Spelling Learning via Wheel of Fortune among Upper Primary Pupils in ESL Classroom

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Abstract
Status quo of English as international language is undeniable. Yet, poor command English attributes to increasingly high unemployment rate. It is much to do with literacy skill. Spelling acquisition and literacy skill are highly interrelated to. To cope with the challenges faced by Spelling learning, English curriculum has been revamped in the hope that to change rote learning into pupil-centred paradigm. Thus, a strategy is needed for Spelling learning in order to engage pupils. Incorporating Wheel of Fortune into Spelling learning is aimed to pave way for teacher-centred classroom atmosphere. Hence, this paper aims to examine the effectiveness using Wheel of Fortune for Spelling learning in an ESL classroom. A total of 45 upper primary pupils were selected through purposive sampling. Pre- and Post-tests and a questionnaire using 2-points Likert scale were administered. Then, the data were analysed by descriptive statistics. The main finding shows that the intervention, Wheel of Fortune is effective in Spelling learning. The positive response shown in questionnaire has reflected the acceptance of the intervention by the pupils. Therefore, the finding of this study implies that Wheel of Fortune can be one of the strategy that could support pupils to improve Spelling. All in all, the study offers an insight into how gamified learning improve Spelling performance.
Keywords: Spelling, English as Second Language (ESL), Gamified learning, Wheel of Fortune, Learning

Introduction
In everchanging world, the status quo of English language as a global language is irrefutable (Neelambaram et al., 2024). Thus, it is vital to possess proficient English in workplace. Good command of English is pre-requisite to job application (Le, Nguyễn Phương Anh, et al., 2023), job promotion and career advancement (Dash & Satpathy, 2020). However, a latest statistics from Department of Statistics Malaysia's (DoSM) was reported that there is a sign of declining in employability. In a study carried out by Teoh et al. (2023) reasoned out that 52% of graduate have the problem of weak command in English and resulting them unemployed in the context of Malaysia. Therefore, there is an urgent needs to improve proficiency level of the graduates. Ministry of Education (MoE) revamps language policy such

as Upholding the Malay Language and Strengthening the English Language in the hope to improve English standards. Apart from that, reformation in curriculum such as introducing Common European Framework of References (CEFR) in English syllabus is aimed to provide a benchmark guideline of English standards so that pupils are on par with international level (Affendy Lee et al., 2022).

Despite concerted effort from policymakers and stakeholders, reading proficiency in Malaysia is just over 50% though literacy rate is encouraging. With that, several studies are evident that both language skills such as Reading and Writing are interconnected with Spelling. For instance, the relationship between Reading skill and Spelling is ascertained by Kim & Petscher (2023) whereas Treiman et al. (2018) asserted that Writing skill is correlated with Spelling. In fact, Lau Yen Yen and Mohamad (2021) reassured that Spelling is paramount as it is an essential for learning other English language skills.

Although pupils go through 13 years of schooling, they are still struggling with challenges in Spelling learning as noted by Yen and Mohamad (2020). Essentially, gamified learning is incorporated into the lesson to overcome the challenges with Spelling. Gamified learning is beneficial in a setting where the existence of limited internet connection and electronic devices as suggested by Zainuddin and Keumala (2021). In the same study, it is proven that gamified learning has prompted engagement. Moreover, gamified learning has paved way from teacher centredness to pupil-centred classroom atmosphere. Incorporating game element adds fun element into learning process. Thus, utilising Wheel of Fortune, an adaption from a renown American TV show aims to improve Spelling learning in English as Second Language (ESL) classroom.

Although there is a scarcity of studies regarding Wheel of Fortune, it has never been investigated in Malaysia up to now. Thereafter, it is a need to conduct such research to fill the literature gap. The first objective of the study is to examine the effectiveness using Wheel of Fortune in Spelling learning among upper primary pupils. Followed by the second objective whereby it is aimed to investigate pupils' perceptions on the usage of Wheel of Fortune in Spelling learning. It is hoped that the use of Wheel of Fortune is effective in Spelling learning and benefits the pupils.

Literature Review
Literature review is discussed in relating to underpinning theories. Also, the impact of gamified learning in education realm is elucidated. In addition, the section presents the implications on Wheel of Fortune into teaching and learning process.

Theories
Basically, the theories are founded on both language learning and learning process philosophies. Language learning theories comprise Sociocultural Theory and Constructivist Theory. On the other hand, language theories are Behaviourist Theory and Multisensory Learning Theory.

Sociocultural Theory
Sociocultural Theory proposed by Vygotsky focuses on the scaffolding given during the intervention. In the same vein, Vygotsky (1978) noted that the theory itself encourages

collaborative and cooperative learning. For instance, pupils collaborate with one another to guess the words. During the gameplay, low proficiency pupils receive guidance from high proficiency pupils. Undoubtedly, it expands their Zone of Proximal Development (ZPD) as suggested by Vygotsky. Vygotsky (1978) pointed out that the expansion of ZPD takes place when guidance and encouragement are offered.

Constructivist Theory

Fundamentally, Constructivist Theory emphasises the active role of children in constructing knowledge as noted by Piaget and Bärbel Inhelder (1997). Similarly, this is consistent with the findings retrieved by Wang (2023) which elucidates that Constructivist Theory is an active learning process whereby the learner absorbs knowledge independently. For example, pupils construct knowledge through interactive game-play when they are intervened. They learn about Spelling pattern and phonetics.

Behaviourist Theory

Reinforcement is significant in Behaviourist Theory as highlighted by Skinner (Rivers, 2018). Again, Adams (2000) defined reinforcement as the presentation of stimulus in a temporal relation. As such, pupils receive stimulus at the end of the game play when their guess is correct which in turn reinforcing Spelling learning. Concerning the stimulus as stated by Adam, pupils earn positive reinforcement through points and rewards. Resulting to this, they are motivated to improve their Spelling. Leeder's (2022) work on positive reinforcement strengthens the behaviour have complemented Behaviourist Theory. Besides reinforcement and rewarding, Naeem and Farhan (2022) supported the idea of seeing imitation as one of the phases in learning process according to Behaviourist Theory. In the research, low proficiency pupils imitate what has been observed during the game play and motivated pupils to learn Spelling consistently.

Multisensory Learning Theory

Nordquist (2023) argued that Spelling should be taught implicitly or explicitly as it is not an innate ability. Therefore, a multisensory learning approach should be delivered to pupils. Esplendori et al. (2022) defined multisensory learning as a learning process utilising more than two senses. Resulting to this, Multisensory Learning Theory supports the idea of such learning approach. As for the research, Spelling learning is enhanced through visual (V), auditory (A), kinaesthetic (K) and tactile (T). Taking tactile and kinesthetics as an example, pupils' memory are retained when they interact physically with the game by spinning the wheel. The condition is best suit to those who are kinaesthetically prone pupils whereby they come forward to spin the wheel and move the cursor to reveal the letter. In addition, visual and auditory are applied when they complete the word and hear the letters or words. Undoubtedly, it enhances the recognition of letter pattern and the phonemic awareness.

Gamified Learning

Numerous studies are evident the positive impact that game brought when incorporating game into teaching and learning process. As clarified by Rahmani (2020), fun element is incorporated into the teaching and learning process. She further emphasised the strengths of game that it brought such as better cognitive performance and positive character building. A case study in Malaysia context had confirmed the effectiveness of incorporating game into teaching and learning process is able to enhance the engagement of language

learning (Callista Anak Yunus & Kim Hua, 2021). To this extend, Nur Syafiqah Yaccob and Md (2019) reaffirmed that game engages learners' in learning and in return better learning performance is achieved.

Apart from studies done in Malaysia, some foreign studies are evident to spotlight the advantages of using game in teaching and learning. For instance, Vo Tu Phuong and Phi (2023) discovered that pupils particularly upper primary level agree that utilising game helps in memory retention when recalling vocabulary. Again, studies by Vo Tu Phuong and Phi (2023) as well as Le, Tran, et al. (2023) proved that fourth graders improve greatly in their learning outcome when incorporating game into the lesson.

Implications on Spinning Wheel into Teaching and Learning Process

As mentioned earlier, there is a scarcity of studies regarding Wheel of Fortune because it has never been investigated in Malaysia and even foreign countries up to now. Yet, some of the past studies adopt Spinning Wheel instead of Wheel of Fortune. With that, there are multiple studies regarding integration of Spinning Wheel into different language skills such as Speaking and Writing. Maulinasari Nur Laila et al. (2023) demonstrated Spinning Wheel improves seventh graders' vocabulary. Moreover, Spinning Wheel enhances Speaking skill among second graders as ascertained by Ni Komang Purwaningsih and Si in 2024. As for Writing skill, its result is concurred with Speaking skill findings. The finding from Rachmaida and Mutiarani (2022) proved that Spinning Wheel game is effective in writing procedural text. Moreover, Spinning Wheel is able to spur engagement in terms of pronunciation and vocabulary as advocated by Maya et al. (2022). In accordance to several studies mentioned, they showed clearly that Spinning Wheel game is effective in teaching and learning process. In fact, Spinning Wheel is an engaging tool and thus boosting learners' enthusiasm in learning.

Methodology

Research Design

A quantitative approach was employed as the research design. This is because the findings of the study are quantified in the form of frequency count and percentage. It was then analysed descriptively as acknowledged by Creswell (2014) claimed that quantitative research is an inquiry-based approach to describe trends. Also, he further illustrated that such method explains relationship among the variables which include independent variable (IV) and dependent variables (DV). To illustrate further, Okoye and Hosseini (2024) defined independent variables as the cause while dependent variables are the effect. As such, IV refers to the intervention itself, which is the integration of Wheel of Fortune into lesson. Whilst, Spelling improvement metric and participants' perceptions towards the gamified intervention should work as DV.

Population & Sample

Purposeful sampling were employed to select participants. 45 of participants were chosen purposively as claimed by Creswell (2014) highlighting that purposive sampling select individuals intentionally to understand the central phenomenon. These participants shared common features which are sociocultural background and setting. They were English as Second Language (ESL) learners who possess low classroom-based assessment (CBA) results and weak in Spelling. As for geographical background, they came from suburban area. The samples of data were gathered through voluntarily participation.

Instrument

The study began with Pre- and Post-tests to determine the effectiveness of the intervention, Wheel of Fortune. It was followed by Likert scale questionnaire that asked about participants' perspective using the intervention in Spelling learning.

Due to the nature of study, Pre- and Post-tests were carried out to get the differences between the tests. It is significant as to get the valuable insights into the effectiveness of intervention across various domains as noted by Majka (2024). Pre- and Post-test was served as answering first objective of the study. Apart from that, the Spelling words were retrieved from vocab wordlist in upper primary DSKP. Therefore, these choice of words were relevant as they were high frequency words.

The second objective of the study elicited the information on the questionnaire. There were 10 items adapted from Instructional Materials Motivation Survey (IMMS). Then, the items were further divided into 4 parts which was derived from ARCS Model of Motivational Design. ARCS is an acronym for attention, relevance, confidence, and satisfaction. Apart from that, all the items in questionnaire were designated in close-ended statements and predetermined with four themes such as perceived attractive element (A), relevancy (R), confidence and satisfaction (S). Moreover, 2-points Likert scale was utilised due to its clear crystal nature and convenient to use. It is ascertained by Alwin et al. (2017) who agreed that few scale points are preferred as compared to great numbers of response options in their study. Adoption of 2-points Likert scale was because the participants had low classroom-based assessment (CBA) results and weak in Spelling. In other words, they were poor in comprehending sentences. Too many options might confused their understanding and had hard time to decide due to time constraints. Thus, participants have to answer agree and disagree options based on the statements. Besides, 10 items of questionnaire were constructed in positive response unless item 6 was presented in unfavourable statement by noting the word difficult. Other than that, the questionnaire consisted of 2 parts. Section A comprised demographic items such as gender, age, race and mother tongue used in daily life whereas section B contained items regarding perspective towards the usage of intervention. Items in questionnaire were validated by 2 Master holder experts who have been teaching English for more than 10 years.

Data Collection

The study employed one-group pretest-posttest design as data collection method. Therefore, Pre-test was administered one week before the intervention was implemented. Then, Post-test was carried out for each round of intervention. The intervention was conducted for 3 times due to time constraint. Hence, the intervention took 3 weeks to be executed into 30 minutes English lesson. After that, questionnaires were distributed to the participants and then collected for further data analysis. All in all, aforementioned data collection method went through face to face interaction as a group.

Data Analysis

After collecting data, the data went through descriptive analysis. Kaur et al. (2018) defined descriptive analysis as summarising data set in organise manner by describing its characteristic. For example, Pre- and Post-tests scores were described using frequency count

and percentage. Same go to the findings of questionnaire. It was then discussed thematically based on 4 themes such as attractiveness, relevancy, confidence and satisfaction.

Findings

This study has investigated the effectiveness using Wheel of Fortune in Spelling learning among upper primary pupils. Besides, perspective when using Wheel of Fortune among upper primary pupils in Malaysia school is discovered too. In the findings, passing score are categorised into 5 groups. The highest score is 100 with all 4 correct words whereas the lowest score is 0. The passing score ranges from fair to excellent. As for only a word correct, participants are fallen into the category whereby their minimum level has not achieved yet.

To what extent, Wheel of Fortune is effective to Spelling learning among upper primary pupils in ESL classroom?

Table 1
Summary on 3 rounds of intervention among Year 6 pupils

Spelling scores categories	Range of scores	ROUND 1				ROUND 2				ROUND 3			
		PRE		POST		PRE		POST		PRE		POST	
		N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage
Excellent	76-100	1	8%	3	25%	0	0%	4	33%	0	0%	3	25
Good	51-75	1	8%	4	33%	1	8%	4	33%	2	17%	3	25
Fair	26-50	3	25%	3	25%	3	25%	2	17%	3	25%	4	33
Has not achieved minimum level	1-25	5	42%	2	17%	5	42%	2	17%	5	42%	1	8
Poor	0	2	17%	0	0%	3	25%	0	0%	2	17%	1	8

N denotes number of pupils

Table 1 summarises the scores and percentages received by Year 6 pupils before and after the intervention. Apparently, it reveals that more than 80% of Year 6 pupils obtained the passing score after having 3 rounds of the intervention. As for the non-achievable groups, the percentage was fallen from 42% into 17% and 8% after having 3 rounds of intervention.

Table 2
Summary on 3 rounds of intervention among Year 5 pupils

Spelling scores categories	Range of scores	ROUND 1				ROUND 2				ROUND 3			
		PRE		POST		PRE		POST		PRE		POST	
		N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage
Excellent	76-100	2	11%	6	33%	1	6%	5	28%	1	6%	4	22%
Good	51-75	2	11%	4	22%	1	6%	5	28%	2	11%	4	22%
Fair	26-50	2	11%	3	17%	5	28%	4	22%	5	28%	6	33%
Has not achieved minimum level	1-25	7	39%	4	22%	7	39%	3	17%	6	33%	3	17%
Poor	0	5	28%	1	6%	4	22%	1	6%	4	22%	1	6%

N denotes number of pupils

Similarly to Year 6 pupils, Year 5 pupils earned distinctive passing score, with the value of exceeding 70% after having 3 rounds of intervention. On the contrary, there was a noticeable decreasing percentage in Post-test for the group which had not achieved minimum level. For instance, 22% of Year 5 pupils was at the start of the intervention. Subsequently, it was fallen into 17% for consecutive interventions.

Table 3
Summary on 3 rounds of intervention among Year 4 pupils

Spelling scores categories	Range of scores	ROUND 1				ROUND 2				ROUND 3			
		PRE		POST		PRE		POST		PRE		POST	
		N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage
Excellent	76-100	1	7%	2	13%	0	0%	4	27%	0	0%	5	33%
Good	51-75	1	7%	2	13%	1	7%	3	20%	3	20%	4	27%
Fair	26-50	2	13%	3	20%	5	33%	4	27%	3	20%	4	27%
Has not achieved minimum level	1-25	6	40%	4	27%	5	33%	2	13%	6	40%	1	7%
Poor	0	5	33%	4	27%	4	27%	1	7%	3	20%	1	7%

N denotes number of pupils

What is striking about the figures in Table 3 is the value of percentage for passing score was on the increase as the intervention moved on. The percentage was steadily increased in Post-test. Apparently, it was started from 46% to 74% and finally rose to 87%. Conversely, both groups which labelled poor and has not achieved minimum level had recorded gradual declining in Post-test. It can be seen that the total percentages in Post-test fell from 54% to 14% under aforementioned categories.

What are the perceptions of the pupils towards Wheel of Fortune in Spelling learning?
A total of 10 items in the questionnaire were analysed to investigate the perceptions towards Spelling learning through Wheel of Fortune. The data gathered was tabulated and analysed in terms of 4 aspects based on ARCS Model of Motivational Design.

Table 4
ARCS Model of Questionnaire

Year	6		5		4	
Statements	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)	Agree (%)	Disagree (%)
Perceived Attractive Element						
1. There was something interesting at the beginning of the lesson when using Wheel of Fortune that got my attention.	100	0	83.33	16.67	86.67	13.33
2. Wheel of Fortune is attractive.	100	0	72.22	27.78	80.00	20.00
3. The lesson with Wheel of Fortune has stimulated my curiosity.	100	0	72.22	27.78	73.33	26.67
Perceived Learning Relevancy						
4. It is clear to me how the content of this material (Wheel of Fortune) is related to things I already know.	66.67	33.33	72.22	27.78	80.00	20.00
5. The content of this material will be useful to me.	83.33	16.67	83.33	16.67	93.33	6.67
Perceived Confidence Level in Spelling Learning						
6. When I first looked at the Wheel of Fortune, I had the impression that it would be difficult for me.	41.67	58.33	50.00	50.00	53.33	46.67
7. I found out that the practices were easy after having Wheel of Fortune.	66.67	33.33	66.67	33.33	60.00	40.00
8. As I worked on with Wheel of Fortune, I was confident that my Spelling is enhanced.	83.33	16.67	77.78	22.22	80.00	20.00
Perceived Satisfaction Level in Emotional Connection						
9. Completing the exercises in Wheel of Fortune gave me a satisfying feeling of accomplishment.	75.00	25.00	66.67	33.33	73.33	26.67
10. I really enjoyed learning Spelling.	91.67	8.33	66.67	33.33	53.33	46.67

As can be seen from Table 4, all Year 6 pupils agreed that the intervention, Wheel of Fortune had successfully attracted their attention and aroused their curiosity. For instance, the results yielded full percentage in the aspect of perceived attractive element. More than 70% of pupils who aged 10 (Year 4) and 11(Year 5) were reported that they discovered the intervention was captivating.

As for perceived learning relevancy towards Wheel of Fortune, it indicated that upper primary pupils all agreed that the content of the intervention was beneficial as they had received the highest percentage. Resulting to this, they were confident that their Spelling was improved as it had the highest percentage as well in perceived confidence level aspect.

There was a significant difference in the aspect of confidence level in Spelling learning. Based on Table 4, it was clearly observed that Year 6 pupils had the lowest percentage with just under 50% in unfavourable statement which was item 6. Item 6 had presented negative language by noting difficult. Thus, 41.67% of those agreed that the intervention was difficult for them. In other words, they viewed that the game was easy.

Last but not the least, they enjoyed Spelling learning. The result indicated enjoyment in Spelling learning was shown clearly in their high percentages with 91.67%, 66.67% and 53.33& for Year 6, 5 and 4 pupils respectively.

Generally, the figures from Table 4 were evident to demonstrate that upper primary pupils in Malaysia agreed with the statement that Wheel of Fortune was able to improve their Spelling learning. Therefore, they were confident and satisfied throughout the process of Spelling learning.

Discussions

The discussion was explained based on the research questions.

To what extent, Wheel of Fortune is effective to Spelling learning among upper primary pupils in ESL classroom?

An initial objective of the research was to examine the effectiveness of the intervention in Spelling learning. With respect to the first research question, it was found out that upper primary pupils experienced gradual increase number of growth for attaining passing score after the intervention was administered. It implied that the usage of Wheel of Fortune in Spelling learning was effective. As mentioned earlier, numerous studies had been done in regard to Wheel of Fortune was discovered because it had not been experimented before. With that, there are numerous studies regarding the use of words-based games and Spinning Wheel to show its effectiveness in language learning. One of the findings from a study by Rachmaida and Mutiarani (2022) proved that Spinning Wheel game is effective in writing procedural text. Moreover, another similar study by Ni Komang Purwaningsih and Si in 2024 showed that Spinning Wheel enhances Speaking skill among second graders. The findings from aforementioned studies reflected positive results. Undoubtedly, these studies had contributed to the literature works regarding the effectiveness using Wheel of Fortune in Spelling learning.

What are the perceptions of the pupils towards Wheel of Fortune in Spelling learning?

Traditional method of learning Spelling is less preferred by the pupils as compared to incorporating game within it. The results of the study showed that pupils are highly attracted to the game. An alternative explanation for this result is that it is due to multisensory element embedded into the intervention, Wheel of Fortune. The intervention itself has embedded with visual (V), auditory (A), kinaesthetic (K) and tactile (T) elements. Also, it is in line with Multisensory Theory as proposed by Orton-Gillingham. The definition of the theory is further expanded by Esplendori et al. (2022) which claimed that the presence of more than two senses in a learning process. A study done by Nordin et al. (2024) revealed that multisensory learning is effective in improving Reading skill among primary school pupils. Kim and Petscher (2023) stressed that Reading skill and Spelling are correlated. A closed-knit relationship between Reading skill and Spelling have proven that multisensory learning is required in Spelling learning too. In fact, the elements such as VAKT are able to enhance memory retention in Spelling learning. Raffaele Di Fuccio et al. (2024) had ascertained such assumption that multisensory learning approach is able to retain knowledge among primary school pupils.

As for perceived learning relevancy, the material in the intervention was deemed as beneficial. In fact, the relevancy of the material indeed has strong relationship among Sociocultural Theory and Constructivist Theory. In relation to Sociocultural Theory, relevant material whereby it was taken from DSKP wordlist have to make sure that the content is within their Zone of Proximal Development (ZPD). Resulting to this, upper primary pupils learn Spelling words effectively. Expansion of ZPD occurs when guidance is offered as pointed out by Vygotsky (1978). As contrary to Sociocultural Theory, Constructivist Theory emphasises on active learning in building knowledge as elucidated by Wang (2023) in his study. In this context, relevancy of the material aids pupils to construct new knowledge as prior knowledge is merged into existing knowledge, forming new knowledge as a whole. Thus, they understand the new knowledge easily.

Moving on now to consider confidence level and satisfaction level in Spelling learning, pupils enjoyed and satisfied with the gamified learning. The finding from a study by Hartt et al. (2020) supported the idea that pupils are more engaged and favoured in game-based learning. This is because pupils were rewarded with points and gifts at the end of the activity after having intervention, Wheel of Fortune. Rewards and positive reinforcement has spurred their eagerness to win the game and indirectly encouraging them to learn Spelling. Leeder's work (2022) is a good illustration of positive reinforcement strengthens the behaviour. In a similar case in the study done by Zabala-Vargas et al. (2021) stated that game-based intervention provided with rewards and immediate feedback which further improving learners' motivation and engagement. As such, they receive encouragement from the peers and teacher as well as the immediate constructive feedback from the intervention which in turn motivating them to learn Spelling consistently. Therefore, they are engaged with the intervention and feel a sense of satisfaction.

However, Year 6 pupils had the lowest percentage in the statement of confidence level in Spelling learning. A possible explanation for this might be the content of the material is not up to their level either be maturity or cognitive. Year 6 pupils found out that the intervention was easy for them. For this reason, the content of the game should be devised according to pupils' mental maturity. The mechanics of playing and its content should be matched with the pupils who aged 12 as they are more mature.

Conclusion

This study set out to investigate the effectiveness using Wheel of Fortune in Spelling learning among upper primary pupils. Thus, it is found out that Wheel of Fortune has improved upper primary pupils' Spelling learning in an ESL classroom. The results of this study support the idea that game based activity motivates pupils to learn Spelling. So, this study has provided a deeper insight into language game improves Spelling learning. Limitations of this study are identified such as mismatch content of the game and small sample size. Hence, it should be planned wisely according to different mental maturity of pupils and extended to wider group age. In spite of its limitations, the study offers valuable insights into the literature works on Wheel of Fortune in Spelling learning. Therefore, a definite need for educators to design Wheel of Fortune that is suitable to be implemented in Malaysian classroom in the ease of Spelling learning. As for future research, the study should be extended to different age groups and is assessed for the aspect of long-term retention effects when using Wheel of Fortune.

The findings from the study make several contributions to the current literature. Its contributions can be theoretical and contextualised. As for theoretical contribution, the study has been one of the first attempt to thoroughly examine how game-based learning particularly the use of Wheel of Fortune enhances Spelling retention and engagement. It fills the literature gap and provides authentic information for further study as the previous studies mainly focus on impact of Spinning Wheel towards language skills such as Speaking and Writing as well as vocab acquiring. On the contrary, Wheel of Fortune for education purpose has never been investigated.

Next, Spelling learning approach proves beneficial in expanding the knowledge of how both language learning theories and language theories improve Spelling acquisition. For

instance, the study reinforces Multisensory Theory whereby learning occurs when multisensory elements are embodied into the intervention, Wheel of Fortune. Again, it empowers both Sociocultural and Constructivist Theories. Guidance and active learning aid in constructing knowledge and expand Zone of Proximal Development (ZPD). Last but not the least, it supports the idea of Behaviourist Theory. The theory highlights the significance of positive reinforcement and rewarding which in turn engaging the pupils in Spelling learning.

Moving on contextualised contribution, the study provides practical insight towards using Wheel of Fortune as an effective tool for upper primary pupils in an ESL context. Moreover, the study will be interest to the educators, curriculum planners and stakeholders on how to incorporate game-based learning into Spelling acquisition. Therefore, the finding of the study offers valuable insights into how cultural and linguistic factors influence the effectiveness of gamified leaning in Spelling acquisition.

References

Adams, M. A. (2000). Reinforcement theory and behavior analysis. *Behavioral Development Bulletin*, *9*(1), 3–6. https://doi.org/10.1037/h0100529

Affendy Lee, N. A., Mohd Kassim, A. A., & Aboo Bakar, R. (2022). The CEFR-Aligned Curriculum Execution in Malaysia and Other Countries: A Conceptual Paper. *Malaysian Journal of ELT Research*, *19*(1), 1–15. https://doi.org/10.52696/tgct6849

Alwin, D. F., Baumgartner, E. M., & Beattie, B. A. (2017). Number of Response Categories and Reliability in Attitude Measurement†. *Journal of Survey Statistics and Methodology*, *6*(2), 212–239. https://doi.org/10.1093/jssam/smx025

Yunus, C., & Kim Hua, T. (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. https://doi.org/10.20448/journal.509.2021.81.103.108

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications Ltd.

Dash, K. K., & Satpathy, S. (2020). English Language Teaching: Exploring Enhanced Employability through Soft Skills. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, *12*(6). https://doi.org/10.21659/rupkatha.v12n6.27

Esplendori, G. F., Kobayashi, R. M., & Püschel, V. A. A. (2022). Multisensory integration approach, cognitive domains, meaningful learning: reflections for undergraduate nursing education. *Revista Da Escola de Enfermagem Da USP*, *56*. https://doi.org/10.1590/1980-220X-REEUSP-2021-0381

Hartt, M., Hosseini, H., & Mostafapour, M. (2020). Game On: Exploring the Effectiveness of Game-based Learning. *Planning Practice & Research*, *35*(5), 589–604. https://doi.org/10.1080/02697459.2020.1778859

Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive Statistics. *International Journal of Academic Medicine*, *4*(1), 60–63. https://doi.org/10.4103/ijam.ijam_7_18

Kim, Y. G., & Petscher, Y. (2023). Do Spelling and Vocabulary Improve Classification Accuracy of Children's Reading Difficulties Over and Above Word Reading? *Reading Research Quarterly*. https://doi.org/10.1002/rrq.496

Lau Yen Yen, E., & Mohamad, M. (2021). Spelling Mastery via Google Classroom among Year 4 Elementary School ESL Students during the COVID-19 Pandemic. *Journal of Education and E-Learning Research*, *8*(2), 206–215. https://doi.org/10.20448/journal.509.2021.82.206.215

Le, L.-A. T., Tran, Q.-N. T., Nguyen, K.-D. T., & Xuan, H. T. N. (2023). Using learning games for fourth-grade students to teach Vietnamese lessons and teachers' perspectives on learning games. *Journal of Education and E-Learning Research*, *10*(3), 364–370. https://doi.org/10.20448/jeelr.v10i3.4712

Le, T., Nguyễn Phương Anh, & Lê Trung Kiên. (2023). *English Language Skills and Employability: A Theoretical Framework*. 71–93. https://doi.org/10.1007/978-981-99-4338-8_4

Leeder, T. M. (2022). Behaviorism, Skinner, and operant conditioning: Considerations for sport coaching practice. *Strategies*, *35*(3), 27–32. https://doi.org/10.1080/08924562.2022.2052776

Majka, M. (2024, July 7). *Understanding the Importance of Pre and Post-Testing in Research and Evaluation*. https://www.researchgate.net/publication/382051998_Understanding_the_Importance_of_Pre_and_Post-Testing_in_Research_and_Evaluation

Maya, I., Abdul, N., & Azis, A. (2022). BRIDGING STUDENTS' SPEAKING SKILL THROUGH SPINNING WHEEL MEDIA AT SMP NEGERI 1 BONTOMARANNU. *English Language Teaching Methodology*, *2*(1), 30–36. https://doi.org/10.56983/eltm.v2i1.62

Naeem, & Farhan. (Eds.). (2022). *Behaviourism and the Study of Language Acquisition and Language Learning Background*. https://DOI:10.13140/RG.2.2.35525.12003.

Purwaningsih, S, K., & Si. (2024). ENHANCING SPEAKING SKILL THROUGH SPINNING WHEEL MEDIA OF STUDENTS MAJORING IN TRAVEL MANAGEMENT AT TRIATMA MULYA UNIVERSITY. *Stilistika Jurnal Pendidikan Bahasa Dan Seni*, *12*(2), 189–197. https://doi.org/10.59672/stilistika.v12i2.3759

Nordin, M. N., Ismail, S. Z., Yusuf, R., Azizi, Z., & Abbas, M. S. (2024). A Review of Multisensory Theory on The Learning of Students with Special Education Needs with Visual Impairment. *International Journal of Academic Research in Business and Social Sciences*, *14*(3), 103–109. http://dx.doi.org/10.6007/IJARBSS/v14-i3/21041

Nordquist, R. (2023). *English Spelling: Conventions and Corrections*. ThoughtCo. https://www.thoughtco.com/spelling-definition-1692125

Yaccob, N. S., & Md, M. (Eds.). (2019). *Language Games in Teaching and Learning English Grammar: A Literature Review – AWEJ*. Doi.org. https://dx.doi.org/10.24093/awej/vol10no1.18

Okoye, K., & Hosseini, S. (2024). Understanding Dependent and Independent Variables in Research Experiments and Hypothesis Testing. *R Programming*, 99–107. https://doi.org/10.1007/978-981-97-3385-9_5

Piaget, J., & Bärbel Inhelder. (1997). *The child's construction of quantities : conservation and atomism*. Routledge.

Rachmaida, F., & Mutiarani, M. (2022). The Use of Spinning Wheel Games to Improve Students' Writing Procedural Texts. *Journal of Languages and Language Teaching*, *10*(4), 530. https://doi.org/10.33394/jollt.v10i4.5766

Fuccio, R. D., Ponticorvo, M., Nadim, M. A., & Limone, P. (2024). Exploring the effect of digital and multisensory educational materials on retention in primary school using Tangible User Interfaces. *Interactive Learning Environments*, 1–11. https://doi.org/10.1080/10494820.2024.2427277

Rahmani, E. F. (2020). The Benefits of Gamification in the English Learning Context. *IJEE (Indonesian Journal of English Education)*, *7*(1), 32–47. https://doi.org/10.15408/ijee.v7i1.17054

Rivers, W. M. (2018). *Teaching Foreign-Language Skills*. University of Chicago Press.

Teoh, W., Yen, Y. Y., Choy, C. S., Nee, T. W., & Ming-Li, T. (2023). Perspectives of employers on graduate employability skills: A case of Malaysia. *Asian Development Policy Review*, *11*(4), 229–243. https://doi.org/10.55493/5008.v11i4.4946

Treiman, R., Kessler, B., & Caravolas, M. (2018). What methods of scoring young children's spelling best predict later spelling performance? *Journal of Research in Reading*, *42*(1), 80–96. https://doi.org/10.1111/1467-9817.12241

Phuong, V. T., & Phi, T. (2023). HIGH SCHOOL STUDENTS' PERCEPTIONS OF LEARNING ENGLISH VOCABULARY THROUGH GAMES. *Conhecimento & Diversidade*, *15*(38), 190–216. https://doi.org/10.18316/rcd.v15i38.11043

Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.

Wang, L. (2023). The Impact of Student-Centered Learning on Academic Motivation and Achievement: A Comparative Research between Traditional Instruction and Student-Centered Approach. *Journal of Education, Humanities and Social Sciences*, *22*, 346–353. https://doi.org/10.54097/ehss.v22i.12463

Yen, E. L. Y., & Mohamad, M. (2020). Utilising E-Learning to Assist Primary School ESL Pupils in Learning to Spell during COVID-19 Pandemic: A Literature Review. *Creative Education*, *11*(08), 1223–1230. https://doi.org/10.4236/ce.2020.118091

Zabala-Vargas, S. A., García-Mora, L. H., Arciniegas-Hernandez, E., Reina-Medrano, J. I., De Benito-Crosetti, B., & Darder-Mésquida, A. (2021). Strengthening Motivation in the Mathematical Engineering Teaching Processes – A Proposal from Gamification and Game-Based Learning. *International Journal of Emerging Technologies in Learning (IJET)*, *16*(06), 4. https://doi.org/10.3991/ijet.v16i06.16163

Zainuddin, Z., & Keumala, C. M. (2021). GAMIFICATION CONCEPT WITHOUT DIGITAL PLATFORMS: A STRATEGY FOR PARENTS ON MOTIVATING CHILDREN STUDY AT HOME DURING COVID-19 PANDEMIC. *PEDAGOGIK: Jurnal Pendidikan*, *8*(1), 156–193. https://doi.org/10.33650/pjp.v8i1.2174