

ENHANCING LANGUAGE LEARNING ATTITUDES THROUGH GAMIFIED LANGUAGE CAMPS: A 21ST CENTURY APPROACH

Rita Wong Mee Mee¹, Lim Seong Pek^{2*}, Muhammad Fairuz Abd Rauf³,
Mohd Fahmi Mohamad Amran⁴ and Fatin Syamilah Che Yob⁵

^{1,3,4}Universiti Pertahanan Nasional Malaysia, Malaysia

^{2,5}Universiti Selangor, Malaysia

²INTI International University, Malaysia

ritawong@upnm.edu.my¹, limsp@unisel.edu.my², fairuz.rauf@upnm.edu.my³

fahmiamran@upnm.edu.my⁴ and fatincy@unisel.edu.my⁵

*correspondence: limsp@unisel.edu.my

<https://doi.org/10.24071/llt.v27i2.7037>

received 17 August 2023; accepted 7 May 2024

Abstract

Teachers are accustomed to traditional teaching, in which chalk-and-talk becomes the prominent approach in language teaching. Hence, planning a creative learning environment can be demanding as it comes with challenging tasks. However, the traditional way of teaching and learning can be inadequate for learners to retrieve knowledge in the 21st century classroom, as they prefer game-like activities rather than pen-and-paper lessons. Therefore, learners' experience of using gamification in the classroom is significant as it sparks curiosity and immediate enthusiasm, which reflect the learners' willingness to learn. Importantly, gamification prepares learners to be active and take responsibility for their learning. Fun games instilled during the lessons are believed to be more effective in producing positive outcomes due to learners feeling motivated to play more. However, learners would not realize that they are learning. This was followed by a selection of 108 respondents using gamification and a series of class activities in language learning at a local primary school in Kuala Selangor district, Selangor. The study was conducted using a quantitative survey method which involved administering questionnaires to the Language Camp participants at their respective schools. Data was collected, analyzed accordingly, and presented in the form of tables. The results showed that the integration of gamification in language learning aids learners to improve their creative, critical, and problem-solving skills. Likewise, interesting and engaging activities subconsciously spark the learners' interest in language learning.

Keywords: attitude, fun learning, gamified learning, interactive game, role-play

Introduction

Over the years, educational games have a place in education, which makes them more prevalent. Countless games are successfully designed solely for educational purposes as they work as educational games and entertainment games (Mee et al., 2022). The type of game has its function in that educational games are specifically designed to enhance understanding of the concepts, retrieve domain



knowledge, and develop problem-solving skills as they experience the gameplay. Of the other remarkable thoughts in educational games, it is an interactive application concentrated on providing entertainment and training in health, marketing, and teaching. Through the game elements incorporated in educational games, learners are grouped to be the center of focus due to its goal to improve learners' academic performance and obtain effective language learning (Thurairasu, 2022). However, maximized learning and teaching output can only be seen if learners participate and portray positive attitudes towards the lesson, which incorporates educational games.

Notably, learners' attitudes are defined as feelings regarding language use and its social status. The feeling can be in three conditions, including good, bad, and neutral. These conditions can either nurture or hinder the learning process effectively. Based on the experiment carried out by Brewer et al. (2013), the gamified systems highly increased the completion rate to 97% from the initial 73% due to learners feeling motivated to complete the tasks. As important, the learners' competence, generally, rarely shows improvements, even though changes have been made to the syllabus, teaching materials teacher training programs that are progressively updated. The underlying factors may be that the learners significantly lack engagement or focus during the lesson. It is, however, the assumption that cannot be applied to each individual who is a part of the classroom (Sabornido et al., 2022). Therefore, the utilisation of gamification can significantly aid teachers in boosting learners' engagement and motivation (Chitroda, 2022).

Additionally, functional gamification in teaching and learning highly requires teachers to have knowledge of the application of gamification in the classroom, and importantly, teachers' creativity in integrating gamification has been considered a crucial element of a particular lesson (Rao et al., 2022). All requirements for a successful gamified lesson are due to the reality of the learners nowadays, which gives an insight that learners who experience a similar situation daily, both in their lessons and daily lives, have a high chance of becoming uninterested when they are forced to face the same repeatedly. In line with the condition of the learners, Hashim et al. (2019) described that learners are more at ease during the learning process when games are incorporated together in their lessons. Rafiq and Hashim (2018) supported the statement that games yield a beneficial end-product in boosting learners' knowledge and positively affecting their behavior. Moreover, as the game-based learning concept has its targeted aim of providing a more learner-centred lesson, it is indirectly motivating the learners to do better in the lesson (Jaiswal, 2021).

Considering the effectiveness of the lessons through the application of gamification, game elements filtered through the concept are noted to be the core of gamification. According to Mohamad et al. (2017), game elements are tools to allure the learners to concentrate and direct them toward achieving the goal. These elements can be integrated into lessons without including technology as they are amenable (Zainuddin & Keumala, 2021). In addition, Ding (2019) stated that the elements or some mechanism can trigger learners towards positive achievement by enhancing their determination and promoting healthy competition with their classmates. By doing so, even the generation today can relate to acquiring points or badges and their rank on leaderboards because they share and display things linked to one another or themselves (Ab Rahman et al., 2019).

Interactive learning in the 21st century

Generally, the word ‘interactivity’ can be viewed from many angles as it does not fix with a single definition and has become a source of heated debate involving writers, regardless of their position, from new to professional writers. From past studies, the word ‘interactivity’ lacks clarity as it is vaguely defined. However, the word brings its meaning and is better understood when analyzed closely. In its broadest sense, interactivity refers to a situation when a learner is actively engaged in an activity, including when a student interacts with a computer system (Woo et al., 2021). Specifically, this type of system interaction does not compute only to the system but comprises various shapes and sizes, which are inspired by different aspects of the interactive system’s structure.

Interactivity on the other hand can be seen as learners possessed solid technology literacy in order to learn language in the advanced word (Ali, 2022) due to learners can discover the targeted language through online interactions with others (Eaton, 2010). In line with interactive language learning, Lari (2014) highlighted that technology has played an important role in pedagogy in this Century. The author described that the pedagogies that rely heavily on the chalk-and-talk approach are no longer relevant in teaching current-generation learners from both levels of primary and secondary schools. These technology-dependent students of the current generation find traditional learning irrelevant and demand a change in learning and teaching techniques. According to Zovko (2016), the evolution of education has increased the value of the existing educational practices with technology.

As life in the 21st Century requires a different skill set and knowledge that could not be provided through older educational paradigms, information and communication technologies (ICT) have improved mobility in removing the boundaries between space and time. These have made education relevant and interactive for learners in schools. In correlation with interactive language learning, a study in Malaysia by Tan et al. (2019) illustrated the effectiveness of application on interactive language learning as the learners were found to be motivated to learn English through Kahoot! Moreover, the study highlighted the application of 21st Century language learning as a way to enhance the learners’ proficiency in the English language in terms of their vocabulary knowledge and grammar. Thus, through various past research, the advancement of technology in the development of learners’ engagement in education has become more significant. In spite of the technological advancement, it has also notably created problems for low-income households in keeping up the pace.

According to Lin and Lv (2017), household income significantly impacts learners’ educational levels. In other words, technological advancement has created a vast gap between the median household income group, especially in Malaysia (Woo et al., 2022). Moreover, some learners also struggle with online lessons due to their unfortunate housing situations, regardless of their income background (Van Lacker & Parolin, 2020). The 21st century pedagogy will inevitably become a great assistance for learners to experience effective language learning. Besides, teachers will be able to expose learners to language learning equally due to the availability of various approaches that can be applied to mixed-ability groups of learners (Pek & Mee, 2015).

Gamified learning

With the rapid development of education across the globe, interactive language learning has become more solid and prominent as it plays a massive role in teaching and learning. For education purposes, people integrate technology despite the relevance of conventional methods and approaches. Hence, it aids the learners in showing much interest and being liable towards gamified language learning. As the changes in teaching and learning become more synonyms to the learners' lives, educators are keen to include games or any related elements as part of interactive language learning in their lessons. The significance of gamified language learning is evidenced by Thurairasu (2022), as the author described that gamification, synonymously known as game-based learning, has increased its popularity in certain fields, particularly in academic learning, which makes it the current education trend in Malaysia.

In correspondence with the significant view on gamification towards education, Hansch (2015) stated that gamification captures an engaging, motivating, more enjoyable, and effective way of learning a language. Thereby, Thurairasu (2022) emphasized that the incorporation of gaming elements in teaching and learning enables learners to be more engaged and participate in language learning. In the previous notes, Topîrceanu (2017) also highlighted that the gaming elements are used to encourage learners' engagement in language learning as well as increase their motivation. Seaborn and Fels (2015) described that gamification can not only be enjoyable through technology-integrated lessons but also in non-gaming environments, in which this approach aims to enhance learners' motivation through their engagement when teaching and learning takes place.

Furthermore, gamification is frequently presented in its digital form; the analogue version of it is still not well-discovered and not well-acknowledged (Qiu, 2017). The reality of gamification does not need to exist digitally to evince its purpose because it still functions as long as it focuses on learning-centered and content-oriented (Lenz et al., 2018). Notably, a gamified teaching and learning process can be facilitated and workable on its own without technology being integrated or any of its appliances if it aims to motivate learners and keep them involved and engaged in a lesson.

As gamified language learning significantly involves game elements (e.g., badges, points, awards, etc.), systematic and artistic game designs, and non-game context, Kaya (2022) defined that the application of gamification is not only for enjoyment but also for learners to experience games as part of the language learning process. It is due to game elements proved to be a great assistance and support in learning languages by many past literature. Apart from the game elements, gamification strategies are also the central focus of various language learning games as their goal is to withhold learners' knowledge, which is better than reading and listening only (Thurairasu, 2022). Thus, awarding adequate points for completion, accurate responses and active participation encourages the learners to concentrate on the lesson. However, it is also important that teachers be sure of the game elements and strategies used to avoid learners experiencing negative impacts, including their social, cultural, or physical.

Besides, gamification should ensure learners gain information once they are able to invest their attentiveness to a particular mechanism (Hashim et al., 2019).

The illustration can be applied in the educational context, where learners will divert their attention to a lesson involving something unusual. For instance, making the learners familiarise themselves with game elements enables teachers to deliver a fun learning process (Mohamad et al., 2017). Gamification also provides learners with opportunities to complete the missing pieces between learning a concept and applying it (Öztürk & Korkmaz, 2020).

Method

This study involved a single group pre-experimental research with the aim of finding out the learners' behavioral aspects of attitudes in relation to gamified language learning through the intervention applied to the targeted respondents. In correlation with the aim of the study, the study adapted a set of questionnaires by Abidin et al. (2012). There were 30 items concerning attitudes toward English language learning in terms of behavioral, cognitive, and emotional aspects of language attitude. The items were constructed on a 5-point Likert scale from Level 1 (strongly disagree) to Level 5 (strongly agree).

Questionnaires were then distributed to 108 Year 5 pupils and the data analysis was carried out almost immediately after the survey was completed to clarify the responses and retrieve feedback on gamification for language learning after Language Camp. All participants in this study agreed to take part voluntarily and all data the respondents provided were stored and processed anonymously for confidentiality purposes. The participants were also informed that they had the freedom to cancel or withdraw their participation in the research any time. With the data retrieved from the respondents, the study applied regression analysis, aiming to look at the results of the type of intervention implemented for gamified language learning.

Findings and Discussion

The statistical results of the analysis were presented regarding the three aspects of attitude from the questionnaire that was distributed to 108 Year 5 pupils. The result first generates Table 1, which focuses on the respondents' responses on the behavioral aspect of language attitude.

As described in Table 1, the mean score for item 1, 'Speaking English anywhere makes me feel worried,' was 2.65 (SD=1.193) initially but changed to a mean of 3.14 (SD=1.245) after the Language Camp. The second item 'I like to give opinions during English lessons,' described the early mean score as 3.00 (SD=1.145) but decreased to M=2.43 (SD=1.113) after Language Camp. The item 'I am able to make myself pay attention while studying English' indicated a mean of 2.58 (SD=1.089) at the beginning and jotted a mean of 2.21 (SD=1.107) after the Language Camp. The fourth item, 'When I hear a student in my class speaking English well, I like to practice speaking with him/her,' indicated a mean score of 2.77 (SD=1.136) at the beginning but skewed towards the left with a mean of 2.22 (SD=1.117) after the Language Camp. On the item 'Studying English makes me have more confidence in expressing myself,' the mean showed a right skew with 2.69 (SD=1.060) in the beginning but moved towards the left with M=2.08 (SD=1.135) after the Language Camp.

Table 1. Behavioural aspect of language attitude

Items	Before		After	
	Mean	Std. Deviation	Mean	Std. Deviation
1. Speaking English anywhere makes me feel worried.	2.70	1.217	3.21	1.238
2. I like to give opinions during English lessons.	3.06	1.134	2.48	1.140
3. I am able to make myself pay attention during studying English.	2.62	1.108	2.26	1.122
4. When I hear a student in my class speaking English well, I like to practice speaking with him/her.	2.80	1.134	2.27	1.132
5. Studying English makes me have more confidence in expressing myself.	2.74	1.071	2.12	1.158
6. I am not relaxed whenever I have to speak in my English class.	2.79	1.152	2.81	1.234
7. I like to practice English the way native speakers do.	2.76	1.110	2.45	1.163
8. When I miss the class, I never ask my friends or teachers for the homework on what has been taught.	3.05	1.356	3.38	1.331
9. I do not feel enthusiastic to come to class when English is taught.	3.07	1.221	3.40	1.176
10. I do not pay any attention when my English teacher is explaining the lesson.	3.28	1.229	3.61	1.214

As for ‘I am not relaxed whenever I have to speak in my English class,’ it indicated a similar skew with a mean of 2.76 (sd=1.152) and M=2.77 (sd=1.226) throughout teaching and learning lessons. The item ‘I like to practice English the way native speakers do’ indicated a mean of 2.72 (sd=1.107) initially but dropped to M=2.41 (sd=1.134) after the Language Camp. The three items of ‘When I miss the class, I never ask my friends or teachers for the homework on what has been taught’ indicated M=2.99 (sd=1.344) to M=3.36 (sd=1.352), ‘I do not feel enthusiastic about coming to class when English is taught’ showed M=3.02 (sd=1.223) to M=3.36 (sd=1.187) and ‘I do not pay any attention when my English teacher is explaining the lesson’ jotted M=3.20 (sd=1.241) to M=3.56 (sd=1.235) had projected a right skew from the beginning till after the Language Camp to indicate Disagreement.

Table 2, on the other hand, shows the responses on the cognitive aspect of language attitude of the respondents taking part in this study. Similar to Table 1, the cognitive perception of the respondents changed after attending the Language Camp. The item ‘Studying English is important because it will make me more educated’ showed a mean of 2.51 (SD=1.250) at the beginning of the year but moved to the left skew with M=2.03 (SD=1.233) after the Language Camp. As for ‘I have more knowledge and more understanding when studying English,’ M=2.73

(SD=1.137) at an early stage compared to after attending the Language Camp with M=2.24 (SD=1.181). For the item ‘I like my English class so much; I look forward to studying more English in the future,’ the mean score was 2.72 (SD=1.166) towards the right skew but moved to the left skew after the Language Camp with M=2.27 (SD=1.202). Two items had shown right skew from the beginning till after attending the Language Camp, which is ‘I cannot summarise the important points in the English subject content by myself’ with M=2.95 (SD=1.044) to M=3.42 (SD=1.050) and ‘Frankly, I study English just to pass the exams’ with M=2.93 (SD=1.200) to M=3.34 (SD=1.267) respectively.

Table 2. Cognitive aspect of language attitude

Items	Before		After	
	Mean	Std. Deviation	Mean	Std. Deviation
1. Studying English is important because it will help me become more educated.	2.54	1.241	2.06	1.267
2. I have more knowledge and more understanding when studying English.	2.78	1.155	2.30	1.202
3. I like my English class so much; I look forward to studying more English in the future.	2.76	1.175	2.33	1.223
4. I cannot summarise the important points in the English subject content by myself	3.00	1.023	3.46	1.018
5. Frankly, I study English just to pass the exams.	2.98	1.200	3.39	1.259
6. In my opinion, people who speak more than one language are very knowledgeable.	2.46	1.164	2.18	1.191
7. Studying English helps me communicate in English effectively.	2.68	1.191	2.19	1.145
8. I am able to think and analyze the content in the English language.	2.70	1.209	2.56	1.113
9. I am not satisfied with my performance in the English subject.	2.80	1.125	2.88	1.108
10. In my opinion, the English language is difficult and complicated to learn.	2.92	1.231	3.14	1.249

The item, ‘In my opinion, people who speak more than one language are very knowledgeable,’ indicated a mean score of 2.39 (SD=1.154) at the beginning of the year but changed their perception to indicate M=2.13 (SD=1.166) after the Language Camp. The item ‘Studying English helps me communicate in English effectively’ jotted a mean score of 2.66 (SD=1.185), indicating the right skew, but showed M=2.14 (SD=1.125) after the Language Camp. As seen in ‘I am able to think and analyze the content in the English language,’ the mean indicated 2.68 (sd=1.202) and M=2.51 (SD=1.092), which showed small numbers of change

throughout the teaching and learning session even after the Language Camp. As for ‘I am not satisfied with my performance in the English subject,’ the mean score was 2.74 (SD=1.111) at the beginning and M=2.84 (SD=1.115) after the Language Camp. The item ‘In my opinion, English language is difficult and complicated to learn’ indicated M=2.87 (SD=1.227) and M=3.07 (SD=1.251) throughout the teaching and learning in the English language.

Table 3 shows the emotional aspect of language attitude among Year 5 pupils in this study. The item ‘I feel excited when I communicate in English with others’ showed a mean score of 2.81 (SD=1.162) but moved to the left skew with a mean of 2.27 (SD=1.115) after the Language Camp. The means for the item, ‘I don’t get anxious when I have to answer a question in my English class,’ was 2.91 (SD=1.108) at the beginning of the year and M=3.03 (sd=1.202) after the Language Camp. As shown in the item ‘Studying foreign languages like English is enjoyable,’ the mean was 2.48 (SD=1.174) but pointed to a left skew with M=1.97 (SD=1.152). Similarly to the item above, the item ‘Studying English makes me have good emotions (feelings)’ indicated a mean score of 2.59 (SD=1.199) at the beginning and M=1.89 (sd=1.129) after the Language Camp, respectively. As for ‘I enjoy doing activities in English,’ the mean score for the early year was 2.58 (SD=1.164) and moved to the left skew with M=1.89 (SD=1.136) after the Language Camp.

Table 3. Emotional aspect of language attitude

Items	Before		After	
	Mean	Std. Deviation	Mean	Std. Deviation
1. I feel excited when I communicate in English with others.	2.84	1.161	2.31	1.148
2. I don’t get anxious when I have to answer a question in my English class.	2.95	1.097	3.09	1.196
3. Studying foreign languages like English is enjoyable.	2.54	1.203	2.02	1.192
4. Studying English makes me have good emotions (feelings).	2.63	1.227	1.94	1.170
5. I enjoy doing activities in English.	2.62	1.190	1.94	1.178
6. I do not like studying English.	3.11	1.369	3.89	1.263
7. I wish I could speak English fluently.	2.49	1.322	1.97	1.018
8. Studying English subject makes me feel more confident.	2.46	1.179	1.96	1.127
9. To be honest, I really have little interest in my English class.	2.68	1.380	3.69	1.293
10. Knowing English is an important goal in my life.	2.54	1.343	1.96	1.175

The mean score for ‘I do not like studying English’ showed 3.05 (SD=1.359) early in the year and remained on the right skew with M=3.82 (SD=1.301). The mean for the item, ‘I wish I could speak English fluently,’ showed 2.42 (SD=1.307) at the beginning but moved to the left skew of M=1.95 (SD=1.003) after the

Language Camp. As for 'Studying English subject makes me feel more confident,' it indicated $M=2.41$ ($SD=1.156$) to $M=1.92$ ($SD=1.089$) throughout the English language learning lessons. Based on the respondents' perception of the item, 'To be honest, I really have little interest in my English class' jotted $M=2.63$ ($SD=1.372$) at the beginning and $M=3.65$ ($SD=1.320$) after the Language Camp, respectively. The final emotional aspect of language attitude on the item, 'Knowing English is an important goal in my life,' respondents responded with a mean score of 2.48 ($SD=1.334$) at the beginning but moved to the left skew with $M=1.92$ ($SD=1.139$) after the Language Camp.

The study found that younger learners perceive learning as tiresome due to the traditional approach and strategies that are being implemented during teaching and learning, and it causes learners to experience a loss of fun in learning. In addition to traditional teaching, learners are highly exposed to technology, gadgets, tools, and applications available online, including games. Thus, educators can fully utilize the advancement and knowledge of the technology of the learners by ensuring that they apply a similar context in their teaching. This due to the addition of game elements that can transform the lesson to be more attractive to the learners (Rafiq et al., 2019). The situation urged the researchers to actively conduct studies aiming to create a deeper understanding of the integration of game elements in an educational context (Kyewski & Kramer, 2018).

Moreover, Rafiq et al. (2019) also emphasized the learners' view of gamified learning, which mentions that learners are more intrigued and motivated in such lessons as they could be autonomous learners. Thinking skills improvement was also mentioned, along with the learners' positive learning experiences. Significantly, these claims should not be overlooked they call for a change in the educational settings to ensure teachers' effectiveness and success in helping the pupils achieve their academic goals. In line with the previous statement, Hashim et al. (2019), on the other hand, mentioned that the game elements in gamified lessons provide learners with opportunities to compete healthily among their peers.

Findings from the study also significantly indicated that learners had changed their perception after they went through the Language Camp. The results were consistent with a study by Zuo et al. (2019) which described that various factors including educational background, behavior, cognition, emotion, and future expectations, influenced learners' attitudes toward English language learning. Thus, the relationship between these factors and the impact on learners' attitudes towards the target language will then consequent in learners' behavioral, cognitive, and emotional, either indirectly or directly. Crucially, through the findings, researchers found out that the use of gamification as a treatment had proven to be effective as it enhances the learners' English language proficiency and increases their confidence in using the target language.

Conclusion

The integration of gamified language learning within educational settings has shown a significant influence on the attitudes and proficiency of learners in English language learning. The intervention of Language Camps incorporating various gamification elements led to measurable changes in the behavioral, cognitive, and emotional aspects of the learners' attitudes toward the English language. Therefore, several recommendations could be improved and modified for future studies.

Teachers could add more role-play activities while teaching in the classroom. For example, this kind of activity will enhance students' imagination of the real situation during reading or speaking class. The implication of this will have a greater impact on whether role-play activities are one of the effective methods to enhance students' speaking skills in English. Besides, making props for interactive games and role plays will also boost students' motivation to do well in the assigned activities.

References

- Ab Rahman, R., Ahmad, S., & Hashim, U. R. (2019). A study on gamification for higher education students' engagement towards education 4.0. In V. Piuri, V. Balas, S. Borah, & S. Syed Ahmad (Eds.), *Intelligent and interactive computing: Proceedings of IIC 2018* (pp. 491-502). Singapore: Springer Singapore. http://dx.doi.org/10.1007/978-981-13-6031-2_5
- Abidin, M. J. Z., Pour-Mohammadi, M., & Alzwari, H. (2012). EFL students' attitudes towards learning English language: The case of Libyan secondary school students. *Asian Social Science*, 8(2), 119.
- Ali, Z. (2022). 21st-century learning: Understanding the language learning strategies with technology literacy among L2 learners. *Journal of Nusantara Studies*, 7(2), 202-220. <http://dx.doi.org/10.24200/jonus.vol7iss2pp202-220>
- Chitroda, H. (2022). A brief history on gamification. KNOLSKAPE. Retrieved from <https://knolskape.com/blog/brief-historygamification/>
- Ding, L. (2019). Applying gamifications to asynchronous online discussions: A mixed methods study. *Computers in Human Behavior*, 91, 1-11. <https://doi.org/10.1016/j.chb.2018.09.022>
- Eaton, S. E. (2010). *Global trends in language learning in the twenty-first century*. Calgary: Onate Press
- Hansch, A. (2015). Fostering engagement with gamification: Review of current practices on online learning platforms. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2694736
- Hashim, H., Rafiq, K. R. M., & Yunus, M. M. (2019). Improving ESL learners' grammar with gamified-learning. *Arab World English Journal (AWEJ), Special Is(5)*, 41–50. <https://doi.org/10.24093/awej/call5.4>
- Jaiswal, A. (2021). Revisiting the historical roots of game-based learning. *TechTrends*, 65, 243–245. <https://doi.org/10.1007/s11528-021-00603-x>
- Kyewski, E., & Kramer, N. C. (2018). To gamify or not to gamify? An experimental field study of the influence of badges on motivation, activity, and performance in an online learning course. *Computers & Education*, 118, 25–37. <https://doi.org/10.1016/j.compedu.2017.11.006>
- Lari, F. S. (2014). The impact of using powerpoint presentations on students' learning and motivation in secondary schools. *International Conference on Current Trends in ELT*, 1672-1677.
- Lenz, L., Stehling, V., Haberstroh, M., & Isenhardt, I. (2018, March). *The more digital, the better? Analogue gamification in advanced blended learning environments*. 2018 12th International Technology, Education and Development Conference (INTED) Proceedings.

- Lin, T. & Lv, H. (2017). The effects of family income on children's education: An empirical analysis of CHNS data. *Research on Modern Higher Education*, 4, 49-54.
- Mee, R. W. M., Rao, Y. S., Pek, L. S., Abd Ghani, K., Von, W. Y., Ismail, M. R., & Shahdan, T. S. T. (2022). Gamifying education for classroom engagement in primary schools. *International Journal of Evaluation & Research Education*, 11(3), 1360-1367.
- Mohamad, S. N. M., Salam, S., & Bakar, N. (2017). An analysis of gamification elements in online learning to enhance learning engagement. In J. Zulikha & N. H. Zakaria (Eds.), *Proceedings of the 6th international conference on computing & informatics* (pp 452-460). Sintok: School of Computing.
- Öztürk, Ç. & Korkmaz, Ö. (2020). The effect of gamification activities on students' academic achievements in social studies course, attitudes towards the course and cooperative learning skills. *Participatory Educational Research (PER)*, 7(1), 1-15. <https://files.eric.ed.gov/fulltext/EJ1244229.pdf>
- Pek, L. S. & Mee, R. W. M. (2015). Selfie: Engaging life experiences into writing. *Malaysian Journal of Distance Education*, 17(2), 51-66. <https://doi.org/10.21315/mjde2015.17.2.4>
- Qiu, C. S. (2017). The utility of gamification in public health. *Indian Journal of Public Health*, 61(4), 314. https://10.4103/ijph.IJPH_393_16
- Rafiq, K. R. M., & Hashim, H. (2018). Augmented reality game (ARG), 21st century skills and ESL classroom. *Journal of Educational and Learning Studies*, 1(1), 29-34. <https://doi.org/10.32698/0232>
- Rafiq, K. R. M., Pazilah, F. N., Yunus, M. M., Hashim, H. & Sabri, M. H. M. (2019). Gamified-learning brings out the hero in you!. *International Invention, Innovative & Creative (InIIC) Conference, 2019* (pp.67-71). MNMF Publisher. <http://www.mnmpublisher.com/uploads/4/6/9/3/46931833/gamified-learning-brings-out-the-hero-in-you.pdf>
- Rao, Y. S., Mee, R. W. M., Abd Ghani, K., Pek, L. S., Von, W. Y., Ismail, M. R., & Shahdan, T. S. T. (2022). Gamifying reading for learners' comprehension enhancement: A scoping review. *St. Theresa Journal of Humanities and Social Sciences*, 8(2), 101-114.
- Sabornido, E. B., Garma, V. A., Niepes, G. L., & Cabria, F. M. N. (2022). Key challenges and barriers in gamification: A systematic review. *Asia Pacific Journal of Advanced Education and Technology*, 1(1), 13-19. <https://doi.org/10.5281/zenodo.6361966>
- Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, 74, 14-31. <https://doi.org/10.1016/j.ijhcs.2014.09.006>
- Tan, D. A. L., Lee, B. C., Ganapathy, M., & Kasuma, S. A. A. (2019). Language learning in the 21st century: Malaysian ESL students' perceptions of Kahoot! *International Journal of Virtual and Personal Learning Environments*, 9(2), 55-71.
- Thurairasu, V. (2022). Gamification-based learning as the future of language learning: An overview. *European Journal of Humanities and Social Sciences*. 2(6), 62- 69. <http://dx.doi.org/10.24018/ejsocial.2022.2.6.353>

- Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: a social crisis in the making. *The Lancet Public Health*, 5(5), 243-244.
- Woo, A., Omar, S. F., Pek, L. S., Ahmad Nawi, H. S., Mee Mee, R. W., & Tengku Shahdan, T. S. (2022). Teachers' choice versus learners' attitude: Interactive learning tools for sustainable education. In H. H. Kamaruddin, T. D. N. M. Kamaruddin, T. D. N. S. Yaacob, M. A. M. Kamal, & K. F. Ne'matullah (Eds.), *Reimagining resilient sustainability: An integrated effort in research, practices & education, vol 3. European proceedings of multidisciplinary sciences* (pp. 163-167). European Publisher. <https://doi.org/10.15405/epms.2022.10.16>
- Woo, A., Pek, L. S., & Nawi, H. S. A. (2021). Digital educational divide among low socioeconomy income group: A conceptual model. *St. Theresa Journal of Humanities and Social Sciences*, 7(2), 14-28.
- Zainuddin, Z. & Keumala, C. M. (2021). Gamification concept without digital platforms: A strategy for parents on motivating children study at home during Covid-19 pandemic. *PEDAGOGIK: Jurnal Pendidikan*, 8(1), 156-193. <http://doi.org/10.33650/pjp.v8i1.2174>
- Zovko, V. (2016). ICT-enabled education - Need for paradigm shift. *Croatian Journal of Education*, 18(2), 145-155. <https://doi.org/10.15516/cje.v18i0.2175>
- Zuo, X., Weaver, R., MacRae, J., & Wang, L. (2019). How much do emotional, behavioral, and cognitive factors actually impact college student attitudes towards English language learning? A quantitative and qualitative study. *Information*, 10(5), 166.