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| **An alternative board game to promote EFL learners grammatical skill*****1Hayatul Mila, 2Moh. Arif Mahbub, 3Fatih Al Fauzi***1,2,3 English Education Departement, Universitas Islam Jember, Jl. Kyai Mojo No. 101, 68133, Jember, Indonesia Corresponding author: hayatulmila05@gmail.com  |

**ABSTRACT**

*Gamificatian has been acknowledged as a powerful tool to promote the conducive and attractive learning environment. Recenly, extensive research has been carried out on the role of gamification in facilitating languages learners. Yet, little research has taken to explore the undergraduate students about the incorporation of gamification into English grammar classroom in Indonesian tertiary-level. We employed a sequential-explanatory research ( Creswell, 2014; J. W. Creswell, 2018) intended to explore in-depth the undergraduate students’ perceptions about the use of Gamification in such context. There were four (N=4) undergraduate students from one private university in Jember, Indonesia, consented to participate in this study. They were invited to fill a 9-items web-based five points-Likert scale questionnaire covering several categories: students’ behavior, motivation and engagement. Also, a semi-structure interview was conducted to explore their in-depth feelings to select participant. The results indicated that participants mostly demonstrated positive feelings toward the utilization of gamification in grammar classrooms. This study concludes with discussion of implications for teaching-learning grammar in EFL context, limitation and recommendation for future studies.*

**Keywords:**

*Board Game; Gamification; Grammatical Skills; Undergraduate Students.*

1. **Introduction**

For EFL learners, acquiring grammatical competence is highly required. However, that is not an easy task for both instructors and learners themselves. Most grammar teaching in L1 contexts is still fairly ‘traditional’ ( Rijt et al., 2019). In teaching and learning the English language, it is truth that grammar has always been an essential component, since it affords the speaker with the needed structures to organize a words and ideas in a comprehensible. According to Le Tourneau (in Wornyo, 2016) states that one’s knowledge of grammar is most helpful at the stages of revising and editing sentences because grammar is concerned with the units of sentences. Therefore, teaching grammar is crucially important for EFL learners.

Grammatical competences may also be important in allowing children to benefit from contextual constraints on word recognition, Tunmer, 1989; Tunmer, Herriman, & Nesdale, 1988 (in Muter et al., 2004). Whereas, there are still many learners felt difficulties to comprehend the grammatical concepts. Numerous publications, (e.g., Dehghani, Bagheri, Sadighi, & Tayyebi, 2016; DeKeyser, 2005; Pathan & Aldersi, 2014; Sawir, 2005) have also reported that learning English grammar is a difficult part of language learning process, for EFL learners in particular. In actual fact, some learners very often they sensed exasperate in learning English grammar possibly caused by many different conditions: (1) they know that learning English grammar always memorize the structure; (2) they also consider the role of grammar in English language use; (3) the differences between the grammar structures of the learners’ mother tongue (L1) and English language (in Mahbub, 2019).

In the context of English language teaching (ELT), grammar is a key component of language aqusitions. Huang (in Benitez-Correa et al., 2019) states that the main goal of teaching grammar is to enable learners to achieve linguistic competence to use grammar as a tool or resource for understanding and producing efficient, effective and proper oral and written discourse. As mentioned earlier, grammar is a device to promote EFL learners’ understanding orally and written discourse. However, grammatical skill is significant part in learning language. EFL learners are still tricky to analyze the grammar. According to (Widianingsih & Gulö, 2016) grammar has so far become one of problems faced by language learners when studying other languages, the researchers were interested in digging out English grammatical issues that the students are having difficulties with.

For EFL learners, it is obvious that the teaching of grammar is valuable as it is often at the heart of language lessons. However, they still suffer intricate in learning grammatical skill. Thus, the English teachers must change this stereotype in difficulties of grammar by using, for instance, games. Using games in teaching English grammar is frequently acknowledged as one of the effective ways in teaching a language so that they are easily to learn English grammar. Board game is an alternative strategy to promote students’ grammatical competence. While playing board game, learners can be reinforced on the aspect of physical, mental, and emotional in memorizing the form, remembering, naming, matching and classifying, Egemen, Yilmaz, & Akil 2004 (in Bulu, 2010)

To assist the EFL learners to easily acquire English grammatical knowledge, one of an alternative ways is using educational game (gamification). Gamification is specifically defined as instilling the game-like elements into non-game context (Deterding et al., 2011; Martens & Muller, 2017). In addition, according to Kapp (Taspinar et al., 2016) gamification is defined as using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems. From those definitions, the concept of gamification cannot be separated from these following key concepts; (1) motivation booster, (2) engaging learners, and (3) problem-solving. Thus, learners can be hopefully easy to acquire the grammatical concept by using game.

There are many EFL learners that have confirmed the difficulties of learning English grammar. Despite those difficulties, an EFL learner is highly required to master English grammatical concept. Therefore, to fill this gap, the researcher tried to propose the alternative board game to promote the grammatical understanding. This study contributes to motivate EFL learners in learning English grammar by using an alternative board game to provide alternative solution for EFL instructors as a new model of teaching instructions. Therefore, this study is aimed investigating the EFL learners’ perception about the implementation board game.

1. **Method**

 A sequential explanatory mixed method (Creswell, 2014; Fraenkel et al., 2017; Ivankova et al., 2006) was employed in this present study. In this method there are two steps to collect the data. Quantitative was the first part to collect the data with students’ response by questionnaire. Then, the author collected qualitative interview data from the sub-sample of participants to obtain in- depth data description.

Research participant

This current research was to examine the students’ perceptions regarding the use of board game in assisting grammatical learning in higher education (HE) context. This was conducted at one of the private University in Jember, Indonesia. In this present study, the participant comprised of 4 second- year students (3 females and 1 male). They were voluntary involved in this study. The age of participant was ranging from 18- 23 years old. They were all enrolled in Basic English grammar class.

Instrumentation

 The data-gathering instruments employed in this study were online questionnaire and semi-structured interview. The questionnaire was created in the form Likert-scale questions, ranging from 1 to 5 (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree). This questionnaire was consists of 2 sections: demographic profiling and closed-ended items. More specifically, there were 2 demographic items and 11 questionnaire items; 2 questions were designed for gathering the data concerning with gamification interaction for learning, 5 items concerning the students’ perceptions on the use of gamification mechanism in grammar class, 2 items concerning the students’ engagement, and motivation, and 2 items about the recommendation for using the game in the class.

 To flesh out the data resulted from questionnaire, we conducted semi-structure interview (Krueger, 2002; Krueger & Casey, 2015) via WhatsApp call to depict the participants views about the integration of gamification into grammar classroom. This interview was prepared in Bahasa Indonesia and conducted with the sample participants with five open-ended questions; lasted approximately from 20 to 35 minutes. The interview was carried out with the following interview guidelines regarding to 5 items; (1) general opinion on learning English with Gamification, (2) the aspect of engagement and motivation on gamification, (3) students’ perception on gamification, and (4) the participants’ feelings on the integration of gamification into grammar classroom.

Data Analysis

The data were analyzed by using the descriptive statistics through IBM SPSS v.25. We calculated frequencies, means (M), percentages (%), and standard derivation (SD). Chronbach’s Alpha was also used in testing the reliability of the instrument. The result showed 0.928 indicating high reliability (Cohen et al., 2007, p. 506). The qualitative data resulted from semi-structure interviews were analyze using the interview data transcription framework (Widodo, 2014). He suggested five data analysis procedures: 1) transcribing verbal data by carefully listening to recorded data, 2) coding and classifying the data, 3) interpreting and communicating interview data, 4) Asking the participant to provide feedback on the result interview transcripts to ensure the data credibility.

1. **Results and discussion (This part is excluded for the non-research articles)**
	1. ***Result from Questionnaire***

Regarding the participant’s responses on Q1 and Q2 reported that all of the participants (n=4, 100%) agreed that gamification as a tool to encourage the students’ interaction in the classroom. It is really enjoyable for students learning English.

**Table 1** Gamification in promoting classroom interaction

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Question(s) | SD(%) | D(%) | N(%) | A(%) | SA(%) | M | Std.D |
| Q1 | Learning English with Gamification! is fun and interactive | 0 | 0 | 0 | 25,0(n=1) | 75,0(n=3) | 4,75 | 0.50 |
| Q2 | I feel more active in the class with Gamification! | 0 | 0 | 0 | 75,0(n=3) | 25,0(n=1) | 4,00 | 0,816 |
| Note: SD: Strongly disagree, D: Disagree, N: Neutral, SA: Strongly agree, A: Agree, M: Mean, Std.D: Standard Deviation |

 In accordance with the result of Q3 concerning the integration of gamification in EFL classroom, the results indicated that there were four participants (25%) (M= 4, 25, SD=0,50) opted to choose positive response. There were small no percentage chosen negative option. While Q6 the result of the statements indicated that (neutral= 4,%) and (M= 4.00, SD= 0,96). Regarding the result of Q7 all of participant has chosen a positive option (N=4,50.0%) from participant has positive responses in the using of gamification (M=3.75, SD=0.96).

**Table 2** recommendation on integrating gamification in EFL Classroom

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Question(s) | SD(%) | D(%) | N(%) | A(%) | SA(%) | M | Std.D |
| Q3 | Learning by Gamification makes me more enthusiastic in learning process |  0 |  0 |  0 |  25,0(n=1) |  75,0 (n=3) | 4,25 | 0.50 |
| Q6 | I like the use of this Gamification tool in the class  | 0 | 0 | 50,0(n=2) | 0 | 50,0(n=2) | 4,00 | 1,15 |
| Q7 | Gamification made the learning process more suitable | 0 | 0 | 50,0(n=2) | 25,0(n=1) | 25,0(n=1) | 3,75 | 0,96 |
| Note: SD: Strongly disagree, D: Disagree, N: Neutral, SA: Strongly agree, A: Agree, M: Mean, Std.D: Standard Deviation |

Furthermore table 3, the respecting of students’ perceptions gamification, in Q4 (n=3, 75.0%) voted for the positive responses with (Mean=4.75, SD=0.50). the result of the Q5 concerning students’ perception indicated (n=4,100%) it is very strong agree with the using gamification, and the Mean= 4.75, Standard Deviation is 0.50.

**Table 3** participants’ perceptions about gamifying mechanism in EFL classroom

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Question(s) |  SD(%) |  D(%) |  N(%) |  A(%) | SA(%) |  M | Std.D |
| Q4 | Gamification can make learning more rewarding |  0 | 0 | 25,0(n=1) | 50,0(n=2) | 25,0(n=1) | 4,00 | 0.82 |
| Q5 | I would recommend this Gamification tool to be used more often in the class  | 0 | 0 | 0 | 25,0(n=1) | 75,0(n=3) | 4,75 | 0,50 |
| Note: SD: Strongly disagree, D: Disagree, N: Neutral, SA: Strongly agree, A: Agree, M: Mean, Std.D: Standard Deviation |

Table 4 illustrates of the participant’s responses on Q8 and Q9“Gamification encourage students in learning” the percentages indicated mostly participants in Q8 & Q9 (25.0% agree, 50.0% strongly agree) agreed that gamification become mood booster in student’s learning.

**Table 4** Gamification as students’ motivation booster

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Question(s) | SD(%) | D(%) | N(%) | A(%) | SA(%) | M | Std.D |
| Q8 | Using Gamification for increased motivation while learning | 0 |  0 | 25,0(n=1) | 25,0(n=1) |  50,0(n=2) | 4,25 | 0.96 |
| Q9 | Using this Gamification encourage me in learning English | 0 | 0 | 25,0(n=1) | 25,0(n=1) | 50,0(n=2) | 4,25 | 0,96 |
| *Note: SD: Strongly disagree, D: Disagree, N: Neutral, SA: Strongly agree, A: Agree, M: Mean, Std. D: Standard Deviation.* |

* 1. ***Result from Interview***

 The second instrument employed was semi-structured interview to collect the data regarding the use of gamification in grammar classroom. The participants were asked to describe the strengths of the use of gamification in learning. They mentioned that it is fun, attractive, and can make mood booster in their learning. Their responses about the strengths of gamification are illustrated in this following excerpts :

 “I find this game is very helpful for English learners because it makes me feel enjoy”(S1,female)

 “Mostly it is (easily) for the learning English process with gamification”(S2, female)

 When asking about the role of gamification in encouraging students’ learning, they confessed that it can promote their learning processes. As like as student claimed:

 “[I feel] very enthusiastic about playing gamification. It's very attractive, fun, and entertaining‟ (S1, female)

 “In my opinions, it is very positive in terms of boosting the students' motivation.

 Everybody enjoys with the game and gets involved the activity”(S2, female)

For the next result of use gamification, most of the students said that it was made the EFL learners focus in content. And also, they learn the lesson becomes more enjoyable, and happy.

 “For me, it’s very interesting game for the student learning process” (S1, female)

 “And also for me, it was helpful for me in learning grammar “ (S2, female)

For the result of use gamification, it’s really good choice for the student’ media in the learning grammatical skill.

 “… gamification can instruct our brain to always be consentred on learning material. (S1, female)

 “This game is really suitable media to promote the student’s learning in grammatical skill…but I am not sure that it would be suitable for another subject” (S2, female)

**Discussion**

 This current study aims to provide an in-depth description of EFL instructors' perceptions of the in-class use of gamification. Overall, the findings of the study reported that participants acknowledged gamification as a powerful tool to promote students’ engagement, positive learning behavior and attractive learning environment, which generally constitute the findings of recent article (Huotari & Hamari, 2017).

 The result of data analysis on Q1 and Q2 revealed that the majority of participants enjoyed gamified learning. This result corroborates with the recent study (Dehghanzadeh et al., 2019; Huotari & Hamari, 2017) reporting that gamification made the participants to be a fun and enjoyable method to support EFL learners(Kim et al., 2018; Yıldırım & Şen, 2019). The result of a current study by Chapman & Rich (2018) also supports this finding that the participants felt interactive, motivating when they were doing learning process facilitated by gamification.

 For the next statement, based on the data analysis on Q4 and Q5, it has been reported that the majority of participants chose positive responses. For Q4, it is recorded a total mean of 4.75 and .50 for SD. This finding indicated that learning with gamification is very enjoyable. Gamification is highly recommended as an interactive media for learning English (Dichev & Dicheva, 2017) which can assist the learners easily in acquiring English grammatical concept. The result of Q5 analysis indicated participants’ very strong agreement; that they have positive feelings on gamification usage in EFL classroom setting. This result corresponds to a previous study (Chapman & Rich, 2018) reporting that the participants demonstrated positive responses on the in-class use of gamification. In this sense, the use of gamification in EFL classroom is very promising to boost the students’ learning motivation. Q8 and Q9 analyze the participants’ feelings about the role of gamification as motivation booster. The result demonstrated that the majority of participants admitted that gamification can generate the students' learning motivation.

 Analysis of Q3 indicated that the students approved that gamification as an auspicious tool in arousing the students learning enthusiasm in the classroom. In the context of L2 learning, gamification is a tool which is made growing interest in applying gamification to education (Borges et al., 2014). With this growing interest, the participants will be easily learning English by using gamification. The students’ responses to Q6 indicated that they (50.0%) adequately assumed gamification as powerful media in increasing the students’ motivation in learning English. Concerning the recommendation to use gamification (Q7), the participants also expressed it as a very favorable tool to be integrated in such context in the future learning. Overall, most of them agreed that gamification-mediated learning is fully interactive, and it is an excellent instructional media as it can create more attractive, fun, and conducives classroom atmosphere. This can be inferred that the utilization of gamification can bring the students’ fresh learning environment and create an interactive learning.

1. **Conclusion and Suggestions**

As previously stated, the study aims to answer the research issue about students' perceptions of gamification in the EFL classroom. Overall, the findings indicate that the participants had a high level of acceptability of seeing gamification as a technique to assist EFL learners in the English-language learning processes, according to this analysis of the data from the web-based questionnaire.

The majority of them specifically stated that using gamification to learn English is beneficial to their English learning. This study, like every research, has a number of limitations. First, this study only looked at the participants' perceptions through the eyes of the teachers. Hopefully, further research into this topic from the instructors' perspective is highly suggested. Second, because this study solely includes individuals from the English language program, the data acquired does not represent a broad range of skills. It is hoped that the research will be expanded to look into similar difficulties in other programs.

Conclusion is a brief summary of findings and discussion. It is strongly recommended to avoid mere repetitive statements from the previous sections. Besides, the writer should address the suggestions.

1. **References**

Bayuk, J., & Altobello, S. A. (2019). expertise Can gamification improve financial behavior ? The moderating role of app expertise expertise. *International Journal of Bank Marketing*, 1–26. https://doi.org/10.1108/IJBM-04-2018-0086

Benitez-Correa, C., Gonzalez-Torres, P., Ochoa-Cueva, C., & Vargas-Saritama, A. (2019). A comparison between deductive and inductive approaches for teaching EFL Grammar to high school students. *International Journal of Instruction*, *12*(1), 225–236. https://doi.org/10.29333/iji.2019.12115a

Borges, S. D. S., Reis, H. M., Durelli, V. H. S., & Isotani, S. (2014). A Systematic Mapping on Gamification Applied to Education. *A Systematic Mapping on Gamification Applied to Education*, 216–222.

Brophy, K. (2015). Gamification and Mobile Teaching and Learning. *Handbook of Mobile Teaching and Learning*, 91–105. https://doi.org/10.1007/978-3-642-54146-9

Bulu, E. (2010). A BOARD GAME ABOUT SPACE AND SOLAR SYSTEM FOR PRIMARY SCHOOL STUDENTS. *The Turkish Online Journal of Educational Technology*, *9*(2), 1–13.

Chapman, J. R., & Rich, P. J. (2018). Does educational gamification improve students’ motivation? If so, which game elements work best? *Journal of Education for Business*, *93*(7), 314–321. https://doi.org/10.1080/08832323.2018.1490687

Chen, E. T. (2015). Gami cation in Education and Business. In T. Reiners & L. C. Wood (Eds.), *gamification in education and business* (pp. 473–488). https://doi.org/10.1007/978-3-319-10208-5

Chung, C., City, N. T., Shen, C., City, N. T., Qiu, Y., & City, N. T. (2019). Students ’ Acceptance of Gamification in Higher Education. *International Journal of Game- Based Learning*, *9*(2), 1–19. https://doi.org/10.4018/IJGBL.2019040101

Cohen, L., Manion, L., & Morrison, K. (2007). Research Methods in Education. In *Research Methods in Education* (Sixth Edit). https://doi.org/10.4324/9780203029053

Creswell, john W. (2014). *[John\_W.\_Creswell]\_Research\_Design\_\_4th edition.pdf* (Four Editi).

Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaee, E., & Noroozi, O. (2019). Using gamification to support learning English as a second language: a systematic review. *Computer Assisted Language Learning*, *0*(0), 1–24. https://doi.org/10.1080/09588221.2019.1648298

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From Game Design Elements to Gamefulness : Defining “ Gamification .” *From Game Design Elements to Gamefulness : Defining “ Gamification ,”* 9–15.

Dichev, C., & Dicheva, D. (2017a). Gamifying education : what is known , what is believed and what remains uncertain : a critical review. *International Journal of Educational Technology in Higher Education*, *14*(9), 1–36. https://doi.org/10.1186/s41239-017-0042-5

Dichev, C., & Dicheva, D. (2017b). Gamifying education : what is known , what is believed and what remains uncertain : a critical review Dear Colleagues ,. *International Journal of Educational Technology in Higher Education*, *February*, 1–36. https://doi.org/10.1186/s41239-017-0042-5

Dicheva, D., & Dichev, C. (2015). Gamification in Education: Where Are We in 2015? *E-LEARN 2015 - World Conference on E-Learning*, *July 2014*, 1–10.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2017). Mixed-Methods Research. In *How to Design and Evaluate Research In Education* (Eighth edi, pp. 556–586). McGraw-Hill. https://ejournal.poltektegal.ac.id/index.php/siklus/article/view/298%0Ahttp://repositorio.unan.edu.ni/2986/1/5624.pdf%0Ahttp://dx.doi.org/10.1016/j.jana.2015.10.005%0Ahttp://www.biomedcentral.com/1471-2458/12/58%0Ahttp://ovidsp.ovid.com/ovidweb.cgi?T=JS&P

Hung, A. C. Y. (2018). Gamification as Design Thinking. *International Journal of Teaching and Learning in Higher Education*, *30*(3), 549–559.

Huotari, K., & Hamari, J. (2017). A definition for gamification: anchoring gamification in the service marketing literature. *A Definition for Gamification: Anchoring Gamification in the Service Marketing Literature*, *27*(1), 21–31. https://doi.org/10.1007/s12525-015-0212-z

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, *18*(1), 3–20. https://doi.org/10.1177/1525822X05282260

Jong, M. S.-Y., Chan, T., Tam, V., & Hue, M. (2017). Gamifying outdoor social inquiry learning with context-aware technology. *GAMIFYING OUTDOOR SOCIAL INQUIRY LEARNING WITH CONTEXT-AWARE TECHNOLOGY*, 193–195.

Kim, S., Song, K., Lockee, B., & Burton, J. (2018). Gamification in Learning and Education. In *Gamification in Learning and Education* (pp. 25–38). https://doi.org/10.1007/978-3-319-47283-6

Koivisto, J., & Hamari, J. (2014). Computers in Human Behavior Demographic differences in perceived benefits from gamification. *COMPUTERS IN HUMAN BEHAVIOR*, *35*, 179–188. https://doi.org/10.1016/j.chb.2014.03.007

Krueger, R. A. (2002). Focus Group Interviewing. *Qualitative Marketing Research*, *October*, 1–17. https://doi.org/10.4135/9781849209625.n8

Krueger, R. A., & Casey, M. A. (2015). *FOCUS GROUPS A Practical Guide For Applied Research* (5th editio).

Landers, R. N., Bauer, K. N., & Callan, R. C. (2015). Gamification of task performance with leaderboards : A goal setting experiment Computers in Human Behavior Gami fi cation of task performance with leaderboards : A goal setting experiment. *Computers in Human Behavior*, *August*. https://doi.org/10.1016/j.chb.2015.08.008

Mahbub, M. A. (2019). *Snakes and Ladders Game: an Alternative Instructional Strategy To Enhance the Learners’ Grammatical Proficiency*. *31*(1), 153–166. https://doi.org/10.29255/aksara.v31i1.212.153-166

Martens, A., & Muller, W. (2017). Gamification. In R. Nakatsu, M. Rauterberg, & P. Ciancarini (Eds.), *Handbook of Digital Games and Entertainment Technologies* (pp. 910–931). Springer, Singapore. https://doi.org/10.1007/978-981-4560-50-4

Mitchell, R., Schuster, L., & Drennan, J. (2016). marketing. *Australasian Marketing Journal (AMJ)*, 1–8. https://doi.org/10.1016/j.ausmj.2016.12.001

Muter, V., Hulme, C., Snowling, M. J., & Stevenson, J. (2004). *Phonemes , Rimes , Vocabulary , and Grammatical Skills as Foundations of Early Reading Development : Evidence From a Longitudinal Study*. *40*(5), 665–681. https://doi.org/10.1037/0012-1649.40.5.665

Pérez-manzano, A., & Almela-baeza, J. (2018). Gamification and transmedia for scientific promotion and for encouraging scientific careers in adolescents. *Gamification and Transmedia for Scientific Promotion and for Encouraging Scientific Careers in Adolescents*, 93–103.

Rahman, R. A., Ahmad, S., & Hashim, U. R. (2018). The effectiveness of gamification technique for higher education students engagement in polytechnic Muadzam Shah Pahang , Malaysia. *The Effectiveness of Gamification Technique for Higher Education Students Engagement in Polytechnic Muadzam Shah Pahang , Malaysia*, 1–16. https://doi.org/https://doi.org/10.1186/s41239-018-0123-0

Rijt, J. H. M. Van, Swart, P. J. F. De, Wijnands, A., & Coppen, P. J. M. (2019). When students tackle grammatical problems : Exploring linguistic reasoning with linguistic metaconcepts in L1 grammar education ଝ. *Linguistics and Education*, *52*, 78–88. https://doi.org/10.1016/j.linged.2019.06.004

Sánchez-Mena, A., & Martí-Parreño, J. (2017). Drivers and barriers to adopting gamification: Teachers’ perspectives. *Drivers and Barriers to Adopting Gamification: Teachers’ Perspectives*, *15*(5), 434–443.

Smiderle, R., Marques, L., De Coelho, J. A. P. M., Rigo, S. J., & Jaques, P. A. (2019). Studying the impact of gamification on learning and engagement of introverted and extroverted students. *Proceedings - IEEE 19th International Conference on Advanced Learning Technologies, ICALT 2019*, *2161*-*377X*, 71–75. https://doi.org/10.1109/ICALT.2019.00023

Smiderle, R., Rigo, S. J., Marques, L. B., Arthur, J., Miranda, P. De, & Jaques, P. A. (2020). The impact of gamification on students ’ learning , engagement and behavior based on their personality traits. *Smart Learning Environments*, *7*(3), 1–11. https://doi.org/https://doi.org/10.1186/s40561-019-0098-x (2020)

Taspinar, B., Schmidt, W., & Schuhbauer, H. (2016). Gamification in education : a board game approach to knowledge acquisition. *Gamification in Education : A Board Game Approach to Knowledge Acquisitio*, *99*, 101–116. https://doi.org/10.1016/j.procs.2016.09.104

Te, D. (2016). Contextualization and problematization , gamification and affordance : a traveler ’ s reflections on EJIS. *Contextualization and Problematization , Gamification and Affordance : A Traveler ’ s Reflections on EJIS*, *25*(6), 473–476. https://doi.org/10.1057/s41303-016-0028-8

Widianingsih1 N, I. G. (2016). Grammatical Difficulties Encountered. *Grammatical Difficulties Encountered By Second Language Learners of English*, *May*, 141–144.

Widodo, H. P. (2014). Methodological Considerations in Interview Data Transcription. *International Journal of Innovation in English Language*, *3*(1), 101–107.

Wornyo, A. A. (2016). Attending to the Grammatical Errors of Students using Constructive Teaching and Learning Activities. *Attending to the Grammatical Errors of Students Using Constructive Teaching and Learning Activities Albert*, *7*(7), 23–32.

Yıldırım, İ., & Şen, S. (2019). The effects of gamification on students’ academic achievement: a meta-analysis study. *Interactive Learning Environments*, *4820*, 1–18. https://doi.org/10.1080/10494820.2019.1636089