East and European countries. The focused aspects extracted from the articles include effective classroom activity and motivation.

Results and Discussion

Results

The new era of technological change is inevitable and so are the EFL/ESL learning trends. The belief of making use of the technology has been viewed positively by Chernov A. S. (2014) in "The Potential of ICT and Media-Technology in Foreign Language Teaching", Safitry Wahyuni, M.Pd, Edmundo Gomes Junior, M. (2020) in "Gamification in English Language Teaching: Taboo and Timeline", and Maimun Aqsha Lubis, Melor Md. Yunus*, Mohamed Amin Embi (2020) in "ICT and systematic steps in teaching and learning language in the classroom". To a certain extent, they imply that the

changes naturally bring about disputes and controversy, but they will gradually be adapted including all the educational components. Thus, the key factor implied is to establish readiness in terms of system development to explore more adaptive strategies.

Accordingly, Ronald Dyer (2019) in "A Conceptual Framework for Gamification Measurement" states that "The framework proposes to utilize the following approach for the construction of an appropriate measurement model using the following: (1) Play assessment diagnostic; (2) A gamification scorecard (Scoring Rubric). i.e., GPAI (Game Performance Assessment Instrument); (3) Pre/Post Knowledge Assessment; and (4) Gamification Performance Assessment Review (GPAR)." These four approaches will form the basis for the development of a comprehensive model integrating the key variables for a measurement methodology to assess the benefits of gamification both empirically and as a value-added component across any learning environment.

One commonly agreed notion in learner's-oriented approach is the intrinsic motivation which is promoted by Robin Turner (2012) in "The Gamification of EAP Despite the Meteoric Rise of Gamification", Jonas Hjert Ämneslärarprogrammet (2019) in "Gamification A possibility for ELT in the Digital Era", and Apostolos Koutropoulos (2014) in "Academic Check-Ins: Mobile Gamification for Increasing Motivation and Engagement around the Campus". Another common result from their studies is the fact that a control system may be needed to comply with the curriculum as in some cases learners may go beyond it and absorb un-educational elements such as misbehave. This implies that the control should go along with the cultural context and local educational policy. In addition, the orientation is not only about competition but also about how they can grow their teamwork and sense of participation.

Apart from the learning motivation leading to the leverage, self-efficacy has been strongly imposed in the article "Increasing Student Intrinsic Motivation and Self-Efficacy through Gamification Pedagogy" by James Banfield (2014). "SE is a key ingredient to creating aptitude and gamification is a pedagogy that dramatically increases SE." Apostolos Koutropoulos (2014) also asserts that SE can correlate with a sustainable drive to explore and learn. However, Robin Turner (2012) has referred to his empirical study and shown that further research is urgently required on the phenomena of change of learning motif.

On the perspective of the teachers, Funda Sezgin (2019) in article "Assessing the Perceptions of ELT Teachers on a Gamification Tool- A Scale Development" examines teachers' preference of the gamification tools (GT). It turns out that the most common tool is Kahoot! i.e. a Norwegian game-based learning platform, used as educational technology. It has learning games, also known as "kahoots", are user-generated multiple-choice quizzes that can be accessed via a web browser or the Kahoot! app. Kahoot! also includes trivia quizzes. In Indonesia, this platform has been popular among secondary school teachers. The point that the author claims is that the correspondents consists of 75% female and that gender issues in this study has been noticeable so be that it needs further study. The implication may be that gamification may as well affect gender preference in both males and females. Having that said, both teachers and learners may fall into certain categories of types of GT as well as the gaming elements involved, not mentioning age groups.

Discussion

On the fundamental level, education is essential and lifelong process of betterment, and it is inseparable from the advancement of technology, particularly ICT. It is the infrastructure not only for information and communication activities but also the delta of all other important life aspects or the source of virtually everything that gives significant impacts on learning natures. This is within the awareness shown in all the above studies. The first two articles suggest that education should always be ready to explore growing systems to conform to the changes through research and observations.

In the ESL/EFL context, learners have now substantial wider options. As the infrastructure has been developed and continued to do so, various media platforms are good to go depending on the skill of using the internet (now it is compulsory). Applications are now developed using different operating systems. This is to say that there is no longer time and space boundary. Learners can study anytime and everywhere. The long period of the COVID-19 outburst has particularly escalated the use of online teaching and learning process. With the skill to manipulate online material, teachers have the liberty and luxury to instantly share the material which can expose more authentic examples.

As for games, in the ELT, experts have long proved that using a game as a learning technique is appealing to the learners as it has fun factor and therefore effective. Today, as technology is advancing, gaming has become a big deal and been promoted in different learning activities. Only then the term gamification appeared to develop better strategies. The ten studies above investigate the implementation of gamification and result in different perspectives:

1. Awareness of change: the technology offers wider possibilities to explore gamification to gain effective strategy despite some degree of resistance.
2. Learning motivation is accommodated through richer elements of gamification on the condition that educational stake holders keep controlling the negative side effects, and more research should be carried out to minimize negative impacts. It should also be notified that the curricula should be contingent to the need and educational policy including the teachers, genders and other learning and teaching categories.
3. Self-efficacy is at the same time promoted through gamification within ICT. Roofi (2012) indicates that the findings of the review revealed that several factors enhance the level of students' self-efficacy, and self-efficacy is a strong predictor of performance in different language skills and tasks. (Raoofi, Tan, & Chan, 2012).

Conclusion

Based on the analysis and discussion above, there are at least three factors that can give positive expectation of better result. First is the growing awareness of technological changes, and second is the intrinsic motivation to learn, and third is the promotion (S., 2014) (Safitry, 2018) (Maimun Aqsha Lubis, 2010) (Turner, 2012) (rprogrammet, 2014) (Sezgin, 2019) (Banfield, 2014) (Koutropoulos, 2015) (Dyer, 2014) (Idek, 2019) of self-efficacy in the learning process. The gamification is also believed to uphold learner's center especially through PBL. Besides, ICT has served as the infrastructure of all the media including learning and teaching activity. This allows the teacher and

the learners to have access to a wide range of material. This then can lead to better expectation and standard.

One of the immediate constraints is the resistance to changes. However, this is natural as it will gradually subside as in any case of technological changes. The important potential issue is that the gamification without any educational accountability may lead negative impact on social misbehavior or social seclusion. The competition may not be healthy and psychological problems. The element of competition should therefore be measured and promote social participation and collaboration.

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