Gender Influence on Students Attitude Towards the Use of Scramble Game for Learning in Secondary School English Language Concepts in Ilorin Metropolis

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Abstrak

Scramble game menawarkan aktivitas mental intens yang mengasah keterampilan kognitif, praktik dalam menerapkan prinsip-prinsip ekonomi, dan pengaktifan pembelajaran bahasa di kelas. Terlepas dari banyak manfaatnya, permainan scramble menantang dan memakan waktu. Oleh karena itu penelitian ini yaitu menganalisis pengaruh jenis kelamin terhadap sikap siswa terhadap permainan scramble. Penelitian ini menggunakan desain penelitian deskriptif, dengan menggunakan metode survei kuantitatif. Dua pertanyaan penelitian dan satu hipotesis dijawab dan diuji masing-masing. Sebanyak tiga ratus delapan puluh enam (386) responden dijadikan sampel secara acak; jumlah frekuensi, persentase dan rata-rata digunakan untuk menjawab pertanyaan penelitian sementara hipotesis diuji menggunakan uji-t. Temuan penelitian menyimpulkan, bahwa gender mempengaruhi sikap siswa terhadap penggunaan permainan scramble untuk pembelajaran di antara banyak lainnya. Kinerja akademik dalam kosakata bahasa Inggris dapat ditingkatkan dengan pemanfaatan permainan Scrabble melalui aktivitas mental yang intens yang dilakukan pelajar saat bermain game. Demikian pula, penggunaan permainan Scrabble dalam pengajaran kosakata bahasa Inggris adalah pembelajar dan ramah gender. Studi ini merekomendasikan bahwa siswa harus didorong untuk mengeksplorasi manfaat penuh dari permainan scramble untuk meningkatkan pengajaran di kelas yang aktif.

Kata kunci: Scramble game, Bahasa Inggris, Sikap dan Gender

Abstract

Scramble games offer intense mental activities that hone cognitive skills, apply economic principles, and enable language learning in the classroom. Despite the many benefits, the scramble game is challenging and time-consuming. Therefore, this study analyzes the effect of gender on students' attitudes towards scramble games. This study uses a descriptive research design using a quantitative survey method. Two research questions and one answer have been answered and tested, respectively. A total of three hundred and eighty-six (386) respondents were sampled randomly; the number of frequencies, percentages, and averages answered the quick questions tested using the t-test. This finding concludes that gender affects students' attitudes towards using games for learning, among many others. Academic performance in English vocabulary can be improved by using the Scrabble game through students' mental activities while playing games. Likewise, the use of the game Scrabble in teaching English is learner-friendly and gender-friendly. The study recommends that students be encouraged to explore the full benefits of scramble games to enhance active classroom teaching.

Keywords: Scramble game, English Language, Attitude and Gender

1. INTRODUCTION

Education is one of such areas in which the interest for gamification is gaining momentum and has gained the attention of educators, learners, and researchers equally (Gafurov et al., 2020; Kumar et al., 2020). Gamification is still rising in popularity. A research methodology that outlines an emerging technology's viability for commercial success, gamification is at the peak of the Hype Cycle in 2013, with an expectation for reaching the productivity plateau in five to ten years (Rodrigues et al., 2021). This position, however, mainly reflects its use in business contexts. The penetration of the gamification trend in educational settings seems to be still climbing up to the top, as indicated by the amount and annual distribution of the reviewed works. However, studies on gamification published in top academic journals has increased in the multiples of five over the last five

years (Navarro-Espinosa, J. A. et al., 2022). The use of games or games elements in education is not new and can be traced back to the sixties when Piaget pointed out that games could not only help children to master their environments but also to create the worlds of their imagination (Fauziddin & Mufarizuddin, 2018; Gashaj et al., 2021). Gamification as the use of game design elements in non-game contexts. In recent years, gamification has seen rapid adoption in business, marketing, corporate management, and wellness and ecology initiatives. This is driven by its potential to shape users' behaviour in a desirable direction (Alshammari, 2020; Trinidad et al., 2021). Online education sites such as codeacademy.com and khanacademy.org use game elements to better engage users. The more courses and lessons that users complete, the more badges they earn.

The elements that make games fun along with the nature of games are intrinsically motivating, so applying game elements to the classroom may increase students' intrinsic motivation to learn (Fauziddin & Mufarizuddin, 2018; Pérez-Juárez et al., 2022). Other reasons supporting gamification include improvement of students' engagement and learning outcomes, and to tailor difficulty progression that facilitates instruction based on each individual student's needs (Palaniappan et al., 2022); the immediate and frequent feedback that games provide (Tsividis et al., 2021); the capacity to give students the freedom to fail without fear when learning and a display of progress and rewards which is essential for reinforcement (Conroy et al., 2021); and a trial-and-error learning process which makes mistakes recoverable (Howe et al., 2022). Board games are highly enriching activities that provide creative learning and playful exploration (Prastyo et al., 2021; Ratminingsih, 2017). Board games have a long and rich tradition, being both entertainment and education means in ancient cultures. The origin of board games go back to countries like China, India or Nigeria (Okafor, 2022). The first board game ever known is Senet and dates back from times of Nefertari, the Egyptian Queen who ruled until 1237 BC. Nefertari was portrayed in one of the wall paintings found in the Valley of the Queens. It is also in ancient cities in Egypt that first Mancalas, gaming boards made of stone were discovered, carved into the roofs of ancient temples. Pachisi and Chaupar boards and tokens made of rubies and ivory were found in India (Okafor, 2022). Refined wooden boards for playing a game similar to *Go* were found in China and Japan together with polished stones. It is curious to see how these early board games have been played for thousand years and yet they still provide the foundation for most classic and current board games (Okafor, 2022).

Scrabble is an interactional word-building game that help students to develop language and social skills (Marti-Parreño et al., 2016; Onasanya et al., 2021). The idea of using games to engage students in the process of active learning is not new. Over the past several years, educators have been increasingly incorporating various games into their teaching curriculum in an effort to create a fun and engaging learning environment for students. Although this can be very challenging and time consuming, interactive, collaborative and competitive games tend to motivate and encourage student participation in the learning process (Onasanya et al., 2021; Xu et al., 2022). Other research revealed that learning new vocabulary in a second language requires between 5 to 16 exposures (Kida, 2022). In such a case then, games help provide this exposure as they involve repeated tries and failure (Kida, 2022). However, the study emphasized that this would only be achieved with the appropriate use of gamification in the learning. There is a need to invent tools or strategies that could help reduce the stress that students experience during their learning. Activities structured as games can provide concrete practice for learners, while reducing the tension and anxiety often encountered during the learning process. Appropriate use of game elements in the classroom could result not only in enhanced motivation and learning experiences but also facilitate accuracy and fluency in language learners (Kida, 2022; Rose et al., 2016; Saprudin et al., 2020). Language games lead students to be more self-confident and

achieve better results. The role of language games in teaching vocabulary cannot be denied; they bring real world context into their classrooms. They acquaint students with new items and help them consolidate lexical knowledge of words. They can keep their minds active through playing with words and letters what help also developing their communicative competence (Kholid et al., 2022; Saprudin et al., 2020).

Despite all the promising outcomes that might be expected from gamifying lessons, teachers play a key role to implement new practices and methods in teaching. Literature review clearly suggest that several factors can prevent teachers to introduce pedagogical innovations and especially technology related innovations in the classroom (Avsec & Savec, 2021; MacLachlan et al., 2018). Previous studies have shown that teachers' perception and attitudes towards pedagogical innovations and Information and Communication Technologies (ICT) in the classroom are one of the main factors influencing their adoption and integration (Arkorful et al., 2021; Bajrami & Ismaili, 2016; Konstantinidou & Scherer, 2022). There is an increasing interest to know the teachers' attitudes and perceptions towards gamifying lessons. Attitude towards a target behaviour (gamifying lessons) is one of such key factors because attitude is an important predictor of an individual's intention towards performing the target behaviour (Sajinčič et al., 2022; Saprudin et al., 2020). Therefore, attitude towards gamifying lessons can be conceptualized as the evaluative affect to use gamification as a teaching strategy or as a tool. Teachers play a key role in introducing pedagogical innovations in the classroom, especially technology-related innovations so teachers will play a key role in adopting the use of gamification in their subjects based on their perception and attitude towards gamifying lessons (Eheazu & Ibanga, 2022).

There are domains emphasizing gender differences in cognitive activity in playing games such as chess, go, bridge, and Scrabble where the best male players typically outperform the best female players to such a degree that the genders sometimes compete separately and some competitions are restricted to only females. Gender differences in chess could be accounted for by the vastly larger number of active male players in comparison to female players and thus might not reflect differences in ability between males and females (Cueva & Inga, 2022). Based on the above, this study aims to examine the effect on students' attitudes towards the use of the Scramble Game for learning English concepts in secondary schools in the metropolitan city of Ilorin.

2.   METHODS

This study adopted quantitative research method involving descriptive research of the survey type. This method was used to determine students' attitude towards   the use of scrabble game for learning English language. The questionnaire was used in gathering relevant data on students' demographic information and attitude towards the use of scrabble game for learning English language in Ilorin metropolis, Kwara state, Nigeria. The population for this study was made from five purposively selected secondary school in Ilorin metropolis. The target population contains 600 secondary school students within the five selected secondary schools in Ilorin metropolis. A stratified sampling technique was used to allocate various respondents in each school supported their estimated population using Israel Model (2012). additionally, proportional sampling techniques was utilized in each school to select the 384 secondary school students from the sampled secondary school to participate as the respondents during this study. A researcher-designed questionnaire was used in collecting data to investigate students' reaction towards the use of scrabble game for learning English language in Ilorin metropolis, Kwara state, Nigeria. The questionnaire consisted of two sections; section A would contain the demographic information of respondents while section B contained items on students' attitude towards the use of scrabble game for learning English

language in Ilorin metropolis, Kwara state, Nigeria. The items in section B would be rated on modified Likert Mode Scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD), and Disagree (D) with weighted value of 4 to 1 in terms of scoring.

The researcher's supervisor and three lecturers in the Department of Educational Technology, University of Ilorin validated the instrument. This was to determine the effectiveness and the appropriateness of the instruments and to ascertain its face and content validity. The validators corrections and modifications was used to improve the quality of the instrument. The data collected were analysed descriptively using a descriptive and inferential statistics with the use of Statistical Package for Social Sciences (SPSS) software version 20.0. Percentage and mean would be used to answer the research questions while *t*-test was used to test the formulated hypotheses at 0.05 level of significant. Since the items of the researcher-designed questionnaire was structured on a four-point Likert scale, the decision rule was based on the mid-point of the scale 2.50. Therefore, items with mean scores of 2.50 and above were regarded as agreed or positive responses while items with below 2.50 were regarded as disagreed or negative responses.

3.   RESULTS AND DISCUSSION

Results

The distribution of respondents that were involved in the study to examine the Gender Influence on students' attitude towards the use of Scramble Game for learning in Secondary school English language concepts in Ilorin metropolis. 4 (57.1%) of the respondents were male, while, 3 (42.9%) were female. In order to determine students' reaction to the use of Scrabble game in learning English vocabulary. A researcher-designed questionnaire was used in collecting data from the respondents. Mean was used to analyse the data collected, while grand mean was used to determine the overall students' reaction to learning English vocabulary with the use Scrabble game. In determining the overall students' reaction to learning English vocabulary with the use Scrabble game, the bench mark of 2.5 of a 4 point Likert scale was adopted. Results of the analysis are shown on Table 1.

Table 1. Mean of Students' Attitude toward Scrabble Game in Learning English Vocabulary

S/N	Items	Mean	Decision
1.	Learning English language vocabulary with Scrabble board game is interesting.	3.71	Agree
2.	I tend to develop more interest in the classroom because of the combination of visual impression in the instructional process.	3.14	Agree
3.	Scrabble used in learning English language vocabulary leaves a lot to be desired and I look forward to its use to learn English language in subsequent lessons.	3.28	Agree
4.	The use of Scrabble board game in learning English vocabulary is a waste of time	3.00	Agree
5.	Incorporation of games like Scrabble into English language classes can make the student to be more interested in the classroom lessons.	2.85	Agree
6.	Use of games like Scrabble board game is distracting for learning English language vocabulary	2.86	Agree
7.	Learning English language with gamification is helpful in knowing new English language vocabularies	3.14	Agree
	Grand Mean	**3.14**	

Table 1 indicates the mean responses of students' attitude toward learning English vocabulary with the use Scrabble game. Using a bench mark of 2.5, the result revealed that the mean score for each of the seven (7) items on the questionnaire is above 2.5, while, the grand mean score of the seven (7) items is 3.14. This indicates that students have positive towards learning English vocabulary with the use Scrabble game. In order to determine the differences between male and female students' reaction towards learning English language with the use of scrabble game. A researcher- designed questionnaire was used in collecting data from the respondents. Mean was used to analyse the data collected in order to determine the difference between male and female students' reaction towards learning English vocabulary with the use Scrabble game. In determining the overall students' reaction to learning English vocabulary with the use Scrabble game. Results of the analysis are shown on Table   2.

Table 2. Mean of Male and Female Students' Reaction to Scrabble Game in Learning English Vocabulary

Gender	N	Mean	Standard Deviation
Male	201	3.29	0.30
Female	186	2.95	0.16

Table 2 revealed that male students have a more positive reaction to learning English vocabulary with the use of scrabble game with the mean score of 3.29 which is higher than the female mean score of 2.95. This shows that male students have a more positive reaction to learning English vocabulary with the use of scrabble game. Independent sample *t*-test was conducted to compare male and female students' reaction to learning English vocabulary with the use of Scrabble game. Data collected was analysed and tested at 0.05 significant level. Results of the analysis are shown in Table 3.

Table 3. *t*-test Analysis of Male and Female Students' Reaction to Learning English Vocabulary with the Use of Scrabble Game

Gender	N	X	SD	df	t	Sig. (2-tailed)	Remark
Male	4	3.29	0.30				
				5	1.67	0.15	Accepted
Female	3	2.95	0.16				

It can be deduced that there was no significant difference between male and female students' reaction to learning English vocabulary with the use of Scrabble game. This is reflected in the findings of the hypothesis tested df (5), t= 1.67, p>0.05. Thus, the hypothesis which states that "there is no significant difference in the reaction of male and female students taught English language using scrabble game" is accepted.

Discussion
The gamification of education is defined as the use of game elements in a learning environment and extant literature shows that gamification has been used in a wide range of areas and subjects including energy education, veterinary education, citizenship education, and nanotechnology education, among others (Alshammari, 2020; Staller & Koerner, 2021). Gamification as the use of game design elements and game mechanics in non-game contexts in order to engage people and solve problems (Barata et al., 2013; Krath et al., 2021). Gamification as a way to increase students' attention and engagement during the learning process. Thus, the integration of gamification to classroom instruction is imperative (Rincon-

Flores et al., 2022; Xu et al., 2022). Previous research has detected that the use of games or games elements in the classroom can enhance the classroom atmosphere. Moreover, the use of games in the classroom may be appealing and motivating for the new generations of students that have grown up in the age of video games (Pérez-Juárez et al., 2022). Other research stated that games encourage students to play an active role in the learning process, thus, supporting active learning, experiential learning, and problem-based learning (Rincon-Flores et al., 2022).

Extant literature suggests that educational games (EGs) like jigsaw puzzle games represent a promising tool in gamification. The reasons that have been pointed out for the use of games in education is that EGs may be appealing and motivating for the new generations of students that have grown up in the age of video games (Pérez-Juárez et al., 2022; Waluyo & Bakoko, 2021). The field of education has not been left out in the adoption of gamification, most especially, for classroom instructional purposes (Rose et al., 2016; Saprudin et al., 2020). Gamification has gained significant interest among educators across the globe, this might be because of the characteristics that are inherent in gamification (Mekler et al., 2017; Navarro-Espinosa, J. A. et al., 2022; Palaniappan et al., 2022). These characteristics have led teachers to start ushering its integration into classroom in order to concretise learning content, increase classroom engagement, and improve academic performance of learners, particularly English language learners. The teaching and learning of selected concepts in English language such as English vocabulary can be enhanced through the use of Scrabble game as an engagement tool.

The findings of this study revealed that the gender differences do not exist in using Scrabble game to teach English vocabulary in Ilorin metropolis. It was revealed from the findings that the nature of Scrabble game which involved intense mental activity and engaging both male and female students simultaneously helps in bridging the gender gap that use to exist in English vocabulary performance. This finding is against the findings who reported a significant lower Scrabble rating for female compare to male scrabble players (Onasanya et al., 2021). Gender difference in the cognition and the past ten World Champions in Scrabble were all males (Halpern et al., 2011). This study revealed that students' reaction to learning English vocabulary with the use Scrabble game is positive. This study found that Scrabble game allows learners to develop more interest in the classroom; and Scrabble game leaves a lot to be desired and students look forward to its use to learn English language in subsequent lessons. Overall, students reacted positively to using Scrabble game. These findings agreed with the study, the researcher averred that student show a tremendous increase in level of students' engagement and interest which ultimately transformed to better performance and reaction to Scrabble game (Sajinčič et al., 2022). The study found that no significance difference existed between the academic performance of male and female students taught English vocabulary using Scrabble game in Ilorin metropolis. Both male and female students taught English vocabulary with the use of Scrabble game performed very well. This finding is in contrast with the study, the researchers concluded that most players in Scrabble tournaments are female (Cueva & Inga, 2022). However, the higher ratio of female to male players cannot explain the male advantages in Scrabble game, in fact, the researchers explained that one would predict females will be more prevalent than male at the performance level but opposite is the case.

4. CONCLUSION

The findings of this study averred that academic performance in English vocabulary can be increased with the utilisation of Scrabble game through the intense mental activity that learners engage in while playing the game. Similarly, the use of Scrabble game in the

teaching of English vocabulary is learner and gender friendly. Thus, Scrabble game can be adopted in the classroom in order to bridge the gender gap that previous studies have recognised in English language performance. Scrabble game in learning English vocabulary was embraced by students English language learners; learners indicated a positive reaction to its utilisation, and they also look forward to its use in subsequent English language concepts.

5. REFERENCES

Alshammari, M. T. (2020). Evaluation of gamification in e-learning systems for elementary school students. *TEM Journal*, *9*(2). https://doi.org/10.18421/TEM92-51.

Arkorful, V., Barfi, K. A., & Aboagye, I. K. (2021).]Integration of information and communication technology in teaching: Initial perspectives of senior high school teachers in Ghana. *Education and Information Technologies*, *26*(4). https://doi.org/10.1007/s10639-020-10426-7.

Avsec, S., & Savec, V. F. (2021). Predictive Modelling of Pre-Service Science and Technology Teachers' Innovative Behaviour. *Journal of Baltic Science Education*, *20*(2). https://doi.org/10.33225/jbse/21.20.171.

Bajrami, L., & Ismaili, M. (2016). The Role of Video Materials in EFL Classrooms. *Procedia - Social and Behavioral Sciences*, *232*(April), 502–506. https://doi.org/10.1016/j.sbspro.2016.10.068.

Barata, G., Gama, S., Jorge, J., & Gonçalves, D. (2013). Improving participation and learning with gamification. In Proceedings of the First International Conference on gameful design, research, and applications. *ACM Digital Library*, 10–17. https://doi.org/10.1145/2583008.2583010.

Conroy, K., Hong, N., Poznanski, B., Hart, K. C., Ginsburg, G. S., Fabiano, G. A., & Comer, J. S. (2021). Harnessing home-school partnerships and school consultation to support youth with anxiety. *Cognitive and Behavioral Practice*, *29*(2). https://doi.org/10.1016/j.cbpra.2021.02.007.

Cueva, A., & Inga, E. (2022). Information and Communication Technologies for Education Considering the Flipped Learning Model. *Education Sciences*, *12*(3). https://doi.org/10.3390/educsci12030207.

Eheazu, C. L., & Ibanga, M. D. (2022). ICT-Propelled Innovations for Environmental Education in the 21st Century: Positive Transformations and Some Inherent Health and Safety Challenges in the Teaching and Learning Setting. *European Journal of Computer Science and Information Technology*, *10*(1).

Fauziddin, M., & Mufarizuddin, M. (2018). Useful of Clap Hand Games for Optimalize Cogtivite Aspects in Early Childhood Education. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *2*(2), 162. https://doi.org/10.31004/obsesi.v2i2.76.

Gafurov, I. R., Ibragimov, H. I., Kalimullin, A. M., & Alishev, T. B. (2020). Transformation of higher education during the pandemic: Pain points. *Vysshee Obrazovanie v Rossii*. https://doi.org/10.31992/0869-3617-2020-29-10-101-112.

Gashaj, V., Dapp, L. C., Trninic, D., & Roebers, C. M. (2021). Trends in Neuroscience and Education The effect of video games , exergames and board games on executive functions in kindergarten and 2nd grade : An explorative longitudinal study. *Trends in Neuroscience and Education*, *25*, 100162. https://doi.org/10.1016/j.tine.2021.100162.

Halpern, D. F., Benbow, C. P., Geary, D. C., & Gur, R. C. (2011). The Science of Sex Differences in Science and Mathematics. *Psychological Science in the Public Interest*. https://doi.org/10.1111/j.1529-1006.2007.00032.x.

Howe, J., Chua, W., Sumner, E., Drozdowska, B., Laverick, R., Bevins, R. L., & Wing, A. M. (2022). The efficacy of a task model approach to ADL rehabilitation in stroke

apraxia and action disorganisation syndrome: A randomised controlled trial. *PloS One*, *17*(3). https://doi.org/10.1371/journal.pone.0264678.

Kholid, M. F. N., Utamie, Z. R., & Hastomo, T. (2022). Collaborative Learning: A Strategy For Improving Students'speaking Skill. *Lexeme: Journal of Linguistics and Applied Linguistics*, *4*(1).

Kida, S. (2022). Secondary task type, exposure frequency, and their combined effects on second language vocabulary learning through reading. *Second Language Research*, *38*(2). https://doi.org/10.1177/0267658320931919.

Konstantinidou, E., & Scherer, R. (2022). Teaching with technology: A large-scale, international, and multilevel study of the roles of teacher and school characteristics. *Computers & Education*, *179*, 104424. https://doi.org/10.1016/j.compedu.2021.104424.

Krath, J., Schürmann, L., & Korflesch, H. F. O. von. (2021). Revealing the theoretical basis of gamification: A systematic review and analysis of theory in research on gamification, serious games and game-based learning. *Computers in Human Behavior*, *125*. https://doi.org/10.1016/j.chb.2021.106963.

Kumar, J. A., Bervell, B., & Osman, S. (2020). Google classroom : insights from Malaysian higher education students ' and instructors ' experiences. *Education and Information Technologies*, *25*. https://doi.org/10.1007/s10639-020-10163-x.

MacLachlan, M., Banes, D., Bell, D., Borg, J., Donnelly, B., Fembek, M., Ghosh, R., Gowran, R. J., Hannay, E., Hiscock, D., Hoogerwerf, E. J., Howe, T., Kohler, F., Layton, N., Long, S., Mannan, H., Mji, G., Odera Ongolo, T., Perry, K., … Hooks, H. (2018). Assistive technology policy: a position paper from the first global research, innovation, and education on assistive technology (GREAT) summit. *Disability and Rehabilitation: Assistive Technology*, *13*(5), 454–466. https://doi.org/10.1080/17483107.2018.1468496.

Marti-Parreño, J., Mas, D. S., & Seguí-Mas, E. (2016). Teachers' Attitude towards and Actual Use of Gamification. *Procedia - Social and Behavioral Sciences*, *228*. https://doi.org/10.1016/j.sbspro.2016.07.104.

Mekler, E. D., Brühlmann, F., Tuch, A. N., & Opwis, K. (2017). Towards understanding the effects of individual gamification elements on intrinsic motivation and performance. *Computers in Human Behavior*, *71*, 525–534. https://doi.org/10.1016/j.chb.2015.08.048.

Navarro-Espinosa, J. A., Vaquero-Abellán, M., Perea-Moreno, A. J., Pedrós-Pérez, G., Jiménez, M.-, & Aparicio-Martínez, P. (2022). Gamification as a Promoting Tool of Motivation for Creating Sustainable Higher Education Institutions. *International Journal of Environmental Research and Public Health*, *19*(5). https://doi.org/10.3390/ijerph19052599.

Okafor, C. P. (2022). E-Learning As An Effective Method Of Education Delivery In Nigeria. *Journal of Educational Research & Development*, *5*(1).

Onasanya, T. O., Aladesusi, G. A., & Onasanya, S. A. (2021). Effect of Scrabble Game On Secondary School Students' academic Achievements In Selected English Language Concepts In Ilorin Metropolis. *Indonesian Journal of Learning and Instruction*, *4*(2). https://doi.org/10.25134/ijli.v4i2.5200.

Palaniappan, Kavitha, & Noor., N. M. (2022). Gamification Strategy to Support Self-Directed Learning in an Online Learning Environment. *International Journal of Emerging Technologies in Learning (IJET)*, *17*(3). https://doi.org/10.3991/ijet.v17i03.27489.

Pérez-Juárez, M. A., Aguiar-Pérez, J. M., Del-Pozo-Velázquez, Alonso-Felipe, M., Rozada-Raneros, S., & Conde, M. B. (2022). From Digital Distraction to Digital Motivation: Utopia or Reality. In Digital Distractions in the College Classroom. In *IGI Global*.

Prastyo, Y. D., Silviyani, & Dharmawan, Y. Y. (2021). The Effect of Board Games on Students' Communicative Competence. *Beyond Linguistika: Journal of Linguistics and Language Education*, *4*(2), 33. https://doi.org/10.36448/bl.v4i2.2279.

Ratminingsih, N. M. (2017). *Metode dan Strategi Pembelajaran Bahasa Inggris*. RajaGrafindo Persada.

Rincon-Flores, E. G., Mena, J., & López-Camacho, E. (2022). Gamification as a Teaching Method to Improve Performance and Motivation in Tertiary Education during COVID-19: A Research Study from MexicO. *Education Sciences*, *12*(1). https://doi.org/10.3390/educsci12010049.

Rodrigues, I., Lopes, J. M., Borges, A., Oliveira, J., & Oliveira, M. (2021). How Can Gamified Applications Drive Engagement and Brand Attitude? The Case of Nike Run Club Application. *Administrative Sciences*, *11*(3). https://doi.org/10.3390/admsci11030092.

Rose, J. A., O'Meara, J. M., Gerhardt, T. C., & Williams, M. (2016). Gamification: using elements of video games to improve engagement in an undergraduate physics class. *Physics Education*, *51*(5). https://doi.org/10.1088/0031-9120/51/5/055007.

Sajinčič, N., Sandak, A., & Istenič, A. (2022). Pre-Service and In-Service Teachers' Views on Gamification. *International Journal of Emerging Technologies in Learning (IJET)*, *17*(3). https://doi.org/10.3991/ijet.v17i03.26761.

Saprudin, S., Liliasari, L., Setiawan, A., & Prihatmanto, A. (2020). Optical Gamification (OG); Serial Versus Random Model to Improve Pre-Service Physics Teachers' Concept Mastery. *International Journal of Emerging Technologies in Learning (IJET)*, *15*(9), 39–59. https://doi.org/10.3991/ijet.v15i09.11779.

Staller, M. S., & Koerner, S. (2021). Beyond classical definition: The non-definition of gamification. *SN Computer Science*, *2*(2). https://doi.org/10.1007/s42979-021-00472-4.

Trinidad, M., Ruiz, M., & Calderón, A. (2021). A bibliometric analysis of gamification research. *IEEE Access*, *2021*(9). https://doi.org/10.1109/ACCESS.2021.3063986.

Tsividis, P. A., Loula, J., Burga, J., Foss, N., Campero, A., Pouncy, T., ..., & Tenenbaum, J. B. (2021). Human-level reinforcement learning through theory-based modeling, exploration, and planning. *ArXiv Preprint*.

Waluyo, B., & Bakoko, R. (2021). Vocabulary List Learning Supported by Gamification: Classroom Action Research Using Quizlet. *Journal of Asia TEFL*, *18*(1), 289–299. https://doi.org/10.18823/asiatefl.2021.18.1.20.289.

Xu, J., Du, H. S., Shen, K. N., & Zhang, D. (2022). How gamification drives consumer citizenship behaviour: The role of perceived gamification affordances. *International Journal of Information Management*, *64*. https://doi.org/10.1016/j.ijinfomgt.2022.102477.