

Incorporating VARK Approach in Primary ESL Learning: Impact of Digitalized Game-Based Learning on Remedial ESL Learners

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ABSTRACT: *The Ministry of Education in Malaysia has consistently emphasized on the teaching of English as a Second Language (ESL), recognizing its significance in cultivating well-rounded individuals. Grammar serves as a fundamental element in the English language. However, over the years, the level of grammar acquisition declined among the primary school learners, especially among Level 2 remedial learners, who faced challenges in mastering grammar components such as adjectives. Therefore, the study aims to enhance the upper level primary remedial learners in understanding the use of adjectives besides promoting active learning by using digitalized game-based learning such as 'Kahoot!', 'Quizizz' and 'QuizWhizzer'. Quantitative research design was implied in carrying out this study. 16 remedial students from a rural primary school in Johor were selected as samples whereby they were given pre-test and post-test before and after the use of digitalized game-based learning. Besides, a survey was given to 5 teachers to get their feedback on using digitalized game-based learning. The findings of the pre-test and post-test revealed that the incorporation of V-A-R-K; visual-auditory and kinesthetic learning styles has proven drastic improvements among the samples in enhancing and demonstrating their understanding on adjectives effectively. Besides, the survey's result showed that the digitalized Game-Based Learning is positively accepted by the ESL teachers. These digitalized game-based learning platforms provide ample opportunities to enhance remedial learner's acquisition.*

Keywords: *Digitalized Game-Based Learning ; VARK learning styles ; Adjectives ; Remedial ESL Learners.*

I. Introduction

In Malaysia, the Ministry of Education has introduced a 21st-century learning approach to fulfill the aim of the National Philosophy of Malaysian Education which is to develop well-rounded individuals through education (Ministry of Education Malaysia, 2013). The emerging education trend focuses on the teaching of English as Second Language to be an effective platform in producing a holistic generation of ESL learners which excels in academics as well as displaying good command of English. In the Industrial Revolution 4.0, the utilization of educational technology has significantly improved and expanded, even making its way into the field of education.

English as a Second Language (ESL) education holds significant importance in aiding language acquisition and fostering academic achievement for individuals who are non-native English speakers. Malaysian students typically receive formal English language education for about 11 to 13 years before advancing to higher education. Within ESL classrooms in Malaysia, a wide variety of learners can be found, including those who encounter difficulties in acquiring English language skills which are known as remedial learners. These learners in need often necessitate ample of guided instructional methods to address their specific requirements and improve their language learning results. Malaysian students typically receive formal English language education for about 11 to 13 years before advancing to higher education. Grammar is one of the fundamental language components in the English language. Grammar plays a significant role and it's a necessity that language components need to be mastered by pupils in order to acquire these four main skills effectively (Mandasari & Wahyuddin, 2021).

Over the years, most of the level 2 ESL learners, especially remedial learners showed a decline in their English proficiency level. This declination can be seen through their School Based Assessment (SBA) results. The

declination is especially in their productive skills, which are Speaking and Writing skills because ESL learners need to master both vocabulary and grammar and use them to construct sentences accurately (Govindarajoo, et.al, 2022). The declination of their proficiency level was shown as a result of their poor command in grammar, especially adjectives. According to Chun & Sathappan (2018), adjectives are used in communication and it can be a problem for learners to communicate comprehensively if they lack understanding of adjectives. Lack of understanding in adjectives brings effect to the grammar acquisition. Malaysian students are usually facing difficulties in understanding and applying suitable grammatical components such as singulars, plurals, articles, adjectives, subject-verb agreements as well as tenses (Govindarajoo, Hui and Aziz, 2022) .

On the other hand, providing a digitalized learning platform is one of the current trends in education. digitalized game-based learning has emerged as a promising pedagogical strategy to engage students, promote active participation, and facilitate meaningful learning experiences (Idris & Said , 2020). Therefore, the primary objective of this study is to assess the effectiveness of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components. Three digitalized game-based learning platforms were used in this study which ranged from *Kahoot!*, *Quizizz* and *QuizWhizzer*.

This objective was helpful to evaluate the significance of using digitalized game-based learning platforms as a tool to aid the remedial ESL learners and support their language acquisition process. Besides, teachers' perception on the impact of digitalized game-based learning in fostering active and fun ESL learning experiences is one of the study aims. By integrating game elements into the ESL classroom environment, we aim to investigate whether digitalized game-based learning strategies can foster active participation, motivation, and enjoyment among ESL learners. This objective allowed the researcher to evaluate how game-based learning, incorporating the VARK approach, influences students' engagement, interest, and overall learning experience within the ESL classroom setting.

Addressing these research objectives provided valuable insights into the positive effects of incorporating digitalized game-based learning, specifically utilizing the VARK approach, on remedial ESL learners' understanding of adjective components and the promotion of active and fun learning experiences in ESL classrooms. The findings of this study set the foundation for further research of incorporating digitalized Game-Based Learning in learning adjectives.

This study plays a crucial role in its contributions to effective pedagogical practices for remedial ESL learners. Remedial learners should be given ample guidance and support during ESL lessons to enhance their retention rates and successfully grasp the language components being taught. (Johar & Yunus, 2022). By investigating the positive effects of digitalized game-based learning, specifically incorporating the VARK approach, on understanding adjective components, educators can gain valuable insights into instructional strategies that cater to the diverse learning needs of ESL students. Additionally, this study has implications for promoting active and enjoyable learning experiences within ESL classrooms, fostering student engagement and motivation.

Besides, this study also seeks to explore the positive effects of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components. The subsequent sections will delve into the theoretical framework, existing literature, methodology, results, and discussion, providing a comprehensive analysis of the study's findings and their implications for ESL education.

II. Literature Review

In recent years, there was a high tendency of interest in incorporating digitalized game-based learning as an effective instructional strategy to enhance learning outcomes in various educational contexts. This literature review explores the positive effects of incorporating *Kahoot!*, *Quizizz*, and *QuizWhizzer*, popular game-based learning platforms, in language learning settings, with a specific focus on their impact on remedial ESL learners.

2.2 Theoretical Framework

2.2.1 VARK Approach

The VARK approach which is the acronym of Visual, Auditory, Reading/Writing, and Kinesthetic learning style. Neil Flemings originally formulated this theory, commonly referred to as Fleming's Theory of Learning Style (1992) provides a theoretical framework that categorizes learners into four distinct styles, a) visual, b) auditory, c) reading/writing, and d) kinesthetic (Emami, Bazzocchi, & Hakima, 2020). According to this approach, learners have preferences in how they process and retain information, and tailoring instructional strategies to align with these preferences can enhance learning outcomes (Fleming, 2014). The VARK approach has been widely utilized in educational settings to promote personalized and adaptive instruction.



Figure 1. VARK Model

Figure 1 displays the VARK Model which is a popular model that categorizes different learning styles. VARK Model represent the four main learning styles through which learners prefer to receive and process information. The use of VAK ; Visual (V), Auditory (A) and Kinesthetic (K) learning theory is heavily emphasized as an effective learning style that can be implemented for the weak learners. In this theory, the visual learners prefer to study by using visuals and mind mapping. They illustrate their understanding through graphs, charts, demonstrations, and various visual learning tools. They discovered that utilizing sketches and other visual materials makes the learning process both engaging and less challenging.

In contrast, auditory learners show a greater interest in listening. They absorb information effectively through communication and lectures, storing knowledge by means of attentive listening, and are often articulate in their communication (Leasa, Corebima, Ibrohim, & Suwono, 2017). Another learning style is kinesthetic, where individuals are typically inclined towards hands-on methods for learning (Mukherjee, Das, De, & Mukhopadhyay, 2013). They are more captivated in learning practically and prefer hands-on activities rather than theorizing. The VARK model primarily consisted of four learning styles commonly used by students which are visual learning style, auditory learning style, and kinesthetic learning style. (Nurol Haida, Ro'be & Hidayah , 2016). This learning style will be a good way for the remedial pupils to learn and actively engage in the classroom activities to improve their learning. Dilmurodovich (2022) in his study revealed that combination of VAK learning styles helped the learners to improve their creativity and memorization of the content.

Anne and Sajnal (2019) stated that every individual has a dominant learning style and the learning processes could be fast and efficient when that individual is able to use multiple learning styles. Despite the advancement in educational technologies such as mobile assisted learning, smart gadgets, and various online learning platforms, the foundational learning style is still rooted on how learners absorb information. One of the fundamental learning style theories is the VAK learning style model, which is grounded in visual, auditory, and kinesthetic learning (Mohammad, Ramasamy & Palanimally. , 2021). It is crucial to address that certain individuals may have a dominant learning style, many individuals also exhibit a combination of learning preferences. The VARK model encourages educators to incorporate various teaching methods and techniques to

cater to the diverse learning styles within a classroom, facilitating a more inclusive and effective learning environment.

2.2.1 Overview of VARK Approach and Game-Based Learning

The VARK approach, proposed by Fleming and Mills (1992), categorizes learners into four distinct styles namely; 1) visual, 2) auditory, 3) reading/writing, and 4) kinesthetic. This approach recognizes that learners have varying preferences in how they process and retain information. The VARK approach provides educators with insights into tailoring instructional strategies that align with individual students' learning preferences (Fleming, 2014). Yulianto, Sa'adah & Indrayani (2021) claimed that teachers should be creative in using teaching tools to attract the learners to learn the lesson. This technique needs to be practiced especially in remedial learners' classes. By incorporating the VARK approach within digitalized game-based learning, it is possible to create personalized and adaptive learning experiences that meet the specific needs and expectations of remedial ESL learners. Radi & Rusli (2023) stated that the use of VARK enhances the learners' understanding. Different learning styles are favoured by students. Rouf & Othman (2022) ; Rasdi & Rusli (2023) revealed that use of VARK is a necessity in exploring the nature of a learners' learning style to facilitate the learning processes.

2.3 Previous Research on Digitalized Game-Based Learning in Malaysian ESL Contexts

Several studies have investigated the effects of digitalized game-based learning on language acquisition among ESL learners. For instance, Inthiran et.al (2022) mentioned that both teachers and learners gain advantage through digitalized game-based platforms which can be used anytime and anywhere without less barrier in exploring the language learning. Similarly, Thurairasu, V. (2022). revealed that there are various ways in which language learning can be incorporated into games, including utilizing role-playing games for improving communication skills or employing board games to strengthen grammar comprehension. Wei & Yunus (2023) revealed in their findings that digitalized Game-Based Learning of 'Gamifographics' have been well-received in terms of enhancing vocabulary acquisition. It contributes to increased learning motivation, active participation, and ultimately results in positive learning outcomes.

Chun & Sathappan (2023) mentioned that gamified learning could improve the competency among the learners in grammar acquisition. Communicative Approach, Task-based learning , Self-directed Learning are some of the approaches which can be utilized in incorporating game-based learning using *Kahoot!*, *Quizizz*, and *QuizWhizzer*.

2.3.1 Communicative Approach

Zhang & Hasim (2023) mentioned that Game-Based Learning invites a great communicative approach learning among the ESL learners. Game-based learning provides a communicative and interactive learning environment where learners actively engage with language components through meaningful tasks and real-life scenarios. This approach promotes the development of practical language skills and fosters language fluency.

2.3.2 Task-Based Learning

Gamification is one of the interactive platforms for students to learn autonomously and collaboratively with peers to complete the assigned tasks interestingly (Yaacob et.al , 2022). Game-based learning activities on these platforms often involve completing tasks, solving problems, and achieving specific objectives. These task-based activities promote authentic language use and provide opportunities for learners to apply their language knowledge in context.

2.3.3 Learner-Centred Instruction

Sinnivasagam & Hua (2023) stated that Game-based Learning promotes independent learning. digitalized game-based learning such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* allows educators to create self-directed learning activities that cater to individual learning styles, preferences, and needs. This learner-centric approach enhances engagement and ensures that remedial ESL learners receive personalized instruction.

2.4 Impact of Game-Based Learning on Understanding Adjective Components.

There were few studies conducted on the use of Game-Based Learning on understanding Adjectives; Pham (2023) , Segaran & Hashim (2022) , Munuyandi et.al (2021). Their findings revealed that learners who engaged in the game-based learning activities showed significant improvements in their understanding and application of adjectives. . Those studies also emphasized the motivational aspects of game-based learning, which fostered a positive learning environment and enhanced learners' engagement with adjective components. Understanding adjective components is essential for ESL learners as they develop their language proficiency. Previous studies have explored the impact of game-based learning on enhancing the understanding of adjective components among ESL language learners. The existing literature indicates that digitalized game-based learning, in conjunction with the VARK approach, holds promise for enhancing language acquisition and understanding of adjective components.

Although there were many recent literatures focusing on the use of digitalized game-based learning in ESL, there were limited recent studies conducted focusing on the remedial ESL learners. Remedial ESL learners often face challenges in language acquisition due to various factors such as limited vocabulary, grammar difficulties, and low confidence in using the language. Incorporating game-based learning using platforms like *Kahoot!*, *Quizizz*, and *QuizWhizzer* can have several positive effects on these learners. Hence, this study focuses on studying the effect of digitalized Game-Based Learning such as *Kahoot!*, *Quizizz* and *QuizWhizzer* to teach Adjectives components among the remedial learners.

2.5 Previous Research on the Effectiveness of Digitalized Game-Based Learning in Promoting Active and Fun Learning in ESL Classrooms

Several studies have highlighted the effectiveness of digitalized game-based learning in promoting active and fun learning experiences within ESL classrooms. Sinnivasagam & Hua (2023) revealed in their study that teachers have expressed a strong belief that *Kahoot!* is an incredibly effective tool for increasing the participation of passive students and fostering a sense of competition in the learning environment. According to these educators, *Kahoot!* offers several key advantages, including heightened student engagement, improved classroom dynamics, increased motivation, prompt feedback, and a sustained high energy level throughout the sessions. Yaacob et.al. (2022) revealed that the incorporation of digitalized game-based learning increases students' motivation, engagement, and enjoyment in the learning process. The study emphasized the interactive and immersive nature of game-based learning, which encouraged active participation and collaborative problem-solving among students.

Similarly, Tan et.al (2022) explored the effects of a digitalized game-based learning on the engagement and motivation of ESL learners. Their findings demonstrated that game-based learning strategies positively influenced students' motivation, increased their participation in classroom activities, and facilitated a positive learning atmosphere. The study highlighted the enjoyable and interactive aspects of game-based learning, which contributed to students' sustained engagement and enthusiasm for learning.

Idris, Said & Tan (2020) mentioned that gamified learning is one of the powerful approaches to engage learners and promote active participation in the learning process. These platforms offer interactive and gamified features that facilitate the acquisition of knowledge and skills through gameplay. *Kahoot!*, *Quizizz*, and *QuizWhizzer* are prominent examples of game-based learning platforms widely used in educational settings.

III. Methodology

3.1 Research Design

This study utilized quasi-experimental research design to assess the effectiveness of incorporating digitalized game-based learning based on the VARK approach, on remedial ESL learners' understanding of adjective components. Andiappan et.al (2022) proposed that quasi-experimental study used to investigate the significant effect before and after an invention. The study consisted of a pre-test and post-test design with a single group of samples. The intervention phase involved the implementation of digitalized game-based learning activities, and data collected through pre-test and post-test assessments. Three game-based learning platforms

such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* were the game-based learning platforms utilized for the samples in learning adjectives.

Due to the nature of the study and the limited sample size, a control group was not included. All samples were exposed to the same intervention, eliminating the need for random assignment or group comparisons. The focus of this study is to assess the effectiveness of the intervention within the group of remedial ESL learners.

3.2 Sample

The sample for this study consists of 16 remedial ESL learners selected by using convenience sampling. Convenience sampling method is the most suitable sampling method as the researcher focused on the targeted sample only (Etikan, 2016). Given the practical constraints of the study, such as time limitations and the specific ESL classroom setting, convenience sampling is an appropriate method to recruit samples efficiently. The samples were from a rural primary school from Tangkak, Johor. The samples were chosen based on their School Based Assessment (SBA) results. The results displayed the lower acquisition level in English, as determined by their language proficiency test scores and teacher recommendations. The age range of the samples were between 10-12 years, representing a diverse mix of backgrounds and English language proficiency levels. There were 6 males and 10 females learners involved as the study samples.

In addition, samples who do not meet the inclusion criteria or who do not provide informed consent (or whose parents/guardians do not provide consent) were excluded from the study.

3.3 Research Instrument

3.3.1 Type of Research Instrument

Each pre-test and post-test comprised 10 self-made multiple choice questions testing primarily on adjectives components. 20 minutes time allocation was provided to each student. The tests were conducted before and after the intervention of using digitalized game-based learning platforms. 10 points were given for each question item. The total scores of the pre-test and post-test were derived into percentages. The objectives of these tests were an assessment tool for the researcher to evaluate the remedial learners' adjectives mastery before and after using digitalized game-based learning such as '*Kahoot!*', '*Quizizz*' and '*QuizWhizzer*'. Apart from that, the survey was used to get the feedback from the remedial ESL teachers. A set of self-made questionnaire items for an online survey was developed by the researcher. There were five closed-ended statements, each providing options such as 'Strongly Agree,' 'Agree,' 'Not sure,' 'Disagree,' and 'Strongly Disagree' were included in the online survey form 'Google Form'. This survey helped the researcher to explore the view and feedback from the ESL remedial teachers on the practicability of the digitalized game-based learning in teaching adjectives effectively.

3.3.2 Validity and Reliability

In order to ensure the validity and reliability of the study, several measures were implemented. The pre-test and post-test instruments were developed attentively based on established measures and previous research to accurately evaluate the samples' understanding of adjective components accurately. Validation is a compulsory process where the potential experts can give suggestions and feedback to improve (Ying, Mohammad & Nasir, 2022). The test instruments were validated with the experts such as District JUs and SISC+ officer from District Education Office. The purpose of validation processes carried out was to ensure clarity, appropriateness, and reliability. Besides, the survey was developed by the researcher and validated by two English Head of Panels respectively from Johor. 5 teachers who teach ESL remedial classes were chosen to answer the survey questions. Validation and reliability are a vital aspect in determining the relevance and suitability of the research instruments to be administered towards the respondents.

3.3.3 Ethical Considerations

This study adhered to ethical guidelines to protect the rights and well-being of the samples. Informed consent obtained from the samples and their parents or guardians, clearly explaining the purpose, procedures, and potential risks and benefits of the study. samples had the right to withdraw from the study at any point without penalty. The study ensured the privacy and confidentiality of the samples by using pseudonyms or codes in data collection and reporting.

By employing a quasi-experimental design, this study aims to gather comprehensive evidence on the effects of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components.

3.4 Data Collection Method

Pre-test and post-tests are an effective method in evaluating an effectiveness of the invention (Chun and Sathappan, 2022). The pre-test was administered prior to the intervention phase to establish samples' baseline understanding of adjective components. The pre-test consisted of a set of questions or exercises that assess samples' knowledge and application of adjective components in English language usage. The similar test was administered as a post-test after the completion of the intervention to evaluate samples' progress and measure the effectiveness of the intervention. Apart from that, an online survey was conducted towards 5 in-service ESL teachers to seek their perceptions towards the use of digitalized game-based learning in enhancing adjectives mastery among remedial ESL learners. Survey is an effective method to get the respondents feedback (Davi and Hashim, 2022). Likert-scale questions for the survey were used to get the feedback from the ESL teachers.

3.5 Data Analysis Procedure

Quantitative data from the pre-test and post-test was analyzed using descriptive statistical techniques. The scores obtained in pre-test and post-test were used to compare samples' pre-test and post-test scores and determine the significance of improvements in their understanding of adjective components. On the other hand, the survey which consisted of 5 questionnaire items was analyzed by using Likert Scale. The five options of 'Strongly Agree', 'Agree', 'Not sure', 'Disagree' and 'Strongly Disagree' options for the five close-ended statements were analyzed by calculating the frequency and percentages to be tabulated into a table.

IV. Results & Discussion

4.1 The Impact of Digitalized Game-Based Learning on the enhancement of adjectives mastery among remedial ESL learners.

The impact of using digitalized game-based learning such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* among the remedial ESL learners were evaluated by using these two test scores. These tests were conducted with the purpose of evaluating their understanding on the use of adjectives, especially Comparative Adjectives and Superlative Adjectives by integrating VARK approach through digitalized game-based learning. The pre-test was carried out before the use of digitalized game-based learning platforms meanwhile the post-test was carried out after the integrating digitalized game-based learning.

Table 1. The Percentage of Score of Pre-Test and Post-Test

Sample	Pre-Test Score (%)	Post-Test Score (%)	Score Improvement (%)
1	10	70	60
2	50	100	50
3	30	80	50
4	20	80	60
5	40	90	50

6	30	90	60
7	10	60	50
8	10	80	70
9	40	90	90
10	0	50	50
11	30	80	50
12	60	100	40
13	20	90	70
14	0	50	50
15	50	100	50
16	20	80	60

Table 1 depicts the scores obtained by the samples in their pre-test and post-test. The pre-test scores range from 0% to 50%, indicating varying levels of initial understanding of adjective components among the samples. This shows that the remedial learners had difficulty to display their understanding of adjectives learning. In contrast, the post-test scores range from 50% to 100%, demonstrating improvements in samples' understanding of adjective components after the intervention.

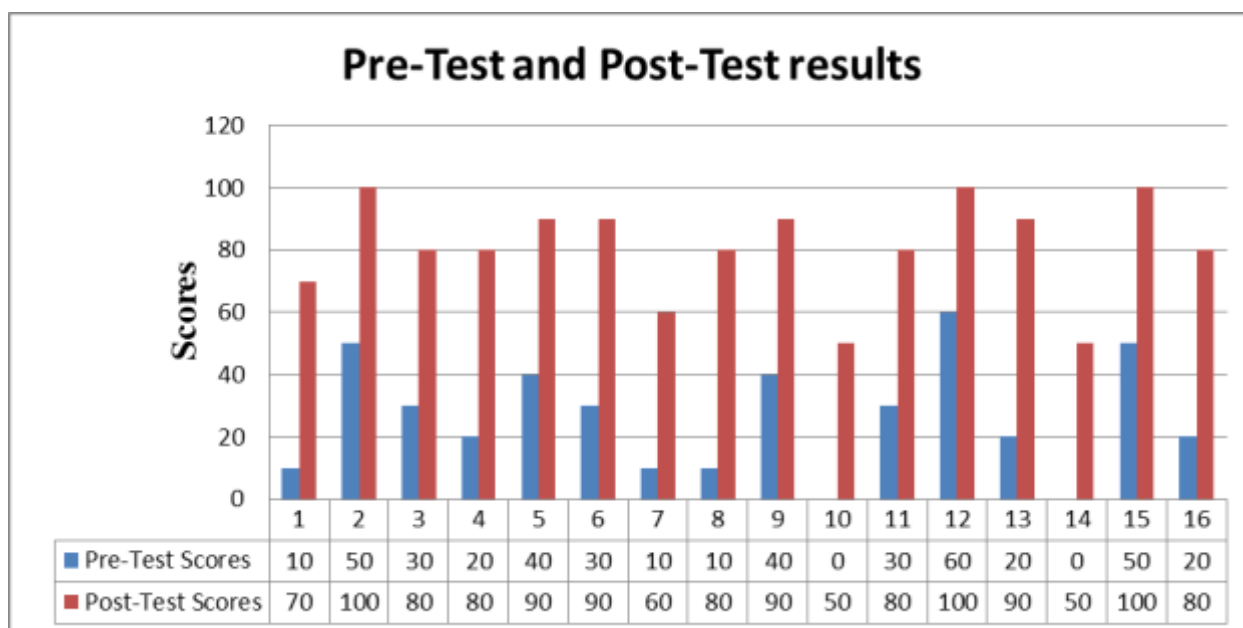


Figure 2. The Analysis of Pre-Test and Post-Test Scores

The tabulated data displays at Table 1 were derived into the statistical analysis in the form of clustered bar graph to compare both pre-test and post-test scores as shown in Figure 2. The pre-test scores range from 0% to 50%, indicating varying levels of initial understanding of adjective components among the samples. This shows that the remedial learners had difficulty to display their understanding of adjectives learning. In contrast, the post-test scores range from 50% to 100%, demonstrating improvements in samples' understanding of adjective components after the intervention.

Based on the provided pre-test and post-test results, it was evident that samples generally exhibited improvement in their understanding of adjective components after the intervention. The post-test scores demonstrate higher performance compared to the pre-test scores for most samples. For example, Sample 1 scored 10% on the pre-test but improved to 70% on the post-test which showed drastic improvement of 60%. Sample 10 showed no initial understanding with a pre-test of no scoring, but achieved a score of 50% on the

post-test. These individual improvements are indicative of the positive effects of the digitalized game-based learning intervention.

The findings of this study reveal the effects of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components. The analysis of pre-test and post-test scores indicates a noticeable improvement in samples' performance after the intervention. Upon analyzing the percentage improvement in scores, it was proven that samples made significant progress. The percentage improvement was calculated by comparing the post-test score with the pre-test score and expressing the difference as a percentage of the pre-test score. The average percentage improvement across the sample was more than 50% This indicates a substantial enhancement in samples' understanding of adjective components as a result of the intervention.

4.2 ESL Teachers Perceptions of using Digitalized Game-Based Learning in Teaching Adjectives

The ESL teachers' perceptions of using digitalized game-based learning such as 'Kahoot!', 'Quizizz' and 'QuizWhizzer' were evaluated by using an online survey consisted of 5 questionnaire items. The survey was done after the completion of several sessions of the teachers using the digitalized game-based learning in their ESL lesson especially towards their remedial learners.

Table 2. The Teachers' Survey Results

Number	Questionnaire Items	Strongly Agree (% / f)	Agree (% / f)	Not Sure (% / f)	Disagree (% / f)	Strongly Disagree (% / f)
1	<i>My learners displayed active participation when learning adjectives by using digitalized game-based learning (Kahoot!, Quizizz, and QuizWhizzer)</i>	(80%) 4	(20%) 1	-	-	-
2	<i>Digitalized game-based promotes fun learning experiences for the ESL remedial learners.</i>	(100%) 5	-	-	-	-
3	<i>This digitalized game-based learning helped my ESL remedial learners to understand better on the use of adjectives.</i>	(100%) 5	-	-	-	-
4	<i>Digitalized game-based learning is relevant and suitable to my ESL remedial learners.</i>	(100%) 5	-	-	-	-
5	<i>I would like to use this digitalized game-based learning platforms often in my ESL lessons.</i>	(80%) 4	(20%) 1	-	-	-

Table 2 depicts the results of the ESL teachers' perception on using the digitalized game-based learning towards the remedial learners in teaching adjectives. According to the table, it can be clearly seen that the teachers have positively responded to the digitalized game-based learning. This can be seen in the results where 80% of

teachers have strongly agreed that their remedial learners displayed active participation in ESL lessons. As for the second, third statement and fourth statement, all the teachers have strongly agreed where *Kahoot!*, *Quizizz* and *Quiz Whizzer* game-based learning enhanced fun learning elements in ESL teaching. Besides, the use of the digitalized game-based learning helped the remedial learners to grasp the adjectives components easier as there are attractive visuals and sounds. The incorporation of VARK learning styles improved the learners' understanding significantly on the adjectives components. Besides, the use of digitalized game-based learning is really suitable and relevant towards the ESL remedial learners in teaching grammar such as adjectives. The incorporation of VARK in teaching the remedial learners is vital as it is more of a hands-on activity. Finally, 80% of the teachers have strongly accepted the use of digitalized game-based learning platforms to be utilized in their ESL teaching and learning processes.

The findings clearly revealed that the utilization of digitalized game-based learning is positively accepted by both learners and teachers in the context of teaching adjectives. It showed a drastic improvement among the remedial Level 2 learners to understand better on the grammar component of adjectives. Teachers were required to be creative in attracting pupils to learn and get involved actively in the learning process (Lukas & Yunus, 2021). Teaching readiness in using various appealing teaching techniques which can invite the pupils' involvement effectively is crucial for an ESL teacher. Through the survey, it is revealed that all of the survey respondents agreed on the use of the digitalized game-based learning in enhancing the learners' understanding on adjectives efficiently. All the 5 respondents showed positive perception of using those digitalized game-based learning platforms to promote fun learning environment besides enhancing active participations from the remedial lessons. The incorporations of VARK played a major impact on the remedial learners to comprehend the adjectives components effectively.

4.3 Discussion

The purpose of this study was to examine the positive effects of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components. Besides, this study aims to explore the use of popular game-based learning platforms such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* as instructional tools to promote active and enjoyable learning experiences in ESL classrooms. Segaran & Hashim (2022) stated the relevance of using digitalized game-based learning to improve the competency of the learners.

The results also suggest that incorporating digitalized game-based learning focusing on the VARK approach has positively impacted remedial ESL learners' understanding of adjective components. The drilling method in game-based learning enables the remedial learners to explore the language components effectively (Johar & Yunus, 2022). The interactive and engaging nature of game-based learning appears to enhance samples' comprehension and application of adjective components, leading to improved performance.

According to Saragih, Riyadi and Kariadi (2022), learners learn best when there are pictures, sounds and action. The findings of this study emphasized the efficacy of digitalized game-based learning, utilizing the VARK approach, as an effective instructional method to enhance remedial ESL learners' understanding of adjective components. The engaging and interactive nature of game-based learning provides a promising avenue for promoting active and enjoyable learning experiences in ESL classrooms.

Besides, the findings of this study indicated promising outcomes in enhancing remedial ESL learners' understanding of adjective components through the incorporation of digitalized game-based learning activities. Yacob et. al (2022) supported that digitalized Game-Based Learning is the helpful tool for the learners to comprehend certain grammar components easily. The score analysis of Pre-Test and post-test scores revealed a drastic improvement among the samples' performance after engaging in game-based learning interventions in learning Adjectives. This improvement suggests that the interactive and engaging nature of these platforms positively influenced samples' comprehension and application of adjective components effectively.

One of the key advantages of incorporating digitalized game-based learning was the active participation it elicits from learners. Platforms such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* provide opportunities for learners to be

actively involved and interact with the learning content, respond to questions, and receive immediate feedback on their performance. Munuyandi et.al (2021) proved that digitalized Game-Based Learning promotes active participation and collaborations among the learners. . This active involvement fosters a dynamic learning environment that encourages remedial ESL learners to actively process and apply their knowledge of adjective components.

Moreover, the game-based learning activities implemented in this study created a sense of fun and enjoyment among the samples. By incorporating elements of competition, gamification, and interactivity, platforms like *Kahoot!*, *Quizizz*, and *QuizWhizzer* made the learning process more enjoyable and engaging. This positive emotional experience can enhance learners' motivation and willingness to actively participate in language learning activities.

The VARK approach, which focuses on accommodating different learning styles which consisted of Visual, Auditory, Reading/Writing, and Kinesthetic enhanced the effectiveness of the game-based learning interventions. These platforms allowed for the integration of various multimedia elements, including visual stimuli, audio prompts, textual information, and interactive features. Tan et.al (2022) supported that interactive game-based learning showed significant improvement in motivation among the learners. This multimodal approach catered to the diverse learning preferences of remedial ESL learners, enabling them to engage with the adjective components through their preferred modes of learning.

Continuous learning processes needed for an individual to be a proficient language user and to improve remedial learners retention. (Karami & Bowled , 2019) Studies have shown that game-based learning interventions promote active learning, enhance motivation, improve knowledge retention, and foster collaborative learning among learners. The incorporation of game-based learning platforms like *Kahoot!*, *Quizizz*, and *QuizWhizzer* builds on this existing body of research and demonstrates their potential for enhancing remedial ESL learners' understanding of adjective components.

This study highlighted the positive effects of incorporating digitalized game-based learning, particularly utilizing platforms like *Kahoot!*, *Quizizz*, and *QuizWhizzer*, on remedial ESL learners' understanding of adjective components. Idris, Said & Tan (2020) mentioned that gamified learning such as *Kahoot!* serves as a powerful tool to invite active engagement among the learners in ESL classrooms. The active and enjoyable learning experiences facilitated by these platforms, along with the alignment with the VARK approach, contributed to significant improvements in samples' performance besides enhancing their engagement and motivation, increased language practice, improved retention and recall, collaborative learning opportunities and self learning experience: *Kahoot!*, *Quizizz*, and *QuizWhizzer* offer customization options, enabling educators to align learning activities to the specific needs and proficiency levels of remedial ESL learners. This individualization ensures that learners receive targeted instruction and appropriate challenges, leading to more effective language acquisition.

V. Conclusion

This study focused on assessing the effectiveness of incorporating digitalized game-based learning, utilizing the VARK approach, on remedial ESL learners' understanding of adjective components. Besides, exploring the impact of digitalized game-based learning strategies on promoting active and fun learning experiences in ESL classrooms was another study scope. This study proved that the use of Game-Based Learning beneficial for Level 2 remedial learners where this hands-on learning model incorporated VARK learning styles helped them to understand the adjectives components better. . Incorporating digitalized game-based learning, utilizing the VARK approach, demonstrated positive effects on remedial ESL learners' understanding of adjective components. The study explored the use of popular game-based learning platforms such as *Kahoot!*, *Quizizz*, and *QuizWhizzer* as instructional tools in ESL classrooms. The findings of this study indicated that the digitalized game-based learning interventions enhanced their understanding on the use of Adjectives effectively.

The use of game-based learning platforms like *Kahoot!*, *Quizizz*, and *QuizWhizzer* promote active learning by engaging learners in interactive activities. Learners had the opportunity to actively participate, respond to questions, and receive immediate feedback on their performance. This active involvement fostered a dynamic learning environment that encouraged remedial ESL learners to actively process and apply their knowledge of adjective components.

Furthermore, the incorporation of game-based learning activities could create a sense of fun and enjoyment among the samples. The elements of competition, gamification, and interactivity made the learning process more engaging and motivating. This positive emotional experience contributed to learners' increased motivation and willingness to actively participate in the language learning activities. The VARK approach, which integrated in the digitalized game-based learning platforms provides opportunities for the ESL learners to enhance their understanding. Learners were able to engage with the adjective components through their preferred modes of learning, such as visual stimuli, audio prompts, textual information, and interactive features. This multimodal approach catered to the diverse learning preferences of remedial ESL learners, contributing to their improved understanding of adjective components.

In contrast, there were few limitations discovered in this study. The limited sample size and absence of a control group constrain the generalizability of the findings. Moreover, the study focused specifically on the understanding of adjective components, and the results may not directly extend to other language learning aspects or different learner populations. Future research should consider expanding the scope of investigation to explore the long-term effects of digitalized game-based learning interventions on ESL learners' overall language acquisition and proficiency. Comparative studies with control groups and more rigorous research designs would provide stronger evidence for the effectiveness of game-based learning in ESL contexts.

In conclusion, this study provides valuable insights into the positive effects of incorporating digitalized game-based learning platforms especially *Kahoot!*, *Quizizz*, and *QuizWhizzer*, on remedial ESL learners' understanding of adjective components. The active and enjoyable learning experiences facilitated by these platforms, along with the alignment with the VARK approach, contributed to significant improvements in samples' performance. These findings offer implications for educators and instructional designers seeking innovative approaches to enhance language learning outcomes in ESL classrooms.

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