


Chapter in Book

The Bah Luit's Challenge: An Edutainment Approach for Malaysian Students

Sharina Saad¹, Rafidah Amat², Nur Syazwanie Mansor (Dr)³ *, Shafilla Subri (Dr)⁴, and Robekhah Harun⁵

¹ Universiti Teknologi MARA, Cawangan Kedah, Malaysia; sharina854@uitm.edu.my;  <https://orcid.org/0000-0002-7069-7558>

² Universiti Teknologi MARA, Cawangan Kedah, Malaysia; rafidah408@uitm.edu.my;  <https://orcid.org/0000-0001-5300-154X>

³ Universiti Teknologi MARA, Cawangan Kedah, Malaysia; nursyazwanie@uitm.edu.my;  <https://orcid.org/0000-0003-4731-750X>

⁴ Universiti Teknologi MARA, Cawangan Kedah, Malaysia; shafilla@uitm.edu.my;  <https://orcid.org/0000-0003-4357-7400>

⁵ Universiti Teknologi MARA, Cawangan Kedah, Malaysia; robekhah@uitm.edu.my;  <https://orcid.org/0000-0003-3245-291X>

* Correspondence: nursyazwanie@uitm.edu.my; 0125805797

Abstract: Today's schools face major problems around student motivation and engagement. Gamification, or the incorporation of game elements into non-game settings, provides an opportunity to help schools solve these difficult problems. The project is a continuous innovation from the researcher's Edutainment approach based on Semai's indigenous folktales. The researchers designed a package inclusive of interesting games based on the Malaysian folktale; the Bah Luit's Adventure. The uniqueness about the product is the games incorporates technology and the culture of the indigenous. The aim is to provide an interactive and an engaging way to teach short story to school students. The game is pilot tested to school students as part of the corporate social responsibility (CSR) project. To guide the students, during the activity, students were given three materials to assist them such as animated cartoons, the manuscript and an audio consists of the Bah Luit's Adventure shorty story. Students were asked to complete the games accordingly. In finishing the game, students need to answer questions based on the short story that they have listened. After completing the game, students were asked to answer Likert scale responses and give feedback. The result shows that students enjoyed this edutainment-based approach activity. The findings on this innovative project should contribute to deeper understanding on how gamification can impact ESL students' learning and how using the stories from indigenous people can enhance cross-cultural awareness and acceptance of different traditions. Since gamification has exciting elements which can be motivating to the students, the videos and online quiz questions created have great commercialization potential. The videos uploaded on YouTube will be able to garner followers and the online questions uploaded on Quizzes can be accessed by any ESL learners. Innovations in second language teaching are desirable because such practices will help students' engagement and motivation in the classroom.

Keywords: edutainment; gamification; technology enabled; Malaysian folktales; indigenous story.



Copyright: © 2022 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. INTRODUCTION

With the advent of the fourth industrial revolution, teachers hold a responsibility to prepare younger generations to acquire essential skills such as digital competency, problem-solving skills, and creative and critical thinking, as well as instill a sense of ownership in their learning. According to Md Yunus and Azman (2019), teachers these days are 'forced' to shift their pedagogy practices as these practices are much influenced by an ever-updating technology. Gamification in education becomes very popular as one of the most effective methods in facilitating students' learning. Gamification attempts to harness the motivational power of games and apply it to real-world problems – such as, in our case, the motivational problems of schools. A case study conducted by Hamidon (2021) on challenges and solutions in conducting home-based teaching and learning (known as PdPR) discovered two key issues from the teachers' perspectives: students' engagement and attendance. They reported low motivation and engagement amongst students from the rural schools. Another study highlighted that motivation and engagement are major challenges for the American educational system (Bridgeland, Dilulio, & Morison, 2006). According to Axelson and Flick (2011), student engagement refers to "how involved or interested students appear to be in their learning and how connected they are to their classes, their institutions, and each other" (p.50). Thus, it is crucial to address the issue by introducing an edutainment approach in the teaching and learning.

In English language classrooms, meaningful teaching and learning are significant to developing students' English proficiency, focusing on linguistics and communicative competence. Various language activities and games are employed in lessons to instil anticipation for language learning. Such activities will help the learners to retain the knowledge and to ensure the sustainability of it for a long run.

Understanding the role of gamification in education, therefore, means understanding under what circumstances game elements can drive learning behavior. Making use of Salen and Zimmerman's Rules, Play, and Culture framework (2004), we can better break down the impact of gamification. The rules of school as they stand, for example, must be understood not only in terms of their formal effects but also in terms of their emotional and social impact on school's "players." Embracing gamification in education is, indeed, inevitable, especially with the arrival of the millennials whose lives are greatly influenced by digital technologies and favour learning in a fun, interactive, and engaging environment.

Scholars who agree that gamification of education is a strategy for increasing engagement by incorporating game elements into an educational environment (Dichev & Dicheva 2017) also believe the main goals of gamification are to enhance certain abilities, introduce objectives that give learning a purpose, engage students, optimize learning, support behaviour change, and socialize (Knutas et al., 2014; Krause et al., 2015; Dichev & Dicheva, 2017; Borges et al., 2013). Being stimulated by the games elements and its favourable impact, many researchers have investigated the effect of gamification in an educational context, getting favourable results, such as the increase of engagement, user retention, knowledge, and cooperation (Hakulinen & Auvinen 2014; Tvarozek & Brza, 2014).

W&W: Win & Win the Bah Luit's Challenge is an innovation inspired by Bah Luit; a character from an Orang Asli Semai folktale. The story features Bah Luit's encounter with the trespassers in his village. Hence, the games introduced are the innovation which highlighted the challenges Bah Luit's faced from childhood to teenage age in the forest of Semai land. To bring this folklore to life in this era, the researchers have invented W&W interactive games which includes a giant snake and ladder game which focus on auditory skill and a Computer Interactive game which focus on student's comprehension skill. Basically, W&W is a complete package of the animated movie series of Bah Luit,

a hero in a folktale and gamification for ESL learners. Therefore, inserting gamification elements in Bah Luit's adventure was the purpose of this innovation.

The movies and games offered a fun, interactive, and non-threatening learning environment which is in line with the principles of twenty-first century learning, which places great emphasis on student-centered learning and the use of innovative and digital-based teaching media. According to Prensky (2011), game features can provide the –tainment part of the educational design needed to engage learners. Borrowing game elements, he argued, and incorporating them into the classroom environment can facilitate engagement. Thus, through gamification it is hoped that the learners would gain their motivation and confidence level in ESL classroom.

1.1 *Problem Statement*

The declining standard of the English language in Malaysia is not only a major concern in the education system but is also significant in meeting the demands of globalization in education. For example, students from rural school like Sekolah Model Khas Baling suffered low self-esteem and lack of confidence when it involves English Language skills as admitted by the school principal. In the context of second language learning, students might find it frustrating and demotivating to learn a second language due to a lack of exposure to the language and to varieties of learning experiences.

Another main concern is the effort to preserve Semai Indigenous folktales is scarce. The Semai folktales have their own morals and transitions which has served as an important teaching tool for the younger generations. Despite the sterling qualities of these folktales, they are endangered with extinction. The need therefore arises for an interface between the folktale genre and the media where the latter intervenes in the promotion of the genre for its sustenance in society, specifically the younger generation of the indigenous community. The researchers feel obliged to sustain the unique culture and heritage of the Semai indigenous folktales through the preservation effort by introducing these tales to school children. To avoid criticism and scrutiny, we practice caution and care in examining the nature of the original stories told by the storytellers before recontextualizing it into stories for 21st century children. We are aware that misinterpretation may emerge when myths and folklores are transported from one cultural context or time limit to another. Consequently, we are challenged between maintaining the “authenticity” of Orang Asli stories and masking descriptions to avoid misinterpretations. To cater to the new generation needs and expectations, and to give life to the stories from the past, the researchers therefore injected the edutainment elements in the form of animated videos and gamification.

Student engagement, which is also investigated in this study, is the key to all types of learning, not just online learning. However, the investigation into the students' perceptions of their online learning engagement is especially vital because these students no longer have access to classroom teaching and their teachers' roles are reduced to that of an online facilitator. When students find English subjects boring it is a sign that teachers need to be creative in making the lessons fascinating. Gamification is the key! The study has been inspired by a quotation by a former Education Minister:

“Schools and universities must become the happiest places where the learning process is, fun so that students will love knowledge. They must also be places where differences are not just respected but appreciated and celebrated,” (Maszlee Malik, as cited in Chin & Pajaendram, 2019).

1.2 *Aims*

The aim of introducing the edutainment project to students in the primary and secondary school is to enable the learners experience the joy of learning English language through edutainment approach and to provide an interactive and an engaging way to teach short story to school students.

We also aimed to investigate the students' opinion on the use of gamification as language activities. The findings would inform whether the distinct components of gamification affect students' engagement and learning.

With the deterioration of English language among language learners especially school children and the diminishing of the Semai Folklore, thus the product has taken the advantage to preserve the culture, the heritage and to improve English language learners' competence by incorporating culture in gamification.

1.3 *Objective(s)*

Among the objectives of this edutainment approach are;

- i) To introduce and create the awareness of Semai's community rich culture and heritage in Malaysia.
- ii) To ensure the language learners' understanding of the Semai folktales, the animated movie comes with online quizzes to help the language learners to comprehend the content of the story
- iii) To introduce Bah Luit's adventure story to primary/secondary school students.
- iv) To investigate the student's perception on gamification activities used in the project.

2. METHOD & MATERIAL

2.1 *Context of the Project*

The gamification activities were pilot tested to school students as part of the corporate social responsibility project. The students for this project came from a special school in the rural area in Kedah. The students were 400 students of primary and secondary students from Sekolah Khas Baling Kedah and there were 70 participants who were involved in the survey. The school is a special school which cater both primary and secondary students and all of them are required to stay in the hostel.

2.2 *Research Design*

The study adopted a quantitative approach involving the use of a questionnaire to elicit information regarding students' learning engagement using the edutainment approach which consisted of a series of animated movies and computer interactive games. The items in the questionnaire were based on questionnaires obtained from online sources and related studies (e.g. Hart, Stewart & Jimerson, 2011; Borup, Graham, & Drysdale, 2014) and modified according to the needs of the study. A Likert scale comprising five choices: 5=strongly agree, 4=agree, 3= neutral, 2=disagree, and 1= strongly disagree was used to elicit responses from the students. The data were analysed quantitatively with the use of descriptive statistics

2.3 *Research Instrument*

To guide the students, during the activity, students were given four materials to assist them such as:

- a) animated videos of Bah Luit
- b) the manuscript and an audio consist of the bah Luit's adventure shorty story.

- c) games (technology assisted and the giant snake and ladder)
- d) a set of questionnaires (8 items)

Students were asked to complete the games accordingly. In finishing the game, students were required to watch the videos and answered the questions on Kahoot, Quizzes and other interactive games. The second part of the game was students were to answer questions based on the short story that they have listened to. After completing all the games, students were asked to answer Likert scale responses to give their feedback.

2.4 Product Demonstration

The demonstration of the product was conducted during a Corporate Social Responsibility program at Sekolah Model Khas Baling. Students who took part in the demo were primary and secondary level students. Students were required to move from easy to difficult tasks / game stations depending on their level. There were seven stations to visit and to attempt the games. Three lecturers acted as facilitators to assist the students.

The games were designed and developed then piloted to students during a CSR project at Sekolah Khas Baling Kedah. The participants of this study were both primary and secondary students in Sekolah Model Khas Baling Kedah. The students were given treatment using gamification media based on Bah Luit’s animated movie series. Moreover, it provides 3 levels of difficulty for each game and activities to be completed by the students. The students played the game by following the steps in Figure 2.1 below:



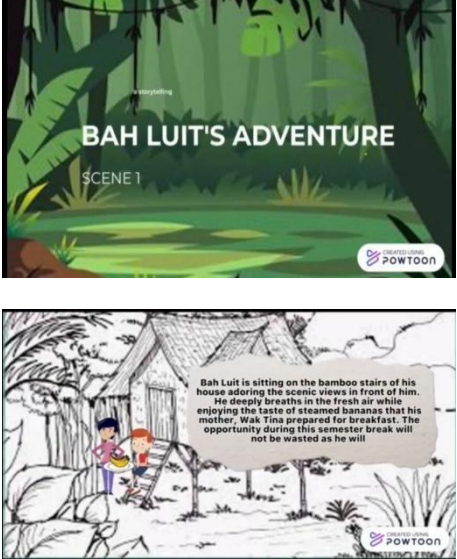


Figure 1. Steps in completing the edutainment games





The reward system (badges) and the animated series of Bah Luit, becomes a pulling factor for students to complete each game. At the same time, it also becomes an interesting way to learn and practice English.



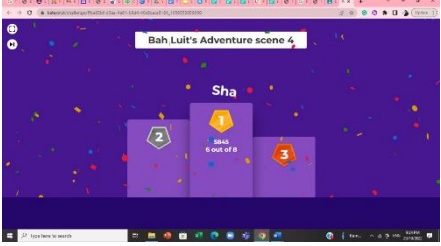

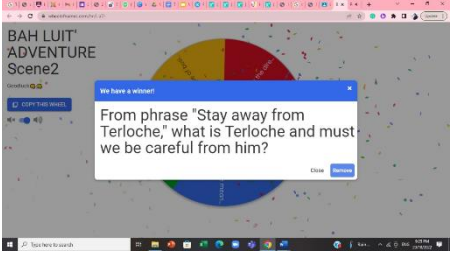
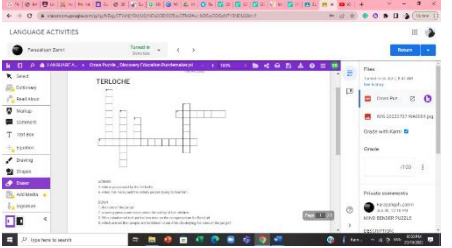
2.5 The Elements of Gamification




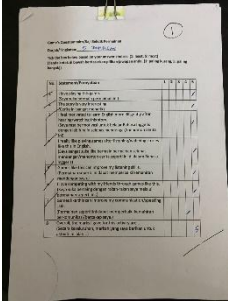
The elements of gamification compilation are compressed in the table 1 below:

Table 1. Elements of gamification

Stations	Scene	Screenshot of the video/online games	Link
<p>Station 1: Students watch the animated movies entitled Bah Luit's adventure story. The animated movies are organized according to scene 1 to scene 6.</p>	Scene 1		<p>https://youtu.be/grXk8nbipks</p>
	Scene 2		<p>https://youtu.be/l6cnSV974jY</p>
	Scene 3		<p>https://youtu.be/xljU_dO6iXA</p>

			
<p>Scene 4</p>			<p>https://youtu.be/qgh9MPk2y1U</p>
<p>Scene 5</p>			<p>https://youtu.be/HBP8nkUSr28</p>
<p>Scene 6</p>			<p>https://www.youtube.com/watch?v=to9JaFmrzYM</p>

			
<p>Station 2: Random cards =5 question based on scene 1</p>			<p>https://wordwall.net/resource/33970799</p>
<p>Station 3: Students answer a quiz using Kahoot</p>			<p>https://classroom.google.com/u/0/c/NDgyOTYzNjY5NDg1/a/NTM1ODgyNjU4MDUz/submissions/by-status/and-sort-first-name/done</p>
<p>Station 4: Students do a language activity using a wheel of word board game</p>			<p>https://wheelofnames.com/hn3-a7r</p>
<p>Station 5: Students completed word wall game</p>			<p>https://wordwall.net/resource/33970799/group-alyaa-scene-1</p>
<p>Station 7: Crossword puzzle</p>			

Station	Steps	Pictures
Final: Giant Snake & Ladder Games	Step 1 - Students will be played an audio consisting of the Bah Luit Adventure short story.	
	Step 2 – Students will be asked to play Giant Snake and Ladder board game. Since it is the giant board game concept, instead of using small objects as the token, the students themselves were the token and giant dice were utilized	
	Step 3 - In completing the game, students need to answer questions based on the short story that they have listened to in Step 1. The student will throw the dice and before they can move, they have to answer the questions based on the Bah Luit Adventure short story that they have listened to earlier. The students can 't move if they answer the question wrongly. The winner of the game will be the 1st person to reach the Finish box!	
	Step 4 - After completing the game, students were asked to answer Likert scale responses and give feedback	

3. FINDINGS

Table 2. Responses of the students from Sekolah Khas Baling on the Edutainment Project

ITEMS	Strongly Agree (N)	Agree (N)	Neutral (N)	Disagree (N)	Strongly Disagree (N)	Total (N)
I love playing this game	60	6	3	1		70
The story is very interesting	53	8	7	1	1	70
I feel motivated to learn English more diligently after listening to the story	57	8	3		2	70
I really like playing games after listening to the stories like this in English	57	6	4	2	1	70
Games like this can improve my English	60	3	5		2	70
I love competing with my friends by playing games like this	61	5	2	2		70
Games like this can improve my communication/speaking skills	58	10	1	1		70
Overall, the marks I give for this activity are...	64	3	2	1		70

The table 2 above reveals the results pertaining to the eight items asked in the questionnaire upon completion of the Giant Snake & Ladder game. Generally, 57 students agreed that they feel motivated to learn English after playing the games and really like playing games after listening to the stories like the Bah Luit’s Adventure. By making learners as the centre of learning not only make learning process easier but also makes it more effective and interesting (Cheng & Su, 2012). The result revealed that 58 to 60 of the participants agreed that gamification can improve their English language especially on communication or speaking skills. This is also supported by (Yunus & Tan, 2021), who stated that the implementation of interactive games in language teaching will alleviate students’ interest as it provides a creative and exhilarating platform to the millennials who are more technologically incline thus making them more interested in learning the language. The results also exhibited that the Orang Asli folktale’s genre is suitable for classroom activities. Referring to the fourth objective of this edutainment approach which is to investigate the student’s perception on gamification activities used in the project; it shows that language learning is crucial and vital in determining the tools for classroom engagement. As mentioned by Saad et al. (2022) the use of the gamification during classroom is seen as teaching aids as it assists students to develop their interest as gamified local stories

can help students to improve their English skills by providing a new and innovative way to learn English independently.

4. DISCUSSION

Based on this approach, it is discovered that this gamification circulates some important elements. Firstly, it strengthens important educational skills demanded from the students, such as problem solving, collaboration, and communication. Game-based learning is indeed beneficial in language teaching as it is effective in elevating the pupils' interest and learning of the English. Secondly, gamification prepares both teachers and pupils to meet the demands of globalization in education. The result obtained supported (Dichev & Dicheva, 2017) who also believe the main goals of gamification are to enhance certain abilities, introduce objectives that give learning a purpose, engage students, optimize learning, support behaviour change, and socialize (Knutas et al., 2014; Krause et al., 2015; Dichev & Dicheva, 2017; Borges et al., 2013).

From the local story contained in the game, the students can also entertain themselves and learn about character education, and social life learning that contained in the story. Finally, the edutainment approach which was derived from the Semai folktale (Bah Luit) was intended to preserve Semai folklore in a more innovative and fun form through gamified Semai folktale. The results showed that students enjoyed the folktale as 53% of the students said that the story is very interesting. The finding is inline with the study by Bidin et al. (2013) revealed that the Semai have portrayed some uniqueness with a vast collection of their ancestral folklore. These folklore expressions are considered as "traditional knowledge" and passed down from generation to generation. Hence, Semai folktales are suitable for the present and future learners.

Future research could study the effect of gamification in various disciplines over a more extended period. It could help to verify whether, over time, gamification loses its effectiveness, to identify possible saturation points and limitations in its application.

This interesting and fascinating edutainment approach is aligned with the 21st century teaching and learning a language as it can be used in the classroom as technology-based language enrichment activities (Garba et al., 2015). Implementing gamification in teaching and learning will give a new dimension not only to the students but also to prepare more dynamic language educators in embracing the rapid change in teaching and technology.

5. CONCLUSION

Applying gamification in teaching and learning will give a new dimension not only to the students but also to prepare more dynamic language educators in embracing the rapid changes in teaching and technology. Since gamification has exciting elements which can be motivating to the students, the videos and online quiz questions created have great commercialization potential. The videos uploaded on YouTube will be able to garner followers and the online questions uploaded on Quizzes can be accessed by any ESL learners. The interactive games are relevant and useful not only to enhance the quality of language teaching, but also to promote digital literacy among the young generation, which is in line with the demands of the fourth industrial revolution.

Acknowledgments: The researchers would like to sincerely thanks Puan Hajjah Hartini binti Abdul Rahman the Principal of Sekolah Model Khas Baling for giving us the opportunity by inviting us to the school to run this project

with her 400 students and the school English teachers. We would also like to say thank you to Cikgu Nor Azida the Head of English Department of Sekolah Model Khas Baling for assisting us with the Corporate Social Responsibility project with the school and of course to all the students who participated in the project. We really appreciate the hospitality and we look forward for future collaborations.

References

- Axelson, R. D., & Flick, A. (2010). Defining student engagement. *Change: The Magazine of Higher Learning*, 43(1), 38-43.
- Bidin, S., Saad, S., Aziz, N.A. & Rahman, A.A. (2013). Oral tradition as the principal mean for the cross-generational transfer of knowledge to illuminate Semai people's beliefs. October 2013 *Procedia - Social and Behavioral Sciences*.90:730-736. DOI: 10.1016/j.sbspro.2013.07.146
- Borges, S.d.S., Reis, H.M., Durelli, V.H., Bittencourt, I.I., Jaques, P.A., & Isotani, S. (2013). Gamificação aplicada à educação: um mapeamento sistemático. In *Brazilian Symp. on Computers in Education*. <https://doi.org/10.5753/cbie.sbie.2013.234>
- Borup, J., Graham, C. R., & Drysdale, J. S. (2014). The nature of teacher engagement at an online high school. *British Journal of Educational Technology*, 45(5), 793–806.
- Bridgeland, John M.; DiIulio, John J., Jr.; Morison, & Karen Burke (2006). The silent epidemic perspectives of high school dropouts. *Civic Enterprises*. <https://files.eric.ed.gov/fulltext/ED513444.pdf>
- Cheng, C. H., & Su, C. H. (2012). A Game-based learning system for improving student's learning effectiveness in system analysis course. *Procedia-Social and Behavioral Sciences*, 31, 669-675. Available at: <https://doi.org/10.1016/j.sbspro.2011.12.122>.
- Chin, C., & Rajaendram, R. (2019, January 1). The minister speaks. *Star*, p.12
- Dichev, C., & Dicheva, D. (2017). Gamifying education: what is known, what is believed and what remains uncertain: a critical review. *Int J Educ Technol High Educ*, 14, 9. <https://doi.org/10.1186/s41239-017-0042-5>
- Garba, S. A., Yusuf, B., & Bushthami, A. H. (2015). Toward the use of technology and 21st century teaching-learning approaches: The trend of development in Malaysian schools within the context of Asia Pacific. *International Journal of Emerging Technologies in Learning (ijET)*. 10. 72. 10.3991/ijet.v10i4.4717.
- Hakulinen, L. & Auvinen, T. (2014). The effect of gamification on students with different achievement goal orientations. In 2014 *International Conference on Teaching and Learning in Computing and Engineering (LaTiCE)*. <https://doi.org/10.1109/latice.2014.10>. IEEE, (pp. 9–16).
- Hamidon, N. (2021). Kajian kes: Cabaran dan solusi pembelajaran dalam talian semasa pandemik COVID-19 bagi pelajar menengah rendah. *International Conference of Research on Language Education (I-RoLE) 2021*, 23-24 March 2021, UiTM Cawangan Melaka.
- Hart, S.H., Stewart, K., & Jimerson, S.H. (2011). The student engagement in schools questionnaire (SESQ) and the teacher engagement report form-new (TERF-N): Examining the preliminary evidence. *Contemporary School Psychology*, 15, 67-79.
- Knutas, A., Ikonen, J., Nikula, U., & Porras, J. (2014). Increasing collaborative communications in a programming course with gamification: a case study. In *Proceedings of the 15th International Conference on Computer Systems and Technologies*. <https://dl.acm.org/citation.cfm?id=2659620>. ACM, (pp. 370–377).
- Krause, M., Mogalle, M., Pohl, H., & Williams, J.J. (2015). A playful game changer: Fostering student retention in online education with social gamification. In *ACM Conf. on Learning@ Scale*. <https://dl.acm.org/citation.cfm?id=2724665>. ACM, (pp. 95–102).
- Md Yunus, M., & Azmanuddin, M A. (2019). Memory stay or stray? Irregular verbs learning using kahoot! *Arab World English Journal (AWEJ) Special Issue on CALL* Number 5. July 2019. , Available at SSRN: <https://ssrn.com/abstract=3431770> or <http://dx.doi.org/10.2139/ssrn.3431770>
- Prensky, M. (2001). *Digital game-based learning*. New York: McGraw Hill
- Salen, Katie & Zimmerman, Eric. (2004). *Rules of Play: Game Design Fundamentals*

Saad, S., Amat, R., Abu Hassan, N. A. S., Mansor, N. S. & Ibrahim, S. (2022). Preserving indigenous Semai folktales as a process of educating 21st century learners through gamification. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 7(9), e001751. <https://doi.org/10.47405/mjssh.v7i9.1751>

Sharina Saad (2019). The Semai folktales cultural heritage in the 21st century : Preservation through innovation. *Journal of Educational Research and Indigeneous Studies* Volume: 2 (1), 2019. www.jerisjournal.com

Tvarozek, J., & Brza, T. (2014). Engaging students in online courses through interactive badges. In 2014 *International Conference on e-Learning*, September 2014, Spain. <https://pdfs.semanticscholar.org/fe68/5176c8d4bf7f6507f3870815f56a65097c89.pdf>, (pp. 89–95).

Yunus, C. C. A. & Tan, K. H. (2021). Exploring a gamified learning tool in the ESL classroom: The case of quizizz. *Journal of Education and e-Learning Research*, 8(1), 103-108.