International Journal on E-Learning Practices
Volume 8, December 2025

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About the Journal

The International Journal on E-Learning Practices (IJELP) (ISSN 2289-4926 / eISSN 2600-7886) is an international peer-reviewed journal. It is also the latest flagship journal of Universiti Malaysia Sabah (UMS). IJELP is the 12th journal of UMS since its establishment on 24 November 1994. IJELP is published once a year. IJELP is published in English and it is open to all local and international authors.

Aims and Scope

IJELP is an online open access journal aimed at disseminating and sharing of e-learning practices to worldwide audience. IJELP accepts manuscripts in the area and sub-area of e-learning such as teaching and learning with technology, mobile learning, e-learning technology and innovation, multimedia-based learning, Computer-Assisted Language Learning (CALL), best practices in e-learning using social networking, PLE, management, assessment, administration and leadership. The journal is currently indexed by MyJournal and plans to be submitted for indexing in MyCite and SCOPUS (Elsevier) after the publication of ten issues.

Editorial Board

EDITORIAL PREFACE

Welcome to Volume 8, 2025, of the International Journal of e-Learning Practices (IJELP). Published by Universiti Malaysia Sabah (UMS), Malaysia, IJELP is an open-access journal dedicated to advancing knowledge in e-learning and educational technology. Our mission is to provide a platform for sharing innovative practices in e-learning, including technology-enhanced learning, blended and mobile learning, Computer-Assisted Language Learning (CALL), digital storytelling, and the role of artificial intelligence in education.

This volume showcases focused research on the impact of ICT tools and e-learning methodologies within ESL education, primarily at the secondary level. The central theme is the evaluation of how diverse digital platforms, from educational apps to social media, influence both core language skills and student engagement. Researchers specifically target the enhancement of speaking proficiency through the use of TikTok videos, Digital Storytelling, and addressing language anxiety with Pop Media and CLT. Other skill-focused studies explore Podcasts for listening, Quizizz for reading, and Canva/YouTube for writing motivation and ability.

A second critical theme is the integration of cutting-edge pedagogical trends, including the use of Gamification to significantly boost motivation and class participation. Forward-looking papers address Mobile-Assisted Language Learning (MALL), notably assessing student perspectives on using ChatGPT for grammar and vocabulary acquisition. Complementing these classroom-focused investigations, one study delves into advanced Educational Data Science, applying Predictive Learning Analytics and Machine Learning to classify student performance in e-learning environments, demonstrating the volume's scope from practical application to sophisticated data analysis.

We are grateful to our dedicated reviewers and editors for their invaluable contributions in maintaining the quality of this publication. While this volume primarily features work from UMS students, we warmly invite submissions from external researchers and practitioners for future volumes. We encourage readers to share IJELP with colleagues, students, and fellow researchers, and we hope this volume offers fresh insights and inspiration in the field of e-learning

Sincerely,
Volume 8, 2025
Editor-in-Chief
Dr. Noraini Said

International Journal on E-Learning Practices
Volume 8, Dec 2025

Contents

EXPLORING STUDENTS' PERCEPTIONS OF THE USEFULNESS AND EASE OF USE OF QUIZIZZ IN ENHANCING ENGLISH READING SKILLS

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ABSTRACT

This study examines students' perceptions of the usefulness and ease of use of Quizizz in enhancing English reading skills among Form 1 learners in a secondary school in Kota Kinabalu. Building on the Technology Acceptance Model (TAM), this study examines how usability affects perceived usefulness in a gamified learning environment. Using a mixed-methods design, data were collected from 45 students through a survey analysed using descriptive statistics in SPSS, and from eight students through a focus group discussion subjected to thematic analysis. Survey results indicate that students largely view Quizizz as both useful and easy to use (M = 4.60), receiving the highest rating. Qualitative findings further highlight the interactive and game-like features of Quizizz that increase engagement. However, issues of accessibility, such as limited internet or device availability, pose challenges for some learners. Despite these limitations, the study reinforces the potential of gamified platforms like Quizizz to support reading development by linking usability with learning benefits. Implications for instructional practice and curriculum design are discussed, with recommendations for broader implementation and further research involving more diverse student groups.

Keywords: *Quizizz, Reading Skills, Learning Platform, Perceptions*

INTRODUCTION

Reading is the process of making sense of written words and pictures (Gedik & Akyol, 2022). Therefore, students need to develop and have good reading skills because this skill is very important in English learning. This is because, nowadays, in today's globalized world, it is undoubtedly essential for students to possess good reading skills. Students need to develop their reading abilities since these skills help them comprehend what they read (Kaya, 2015). Reading is a very important skill, and having good and strong reading skills can benefit and impact their trajectory in life. Nowadays, there are numerous strategies planned and implemented in order to improve and enhance students' reading skills. This is because, as English reading skills are fundamental to academic success and communication in a globalized world, it is crucial to explore innovative methods to enhance these skills among students (Laličić & Dubravac, 2021).

In the context of teaching and learning English, the learning environment in the classroom, which is interesting and full of enjoyment, is very essential. Since the current generation is a generation that is already used to having gadgets and playing games, so, the use of interactive learning platforms as well as game-based learning is very suitable to be applied in teaching and learning English especially English skills such as reading. According to Ronimus et al. (2014),

when learners are introduced to game-based learning through game activities, their attention and curiosity are often piqued. Therefore, it is important to use an interactive and fun learning platform. One of the famous learning platforms is Quizizz, an online platform that can be used in the teaching and learning process. It is very famous because it can facilitate the creation and the use of quizzes as well as fun exercises in the classroom. Through that, it can make students feel like they are in an amusing and enjoyable learning environment and become interested in learning. Therefore, this study aims to address two research questions.

1. How do students perceive the usefulness of Quizizz in enhancing their English reading skills?
2. What are the students' perceptions of the ease of use of Quizizz as a digital learning tool for English reading activities?

LITERATURE REVIEW

The Use of Learning Platform and Quizizz in Teaching and Learning

Learning platforms have become essential in modern education, offering flexible, accessible, and engaging learning experiences (Bajaj, 2024). Tools such as Kahoot and Quizizz support various instructional strategies, from direct instruction to problem-solving tasks, and have been shown to enhance student engagement, knowledge, and skills especially in online or distance learning environments (Gameil & Al-Abdullatif, 2023). Studies also show that the type and quality of resources accessed on these platforms are closely linked to student performance, with effective interaction and connection among learners contributing to better outcomes (Rakic et al., 2020). In ESL contexts, Quizizz is particularly effective due to its game-based features, which make learning more enjoyable and easier to understand for students, especially young learners (Ningsih, 2023). Game-based learning has been found to significantly boost motivation and engagement compared to traditional activities (Nadeem et al., 2023). Research worldwide has consistently shown positive effects of Quizizz on students' perceptions, enthusiasm, and achievement in language learning (Gameil & Al-Abdullatif, 2023). Its ability to turn quizzes into interactive, competitive games helps sustain interest—an important factor in supporting continuous development of English language skills

Nowadays, learning platforms have become an essential component of modern and contemporary learning processes as a result of technological improvements. A study by Bajaj (2024) on the role of digital learning platforms in enhancing student engagement found that digital learning platforms have made education more accessible and flexible, allowing students to learn anytime and anywhere. There are many popular online game-based learning resources or online learning platforms that can be included in teaching and learning sessions, regardless of educational background (Wijayanti & Prasadja, 2022). Kahoot and Quizizz are some of these platforms that have features aimed at helping students and educators in their teaching and learning processes. Learning platforms work well for different instructional strategies, such as direct instruction that involves giving lectures, to strategies that engage students in problem-solving activities, making education more flexible and accommodating to the individual differences among the learners. According to Gameil and Al-Abdullatif (2023), many studies have nevertheless revealed the advantages of teaching using learning platforms, especially in distant learning environments, for increasing student learning engagement as well as improving their knowledge and skills.

The Usefulness and Ease of Use of Quizizz in ESL Classroom

As technology becomes more and more common to be incorporated in schools, digital learning tools like Quizizz are becoming more popular in ESL classrooms because they help keep students interested and motivated. The interactive features of Quizizz make Quizizz popular, not only because it is interactive and game-based, but also because it has a user-friendly and easy-to-use interface, so that both students and educators alike would likely want to use it (Margallo et al., 2023)

Research by Hasibuan et al. (2025) on the effect of using the Quizizz application as an English learning exercise in vocabulary mastery revealed that when students were encouraged and enthusiastically participated in using this learning platform, their vocabulary mastery increased. The features of Quizizz elements, such as quizzes with immediate feedback and attractive gamification elements (collected points and leaderboards) made lesson reviewing more attractive and less stressful for the students. This favourable response indicates the perceived value of the platform for supporting language skill (vocabulary, grammar, general knowledge) development in ESL learning (Alakrash et al., 2022).

Furthermore, it has been demonstrated that the perceived usefulness and ease of use effect also have a great impact on students' motivation and retention. A study by Lim and Yunus (2021) on teachers' perception towards the use of Quizizz in the teaching and learning of English, A systematic review found that teachers also perceive Quizizz as a useful and feasible tool in the ESL classroom as it encourages an active way of learning with little training required for both educators and students. However, they reported occasional connectivity problems that were a potential barrier for equitable internet access in some settings.

Challenges in Using Quizizz Learning Platform in ESL Classrooms

In a research study done by Nova et al., (2023), on assessing the potential difficulties in employing Quizizz as a form of formative e-assessment in English for Tour Operations class, it was established that the majority of the students who participated in the study had some difficulties using Quizizz during the e-assessment process. Among them are the technical issues and internet connection. In addition, some of the most frequently reported issues include account issues and other troubles that may come in the way because of technicalities and internet connection (Dili et al., 2021). Such constraints hinder learning processes, thus forming an inconvenience to the learners, as well as time time-consuming. This can become a challenge when students need to join the learning platform, as well as hinder them from taking the Quizizz tests, and lessen the likelihood of tasks being accomplished and submitted on time. Such technical difficulties can be causes of stress and dissatisfaction that prevent the students from demonstrating their knowledge and skills to the extent desired.
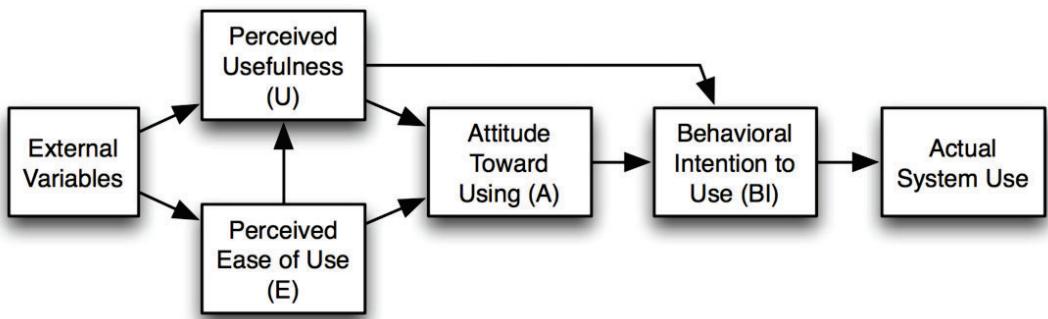
Figure 1: Technology Acceptance Model (Davis, 1986)

The Technology Acceptance Model (TAM) is one of the extensive models regarding how individuals accept technologies and can efficiently utilize them (Kalayou et al., 2020). TAM is a very famous model that was developed by Fred Davis in 1986, and it provides a good platform to comprehend the acceptance of technology. This model emphasizes two significant perceived constructs, that is Perceived Usefulness (PU), which refers to a person's perception of how the utilization of a certain system will improve on someone's performance in executing a task (Tahar et al., 2020). Perceived Ease of Use (PEOU), on the other hand, entails the degree to which someone feels technology can enhance their competence and be beneficial for them. This is crucial because if people view technology as a helpful tool for them, they will likely keep using the platform.

Perceived usefulness, on the other hand, refers to the extent to which a person considers a particular system to be useful in attaining their professional goals (Chahal & Rani, 2022). If a technology is perceived as easy to use, then it is more likely that individuals will adopt it. In other words, an individual's intentions to use a certain technology grow in proportion to the degree to which they consider the technology to be easy to use.

METHODOLOGY

This study uses a mixed-methods research technique and was conducted at a secondary school in Kota Kinabalu with a total of 45 Form 1 students for the survey and 8 students for the focus group discussions. The study collects data through a survey and a focus group discussion. The survey adapted from the Technology Acceptance Model (TAM) developed by Davis (1989) and contains three sections where Section A discusses demographics such as age, gender, and educational background, Section B focuses on the Perceived Usefulness of Quizizz, which investigates students' perceptions of how Quizizz improves their English reading skills, and Section C investigates the Perceived Ease of Use of Quizizz, which investigates how easy students find Quizizz as a digital learning tool for English reading activities.

The survey consists of 12 closed-ended questions, including multiple-choice and Likert scale items, and the survey URL was sent via the English class Telegram group to provide simple access for all participants. Upon the completion of the survey, a focus group discussion was conducted when the researcher and the selected 8 students were available. It was done at "Quiet Zone" within the school premise to ensure a comfortable and noise-free environment.

Content validity and reliability measures were used to ensure that the survey instrument was valid. The items were in line with the research goal and were checked by the researcher's

mentor, who is also a senior content expert. Table 1 presents the Cronbach's alpha values for the 2 main constructs, which lend credence to the survey reliability. Data triangulation using both quantitative (survey) and qualitative (focus groups) methods enhanced the study's insights, though the small sample size.

Table 1: Reliability of Instruments

Construct	Number of Items	Cronbach's Alpha
Perceived Usefulness	6	0.710
Perceived Ease of Use	6	0.804

Data collected from the survey were analysed by using the Statistical Package for Social Science (SPSS) version 20, and were analyzed using descriptive statistics, including percentage, frequency, mean, and standard deviation, to provide an overview of the responses. For the focus group discussions, thematic analysis was applied to identify key themes related to students' perceptions of Quizizz and its impact on their English learning experience.

Table 2: Interpretation of Mean Score

Mean Value	Agreement Level
4.21 – 5.00	Strongly Agree
3.41 – 4.20	Agree
2.61 – 3.40	Uncertain
1.81 – 2.60	Disagree
0.00 – 1.80	Strongly Disagree

Source: Cho and Teo (2013)

Table 2 shows the mean score interpretation used to categorize the level of agreement among the students. This interpretation is applied in the descriptive analysis of the survey data.

FINDINGS & DISCUSSION

Participants Demographic Information

Age, Gender, Participants' English Reading proficiency, and Frequency of Quizizz Usage Among Participants are the considered demographic variables of the study. Table 3 shows the demographic information of the participants who are involved with the survey for the study. The study included 45 Form 1 students from SMJK Shan Tao. All 45 participants are 13 years old (100%). The gender distribution shows that 24 participants (53.3%) are male, and 21 participants (46.7%) are female.

Table 3: Participants' demographic characteristics

Demographic Variable	Frequency	Percentage
Age		
13 Years Old	45	100%
Gender		
Male	24	53.3%
Female	21	46.7%

Table 4: Participants' English Reading proficiency

English Reading Proficiency	Frequency	Percentage
Very Confident	5	11.1
Somewhat Confident	10	22.2
Neutral	16	35.6
Somewhat Struggling	8	17.8
Struggling	6	13.3

Table 4 presents the results for the self-assessment of English reading skills given by the participants. The greatest number of students, 35.6%, considered themselves "Neutral" in English reading skills. This was followed by "Somewhat Confident" at 22.2% and "Somewhat Struggling" at 17.8%. Even smaller proportions reported being "Struggling" (13.3%) and "Very Confident" (11.1%) with English reading skills.

Table 5: Frequency of Quizizz Usage Among Participants

Question	Frequency	Percentage
Have you ever used Quizizz before?		
Yes	45	100%
No	0	0%
If yes, how often do you use Quizizz?		
Daily	0	0%
Weekly	7	15.6%
Occasionally	38	84.4%
Rarely	0	0%

Based on the data shown in Table 5, all 45 study participants have used Quizizz at least once. Quizizz has been accessed by all participants (100%). When asked how often they use Quizizz, 7 students (15.6%) reported they use it once a week, while 38 students (84.4%) reported that they use it sometimes. There were no participants who claimed to use it daily or rarely. This table offers an overview regarding the quiz usage distribution among the participating students. The data reflect that most students used the application occasionally rather than on a daily or weekly basis.

How do students perceive the usefulness of Quizizz in enhancing their English reading skills?

Based on Table 6, students considered Quizizz to be extremely effective in improving their English reading skills. More students strongly agreed with the statement that Quizizz enabled them to understand reading texts better (M = 4.36, SD = .609), prepared them for tests (M = 4.58, SD = .583), and helped them learn new vocabulary and reading strategies (M = 4.33, SD = .739). The timer and scoring in Quizizz might have helped them a lot in focusing on reading (M = 4.42, SD = .583), which reinforced their learning endeavours. Students also strongly agreed that they learned more using Quizizz than through traditional methods (M = 4.60, SD = .495), indicating that a notable number of students regarded the platform as academically beneficial. Although the majority of students found that Quizizz gives them feedback and results that could be beneficial form them (M = 4.16, SD = .928), the higher standard deviation suggests that a sizeable portion

of the students could be feeling anxious or distracted because of these features. But overall, the data as a whole still supports the claim that Quizizz is a useful digital tool in improving English reading skills.

Table 6: Perceived usefulness of Quizizz in enhancing English reading skills.

Items	Mean	Std. Deviation	Agreement Level
7. Quizizz helps me understand English reading texts better.	4.36	.609	Agree
8. I learn new English words or reading strategies through Quizizz.	4.33	.739	Agree
9. Quizizz helps me prepare for English reading tests.	4.58	.583	Strongly Agree
10. Quizizz gives me feedback or results that help me improve.	4.16	.928	Agree
11. The timer and scoring in Quizizz help me focus on answering.	4.42	.583	Strongly Agree
12. I learn more when I use Quizizz compared to traditional methods.	4.60	.495	Strongly Agree

What are the students' perceptions of the ease of use of Quizizz as a digital learning tool for English reading activities?

Based on Table 7, students generally perceived Quizizz as easy to use for English reading activities. Most students strongly agreed that Quizizz was easy to use for English reading activities (M = 4.36, SD = .679), with the steps to play being clear and not confusing (M = 4.31, SD = .733). Students also agreed that they could use Quizizz without needing help from their teachers or classmates (M = 4.38, SD = .650). Furthermore, Quizizz was considered easy to use even for first-time users (M = 4.42, SD = .657), highlighting its intuitive design. Interestingly, the highest mean (M = 4.47, SD = .548) was recorded for "I find Quizizz to be a helpful tool for English reading lessons", indicating that students found it particularly helpful for learning purposes. However, despite these findings, it is somewhat surprising that the results also showed moderate support for the statement, 'students find it easy to use Quizizz, regardless of the location, be it at home or school' (M = 4.11, SD = 1.049). The higher standard deviation suggests that it seems that there are students who faced challenges using the platform in those differing contexts. All in all, the evidence suggests that Quizizz is an easy and approachable, digitally based resource as a complement to English reading activities. Such ease-of-use elements, including low dependency on help and ease of reaching, may raise the possibility that the students believe in Quizizz as an efficient and useful tool to develop their English reading skills.

Table 7: Perceived ease of using Quizizz in English reading activities.

Items	Mean	Std. Deviation	Agreement Level
1. Quizizz is easy to use for English reading activities.	4.36	.679	Agree
2. The steps to start and play Quizizz are not confusing.	4.31	.733	Agree
3. I can use Quizizz without needing help from my teacher or classmates.	4.38	.650	Agree
4. I feel Quizizz is easy to use even when I use it for the first time.	4.42	.657	Strongly Agree
5. I can use Quizizz at home or school without difficulty.	4.11	1.049	Agree
6. I find Quizizz to be a helpful tool for English reading lessons.	4.47	.548	Strongly Agree

To triangulate the findings, qualitative data gleaned from the focus group discussion serve to provide detailed insights and contribute to answering both research questions regarding the students' perceptions of the usefulness and ease of use of Quizizz in enhancing English reading skills. By using the Thematic Analysis, there were 6 themes identified, namely, Perceived Usefulness, Perceived Ease of Use, Technical Issues and Challenges, Student Engagement, Test Preparation, and Recommendations for Effective Use.
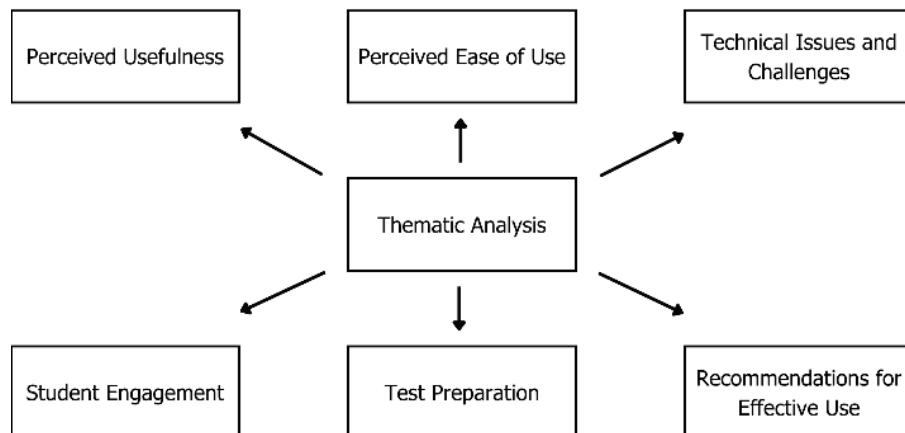
Figure 2: 6 Main Themes of Focus Group Discussion

Theme 1: Perceived Usefulness

Students stated that Quizizz helped them understand what they were reading much better. They said that the fact that Quizizz was competitive made them pay greater attention to the readings. "*The questions always make me read carefully.. umm.. like understand to get the right answers..,*" stated one student (Student 1). Students also said that Quizizz helped them learn new words. One student said, "*I learn new words every time I play Quizizz. Because when playing*

Quizizz, I read carefully, and I found new words" (Student 5), which shows how well the application works for learning a new vocabulary.

Theme 2: Perceived Ease of Use
Students appreciated Quizizz for its user-friendly features. As many reported, joining the platform and accessing its features was straightforward and took no time at all. One student explained, "*… I can just scan the QR code and join. It's really easy..*" (Student 5), emphasizing the tool's user-friendliness. Another student stated, "*Very easy. Like, I just.. click link or type game code..*" (Student 6), demonstrating that Quizizz does not subject users to any complicated processes of technological support.

Theme 3: Technical Issues and Challenges
Overall, students liked Quizizz, although some had problems with the technology, especially with getting online. Such problems led to stalls in quiz loading or interruptions in participation. One student shared, "*Teacher, sometimes kan, there are problems with my internet. I wait long to enter*" (Student 5), indicating that internet speed can sometimes hinder participation. Another participant added, "*"…my connection is slow, and I couldn't answer some questions. I had to answer 2 times haritu*" (Student 4), pointing out that unstable internet connections can negatively impact the user experience.

Theme 4: Student Engagement
Quizizz worked better as a learning aid since it had competitive elements. As noted by one student, "*Right and I like the points and leaderboard. We can see who got the highest points and who did not.*" (Student 4), which highlights how the competitive components of gamified quizzes elevated the overall experience. In addition, as noted by another student, "*Yes! It's like playing a game…. There are… umm.. powers upp*" (Student 3), suggesting that the game element motivating him or her to play. Moreover, another student noted that, "*I feel more excited because I'm competing with my other classmates*" (Student 6), suggesting that competition fostered participation. Overall, Quizizz both facilitated and drove instructional quizzes, making them readily accessible and appealing to students.

Theme 5: Test Preparation
A few students said that they used Quizizz a lot, especially for English reading tests. They said the quiz format, especially the multiple-choice and true/false questions, replicates an exam format and helped them study in a fun and focused way. One student stated that "*The questions are similar to questions in the exam. MCQ and True/False. So it help me.. umm.. a lot practice read and I can answer.*" (Student 1). One student shared, "*I think yes…. Because the type of.. umm… questions are usually the same*" (Student 8), pointing out that the fact that the type of question on Quizizz is similar to what they encounter in a test, it helped them a lot in preparing them to answer for a test.

Theme 6: Recommendations for Effective Use
Given their experiences, students recommended that teachers use Quizizz more often for formative assessment and review. One student expressed, "*It would be fun if teachers used Quizizz more when do revision, the card quite fun oh*" (Student 7), noting their hope for greater utilisation of Quizizz frequently during the revision time. Moreover, students proposed that instead of being used sparingly, Quizizz should be used on a daily basis. One student mentioned, "*Lots as a homework also fun. I can do it at home because I got Wi-Fi at home*" (Student 3), which

underscores the potential of Quizizz as an enjoyable and efficacious homework assignment to reinforce classroom learning beyond the specific school hours.

DISCUSSION

Students' perceptions of the usefulness of Quizizz in enhancing their English reading skills.

The results from the focused discussion and the survey reveal that students view Quizizz as an effective and supportive tool for developing their English reading skills. In the survey, students agreed that they learned more with Quizizz compared to traditional methods, showing strong support for the platform. This statement suggests that students view Quizizz as beneficial when compared to more traditional methods, thereby corroborating the perceived usefulness (PU) claim from the Technology Acceptance Model (TAM). As explained by Davis (1989), perceived usefulness is the degree of an individual's appreciation of a value-enhancing system utilized to perform a task, educational activities in this case. His explanation supports the argument of Bajaj (2024), where he reported that digital learning platforms improve students' participation in learning activities by providing more flexible and accessible ways to learn, from any time and any location.

During focus group discussions, students emphasized that the implementation of Quizizz not only deepened their understanding of the readings but also made the reading activities more enjoyable and motivational. This indicates that the reading comprehension through Quizizz boosts application and comprehension competition level. This is consistent with earlier research, such as Gameil and Al-Abdullatif (2023), which found that the use of interactive learning technologies provides a greater opportunity for students to be fully engaged in learning because it is made much more enjoyable and motivational. In this case, Quizizz resolves the issue of student engagement with the use of quizzes and instant feedback, which are pivotal to learning, enjoyment, engagement, and essential to understanding the motivational elements of learning.

This research found that Quizizz is helpful in both closing comprehension gaps and in preparing English reading tests. This is in line with the perceived usefulness (PU) TAM construct, as students engaged with the system with the expectation that it would support their learning and assessment processes. These findings are also supported in the focus groups, where students mentioned that having both multiple-choice and True/False questions on Quizizz made them more confident and better prepared for the formative and summative evaluative tests. *"The questions are similar to questions in exams. MCQ and True/False. So it helps me... umm... a lot practice reading and I can answer*" (Student 1). This shows that Quizizz is a valuable tool for learners preparing for tests.

Moreover, the interactive features of the Quizizz application, particularly the interface and feedback mechanisms, streamline the functionality and satisfaction of the application. Other researchers, for example, Nadeem et al. (2023) highlighted how the ease of use of a particular technology fosters higher levels of student engagement. This means that the design framework of Quizizz greatly augments the experience of the users.

To conclude, the findings suggests that Quizizz is an effective and useful tool for improving learners' English reading skills and for preparing them for tests. These conclusions continue to support the TAM theory that ease and usefulness of a technology determines its adoption for use, along with the interface of Quizizz that promotes ease of interactivity, as its effectiveness goes beyond the engagement level of the students and incorporates other aspects of their learning as

pointed out by other researchers on the impact of gamified learning (Gameil & Al-Abdullatif, 2023).

Students' perceptions of the ease of use of Quizizz as a digital learning tool for English reading activities.

The findings from the focus group and survey indicate that Quizizz is regarded as both useful and easy for enhancing the skill of reading English, which corresponds to the constructs of usefulness and ease of use in the Technology Acceptance Model (Davis, 1989). The survey results showed strong agreement with Quizziz being relevant for reading activities. This indicates that the participants regarded the platform as familiar and easy to navigate, which is a requirement for all educational resources, as it affects the ease with which such resources can be used in teaching and learning (Nadeem et al., 2023). In the TAM, the PEOU component explains that if a tool is regarded as easy to use, it will be adopted, which can be seen through the survey results. Since the reading activities are emphasized in improving the participants' English reading skills, the ease with which Quizizz can be used is vital as it eliminates attitudinal and technical barriers.

Furthermore, students admitted that they can use Quizizz independently confirms that students are confident in using Quizizz on their own. This shows that students are confident with using the platform, which aids their learning. As noted by Davis in 1989, the easier it is for a person to use a particular piece of technology, the greater the possibility that the technology will be used more frequently. This was evidenced in the present study.

Focus group discussions also supported this evidence. Students remarked that the provided personalized QR codes and game codes facilitated prompt engagement with the English reading activities. One of the students remarked that the ease of engaging with the content streamlined the process, thereby removing a number of potential barriers to engagement. This reinforces the PEOU aspect of TAM, that ease of use enhances usage (He et al., 2018).

However, the results also revealed some concerns about the accessibility of the platform for students with limited technological resources. Some students faced challenges with device availability because not all students had access to technologies such as smartphones or tablets, and challenges such as poor internet connection also hindered their participation. This is a widespread problem in the adoption of educational technologies. This finding aligns with Nova et al. (2023), who identified that technical issues and internet connectivity problems were among the most common challenges faced by students using Quizizz during e-assessments. They emphasized that such constraints hinder the learning process, causing inconvenience to learners and wasting valuable time. Quizizz partially closes this gap through its Paper Mode, which permits teachers to print out personalized QR codes, letting students participate in a game and answer questions by holding up personalised QR Codes. By offering a low-tech entry point, the platform protects its core value an interactive, game-like classroom experience that can energize study sessions.

The findings also highlight the importance of accessibility in educational technology, a factor that extends beyond ease of use to consider students' environmental and technological constraints. This aligns with Dili et al. (2021), who pointed out that account issues and other technical difficulties could significantly disrupt the user experience and hinder learning. Here, the effectiveness of Quizizz is located in its ability to adjust to various technology access levels, thus overcoming a wide range of barriers to its effectiveness.

Overall, this study's results indicate that Quizizz is regarded as a very effective tool that is easy to use for improving reading skills in English. These results are consistent with the TAM model, which holds that perceived usefulness (PU) and perceived ease of use (PEOU) are primary

factors in technology acceptance. In addition, the possibility to address accessibility issues, such as using the Paper Mode, makes it easier for the platform to be widely accepted in various areas of the education. These results align with prior studies on educational technology concerning the issues of user-friendliness as well as access, which allow for effective learning to take place (Margallo et al., 2023; Lim & Yunus, 2021).

CONCLUSION

In conclusion, the findings of this study revealed the Form 1 students perceive Quizizz as beneficial for enhancing their English reading skills, even though some of them are facing challenges, such as internet connectivity issues and occasional difficulty navigating the platform. Both research objectives are successfully achieved with the help of appropriate research instruments. The results highlight how crucial it is to incorporate digital resources like Quizizz into classroom environments, particularly when it comes to improving language proficiency, because students' responses indicate that Quizizz is, to a large extent, both helpful and user-friendly. In the meantime, the researcher acknowledges the limitations of using Quizizz, where students may need proper guidance and support to ensure effective usage. Future research is encouraged to explore the long-term influence of Quizizz on language acquisition, especially reading skills and to incorporate a bigger sample size for more thorough and better data.

Acknowledgment: Not applicable

Co-Author Contribution: Not applicable

Ethics Statement
This study was conducted following ethical guidelines. Informed consent was obtained from all participants

REFERENCES

Alakrash, H. M., Razak, N. A., & Krish, P. (2022). The application of digital platforms in learning English language. *International Journal of Information and Education Technology*, *12*(9), 899–904. https://doi.org/10.18178/ijiet.2022.12.9.1699

Bajaj, M. (2024). The role of digital learning platforms in enhancing student engagement. *The Art of Teaching English as a Foreign Language*, *1*(1), 1–12. https://doi.org/10.25215/819818984X.01

Chahal, J., & Rani, N. (2022). Exploring the acceptance for e-learning among higher education students in India: combining technology acceptance model with external variables. Journal of Computing in Higher Education, 34(3), 844–867. https://doi.org/10.1007/s12528-022-09327-0

Cho, E., & Teo, A. (2013). EIL teachers' motivational strategies and students' preference in the deep southern part of Thailand. *International Journal of English Language Education*, *2*(1), 15. https://doi.org/10.5296/ijele.v2i1.4418

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319. https://doi.org/10.2307/249008

Dili, N. K. I. D. Y. I., Suarnajaya, I. W., & Pratiwi, N. P. A. (2021). Students' perceptions and constraints on the use of Quizizz in teaching and learning process during Covid-19

pandemic. Journal of Humanities, Social Science, Public Administration and Management, 1(3), 147–155. https://doi.org/10.51715/husocpument.v1i3.73

Gameil, A. A., & Al-Abdullatif, A. M. (2023). Using digital learning platforms to enhance the instructional design competencies and learning engagement of preservice teachers. *Education Sciences*, *13*(4), 334. https://doi.org/10.3390/educsci13040334

Gedik, O., & Akyol, H. (2022). Reading difficulty and development of fluent reading skills: An action research. *International Journal of Progressive Education*, *18*(1), 22–41. https://doi.org/10.29329/ijpe.2022.426.2

Hasibuan, N. A., Depalina, N. S., & Nursaidah, N. (2025). The effect of using Quizizz application as an English learning exercise in vocabulary mastery. *Esteem Journal of English Education Study Programme*, *8*(1), 301–313. https://doi.org/10.31851/esteem.v8i1.17906

He, Y., Chen, Q., & Kitkuakul, S. (2018). Regulatory focus and technology acceptance: Perceived ease of use and usefulness as efficacy. *Cogent Business & Management*, *5*(1), 1459006. https://doi.org/10.1080/23311975.2018.1459006

Kalayou, M. H., Endehabtu, B. F., & Tilahun, B. (2020). The applicability of the modified Technology Acceptance Model (TAM) on the sustainable adoption of e-health systems in resource limited settings. Journal of Multidisciplinary Healthcare, Volume 13, 1827–1837. https://doi.org/10.2147/jmdh.s284973

Kaya, E. (2015). The role of reading skills on reading comprehension ability of Turkish EFL students. *Üniversitepark Bülten*, *4*(1–2), 37–51. https://doi.org/10.12973/unibulletin.412.4

Laličić, A., & Dubravac, V. (2021). The role of reading in English language classrooms. *MAP Social Sciences*, *1*(1), 23–36. https://doi.org/10.53880/2744-2454.2021.1.1.23

Lim, T. M., & Yunus, M. M. (2021). Teachers' Perception towards the Use of Quizizz in the Teaching and Learning of English: A Systematic Review. *Sustainability*, *13*(11), 6436. https://doi.org/10.3390/su13116436

Margallo, L., Cacharro, C., Bergula, J. D., Villaflor, S. R. A., Agner, M. L., Bughao, C., Calumpag, J., Calvara, C., Jamen, K. K., Loresca, A. V., Maanad, D., Refuerzo, J. M., Ripalda, L. M., & Rabuya, C. A. (2023). Effectiveness of Quizizz on students' learning motivation and engagement in a Filipino class. *East Asian Journal of Multidisciplinary Research*, *2*(9), 3719–3734. https://doi.org/10.55927/eajmr.v2i9.5560

Nadeem, M., Oroszlanyova, M., & Farag, W. (2023). Effect of Digital Game-Based Learning on student engagement and motivation. *Computers*, *12*(9), 177. https://doi.org/10.3390/computers12090177

Ningsih, N. L. a. B. H. (2023). The importance of Game-Based Learning in English Learning for young Learners in the 21st century. *The Art of Teaching English as a Foreign Language*, *4*(1), 25–30. https://doi.org/10.36663/tatefl.v4i1.492

Nova, M., Chaerunnisah, I. U., & Lastari, N. K. H. (2023). Challenges in utilizing Quizizz as a formative e-assessment media in English for tour operations class. *Journal of English Education and Applied Linguistics* (*Premise*), *12*(3), 971. https://doi.org/10.24127/pj.v12i3.8001

Rakic, S., Tasic, N., Marjanovic, U., Softic, S., Lüftenegger, E., & Turcin, I. (2020). Student performance on an E-Learning platform: Mixed Method approach. *International Journal of Emerging Technologies in Learning (iJET)*, *15*(02), 187. https://doi.org/10.3991/ijet.v15i02.11646

Ronimus, M., Kujala, J., Tolvanen, A., & Lyytinen, H. (2014). Children's engagement during digital game-based learning of reading: The effects of time, rewards, and challenge. *Computers and Education/Computers & Education*, *71*, 237–246. https://doi.org/10.1016/j.compedu.2013.10.008

Tahar, A., Riyadh, H. A., Sofyani, H., & Purnomo, W. E. (2020). Perceived ease of use, perceived usefulness, perceived security and intention to use E-Filing: the role of Technology readiness. The Journal of Asian Finance, Economics, and Business/The Journal of Asian Finance, Economics and Business, 7(9), 537–547. https://doi.org/10.13106/jafeb.2020.vol7.no9.537

Wijayanti, S., & Prasadja, H. (2022). Quizizz and Kahoot! for Online-Learning Engagement in Elementary School. *Proceedings of the 6th Batusangkar International Conference, BIC 2021, 11 - 12 October, 2021, Batusangkar-West Sumatra, Indonesia*. https://doi.org/10.4108/eai.11-10-2021.2319534

MOBILE-ASSISTED LANGUAGE LEARNING (MALL) FOR GRAMMAR AND VOCABULARY ACQUISITION: STUDENTS' PERSPECTIVES ON CHATGPT

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ABSTRACT

This research explores the perspectives of students regarding the use of ChatGPT as Mobile-Assisted Language Learning (MALL) to develop grammar and vocabulary. Based on the Unified Theory of Acceptance and Use of Technology (UTAUT), this study targeted 42 Form 4 students (age 16) of SMK Kolombong, Sabah. The objective was to find out their opinions on the usefulness, ease of use, social impact, and facilitation conditions of using ChatGPT, as well as their challenges. The data were obtained through a questionnaire adopted from Venkatesh et al. (2003), Chao (2019) and Almaiah et al. (2019). Findings revealed that students have high positive perceptions for all four constructs: Performance Expectancy (4.12), Effort Expectancy (4.22), Social Influence (4.55) and Facilitating Conditions (4.27). Based on qualitative findings, students praised ChatGPT for providing fast answers and fixing grammar, while also helping them learn new words and build better sentences. They found it an easy-to-use tool that made learning English more fun and supported independent practice. These findings indicate that students are open to the potential of using ChatGPT to learn English, but it requires structural support in the form of a stable internet connection and instructor supervision to best utilize the resources. The research adds to the existing research on AI-aided language learning in Malaysian secondary schools and provides some insight into the effective incorporation of ChatGPT in the low-to-intermediate proficiency level ESL classrooms.

Keyword(s): *ChatGPT, Mobile-Assisted Language Learning (MALL), Grammar, Vocabulary, ESL, Secondary Students, UTAUT*

INTRODUCTION

The use of technology in education has greatly changed the approach that the students of learning results, particularly in the language learning category of studies. Artificial Intelligence (AI) is one of the technological innovations, and as a result, it is emerging as a potent technology that facilitates learning in a new and innovative manner. A language model developed by OpenAI, ChatGPT, is one of such tools, although its usage is controversial due to a few reasons, namely, using instant feedback to assist in language acquisition, as well as producing examples and enabling a student to practice the language through interaction. ChatGPT has a very good potential in Mobile–Assisted Language Learning (MALL) in English Second Language (ESL)

learning due to the potential problems that ESL students in Malaysia face, where students struggle to master grammar and vocabulary learning.

Although ChatGPT has become a popular tool, there is little research on how effective and how well it is received by students when we use it as a MALL tool in secondary schools in Malaysia. A significant number of students continue working with the use of traditional classroom approaches, and the process of transitioning to AI-driven tools needs comprehension of the readiness, the acceptance, and the issues that may arise. In addition, student feedback plays an important role in whether such a technology is viable in real-life classrooms, specifically schools with low and intermediate levels of English competency.

According to the existing literature, ChatGPT and its ability to improve grammar and vocabulary learning are promising, but the knowledge about the secondary school students' perception of its usefulness, usability, social and technological concerns, and issues in its application is limited. Additionally, the literature on the issues students encounter during the use of ChatGPT is extremely scarce, including the accuracy of the answers, the compatibility with the language level, and access to stable internet or devices.

Thus, the current paper will explore the perspectives of Form 4 students towards the potential of ChatGPT in the context of the acquisition of grammar and vocabulary in the English language. To achieve these objectives, the research questions must be answered as follows:

1. How do the students of ESL classes view learning grammar and vocabulary with the help of ChatGPT?
2. What advantages and difficulties can be seen by students using ChatGPT to learn English?

LITERATURE REVIEW

The research was based on the Unified Theory of Acceptance and Use of Technology (UTAUT), which was proposed by Venkatesh et al. (2003) to pinpoint the four reasons that affect the adoption of technology, which are performance expectancy, effort expectancy, social force, and facilitating circumstance. UTAUT is a predominant model extensively employed in understanding technology adoption in the educational context, especially in Malaysia, to understand how users accept and utilise new technologies. The relevance to the present study is that it is an effective way to explain how English as a second language learners use and visualize ChatGPT to learn grammar and vocabulary in a Mobile-Assisted Language Learning (MALL) environment.

The theoretical framework on which the study was based on is the Unified Theory of Acceptance and Use of Technology (UTAUT). The framework describes the process by which users develop an attitude towards and adopt a new technology based on four main constructs that include performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy implies the expectation that ChatGPT can assist students in mastering their grammar and vocabulary, whereas effort expectancy specifies how convenient and comfortable the usage can be. Social influence is relative to the extent to which students believe that people with whom they have relationships, including peers and teachers, feel they should use the technology. Facilitating conditions refer to access to resources, support systems and infrastructure that allows effective application of ChatGPT to the learning process.

UTAUT constructs informed the questionnaire design and contributed to interpreting research results, so using this model was reasonable to explore the attitude of students towards

using ChatGPT in Mobile-Assisted Language Learning in the ESL classroom. Previous studies have found that the motivation of students, their perceived usefulness, and support associated with institutions have a significant influence on the inclusion of mobile and AI tools (Vo, 2020; Maharani et al., 2024). ChatGPT and other technologies fit this model as they enable performance enhancement and a high expectancy of effort through their conversational and responsive nature and their immediate availability (Alif & Ngui, 2024; Aydin & Karaarslan, 2024; Nguyen & Ha, 2021). Moreover, AI ethical concerns in education, which include academic cheating and misinformation, emphasize the need to have practical and open digital policies and responsible AI education among students in high schools (Selvanathan & Narayanan, 2024; Mokhtar et al., 2024).

Mobile-Assisted Language Learning (MALL) is the use of handheld communications equipment in a language-learning context carried out outside of a conventional classroom. MALL supports learner autonomy because it allows students to study the content at their own pace and comfort, and thus exposes them to even more language material and interaction with the content (Vo, 2020). In Malaysia, where the use of smartphones is already prevalent, MALL will be in accordance with the national education policy and can be used to fill learning gaps in underdeveloped or remote areas and schools (Mohamad & Woollard, n.d.). Furthermore, AI-powered tools such as ChatGPT add immense quality to MALL because they provide immediate, personalized feedback, especially to develop grammar and vocabulary (Shohor & Hashim, 2024). ChatGPT has a more open, student-centred format compared to apps that teach structured language, and this aspect makes the latter highly applicable to one-on-one ESL instruction. This is in line with the developing trend of learner control and microlearning in mobile learning.

One of the best examples of generative artificial intelligence in education is ChatGPT, which is a product of OpenAI. It does so as a natural language processing software where students can pose questions, have grammatical explanations, and study vocabulary in real time (Uddin et al., 2023). The responsiveness of the tool allows the learners more control over how they want to study at their own pace, revisit the concepts they have trouble understanding, and get immediate responses. However, according to Aydin and Karaarslan (2024), ChatGPT claims its advantages in delivering a friendly interface, solid answers, which are similar to human dialogue, and that it does not always demonstrate a high accuracy level. Although ChatGPT has several advantages in ESL education, its application should be moderated by an educator to avoid excessive use to foster self-reliance and the ability of the learners to think critically and be digitally literate (Selvanathan & Narayanan, 2024; Mokhtar et al., 2024). These considerations are particularly relevant to the secondary school students who might not have adequate skills to judge the quality or reliability of AI-created material on their own.

Student perceptions of ChatGPT are one of the determining factors that define its efficacy in language learning. The attitude and perceived usefulness of mobile tools, according to Vo (2020), are great determinants of whether the student will use mobile tools. ChatGPT, being a personalized and interactive tool, facilitates greater learner motivation and offers immediate feedback in the grammar and vocabulary drills (Shohor & Hashim, 2024). Alif and Ngui (2024) mentioned that students are most likely to use the tool if it is useful for them Maharani et al. (2024) have discovered that the use of AI-integrated tools led to greater autonomy and self-direction during learning than the use of traditional classroom resources. Likewise, Nguyen and Ha (2021) observed that students are more involved and active when they can control the process and time of the learning process, especially in mobile-integrated applications. This study confirms the possible value of ChatGPT as an effective tool in learning under the conditions that students view it as a helpful tool, convenient, and have a personal advantage in using it.

The application of the UTAUT model is further confirmed by empirical research in Malaysia and other countries. According to Raman and Rathakrishnan (2018), the performance expectancy and having technical support were the two major factors that influenced the implementation of the FROG Virtual Learning Environment among teachers. According to Jalil et al. (2022), the most influential variables leading to technology adoption among the primary school teachers were social influence and facilitating conditions in comparison with ease of technology or perceived usefulness as its driving factors. These findings indicate that environmental and social support tend to supersede the technical features of a tool in determining a user's behavior. Agyei and Razi (2022) performed a student-centered study and extended UTAUT by including self-efficacy and discovered that performance and effort expectancy were significant predictors of willingness to use web-based instruction among high school students. These studies reaffirm the usefulness of UTAUT in investigating the interaction that ESL students have with ChatGPT to understand how their perceptions, experiences, and social contexts determine their readiness to employ AI in learning grammar and vocabulary.

Overall, the literature helps to confirm the value of integrating ChatGPT into MALL as a potentially effective means of promoting ESL grammar and vocabulary learning. The UTAUT model is effective in offering a very good theoretical background in the aspects that affect the student acceptance and usage of ChatGPT. It has been empirically demonstrated that ChatGPT can be used to promote personalized and autonomous learning, timely feedback, which are all good characteristics of mobile learning. Nonetheless, to be implemented successfully, ethical concerns have to be taken into consideration, in addition to being ready in the digitized world and properly guided by teachers. The insights can form a great basis for the proposed research, which studies the perceptions and experiences of Malaysian secondary students in terms of using ChatGPT as a mobile-aided language-learning technique.

METHODOLOGY

This research methodology was designed to study the opinions of high school ESL students concerning using ChatGPT as a Mobile-Assisted Language Learning (MALL) tool to improve grammar and vocabulary learning using a survey instrument adapted from Venkatesh et al. (2003), Chao (2019) and Almaiah et al. (2019). The research design was quantitative descriptive with embedded qualitative components, thus allowing the mixed-method design to gather both quantitative and qualitative data. This practice was deemed sufficient because it enabled a thorough comprehension of the perspectives of students and difficulties when they used ChatGPT.

The respondents were Form 4 ESL students in SMK Kolombong in Sabah. In this research, there were a total of 42 students who participated; 13 were male students and 29 were female students. The sample was identified with the help of purposive sampling, as the students had access to digital devices and could use AI-based language tools, such as ChatGPT. The subjects have been chosen according to the accessibility to digital tools at school and exposure to English as a second language. The level of their English language was low to intermediate, which was enough to assess the effectiveness and ease of use of ChatGPT when learning a language.

The Unified Theory of Acceptance and Use of Technology (UTAUT) was used to guide the research, and it was the theoretical framework reflective of the development of the research instrument. It also served as the guiding framework for the analysis of the students' responses. The questionnaire was designed in a way that corresponded to the key constructs of UTAUT: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. The

survey was based on 10 questions on a Likert-scale and three open-ended questions to add a qualitative dimension to the survey since students could provide their own experience, perceived benefits, and difficulties with using ChatGPT to learn grammar and vocabulary.

The instruments were adapted to the setting of the secondary school ESL students and aimed precisely at their activities with ChatGPT in terms of learning grammar and vocabulary. It was made simpler, with examples concerning ChatGPT being added with the aim of making it clearer. 5 Likert scale was used: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree to make the questionnaire simpler and more relevant for the students. The following table shows the items according to the 4 constructs of UTAUT, and the changes made to accommodate the students after receiving input from expert validation:

Table 1: Instrument Used for the Study According to Constructs and Changes Made

Construct	Original Items	Revised Items
Performance Expectancy (PE)	ChatGPT boosted my knowledge of the English language in grammar.	ChatGPT helps me understand grammar better.
	ChatGPT boosted my knowledge of the English language in vocabulary.	ChatGPT helps me understand vocabulary better.
	I enjoy practicing English with ChatGPT.	I enjoy using ChatGPT to learn English.
	ChatGPT makes learning the English language more interesting.	Using ChatGPT makes learning English more interesting.
Effort Expectancy	ChatGPT is a user-friendly tool.	ChatGPT is easy to use.
	I'm comfortable using ChatGPT for academic stuff.	I feel confident when using ChatGPT to study.
Social Influence	My peers see ChatGPT as a helpful study tool.	My friends/classmates think using ChatGPT is helpful.
	My teacher encourages the integration and usage of ChatGPT in language learning.	My teacher supports the use of ChatGPT to study.
Facilitating Conditions	Access to ChatGPT is now conveniently available through the right digital devices for me.	I can access ChatGPT easily using my device.
	I plan to keep using ChatGPT to advance my language learning in English.	I plan to continue using ChatGPT for English learning in the future.
Open-Ended Questions	Which features of ChatGPT can be the most helpful to you in learning English?	What do you like the most about using ChatGPT to learn?
	Which of the problems have you faced in the process of using ChatGPT as a learning resource?	What challenges or difficulties did you face when using ChatGPT?

After validity through expert validation and reliability checks (Cronbach's alpha: 0.72) were conducted, the research instrument was administered online through Google Forms. Data collection took place in the ICT room of the school, where the survey was given to the students by the researcher during school hours. Before doing so, the students were informed about the

aim and methods of the study and were guaranteed informed consent, anonymity, and the voluntary character of the study. The school administration was also consulted to approve to make it ethically compliant.

Analysis of the data was done in line with a combination of qualitative and quantitative methods using the data received from the questionnaire, as shown in Table 2. In the case of the closed-ended Likert-scale questions, basic descriptive statistics were used. The purpose of this analysis was to find out trends and patterns in students' perceptions about using ChatGPT to learn grammar and vocabulary.

Table 2. Data Analysis Procedure

Research Questions	Instruments	Data Analysis Method
RQ1: *How do students of ESL classes in secondary school view learning grammar and vocabulary with the help of ChatGPT?*	Close-ended questionnaire (adapted from Venkatesh (2003), Chao (2019) and Almaiah et al. (2019)	Descriptive statistics (frequency and means)
RQ2: *What advantages and difficulties can be seen by students using ChatGPT to learn English?*	Open-ended questionnaire items	Thematic analysis

FINDINGS & DISCUSSION

The results of the research conducted with 42 Form 4 students (29 female, 13 male) of SMK Kolombong were intended to examine their perspectives towards the application of ChatGPT to learn grammar and vocabulary and discover the obstacles to this practice.

Students' Views on Learning Grammar and Vocabulary with ChatGPT

According to the results obtained in Table 3, most students shared positive attitudes to the usefulness of ChatGPT in terms of learning grammar and vocabulary. In the case of Q1, the responses are that the students agreed (85.7%) that ChatGPT has increased their understanding of grammar. For Q2, 76.2% of students gave a highly positive answer to the question of whether ChatGPT influences their knowledge of vocabulary. The user engagement on ChatGPT used to learn the English language was high in Q3, with 78.6% of the students remarking that they enjoy using ChatGPT. Similarly, Q4 indicates that 81% of the students believe that ChatGPT makes the English language more interesting to learn. The findings show that the students tend to view ChatGPT as a practical and dynamic system of enhancing their English language skills in terms of grammar and vocabulary.

Effort Expectancy results reveal that most of the students find ChatGPT simple to use and no longer experience a feeling of insecurity whenever using it in their studies. For the statement "ChatGPT is easy to use" (Q3), 40.5% of students agreed and 35.7% strongly agreed, amounting to a total of 76.2% who responded positively. Similarly, for the statement "I feel confident when using ChatGPT to study" (Q6) yielded 88.1% positive responses. All of these findings indicate that students perceive and respond to ChatGPT as user-friendly and think they can successfully use it to navigate among it with great amounts of ease and confidence. Most of them said that they did

not need a lot of guidance in order to use the platform. Its interface was open and simple enough even to those who had low proficiency in English. The students also had an opportunity to work with the tool on their own, which may indicate a very high degree of its usability. This accessibility minimizes thoughtfulness, which is the feature of using new technology, thus rendering the learning process less daunting and more inspiring to young ESL students.

Table 3. Findings from the Questionnaire

Statements	1	2	3	4	5	Mean / SD
ChatGPT helps me understand Grammar better	0 (0%)	2 (4.8%)	4 (9.5%)	27 (64.3%)	9 (21.4%)	4.12 (0.78)
ChatGPT helps me understand Vocabulary better	0 (0%)	2 (4.8%)	8 (19%)	14 (33.3%)	18 (42.9%)	
I enjoy using ChatGPT to learn English	0 (0%)	3 (7.1%)	6 (14.3%)	21 (50%)	15 (28.6%)	
Using ChatGPT makes learning English more interesting	0 (0%)	1 (2.4%)	7 (16.7%)	17 (40.5%)	17 (40.5%)	
ChatGPT is easy to use	0 (0%)	0 (0%)	10 (23.8%)	17 (40.5%)	15 (35.7%)	4.22 (0.81)
I feel confident when using ChatGPT to study	1 (2.4%)	2 (4.8%)	3 (7.1%)	18 (42.9%)	19 (45.2%)	
My friends/ classmates think Using ChatGPT is helpful	0 (0%)	0 (0%)	2 (4.8%)	18 (42.9%)	22 (52.4%)	4.55 (0.54)
My teacher supports the use of ChatGPT to study	0 (0%)	0 (0%)	1 (2.4%)	15 (35.7%)	26 (61.9%)	
I can access ChatGPT easily using my device	2 (4.8%)	1 (2.4%)	3 (7.1%)	17 (40.5%)	19 (45.2%)	4.27 (0.84)
I plan to continue using ChatGPT for English learning in the future	0 (0%)	3 (7.1%)	3 (7.1%)	18 (42.9%)	18 (42.9%)	

Results under the Social Influence category indicate that external people, like friends and educators, contribute to an extent in promoting the usage of ChatGPT. For the statement "My friends/classmates think using ChatGPT is helpful" (Q7) obtained 95.3% positive responses. Similarly, for the statement "My teacher supports the use of ChatGPT to study" (Q8), a total of 97.6% of students felt supported by their teachers. These findings imply that the levels of acceptance and usage of ChatGPT as a learning tool are heavily dependent on peer and teacher support.

Regarding the findings on Facilitating Conditions, most students would have the technological availability as well as the motivation to further use ChatGPT. For Q9, "I can access ChatGPT easily using my device," 85.7% of students find ChatGPT easily accessible on their devices. Similarly, for Q10, "I plan to continue using ChatGPT for English learning in the future," 85.8% positive responses were obtained. The obtained results suggest that students found sufficient support in the needed resources and the stimulus to further use ChatGPT as a means of learning English.

Applying the UTAUT framework, the study reveals that all four constructs. Performance expectancy is high, as students agreed that ChatGPT is useful for enhancing grammar and vocabulary, driven by its rapid feedback and visualization aids. Social influence also positively affects adoption, as peers and teachers often introduce the tool. However, the full integration of ChatGPT is slightly limited by facilitating conditions, specifically, inconsistent internet access and device availability for all students

Students' opinions on the advantages and difficulties of using ChatGPT to learn English.

The open-ended questions offered qualitative points of view on the obstacles that students faced. Internet unreliability, problems reading and comprehending sophisticated vocabulary created by ChatGPT, or instructions that were not as clear and typical were the frequent themes. Some students said that ChatGPT offered excessively complex or even robot-like explanations sometimes and it puzzled them instead of being helpful. These answers validate that although the students in general perceived ChatGPT positively, there are practical and pedagogical issues to deal with.

Based on the responses of the students in the open-ended questions, there are 6 themes identified in Figure 1:
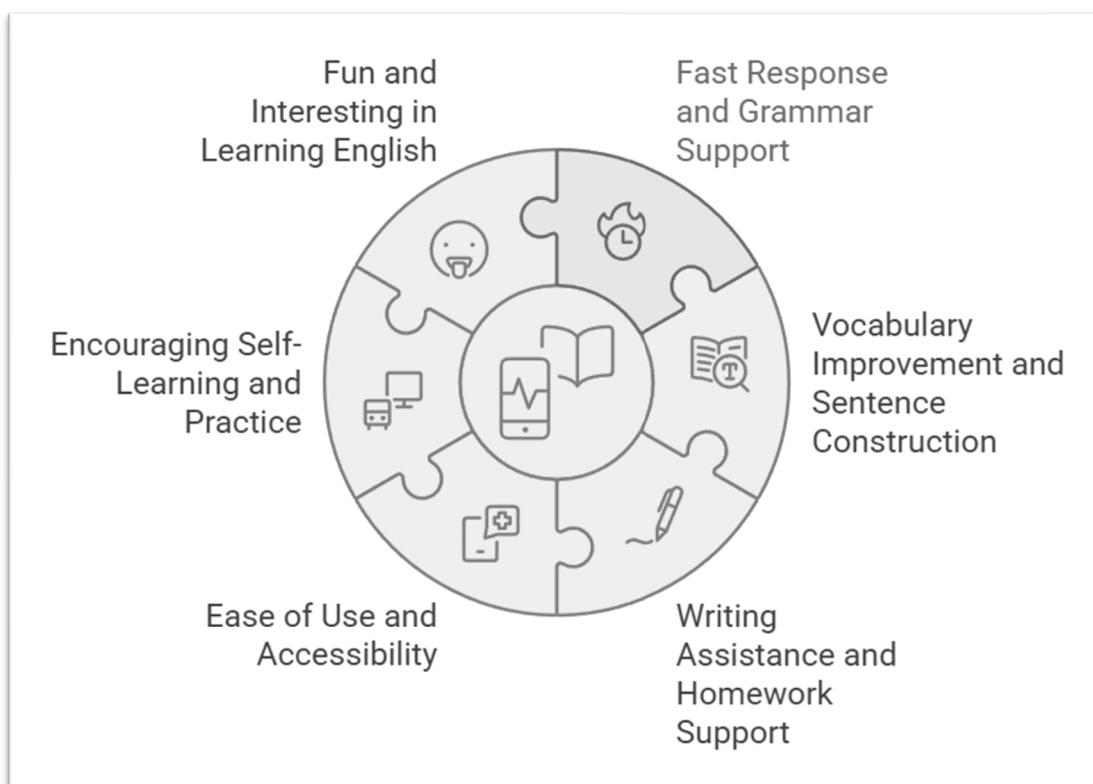

Figure 1: 6 themes on Advantages and Difficulties in Using ChatGPT

Theme 1: Fast Response and Grammar Support

Many students emphasized the importance of ChatGPT as a source of responses within a short time and an improved knowledge of grammar. They considered the tool to be effective and useful in forming grammatically correct sentences. As mentioned by Lo et al. (2024), performance expectancy can be seen in the positive reviews of the speed and grammar correction provided by ChatGPT, as students decide to use the tool in line with its ability to enhance the level of their performance. When the learners claim the answers to be fast, good, or help correct grammar, they mean that ChatGPT could save time and precision when performing English assignments. This is quite in line with recent research (Lo et al., 2024) that demonstrates that generative AI tools are of great benefit in terms of grammar accuracy and time saved during language tasks. Huy (2025) also mentioned that ChatGPT is very useful toward EFL students when it comes to writing because it gives immediate feedback, helps with ideas and grammar correction as well as vocabulary.

These results support the assumption that the motivations linked to the use of AI tools by students in ESL remain useful and performance gains. As an example, R3 claimed it assists her in English, she can ask and receive a quick response, and R6 confirmed that it aids her in grammar, the answer is good. In the same way, R7 liked to have explanations on grammar then said, *"I like ChatGPT because grammar is easy to understand"* and R9 followed up by saying, *"It is easy to get the correct grammar."* The instant of the answer impressed some of the students. R11 reported, *"The grammar and answers are fast, no need to wait"*, and R18 stated, *"Fast answer and help me correct sentences"*. R22 also said that the tool is good at grammar and quick responding, which means that the tool has a dual purpose. R25 contributed, saying that ChatGPT provided quick response and proper grammar, and R27 added, *"Helpful in grammar correction"*.

Other respondents observed that ChatGPT was better than other search tools. R31 said, *"Improve grammar and faster than searching Google"* and R32 said, *"Quick reply and good grammar"*. The level of grammatical skills was also seen in the answer that R34 gave as he stated, to improve grammar because of ChatGPT and R37 as he said, *"Fast answer with grammar example"*. As R38 pointed out, it helps fix my grammar as fast as it can. R14 and R19 also have a positive correlation of ChatGPT to grammar assistance and state, respectively, that it helps the grammar a lot and helps get better in grammar. Overall, 16 students said that ChatGPT was very helpful to get a quick helping hand and fix their grammar, and it could be said that it is a practical and time-saving language learning tool.

Theme 2: Vocabulary Improvement and Sentence Construction

Students who use ChatGPT to learn new words, create sentences or use words better are displaying a performance expectancy since they can perceive the obvious benefits of learning. They understand ChatGPT as something that does not only provide answers but also gives them more linguistic material and do express ideas more effectively. The recent research by Trinh (2024) in AI in-ESL proves that chatbots are becoming popular as vocabulary instructors, facilitating word meaning, collocations, and sentence structure. This indicates that students have found the tool to be helpful in enhancing lexical as well as structural elements of writing. Some of the students employed ChatGPT in acquiring new vocabulary and developing sentence building skills. R1 said, *"Help me know more words"*, and R10 wrote, *"Good for new words and meaning"*.

And at the same time, R12 indicated, *"I use it to write an essay"* and R20 said, *"Make sentences using the word I don't know".*

R24 noted that the expression was better with higher sets of correct words to be used in a sentence, saying, help me use correct words in sentence, and R28 said that *"Help me when doing homework in English".* R29 has also used the tool and commented, *"Help when I am stuck writing".* These answers indicate that students understand ChatGPT as more than a language tool as they see it as a way to enlarge their vocabulary and the structure of their sentences. 7 out of the total number of students had this opinion.

Theme 3: Writing Assistance and Homework Support

There were those who articulated that ChatGPT was beneficial especially in doing homework and schoolwork. The students who use ChatGPT as a source of homework assistance, generating ideas and checking sentences have a high level of performance expectancy since they consider that it enhances the quality and accuracy of their English tasks. Moreover, social influence can be traced in some of the statements, particularly when the classmates or teachers motivate the use of ChatGPT in schoolwork.

Previous studies by Xue et al. (2024) indicate that PE is the most significant predictor of technology acceptance in students, and teacher support tends to enhance the intentions to use digital tools. According to this theme, ChatGPT is regarded not only as an assistive tool, but as a valid academic aid tool in accordance with the classroom demands. As an example, R2 said that it helps him to verify his answers whether they are right or wrong, and R8 reported and shared that it helps him in doing his homework. As R13 said, *"Help to make sentences using new words".* Other students were more precise regarding the tasks. R21 said, *"Give ideas for homework"* and R23 added, *"It can create any paragraph if it's my homework".* This was also reiterated by R33 when they stated, *"I ask ChatGPT for meaning and how to use words".* These answers indicate the importance of ChatGPT as a legitimate academic aid that is useful to six students when they are doing their homeworks, particularly when assigned English topics.

Theme 4: Ease of Use and Accessibility

Other students pointed out that ChatGPT was very convenient to use. The words students most commonly used to describe ChatGPT were easy, simple, can use anytime, which is also an indicator of effort expectancy, or the perception that the technology should not demand a lot of effort to learn and use. Remarks regarding the opportunity to use ChatGPT whenever they want or on individual devices also emphasize the facilitating conditions as the availability of resources allows using it.

These notions correspond to the UTAUT findings in which EE and FC play a major role in influencing the confidence and frequency of use of learners. Students are more inclined to develop a tool into the everyday routine of studying when they find it not only easy but also available (Adel et al., 2024). R5 mentioned in a short phrase, *"Easy to use and helpful"* and R15 mentioned, *"Simple to use and answer fast."* R26 also loved the fact that it was user-friendly and remarked, *"Easy and can ask anything."* Moreover, R30 referred to the fact that there were no restrictions, she stated that, *"You can use it anytime for any question"*, and R35 explained that, *"I just ask*

and it gives me an answer, no need to search long." All these five answers indicate that students consider the tool intuitive and easy to access and this aspect helps students maintain its usage during learning the English language.

Theme 5: Encouraging Self-Learning and Practice

Some of the students said that ChatGPT encourages them to study English independently. R4 knew that they can learn independently using ChatGPT by saying *"I can learn by myself with ChatGPT"* and R36 said, *"I try more English now because of it."* R40 mentioned that the tool has a positive influence on effort when saying, *"Make me want to try to do English myself."* By the same idea, R42 also wrote, *"I learn by asking questions and trying sentences."* These four responses point out to the fact that ChatGPT has the potential to reinforce learner autonomy, as it promotes self-directed learning and language usage. As mentioned by Xue et al. (2024) students who report that ChatGPT encourages them to attempt to use English or learn independently exhibit not only PE but also behavioral intention, since they intend to continue using the tool in self-directed learning. Their remarks imply the transition of the teacher-dependent learning to the active and independent practice of the language. ChatGPT facilitates long-term learning behaviors and learner confidence in English application by encouraging independent study, and outside the formal lessons.

Theme 6: Fun and Interesting in Learning English

Some students said that ChatGPT had made learning more fun. R16 said, *"I like to use it because it's fun and makes me want to learn,"* and R17 agreed by saying, *"It makes English more interesting now."* R41 merely wrote, *"Fun to use for English."* These three students considered ChatGPT to be a potential determining factor for attracting momentum and interest that makes learning more enjoyable and attractive. A recent study by Du and Daniel (2024) mentioned that students who claim that ChatGPT has turned the learning process into fun or interesting are describing hedonic motivation, which is an element of UTAUT2 that includes the experience of pleasure in using technology.

     Entertainment improves interest, as this in turn boosts the desire of students to keep on using the tool as a voluntary activity. The use of AI chatbots in education has also been studied, with enjoyment being reported as one of the main factors that make learners revisit their AI tools, since having fun makes them less anxious about it and more willing to practise a language. Hence, although the tool is educational, its entertaining quality turns out to be a significant motivator in long-term learning.

     Altogether, the synthesis of both quantitative and qualitative results testifies to the fact that RQ1 can be answered positively which is why students consider ChatGPT to be a useful way to learn grammar and words. But it should be noted that the RQ2 is also supported since there were some difficulties, including access issues, comprehension problems, and a lack of a systematic approach. These results emphasize the necessity to ensure a supportive learning environment and personalised scaffolding when implementing AI tools such as ChatGPT in the context of ESL classes in secondary schools.

CONCLUSION

This paper discussed the insights of 42 form 4 ESL learners at SMK Kolombong on using ChatGPT as Mobile-Assisted Language Learning (MALL) tool to aid in learning grammar and vocabulary. The results of quantitative and qualitative data showed that students overall had positive experiences of ChatGPT as a tool to help them improve their language. Most of the respondents also responded positively by claiming that ChatGPT has made learning grammar and vocabulary fun and simpler, which supports the Performance Expectancy and Effort Expectancy variables of the UTAUT model. Also, social pressure and the presence of facilitating circumstances, including internet access and the availability of devices, were significant in determining student interaction with the tool.

Nevertheless, there were also some identified challenges. Students raised issues about the validity of the answers provided by ChatGPT, the possible dependency on the tool, and the inability to comprehend the output sometimes. Nonetheless, these concerns did not arise against the combination of ChatGPT as an additional learning aid in English classrooms, particularly among learners who may have low or intermediate proficiency levels.

The study implications allow the assumption that teachers will have an opportunity to address the inclusion of AI-based tools into teaching language, focusing on grammar and vocabulary learning, using AI-based tools such as ChatGPT. Guidance by teachers and digital literacy training are, however, important to guarantee effective and responsible use.

The limitations of this research are the small sample size, the limited school context in which it operates, and the use of self-reported data. Future studies can investigate the effects of the use of ChatGPT over extended periods, the comparative analysis of different levels of proficiency or types of schools, and how to develop AI-based lesson plans specific to the ESL students. The research on the nature of interactions and the usefulness of ChatGPT among learners with various backgrounds might be another opportunity to obtain a more in-depth understanding of its pedagogical potential in Malaysian classrooms. sample size and suggest conducting larger-scale randomized controlled trials to further validate the findings.

From a theoretical perspective, this research not only helps deepen the understanding of the UTAUT model's application in the unique context of higher education but also reveals potential areas for further study and development.

Ethics Statement
This study was conducted in accordance with ethical research guidelines. Informed consent was obtained from all participants, and confidentiality was strictly maintained with the approval of the school administration.

REFERENCES

Adel, A., Ahsan, A., & Davison, C. (2024). ChatGPT promises and challenges in education: Computational and ethical perspectives. *Education Sciences, 14*(8), 814. https://doi.org/10.3390/educsci14080814

Alif, A., & Ngui, H. (2024). Using ChatGPT to reinforce English grammar learning among Malaysian ESL learners. *International Journal of Language and Linguistics, 12*(1), 55–67. https://doi.org/10.51200/ijelp.v7i1.5399

Almaiah, M., Alamri, M. M., & Al-Rahmi, M. W. (2019). Applying the UTAUT model to explain students' acceptance of mobile learning systems in higher education. *IEEE Access*. https://doi.org/10.1109/ACCESS.2019.2957206

Agyei, C., & Razi, Ö. (2022). The effect of the extended UTAUT model on EFL learners' adaptation to flipped classrooms. *Education and Information Technologies, 27*, 1865–1882. https://doi.org/10.1007/s10639-021-10657-2

Aydin, O., & Karaarslan, I. A. (2024). Is ChatGPT leading generative AI? What is beyond expectations? *Education and Information Technologies, 29*(1), 1–20. https://dergipark.org.tr/en/pub/apjess/issue/80086/1293702

Chao, M. C. (2019). Factors determining the behavioral intention to use mobile learning: An application and extension of the UTAUT model. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2019.01652

Du, J., & Daniel, K. B. (2024). Transforming language education: A systematic review of AI-powered chatbots for English as a foreign language speaking practice. *Computers & Artificial Intelligence*. https://doi.org/10.1016/j.caeai.2024.100230

Huy, N. N. P. (2025). The use of ChatGPT in EFL students as a learning assistant in their writing skills: A literature review. *International Journal of Advanced Innovations in Learning and Education*. https://doi.org/10.54855/ijaile.25213

Lo, C. K., Yu, P. L. H., & Xu, S. (2024). Exploring the application of ChatGPT in ESL/EFL education and related research issues: A systematic review of empirical studies. *Smart Learning Environments*. https://doi.org/10.1186/s40561-024-00342-5

Maharani, N. H., Fatimah, A., & Kurniawan, D. A. (2024). Mobile language learning applications: Enhancing vocabulary and grammar acquisition in EFL classrooms. *Journal of English Language Studies, 9*(1), 34–45. https://e-journal.undikma.ac.id/index.php/jollt/article/view/11041

Mohamad, M., & Woollard, J. (n.d.). Mobile learning in English language learning: An implementation strategy for secondary schools in Malaysia. *Asian Journal of English Language and Pedagogy, 12*(1), 45–59. https://eprints.soton.ac.uk/300062/1/Mobile_learning_in_English_Language_Learning_An_implementation_strategy_for_secondary_schools_in_Malaysia.pdf

Mokhtar, W. N. A. W., Anas, N., & Ibrahim, A. (2024). Ethical risks of using ChatGPT in higher education institutions in Malaysia. *ResearchGate*. https://www.researchgate.net/publication/387766204_Ethical_risks_of_using_ChatGPT_in_higher_education_institutions_in_Malaysia

Raman, A., & Rathakrishnan, M. (2018). Teachers' awareness and acceptance of FROG VLE in Malaysian schools: Applying and extending the UTAUT model. *International Journal of Mechanical Engineering and Technology (IJMET), 9*(3), 529–537. http://www.iaeme.com/IJMET/issues.asp?JType=IJMET&VType=9&IType=3

Selvanathan, B., & Narayanan, S. (2024). ChatGPT in higher education Malaysia: An opportunity or threat to the education system? *International Journal of Academic Research in Progressive Education and Development, 13*(3), 55–71. http://dx.doi.org/10.6007/IJARPED/v13-i3/21455

Shohor, S. A., & Hashim, H. (2024). The application of mobile-assisted language learning (MALL) in ESL classrooms: A systematic literature review (2020–2024). *Asian Journal of English Language and Education, 10*(1), 15–29. https://doi.org/10.12345/ajele.v10i1.1024

Trinh, K. N. (2024). The use of ChatGPT for vocabulary acquisition: A literature review. *International Journal of Advanced Innovations in Learning and Education*. https://doi.org/10.54855/ijaile.24121

Uddin, I., Fayyaz, N., Bilal, N., Shahid, N., & Ali, I. (2023). Getting to know ChatGPT: An introduction to implementation and working. *ResearchGate*. https://www.researchgate.net/publication/372890276_Getting_to_Know_ChatGPT_An_Introduction_to_Implementation_and_Working

Vo, H. N. (2020). Understanding higher education learners' acceptance and use of mobile devices for language learning: A Rasch-based path modeling approach. *Computers & Education*. https://www.sciencedirect.com/science/article/abs/pii/S0360131519303148?via%3Dihub

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478. https://www.researchgate.net/publication/220259897_User_Acceptance_of_Information_Technology_Toward_a_Unified_View

Xue, L., Rashid, A. M., & Ouyang, S. (2024). The Unified Theory of Acceptance and Use of Technology (UTAUT) in higher education: A systematic review. *SAGE Open, 14*(1). https://doi.org/10.1177/21582440241229570

THE EFFECTS OF PODCASTS ON ESL SECONDARY SCHOOL STUDENTS' LISTENING SKILLS, MOTIVATION, AND ENGAGEMENT

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ABSTRACT

This study aims to investigate the effects of podcasts on ESL secondary school students' listening skills, motivation, and engagement. There are two objectives of this study which are to determine the change in ESL students' listening skills from before and after using podcasts and to assess ESL secondary school students' motivation and engagement in listening activities after using podcasts by 31 secondary school students of SMK Inanam, Inanam, Sabah. In this single-group pre-post experimental design, the data were collected through a pre- and post-intervention survey adapted from Pratiwi et al. (2024). Results revealed a significant improvement in listening skills, with the mean score increasing from 3.28 to 3.64. Their views on Podcasts also improved by 0.32 from 3.59 to 4.02 in mean values. Students also reported a high perceived level of motivation and engagement with the mean of 3.98, reflecting positive attitudes towards podcast use. This study implies that integrating podcasts can significantly enrich ESL instruction, creating a more dynamic and student-centered environment that fosters improved language acquisition.

Keyword(s): *podcasts, ESL secondary school students, listening skills, motivation, engagement*

INTRODUCTION

In today's generation, the use of digital tools for teaching and learning in schools has been increasing where these tools enhance students' learning and educators' teaching methods. The use of technology allows language teachers to add a range of authentic resources and interactive exercises that can boost learners' engagement and motivation (Uzun, 2023). Moreover, the accessibility of software tools and multimedia resources has simplified the process of creating engaging listening exercises that can accommodate the varying needs and preferences of students.

The four main skills that need to be taught to students when learning the English language are listening, speaking, reading and writing (Sukmawati & Eka, 2018, as cited in Sabrila & Apoko, 2022). Listening, in particular, is foundational as it is needed in the development of the other three skills. Effective listening skills enable students to understand spoken language, in this case, the English language. In addition, if someone has the skill for listening, they can have effective communication with others (Rullu, 2022). Thus, this particular skill is important as it is used for

communication and further language learning. Traditionally, teaching listening skills relied on educators reading texts aloud or playing pre-recorded audio clips that are provided with the textbooks. Other traditional ways of teaching listening skills include cassettes, CDs, DVDs and vinyl (Harahap, 2020). While these methods have benefits, students are not engaged, causing them to lack motivation and have limited attention spans during listening activities.

To counter these challenges, digital tools that show promise, such as podcasts, have emerged. Podcasts offer several benefits compared to traditional methods. One of the benefits is that it can cater to different types of learning styles of students. Another benefit is that it can provide authentic language models. Other than that, using podcasts can create immersive learning experiences that enhance the comprehension and retention of students. Thus, through the use of technology, teachers or educators can assist students by using podcasts to enhance their listening skills, motivation, and engagement.

This study aims to investigate the effects of podcasts on ESL secondary students' in enhancing their listening skills, motivation, and engagement. There is a lack of information on the effects of podcasts on ESL secondary students' listening skills, motivation, and engagement, which is what this study sought to contribute to. This research was conducted with two objectives:

1. To determine the change in ESL secondary school students' perceptions of their listening skills and views towards Podcast,
2. To identify the ESL secondary students' perception of their motivation and engagement in listening activities after using podcasts.

LITERATURE REVIEW

Podcasts have emerged as a highly effective multimedia tool in enhancing English as a Foreign Language (EFL) students' listening comprehension, alongside showing results where their motivation and engagement were significantly boosted in language learning. The impact that was found using podcasts can be understood more by considering their alignment with key psychological needs for motivation, as stated in Self-Determination Theory (SDT), and their capacity to manage cognitive processing according to Cognitive Load Theory (CLT).

Multiple studies have proved the direct positive correlation between the integration of podcasts and improved listening skills. For example, a study by Abdulrahman et al. (2018) showed that EFL students who utilized podcasts as listening materials exhibited marked improvements in their listening comprehension compared to those who were taught in a more traditional learning setting. This enhancement is caused partly by the unique features of podcasts that manage one of the loads in CLT, the intrinsic cognitive load (Sweller, 1991, as cited in Asma & Dallel, 2020). Compared to passive listening experiences, podcasts allow learners to have control over playback features such as pausing, rewinding, and relistening to challenging segments. This flexibility enables students to break down complex linguistic information, such as new vocabulary or intricate sentence structures, into manageable chunks, thereby reducing the burden on the students' memories and facilitating more effective processing. The ability to control podcasts also fosters a crucial sense of autonomy, a core psychological need identified by Self-Determination Theory (Deci & Ryan, 2000), as students feel empowered in directing their own learning pace and engagement with the listening material.

Beyond skill improvement, podcasts serve as a powerful tool for enhancing students' engagement and intrinsic motivation as well. Abdulrahman et al. (2018) stated that the students who utilised podcasts have significantly higher motivation, which was caused by engaging features like authentic content, flexible listening pace, and diverse topics that made learning

enjoyable and personally relevant. This was also supported by Rabie (2023), who showed that incorporating podcasts led to substantial increases in motivation among EFL secondary students. In addition, the students perceived podcasts as an effective and easy-to-use tool that employed authentic language. The dynamic nature of audio content and its connection to real-life situations encourage critical and creative thinking, enabling students to visualize scenarios that they hear from the podcasts and promote problem-solving skills.

More importantly, the engaging and authentic nature of podcast content contributes to a reduction in extraneous cognitive load (CLT). When students are genuinely interested and invested when learning, their attention is less likely to be diverted by non-essential elements or inefficient instructional design of the lesson, allowing mental effort to be directed more effectively towards understanding the language. The podcasts that focus only on audio also minimize visual distractions, further supporting focused linguistic processing and fostering a sense of competence (SDT) as learners successfully comprehend authentic English.

Furthermore, learner autonomy, a fundamental principle of Self-Determination Theory, is profoundly supported by podcasts. A study by Gonulal (2020) highlighted that the freedom students had to choose their own podcasts significantly increased their enjoyment and engagement. This choice directly addresses the SDT need for autonomy, allowing students to engage with content relevant to their interests, thereby boosting intrinsic motivation. This self-directed engagement is vital for fostering germane cognitive load (CLT), which involves the productive mental effort students expend to integrate new linguistic knowledge with existing schemata. When students can connect new vocabulary, structures, and pronunciations to their prior knowledge and interests through personally selected topics, it promotes the formation of a robust mental framework for language acquisition.

Gonulal (2020) also stated that extensive listening to podcasts led to improved listening fluency and pronunciation, further demonstrating how consistent exposure to authentic language, driven by the students' choice and engagement, optimizes germane load. Consequently, by strategically optimizing cognitive load (CLT) and fulfilling fundamental psychological needs for autonomy and competence (SDT), podcasts provide a rich learning environment that maximizes productive mental effort for effective EFL listening acquisition.

METHODOLOGY

The research design employed in this study is a quantitative approach using a single-group pre-survey post-survey design. Conducting a quantitative approach is a fundamental method where decisions are based on evidence. Its significance is immense because its methods offer empirical precision, allowing academics, industry professionals, and government policymakers to extract practical insights from data (Lim, 2024). Thus, this approach is the most suitable to conduct studies about the effects of using podcasts on ESL secondary school students' listening skills, motivation, and engagement.

This sample of this study included thirty-one secondary school students. The participant group comprised a balance of both male and female students, representing a range of English proficiency levels from intermediate to advanced. Students with different academic backgrounds and English proficiency, with their willingness to participate also being a key factor.

Data was collected through a digital survey administered via Google Forms. This approach was selected as the most suitable method for efficiently collecting quantitative data on ESL secondary school students' listening skills, motivation, and engagement. The instrument was adapted from Pratiwi et. Al. (2024) and modified to suit the secondary school setting. The pre-

intervention questionnaire featured three sections in Table 1: Section A: Demographic Information, Section B, Current Listening Skills, which assesses students' self-perceived listening abilities in English, and the last section, Section C, Views Towards Podcasts, was designed to gauge students' prior experience with and attitudes towards podcasts in general.

Table 1: Pre-Intervention Questionnaire

Item	Statement	
	SECTION B: PERCEPTIONS ON LISTENING SKILL	**SECTION C: VIEWS TOWARDS PODCASTS**
1	I can understand the main idea when listening to spoken English.	I know what a podcast is.
2	I can follow classroom instructions in English without much difficulty.	I have listened to a podcast before.
3	I find it easy to understand English conversations in audio recordings.	I think podcasts can help improve my English listening skills.
4	I struggle to catch specific details when listening to English	I feel interested in trying podcasts for learning English.
5	I can understand different English accents when listening.	I prefer listening to audio materials compared to reading texts.
6	I need to listen several times to understand an English audio.	I think podcasts can make listening lessons more enjoyable.
7	I feel confident about my English listening skills.	I believe using podcasts will keep me focused during listening activities.
8	I can guess the meaning of unfamiliar words when listening to English.	I expect that podcasts will help me understand English speakers better.
9	I find it difficult to stay focused during English listening tasks	I am confident that I can follow and understand a podcast in English.
10	I understand more when audio includes visuals or context clues.	I think podcasts could make learning English more interesting.

The post-intervention questionnaire has similar constructs but is adapted to reflect students' experiences during the podcast-based lessons. Section B focused on perceptions of listening skills specifically in relation to the podcast tasks, while Section C assessed their views on the usefulness, enjoyability, and effectiveness of using podcasts for English learning. An additional Section D with 10 items measured students' motivation and engagement during the

podcast activities. All items were rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Table 2: Pre-Intervention Questionnaire

Item	Statement	
SECTION B: PERCEPTIONS ON LISTENING SKILL		**SECTION C: VIEWS TOWARDS PODCASTS**
1	I can understand the main idea when listening to an English podcast.	I think podcasts are useful for improving my English listening skills.
2	I could follow the classroom instructions during the podcast activity without much difficulty.	I enjoy listening to podcasts as a learning activity.
3	I found it easy to understand English conversations in the podcast.	Podcasts make learning English more interesting.
4	I struggled to catch specific details while listening to the podcast.	I feel more motivated to learn when using podcasts.
5	I could understand the speaker's accent in the podcast.	Podcasts are easier to understand than textbook audio materials.
6	I needed to reply to parts of the podcast to understand the message.	I would like to use podcasts more often in English lessons.
7	I feel more confident about my listening skills after listening to a podcast.	Podcasts help me understand different accents and ways of speaking.
8	I could guess the meaning of unfamiliar words while listening to the podcast.	I feel confident learning English through podcasts.
9	I found it difficult to stay focused during the podcast listening task.	Podcasts can help me improve my vocabulary and pronunciation.
10	I understood more when the podcast gave examples or explained the topic clearly.	Podcasts help me focus better during listening activities.
SECTION D: MOTIVATION AND ENGAGEMENT		
I felt interested in the podcast lesson.		
I was focused throughout the podcast activity.		
I wanted to understand the podcast because it sounded interesting.		

I found myself trying harder to listen carefully during the podcast.
The podcast made the listening lesson more enjoyable.
I felt motivated to participate in follow-up activities after listening.
I paid more attention because I liked the podcast content.
I would like to use podcasts in future English lessons.
Listening to the podcast helped me stay engaged from start to finish.
I felt more confident in my listening skills after the podcast lesson.

This study also involved a three-week intervention with Podcasts during English lessons, with 2 sessions conducted weekly. In all the listening sessions, at least 2 podcasts were played. For instance, in Week 2, *should zoos exist? - What in the World podcast, BBC World Service (BBC World Service),* and *Friendship Frustrations, Advice Session (Emma Chamberlain)* were played. Figure 1 summarizes the data collection and analysis for this study.
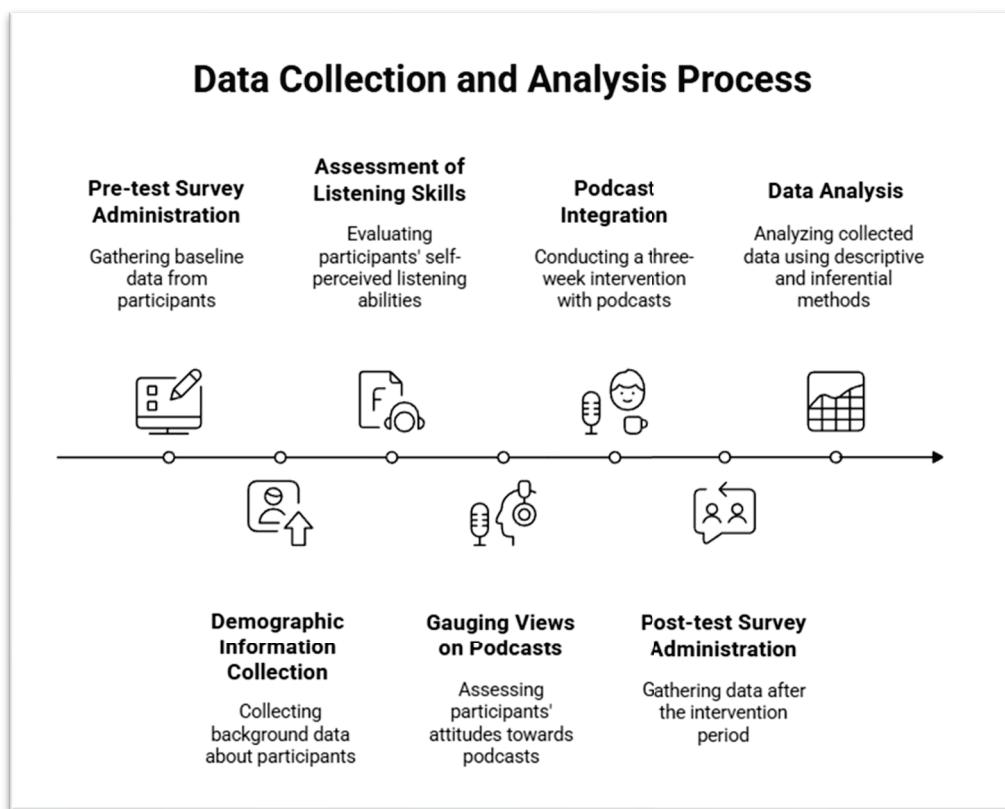
Figure 1: Data Collection and Analysis Process

Responses were collected and systematically organized with strict confidentiality protocols in place. Each response was anonymized and securely stored to prevent association with individual participants. Both pre-intervention and post-intervention surveys also included asking for consent, clear instructions, confidentiality and anonymity, and reminders that the surveys would not affect the students' grades. The data collected were analyzed using descriptive analysis and an inferential analysis (paired-sample t-test).

FINDINGS

The study aimed to investigate the effects of podcasts on ESL secondary school students' listening skills, views on podcasts, motivation, and engagement.

ESL Secondary School Students' Perceptions of Their Listening Skills with the Podcast Intervention

Table 1 presents students' self-perceived listening skills before and after the intervention, which generally fell into the moderate to moderately good range, according to the 5-point Likert scale. The highest mean score was for Item 1, "I can understand the main idea when listening to spoken English" (M=4.03, SD=0.75), suggesting that students felt relatively confident in grasping the general gist of spoken English. Conversely, students reported a lower perceived ability in Item 9, "I find it difficult to stay focused during English listening tasks" (M=2.71, SD=1.10) and Item 4, "I struggle to catch specific details when listening to English" (M=2.90, SD=0.97), indicating these areas were perceived as more challenging before the intervention.

Table 1: Students' Perceptions on Listening Skills before and after Podcast Intervention

Question	Pre		Post	
	Mean	**SD**	**Mean**	**SD**
1	4.03	0.75	4.10	0.65
2	3.58	0.80	3.97	0.70
3	3.42	0.84	3.87	0.71
4	2.90	0.97	2.94	0.81
5	3.23	0.88	3.90	0.65
6	3.29	1.03	3.13	0.99
7	3.35	0.83	3.94	0.68
8	2.90	0.87	3.74	0.72
9	2.71	1.10	3.00	1.12
10	3.45	1.21	3.90	0.74

The descriptive statistics for students' self-perceived listening skills after the podcast intervention is also presented. Overall, there was a noticeable increase in positive perceptions compared to the pre-survey mean values. The highest mean was observed for Item 1, "I can understand the main idea when listening to an English podcast," (M=4.10, SD=0.65), indicating strong confidence in grasping the main points. Similarly, high means were found for Item 2, "I could follow the classroom instructions during the podcast activity without much difficulty," (M=3.97) and Item 7,

"I feel more confident about my listening skills after listening to a podcast." (M=3.94, SD=0.68), suggesting increased ease and self-assurance in listening tasks.

Despite the general improvement, some areas still present challenges. The lowest mean was for Item 4, "I struggled to catch specific details while listening to the podcast," (M=2.94, SD=0.81) and Item 9, "I found it difficult to stay focused during the podcast listening task," (M=3.00, SD=1.12). These mean values, although slightly higher than their pre-survey counterparts, still indicate that students continued to perceive difficulties with detailed comprehension and maintaining focus during podcast listening.

Table 2: Students' Views towards Podcast before and after Podcast Intervention

Question	Pre		Post	
	Mean	**SD**	**Mean**	**SD**
1	3.87	0.88	4.29	0.83
2	3.94	0.89	4.26	0.63
3	3.81	0.87	4.23	0.72
4	3.65	0.88	4.06	0.73
5	3.32	0.88	3.74	0.82
6	3.81	0.87	3.71	0.78
7	3.58	0.77	4.00	0.68
8	3.65	0.76	3.81	0.70
9	3.42	0.77	4.16	0.64
10	3.94	0.68	3.97	0.66

Table 2 presents findings on students' views on Podcasts. Before the intervention, students' views on podcasts generally fell in the moderate to moderately good range. They reported good foundational awareness and prior experience with podcasts, as shown by high agreement with items such as "I know what a podcast is" (M=3.87) and "I have listened to a podcast before" (M=3.94), as well as positive expectations for engagement, e.g., "Podcasts could make learning English more interesting" (M=3.94). Lower initial agreement was observed for preferences for audio over text (3.32) and confidence in understanding podcasts in English (3.42). After the intervention, students' self-perceived listening skills improved noticeably, with the highest agreement for understanding main ideas in podcasts (M=4.10), following classroom instructions (M=3.97), and feeling more confident about listening skills (M=3.94). However, some challenges remained, particularly in catching specific details (M=2.94) and maintaining focus during listening tasks (M=3.00), indicating that detailed comprehension and sustained attention continued to be areas of moderate difficulty

A paired-samples t-test indicated in Table 3 shows significant improvements in students' self-perceived listening skills and their views toward podcasts following the intervention. Listening skills increased from a pre-intervention mean of 3.28 to a post-intervention mean of 3.64, $t(30)$ = 3.66, $p < .001$, with a mean difference of 0.36 and a medium effect size (Cohen's d = 0.54). Similarly, students' views on podcasts improved from 3.69 to 4.02, $t(30)$ = 3.02, $p = .005$, with a mean difference of 0.32 and a medium-to-large effect size (Cohen's d = 0.60). These findings suggest that the podcast intervention was effective in enhancing both listening skills and students' positive perceptions of podcasts as a learning tool.

Table 3: Changes in Students' Perceptions towards Listening Skills and Views towards Podcast before and after Podcast Intervention

Variable Pair	Mean (Pre)	SD (Pre)	Mean (Post)	SD (Post)	Mean Difference	t	df	p	Cohen's d
Pre- vs. Post-Listening Skills	3.28	0.49	3.64	0.36	+0.36	3.66	30	< .001	0.54
Pre- vs. Post-Views on Podcasts	3.69	0.56	4.02	0.55	+0.32	3.02	30	.005	0.60

ESL Secondary Students' Perception of Their Motivation and Engagement in Listening Activities After Using Podcasts

Table 4 presents the descriptive statistics for students' motivation and engagement levels after participating in the podcast activities. The results generally indicate very high levels of motivation and engagement. The highest mean score was for Item 3, "I wanted to understand the podcast because it sounded interesting." with the mean of 4.26 and the standard deviation of 0.729, which strongly suggests that the content's appeal was a primary driver for engagement. Other highly rated items include Item 1, "I felt interested in the podcast lesson." with the mean of 4.16 and the standard deviation of 0.860 and Item 5, "The podcast made the listening lesson more enjoyable." with the mean of 4.16 and the standard deviation of 0.77, highlighting the enjoyable and stimulating nature of the podcast method.

Table 4: Students' Perceptions towards Their Motivation and Engagement

Question	Pre	
	Mean	SD
1	4.16	0.86
2	3.97	0.79
3	4.26	0.73
4	3.90	0.94
5	4.16	0.78
6	3.81	0.75
7	4.00	0.86
8	3.81	0.75
9	3.84	0.74
10	3.87	0.67

Even the lowest mean scores, such as for Item 6, "I felt motivated to participate in follow-up activities after listening (M = 3.81, SD = 0.75), and Item 8, "I would like to use podcasts in future English lessons." (M=3.81, SD=0.75) still falls into the above neutral to high perceived level range. This indicates a consistent and strong positive response across all aspects of motivation and engagement, further supporting the overall high mean for the composite motivation and engagement score.

DISCUSSION

This study has proven that podcasts have positive effects on ESL secondary school students' perceptions of their listening skills, views on Podcasts, motivation, and engagement. This study is aligned with research where they discovered that incorporating podcasts into the curriculum did lead to significant improvements in not only speaking but also listening. Past research also proved that listening skills with extensive listening using podcasts and podcasts, can be improved. They discovered that the college-level EFL students' enjoyment and engagement increased due to their choosing their own podcasts. Students also became "motivationally engaged" when podcasts were used during their listening and speaking activities. (Rabie, 2023; Abdulrahman et al., 2018; Gonulal, 2020)

These positive findings can be explained more deeply through the lens of Cognitive Load Theory (CLT), where podcasts can be seen as instrumental in optimizing cognitive processes involved in listening. By providing information in an organized and understandable way, podcasts can help manage extraneous cognitive load, which means the mental effort caused by inefficient instructional design. This allows students to focus more on their intrinsic load, which is the inherent complexity of the listening material, and facilitates Germane load, the productive mental effort needed to integrate new listening knowledge with existing schemata (Sweller, 1991, as cited in Asma & Dallel, 2020). The ability to pause, replay, and control the pace of listening, inherent in podcasts, likely contributes to this optimization, enabling students to process information effectively and thus enhance their comprehension.

Self-Determination Theory (SDT) can demonstrate that the satisfaction of innate psychological needs for autonomy, competence, and relatedness is fundamental for fostering intrinsic motivation and engagement (Deci & Ryan, 1985). The generally high mean, 3.98, of motivation and engagement supported the fulfillment of these needs for ESL secondary students. For autonomy, although the teacher facilitated the selection and integration of the podcast, the students still have control over where they will ask for the pace to be slowed down for them to understand better. Thus, giving them a sense of control causes them to be more motivated and engaged. For competence, the engaging nature and potentially scaffolded use of podcasts, such as comprehension checks to ensure students understand the questions and answers better, could have allowed students to experience successful comprehension and progress in their listening skills. The feeling of successfully understanding authentic content or improving their listening ability would satisfy their need for competence, thereby boosting their engagement. For relatedness, podcasts in general often expose learners to authentic language and real-world conversations, fostering a sense of connection to the target language community or relevant topics.

The overall findings and results implied that students benefit greatly from the method of listening to podcasts during listening activities. As mentioned a few times, this reflects the dual benefit of podcasts in enhancing ESL secondary students' listening skills and fostering a significantly positive affective response, specifically in terms of motivation and engagement.

As the results of this study showed a positive outcome, podcasts can be utilized as an engaging, versatile, and alternative tool when it comes to traditional listening methods. Teachers and educators can use this method as it motivates and engages students to listen during listening activities. This approach can transform potentially daunting or monotonous listening tasks into dynamic and stimulating learning experiences. This study also suggests that curriculum developers should do a re-evaluation of the current listening materials and pedagogical guidelines. Curriculum developers should consider formally incorporating authentic digital audio

resources, such as podcasts, into official ESL syllabi and textbooks, rather than merely suggesting them as supplementary materials.

CONCLUSION

Overall, this study aimed to investigate the effects of using podcasts on ESL secondary school students' perceptions on their listening skills and their perceived levels of motivation and engagement in listening activities. Based on the findings, students made statistically significant progress in their listening skill and their motivation with engagement increased as well. Overall, this study presents that using podcasts is an impactful, and engaging tool in helping ESL students develop and improve their listening skills while increasing their motivation and engagement. It is not only focusing in improving listening skills but also students' competency in spoken communications. With a creative and well-structured listening activity that implements podcasts, this approach can foster a more motivating and engaging class while encouraging authentic spoken language use.

REFERENCES

Abdulrahman, T., Basalama, N., & Rizky, W. M. (2018, July). The Impact of Podcasts on EFL Students' Listening Comprehension. *International Journal of English Linguistics, 8(*6), 122-122. http://dx.doi.org/10.5539/ijel.v8n6p122

Asma, H. & Dallel, S. (2020). Cognitive Load Theory and its Relation to Instructional Design: Perspectives of Some Algerian University Teachers of English. *Arab World English Journal, 11(*4), 110–127. https://doi.org/10.24093/awej/vol11no4.8

Gonulal, T. (2020). Improving Listening Skills with Extensive Listening Using Podcasts and Vodcasts. *International Journal of Contemporary Educational Research, 7(*1), 311-320. https://doi.org/10.33200/ijcer.685196

Harahap, S, D. (2020). Podcast Impacts On Students' Listening Skill: A Case Study Based On Students' Perceptions. 1(4). https://doi.org/10.47492/jip.v1i4.166

Lim, W, M. (2024, August 1). What Is Quantitative Research? An Overview and Guidelines. Australasian Marketing Journal. https://doi.org/10.1177/14413582241264622

Pratiwi, E. R., Bunau, E., & Wardah, W. (2024). Students' Perception on the Use of Podcast in Encouraging Listening Comprehension . *LinguA-LiterA: Journal of English Language Teaching Learning and Literature*, *7(*2), 24–33. Retrieved from https://jurnal.stkippgritrenggalek.ac.id/index.php/lingua/article/view/846

Rabie, D. A. K. (2023, July). The Effectiveness of Podcasts in Developing the Listening and Speaking Skills of EFL Secondary Stage Students and Motivation . *Journal of The Faculty of Education- Mansoura University, 123(*4), 219-240. https://dx.doi.org/10.21608/maed.2023.328700

Ryan, R. M., & Deci, E. L. (1985, January). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychological Association, 55(*1), 68-78.

Reed, T. G., Appleton, J., Rodriguez, M., Ganuza, Z., & Reschly, A. L. (2012, August 3). Exploring the Student Engagement Instrument and Career Perceptions with College Students. *Journal of Educational and Developmental Psychology*, *2(*2), 85-96. https://doi.org/10.5539/jedp.v2n2p85

Rullu, S, M. (2022). Students' Perceptions In Learning Listening. *Jurnal Pendidikan Glasser, 6(*2), 191. https://doi.org/10.32529/glasser.v6i2.1499

Sabrila, R, A, P. & Apoko, T, W. (2022). The Effectiveness of Podcast on Listening Skill for Vocational School Students. IDEAS: *Journal on English Language Teaching and Learning, Linguistics and Literature, 10(2*), 1177–1186. https://doi.org/10.24256/ideas.v10i2.2897

Uzun, L. (2023). Enhancing Foreign Language Learners' Listening Skills through Technology: A Sample Lesson. *Studies in English Language Teaching, 11(*2), p23. https://doi.org/10.22158/selt.v11n2p23

STUDENT PERFORMANCE CLASSIFICATION IN E-LEARNING: INSIGHTS FROM PREDICTIVE LEARNING ANALYTICS AND MACHINE LEARNING

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Abstract

Predictive learning analytics has emerged as a critical research area in educational technology, integrating machine learning, data mining, and statistical modelling to forecast student outcomes and inform timely interventions. Building on the traditions of educational data mining and learning analytics, predictive learning analytics leverage large-scale learner datasets generated from learning management systems and massive open online courses. This paper conducts a short review of predictive learning analytics studies published between 2021 and 2025, following PRISMA 2020 guidelines. From an initial set of 35 records retrieved through Google Scholar, 10 studies were selected based on defined inclusion criteria. A taxonomy of predictive learning analytics research is developed across four dimensions namely study objectives, techniques, learning environments, and evaluation metrics. This paper reveals four dominant objectives which are early identification of at-risk students, performance prediction, personalised learning support, and institutional decision support. Methodologies span traditional machine learning workflows, deep learning architectures, hybrid models, and system-level frameworks. Notable applications include early warning systems, personalised intervention platforms, and institutional dashboards. However, several challenges persist, including fragmented datasets, limited generalisability, lack of interpretability in deep learning models, privacy and ethical concerns, and inconsistent evaluation practices. This paper highlights PLA's potential to enhance student retention, personalised instruction, and institutional planning when applied responsibly. This paper concludes with recommendations for educators, emphasising the adoption of explainable models, integration of diverse learner data, and development of course-agnostic approaches to improve scalability and trust in predictive systems.

Keyword(s): *e-learning, predictive learning analytics, machine learning, student performance, classification*

INTRODUCTION

Predictive Learning Analytics (PLA) has emerged as a significant research area within educational technology, combining machine learning (ML), data mining (DM), and statistics to forecast and predict student outcomes (Namoun and Alshanqiti, 2020; Sharma et al., 2023). PLA builds on the

foundations of Educational Data Mining (EDM) and Learning Analytics (LA), which leverages large-scale learner data generated in online platforms such as Learning Management Systems (LMS) and Massive Open Online Courses (MOOCs) (Alhothali et al., 2022; Pan et al., 2025).

The increasing adoption of MOOCs and other e-learning environments has generated immense interaction datasets. These phenomena demand effective PLA for identifying at-risk students, supporting adaptive interventions, and enabling scalable learning personalisation (Rizwan et al., 2025). However, these phenomena also present challenges to institutions such as high dropout rates and low retention rates, which threaten the effectiveness of online learning (Rizwan et al., 2025). Effective PLA models can mitigate such risks by enabling timely interventions that improve student outcomes and institutional planning.

Although many studies have explored PLA, the research landscape remains fragmented. Prior reviews highlighted diverse methodologies, datasets, and evaluation metrics, with no universal consensus on the most effective algorithms or features (Pan et al., 2025). For example, Alhothali et al. (2022) reviewed ML and deep learning (DL) methods for predicting student outcomes in MOOCs, focusing on dropout and performance prediction, while Sghir et al. (2022) provided a decade-long review (2012–2022) on modeling processes and evaluation criteria. More recently, Rizwan et al. (2025) systematically reviewed factors affecting academic performance and engagement in MOOCs using DL, emphasizing behavioural and clickstream data alongside demographic and academic features.

Despite these contributions, gaps remain in synthesising findings across recent years (2021–2025). To address this gap, this paper conducts a short review of PLA studies between 2021 and 2025, following the PRISMA 2020 guidelines (Page et al., 2021). A total of 35 records were retrieved from Google Scholar using the keyword string of "e-learning" AND "predictive learning analytics" AND "machine learning" AND "student performance" AND "classification" AND "OULAD", of which 10 met the inclusion criteria after screening. This paper categorises PLA by study objectives, techniques, learning environments, and evaluation metrics, and further discusses methodologies, applications, challenges, and directions for future research.

The remainder of this paper is structured as follows. Section 2 outlines the background of PLA. Section 3 develops a taxonomy of PLA studies based on objectives, techniques, environments, and metrics. Section 4 examines methodologies and applications. Section 5 discusses challenges and limitations. Finally, the conclusion provides recommendations for educators.

BACKGROUND OF PREDICTIVE LEARNING ANALYTICS
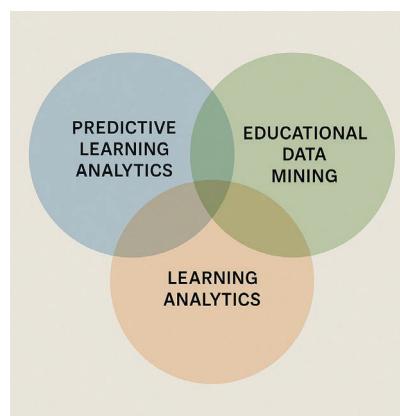
Figure 1: Relationship between predictive learning analytics, education data mining and learning analytics.

As shown in Figure 1, the origins of PLA are closely tied to the evolution of EDM and LA. EDM, which gained prominence in the early 2000s, primarily focused on discovering patterns in educational data to support instructional design (Sghir et al., 2022). PLA extends this by applying predictive models that forecast and predict student outcomes, thereby offering actionable insights for proactive interventions that can be taken by institutions (Pan et al., 2025).

PLA's rise is also a response to the rapid digitalisation of education especially after the COVID-19 pandemic. Online learning platforms such as MOOCs and LMS generate extensive behavioural, demographic, and academic datasets (Alhothali et al., 2022; Rizwan et al., 2025). While EDM emphasises algorithmic discovery of hidden patterns, PLA is oriented toward decision-making based on prediction and forecasting. PLA is also operationalised in early warning systems that allow educators to intervene before education failure occurs (Pan et al., 2025).

Thus, PLA represents another circle and intersects with EDM's pattern-discovery tradition and LA's decision-support orientation. These three areas aim to improve retention, personalise instruction, and optimise institutional strategies. Its relevance continues to grow with the expansion of online education and the availability of benchmark datasets such as the Open University Learning Analytics dataset (OULAD), which facilitate reproducibility and cross-study comparisons (Pan et al., 2025; Rizwan et al., 2025).

TAXONOMY OF PREDICTIVE LEARNING ANALYTICS

The recent studies on PLA demonstrate a wide diversity of approaches, which can be categorised along four dimensions such as objectives, techniques, learning environments, and evaluation metrics. This section provides an analytical lens to compare studies and highlight common practices as well as gaps.

Objectives

There are four objectives that PLA studies commonly pursue. Firstly, identifying at-risk students. Many studies prioritise the earliest possible detection of learners likely to fail or withdraw. For example, Adnan et al. (2021) used the OULAD dataset to predict dropout risk at different percentages of course completion. They suggested that random forest model is the most effective model for early intervention.

Secondly, predicting performance and grades. Al-Azazi and Ghurab (2023) developed an ANN-LSTM model, which is the combination of artificial neural network and long short-term memory, for a multi-class prediction (distinction, pass, fail, withdrawn) in MOOCs.

Thirdly, personalising learning support. PLA systems increasingly aim to tailor interventions by modelling behavioural and emotional dimensions. Kukkar et al. (2024) introduced a hybrid of recurrent neural network, long short-term memory feature selection and ML approach using academic, demographic, and emotional data to improve personalised prediction accuracy.

Finally, institutional decision support. Beyond individual-level forecasting, some research integrates PLA into data-driven educational management. Abdul Rahim et al. (2024) introduced data lake architecture to unify student information and LMS logs, enabling scalable prediction and supporting administrative decision-making.

Techniques

PLA employs a wide range of ML and DL methods. Traditional ML models such as decision trees, Naïve Bayes, support vector machines, and k-nearest neighbours remain widely used in the experiments due to their interpretability and efficiency (Adnan et al., 2021; Abdul Rahim et al., 2024). Then, ensemble ML such as random forest and gradient boosting often outperform single traditional ML models, with studies reporting strong results in both early and final-stage predictions (Abdul Rahim et al., 2024).

Besides that, DL architectures like recurrent neural networks, long short-term memory, and hybrid ANN-LSTM models are gaining adoption for sequential and time-dependent student behaviour modelling. For instance, Al-Azazi and Ghurab (2023) and Kukkar et al. (2024) demonstrated superior accuracy when combining long short-term memory with ML classification models.

Moreover, there is a growing interest in hybrid frameworks. Integrating statistical methods, ML, and DL has been proposed to balance predictive power and explainability. Ahmadian Yazdi et al. (2022) emphasised combining interpretable ML models with deep architectures to address the trade-off between accuracy and transparency.

Learning Environments

PLA research spans diverse educational contexts. MOOCs are a dominant testbed, and current studies often rely on the OULAD dataset to benchmark prediction models (Adnan et al., 2021; Al-Azazi and Ghurab, 2023; Kukkar et al., 2024). Similarly, clickstream and engagement logs from LMSs such as Moodle and institutional platforms are also used for prediction models benchmarking (Abdul Rahim et al., 2024).

We also noticed that some studies integrate institutional data such as demographics, grades, enrolment records with LMS logs to provide a more holistic view of student behaviour and outcomes (Abdul Rahim et al., 2024). Then, PLA is increasingly linked with emotional and behavioural data to capture holistic learning profiles (Kukkar et al., 2024).

Evaluation Metrics

Performance evaluation in PLA relies on several common metrics. Accuracy is the most reported metric across studies, though limited in imbalanced datasets (Adnan et al., 2021). Then, precision, recall, and F1-score are frequently adopted to evaluate early detection of at-risk students, especially where false negatives carry higher consequences (Abdul Rahim et al., 2024). Additionally, macro and micro F1-scores are used in multi-class settings to balance class-level and instance-level performance reporting (Al-Azazi and Ghurab, 2023).

METHODOLOGIES AND APPLICATIONS

PLA methodologies can be classified into ML workflows, DL architectures, hybrid approaches, and system-level frameworks.

Machine Learning Workflows

Traditional ML remains widely adopted due to interpretability and computational efficiency. Adnan et al. (2021) applied multiple ML algorithms to the OULAD dataset for predicting student performance at different percentages of course length. Their experiments showed that random forest consistently outperformed most traditional classifiers, especially when integrating demographics, clickstream, and assessment features. Such workflows typically involve careful data preprocessing, splitting datasets for cross-validation, and evaluating performance using precision, recall, F1-score, and accuracy.

Deep Learning Architectures

DL models are increasingly employed for capturing sequential and time-dependent learning behaviours. Al-Azazi and Ghurab (2023) proposed a hybrid DL model that classifies learners into multi-class outcomes such as distinction, pass, fail, withdrawn in MOOCs. Their architecture achieved up to 72% accuracy by the end of the course. Similarly, Kukkar et al. (2024) combined recurrent neural network and long short-term memory with random forest to leverage both temporal dependencies and strong classification performance, achieving nearly 97% accuracy. These approaches highlight DL's ability to model complex interactions in educational datasets.

Hybrid and Ensemble Approaches

Recent methodologies emphasise blending ML and DL to balance predictive accuracy with interpretability. Kukkar et al. (2024) combined emotional and academic variables into a hybrid pipeline, while Ahmadian Yazdi et al. (2022) combined interpretable ML with DL to address the trade-off between transparency and performance. Ensemble learning techniques remain popular, especially in institutional-level prediction systems (Abdul Rahim et al., 2024).

System-Level Applications

Methodologies also extend to architectural frameworks. Abdul Rahim et al. (2024) developed a big data lake framework integrating LMS logs and institutional databases to support predictive dashboards and decision-making at scale. This demonstrates PLA's role beyond individual performance prediction, enabling institutional analytics for curriculum planning, resource allocation, and policy formulation.

In terms of application, PLA models have been successfully deployed in early warning systems, personalised intervention platforms, and institutional dashboards. Adnan et al. (2021) demonstrated how at-risk detection models can inform instructor interventions as early as 20% into the course. Al-Azazi and Ghurab (2023) showed how day-wise sequential prediction allows near real-time monitoring of student progress in MOOCs. Abdul Rahim et al. (2024) highlighted institutional applications where predictive insights inform administrators' decisions. These applications illustrate PLA's dual role which is supporting individual-level personalisation and system-level decision support.

CHALLENGES AND LIMITATIONS

Despite advancements, PLA faces persistent challenges that limit generalisability and adoption in real-world educational contexts. This section will discuss data quality and availability, generalizability across contexts, interpretability and transparency, ethical and privacy concerns, scalability and real-time processing, and evaluation practices.

Data Quality and Availability

Many studies highlight the difficulty of acquiring high-quality datasets. MOOCs and LMS datasets are commonly suffer from missing, noisy, or imbalanced records. Adnan et al. (2021) noted that demographic features alone yielded poor predictive performance and integration with behavioural and assessment data is required. Kukkar et al. (2024) also pointed out that emotional data is self-reported and difficult to standardise.

Generalisability Across Contexts

A recurring limitation is that models trained on specific courses may not generalise to new contexts. Al-Azazi and Ghurab (2023) emphasised that many predictive models overfit to course-specific structures. Even multi-class models trained on OULAD face reduced accuracy when applied to unseen courses. There is a need for course-agnostic and cross-domain approaches.

Interpretability and Transparency

While DL models offer high accuracy, they function as "black boxes." Ahmadian Yazdi et al. (2022) highlighted the importance of explainable artificial intelligence (AI) in PLA to ensure educators, students, and institutions can trust predictions. Without interpretability, adoption in sensitive educational decisions is constrained.

Ethical and Privacy Concerns

PLA relies on sensitive learner data such as demographics, behaviour logs, and emotional states. Kukkar et al. (2024) and Abdul Rahim et al. (2024) noted privacy constraints in collecting such data. Anonymisation and consent remain major issues, with many platforms hesitant to share datasets openly.

Scalability and Real-Time Processing

Although institutional frameworks such as Abdul Rahim et al.'s (2024) data lake show promise, real-time PLA applications remain technically challenging. The high computational cost of DL models like ANN-LSTM (Al-Azazi and Ghurab, 2023) and hybrid architectures (Kukkar et al., 2024) limits scalability in large-scale deployments.

Evaluation Practices

Last but not least, evaluation remains inconsistent across studies. Adnan et al. (2021) and Al-Azazi and Ghurab (2023) employed accuracy, precision, recall, and F1-score, but the imbalance in dropout versus completion classes always give skewed results. Macro and micro F1-scores address some issues, but standardised benchmarks are still lacking.

CONCLUSION AND RECOMMENDATIONS

Overall, PLA has rapidly evolved as a powerful approach to harness educational data for improving teaching, learning, and institutional decision-making. The reviewed studies demonstrate a wide range of methodologies, from traditional ML workflows (Adnan et al., 2021) to advanced DL architectures (Al-Azazi and Ghurab, 2023) and hybrid models (Kukkar et al., 2024). System-level frameworks, including data lake architectures (Abdul Rahim et al., 2024), illustrate PLA's capacity to support not only personalised learning interventions but also institutional analytics at scale.

While these methodologies achieve strong predictive performance, several limitations persist. Challenges such as fragmented datasets, poor generalisability across contexts, lack of interpretability, privacy concerns, and inconsistent evaluation metrics constrain large-scale adoption. Despite these barriers, this paper suggests that PLA can play a transformative role in higher education when deployed responsibly and strategically. Therefore, the following recommendations are offered for educators.

1) Educators should leverage PLA models for timely identification of at-risk students. Evidence shows that early detection, even within the first weeks of a course, enables targeted interventions that improve retention and success rates (Adnan et al., 2021).
2) While DL models provide high predictive performance, educators should prioritise models that offer explainable outputs to build trust with students and support transparent decision-making (Ahmadian Yazdi et al., 2022).
3) Combining demographics, behavioural logs, emotional factors, and assessment data provides a holistic view of learner progress (Kukkar et al., 2024; Abdul Rahim et al., 2024). Educators and administrators should collaborate to break down data silos between LMS, student information systems, and institutional records.
4) To overcome overfitting and enhance transferability, educators should adopt course-agnostic and multi-class predictive models that can generalise across diverse learning environments (Al-Azazi and Ghurab, 2023).

Co-Author Contribution
The authors declare no conflict of interest.

Ethics Statement
ChatGPT (OpenAI) was used solely to enhance the readability and linguistic clarity of this paper.

REFERENCES

Abdul Rahim, S. A., Sidi, F., Affendey, L. S., Ishak, I., & Nurlankyzy, A. Y. (2024). Leveraging data lake architecture for predicting academic student performance. International Journal on Advanced Science, *Engineering and Information Technology, 14*(6), 2121-2129. https://doi.org/10.18517/ijaseit.14.6.12408

Adnan, M., Habib, A., Ashraf, J., Mussadiq, S., Raza, A. A., Abid, M., ... & Khan, S. U. (2021). Predicting at-risk students at different percentages of course length for early intervention using machine learning models. *IEEE Access, 9*, 7519-7539. https://doi.org/10.1109/access.2021.3049446

Ahmadian Yazdi, H., Seyyed Mahdavi Chabok, S. J., & Kheirabadi, M. (2022). Dynamic educational recommender system based on improved recurrent neural networks using attention technique. *Applied Artificial Intelligence, 36*(1), 2005298. https://doi.org/10.1080/08839514.2021.2005298

Al-Azazi, F. A., & Ghurab, M. (2023). ANN-LSTM: A deep learning model for early student performance prediction in MOOC. *Heliyon, 9*(4), e15382. https://doi.org/10.1016/j.heliyon.2023.e15382

Alhothali, A., Albsisi, M., Assalahi, H., & Aldosemani, T. (2022). Predicting student outcomes in online courses using machine learning techniques: A review. *Sustainability, 14*(10), 6199. https://doi.org/10.3390/su14106199

Huang, Q., & Zeng, Y. (2024). Improving academic performance predictions with dual graph neural networks. *Complex and Intelligent Systems, 10*(3), 3557-3575. https://doi.org/10.1007/s40747-024-01344-z

Kukkar, A., Mohana, R., Sharma, A., & Nayyar, A. (2024). A novel methodology using RNN+ LSTM+ ML for predicting student's academic performance. *Education and Information Technologies, 29*(11), 14365-14401. https://doi.org/10.1007/s10639-023-12394-0

Namoun, A., & Alshanqiti, A. (2020). Predicting student performance using data mining and learning analytics techniques: A systematic literature review. *Applied Sciences, 11*(1), 237. https://doi.org/10.3390/app11010237

Rizwan, S., Nee, C. K., & Garfan, S. (2025). Identifying the factors affecting student academic performance and engagement prediction in MOOC using deep learning: A systematic literature review. *IEEE Access, 13*, 18952-18982. https://doi.org/10.1109/access.2025.3533915

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *British Medical Journal, 372*, n71.

Pan, J., Zhao, Z., & Han, D. (2025). Academic performance prediction using machine learning approaches: A survey. *IEEE Transactions on Learning Technologies, 18*, 351-368. https://doi.org/10.1109/tlt.2025.3554174

Sghir, N., Adadi, A., & Lahmer, M. (2023). Recent advances in predictive learning analytics: A decade systematic review (2012–2022). *Education and Information Technologies, 28*(7), 8299-8333. https://doi.org/10.1007/s10639-022-11536-0

Sharma, R., Shrivastava, S. S., & Sharma, A. (2023). Predicting Student Performance Using Educational Data Mining and Learning Analytics Technique. *Journal of Intelligent Systems and Internet of Things, 10*(2), 24-37. https://doi.org/10.54216/JISIoT.100203

THE IMPACT OF CANVA ON STUDENTS' MOTIVATION IN DEVELOPING WRITING SKILLS

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ABSTRACT

This study aims to investigate the impact of utilising Canva on Form 3 students' motivation in developing writing skills. It examines how multimodal elements in teacher-created Canva materials such as visuals, texts, audio and video affect students' motivation and writing development compared to traditional ESL teaching approaches. A quasi-experimental one group pretest post-test design with a mixed method approach was employed involving 30 Form 3 students from SM Stella Maris, Kota Kinabalu, Sabah. Data were collected through questionnaires, students' reflections, pre and post-tests, and document analysis on writing samples assessed using the CEFR Writing Assessment Scale. Findings revealed, students significantly gained motivation after employing Canva, showing development towards their writing skills. Survey results showed most students agreed Canva boosted their motivation; leading to improved writing skills, Reflections supported this by highlighting students' engagement and enjoyment. Post-test scores demonstrated significant improvements based on CEFR's criteria, thus supporting the use of Canva in English language learning, specifically writing. Overall, the study concludes that the implementation of Canva in ESL teaching and learning enhances students' learning experience, fostering better learning outcomes. Consequently, valuable implications from this study can inform future educators, researchers, curriculum developers in adopting multimodal digital tools to foster motivation and writing skills, promoting proactive classrooms in the 21st-century.

Keyword(s): *Canva, Impact, Motivation, ESL Writing Skills*

INTRODUCTION

Writing remains to be a fundamental component in English language learning, yet it is also among one of the most challenging skills for Malaysian students to master. Although English is the second language in Malaysia. As of 2024, statistics revealed that over 40,000 students in Malaysia struggle with basic literacy skills, including writing. Since writing encompasses a combination of critical thinking skills in generating ideas, elaborating ideas, coherence and language accuracy (Agusta, 2015), students nowadays often feel easily overwhelmed, as they are faced with traditional writing activities that lack interactive, visual support.

Motivation is a key contributor to influencing students' engagement with writing tasks. Kitjaroonchai (2013), drawing from Gardner's theory, explained that students who are intrinsically motivated, which is driven by internal satisfaction are able to perform better.

However, traditional classroom methods may not support and maintain students' engagement. Particularly, among learners who are more drawn to visual and interactive learning environments.

To address this issue, many educators have been utilising Canva, a multimodal digital platform that encompasses text, images, videos, audio and design elements. In the studies by Utami & Djamdjuri (2021) and Abdulla (2024), Canva was found to boost students' motivation and writing performance, shedding light on positive impacts of Canva in terms of engagement and also creative expression experience. Nevertheless, there is still limited focused research on Canva's impact in ESL writing classrooms, particularly in Sabah, Malaysia.

Therefore, this paper aims to investigate the impacts of Canva towards motivation and developing writing skills among Form 3 students.

To fulfill these aims, the following research questions are addressed:
1. What are the effects of implementing Canva on Form 3 students' motivation?
2. What are the effects of implementing Canva on Form 3 students' writing skills?

LITERATURE REVIEW

The Impacts of Canva on Motivation

Canva, a digital platform, showed significant positive impacts towards increasing students' motivation with its multimodal and visually appealing elements. A study done by Utami and Djamdjuri (2021) revealed that students reported full agreement towards Canva, where the tool encouraged learning and motivation within ESL writing classes. This was supported by overwhelming interview responses mentioning its use of text and images. Tilana and Dewi (2024) found that features in Canva such as video, audio, colour and layout design attracted students' interest and attention, where 61.8% of students stating that they are motivated when lessons were included with visual components. Correspondingly, Yuni et al. (2022) found that Canva-based classroom activities like producing creative materials and making posters resulted in high engagement between students with an 81.8%. Learners also expressed higher enjoyment and interest with Canva lessons. Overall, these findings suggest that Canva's interactive tools can foster motivation, reduce boredom and enhance language learning experiences.

The Utilisation of Canva in Developing Writing Skills

Apart from motivation, Canva has also contributed significantly to improving students' writing performance. Based on the study done by Yundayani et al. (2019), it was revealed that students who utilise Canva in writing showed positive effects, as writing errors were reduced and showed significant enhancement of better writing quality compared to students who employed traditional methods in writing. Husni and Rahayu (2022) observed writing improvements in procedural texts from analysing pre-test and post-test data after implementing Canva-based writing tasks. Nurmilah et al. (2023), stated that the development of creative writing was supported by Canva. Active participation and the engagement of students with their peers contributed to exchange and generation of ideas. Teachers also reported enhanced engagement during writing classes. Therefore, these results impy that the use of Canva's multimodal input such as text, images, audio and video enables writing expression, guiding students' content development in enhancing literacy skills in ESL classrooms.
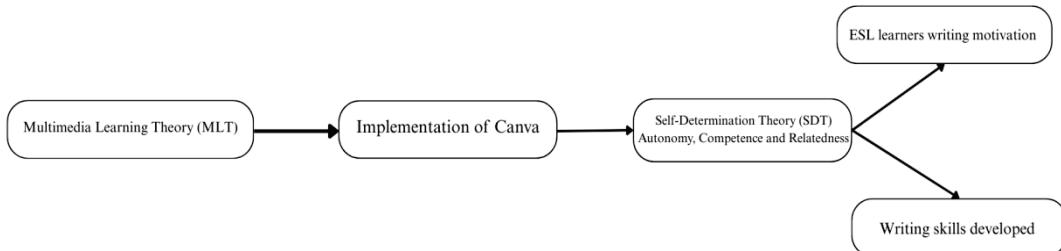
Figure 1: Conceptul Framework for Utilising Canva to Develop Writing Skills.

Multimedia Learning Theory and Self-Determination Theory

This study revolves around the theories of Multimedia Learning Theory (MLT) and Self-Determination Theory (SDT). Multimedia Learning Theory, proposed by Mayer (as cited in Ramlatchan, 2019), states that students acquire better knowledge through the combination of verbal and visual information. Three principles are grounded in this theory: Dual Channel Principle (learners progress and engage information through visual and auditory information), the Limited Capacity Principle (each channel can only process a certain amount of information), and the Active Processing Principle (effective learning requires active engagement with content). In connection to this, Canva is able to provide students with wide range of learning materials through text, images, audio and videos. It gives oppourtunities for students to avoid cognitive overload while presenting them with relevant context to engage information retention, leading to long-term memory. In the study of Tilana and Dewi (2024), it was observed that Canva's design elements impacted and supported learning engagement. Where Canva presented clear and well-organised content, aligning with the three principles.

Developed by Deci and Ryan, Self-Determination Theory (as cited in De Smedt et al., 2020), explained how intrinsic and extrinsic factors influence learning. There are three main psychological needs which are:, autonomy (learn at their own pace), competence (mastery of skills through practice) and relatedness (engaging in pair or group activities) that are crucial in scaffolding intrinsic motivation. In this case, Canva if used as a teaching tool provides students with autonomy by enabling creative choices in their work. Competence continues to grow as students are developing their writing through engaging tasks and visual supports, while relatedness is reflected as students engage within their peers through collaboration. From the findings of Utami and Djamdjuri (2021), it was observed that motivation in students was increased and writing abilities were much more developed after employing Canva. This highlights its role in satisfying these three needs. Additionally, Núñez and León (2015, as cited in Sudin & Swanto, 2024) highlighted the importance of procedural autonomy where teachers guidance provides rapport, creating meaningful classroom environments.

Together, these two theories lenses support in the application of Canva as a tool to enhance motivational and learning outcomes. The combination of active visual learning through (MLT) and psychological satisfaction (SDT) links to the foundation that Canva can be utilised to enhance motivation and develop writing skills.

METHODOLOGY

This research investigates how utilising Canva can affect students' writing skills using a quasi-experimental one-group pretest posttest design with a mixed methods approach. The participants consisted of a single group of 30 female secondary school students, all aged 15, from an urban school, SM Stella Maris in Kota Kinabalu, Sabah. All students were from the same class and with a similar range of learning levels.

Data was collected through questionnaires, students' reflections, pre-test, post-test, and writing samples assessed using CEFR's Writing Assessment Scale. The intervention spanned eight weeks, during which students engaged with teacher-created Canva materials, including slides, embedded videos, images, mind-maps and advertisements. Students utilised these materials in various activities. A pre-test was conducted before the intervention and a post-test after, followed by reflections, questionnaires and compiled writing samples for document analysis.

Quantitative and qualitative data were examined thoroughly for the data analysis of this study. Questionnaires were analysed using descriptive statistics (mean scores), while pre/post-test scores were examined with a paired t-test using SPSS version 29. Reflections were also thematically analysed, and writing samples were assessed using document analysis based on CEFR's criteria: Content, Communicative Achievement, Organisation and Language.

The questionnaires consisted 10 items adapted from Cahyono and Rahayu (2020) and Abdulla (2024). Additionally, pre-test and post-test questions were selected from an existing Form 3 workbook. This triangulation of data sources enhances data being retrieved thoroughly and examines how and why students gained motivation to develop better writing skills.

RESULTS/FINDINGS & DISCUSSION

The study revealed there is significan enhancement towards students' motivation and developing writing skills with the impact of Canva. Findings will be discussed thoroughly based on research questions.

Students' Demographic

Age, Gender and Form level were the demographical variables of the study. Students' profile information is displayed below.

Table 2: Students' demographic information

Demographic Variable	Frequency	Percentage
Age		
15	100	100%
Gender		
Female	100	100%

Table 1 shows the demographics of the students, who were involved in the survey for the purpose of this study. This study involved 30 secondary school female students from SM Stella Maris, an all-girls secondary. All participants were females, with the age of 15 and was from the same class.

Research Question 1: What Are The Effects of Implementing Canva towards Form 3 Students' Motivation?

Table 2: Descriptive Analysis of Motivational Items (5-Point Likert Scale, N30)

No.	Item	Mean	SD	Agreement Level
I (1).	I enjoy writing in English very much when we use Canva's images and videos,as it makes me feel more motivated.	4.17	0.75	Agree
I (2).	I am more excited about my essay writing class, especially when we watch videos and see texts to create ideas.	3.87	0.73	Agree
I (3).	I am grateful to learn how to write an essay with the help of Canva's elements such as text, images, and animation, it motivates me to write more.	4.03	0.77	Agree
I (4).	I am motivated to write better paragraphs following the texts and images shown in Canva.	4.23	0.82	Strongly Agree
I (5).	Using Canva boosts my confidence in my written work, which encourages me to write more.	3.77	0.82	Agree
I (6).	I like and feel motivated during writing classes because Canva makes writing assignments more enjoyable with its use of audio, images, and text.	4.17	0.83	Agree
I (7).	I can express my ideas more creatively and feel more motivated to write when we use Canva in class.	3.90	0.85	Agree
I (8).	Canva helps me increase the quality of my final product for written assignments in class, it motivates me because of its use in (texts, images, audios, and videos).	3.80	0.93	Agree
I (9).	Canva enhances my ability to communicate ideas effectively in writing, boosting my motivation to write well.	3.70	0.88	Agree
I (10).	I am more motivated to write and complete writing assignments in class when we use Canva's features such as text and images.	4.00	0.87	Agree

Table 2 presents the results from the questionnaires distributed to 30 students analysed by SPSS descriptive statistics. The overall data showed positive impact after implementing Canva using a 5-Point Likert Scale from Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. Additionally, these results were supported based on the six reflections written by students.

Enhancement of Motivation after implementing Canva
Based on the findings, the implementation of Canva led to clear improvements in students' motivation to write. The survey showed all items has high levels of agreement. Item 4 (M = 4.23, SD = 0.82) received the highest level where students agreed, they were motivated to write better paragraphs following the texts and images shown in Canva. Item 10 resulted in (M = 4.00, SD = 0.87), presented the findings where students are motivated to write and complete writing assignments in class when using Canva's features such as text and images. This aligns with existing research where it highlights Canva's role in boosting motivation, engagement and writing performance (Abdulla, 2024).

Visual Appeal and Enjoyment

Reflections showed Canva's visuals were a top contributor in motivation for students. For instance, S1 shared "For me, of course the pictures and short videos! The pictures are very nice for me to understand and what to write for the lessons. It makes me gain more energy and not sleepy."; S3 also stated "It's not just boring black and white colours—it has colourful colours that make me feel more fun to learn.", aligning it with Item 1 (M = 4.17, SD = 0.75) and Item 6 (M = 4.17, SD = 0.83), indicating Canva' multimodal elements visually attracted students, making it enjoyable and engaging for them, fostering better learning development and motivation aligning it with previous studies from (Abdulla, 2024; Tilana & Dewi, 2024).

Enhancement of Motivation Through Canva-Based Activities and Collaboration

Although not all students fancy themselves to work in groups, many found Canva-based activities motivating. S2 expressed "They create a vibe where ideas clash and blend, turning a simple task into a creative explosion."; S5 noted "It's not tiresome… Canva-themed group activities like poster and mind-map make writing more fun and interactive with each other." These reflections implies that students find Canva tasks to be fun and had motivation to complete writing tasks, corresponding with Item 10. Sugiarni et al. (2024), noted that Canva has the ability to boost students' interest, enhance participation and make learning more engaging.

Experienced Creative Expression in Writing

Students experienced creative expression in their writing, which caters to motivation. As Canva allowed students to express themselves creatively, increasing their drive for writing. S4, states "I feel more excited to write because adding pictures, titles, and colours makes the task feel so fun and I get to use my creativity."; This supports Item 7 (M = 3.90, SD = 0.85), where it emphasised that Canva provides oppourtunities for students to express ideas creativity and is more motivated to write during writing classes, opposing to traditional learning methods. They also mentioned that Canva activities are "more fun and less boring and very colourful...not just about looking at whiteboard and writing in the book, and makes me feel sleepy." Directly implying that Canva fostered students motivation in creative tasks, making it easier and enjoyable for them, supporting diverse learning styles to enhance learning objectives (Sugiarni et al., 2024).

Improved Writing Structure and Skill Development

Canva enabled students to understand better in writing structure through clear examples and organised content. S2 explained it "helps me understand better because because information is organised clearly,"; while S4 highlighted that Canva "shows steps clearly and uses visuals for easier memorising.". These details support Item 4 (M = 4.23, SD = 0.82), showing students were motivated to write better paragraphs. Created templates through Canva gave structural guidance to students where S3 noted it "helped us not to get lost,"; S6 also expressed templates helped them "write better…clearly knowing where to put ideas." These elements affects their confidence and helped to reduced confusion (Item 5, M = 3.77 ; Item 9, M = 3.70). These reflections aligned with the findings from Jamaludin & Sedek (2023) and Rezkyana & Agustini (2022), as they affirmed that Canva supports comprehension of material, understanding, and writing structure. This connects to making the writing process bearable.

Preference for Canva in Future Lessons

Based on the findings, most students agree with Canva in boosting their motivation. Additionally, they expressed their preference to use Canva for future writing lessons. S1 responded "Yes, please do! Canva makes me appreciate my writing because I can see a little improvement on my writing skill.", While S2 noted that while Canva should be used selectively, they also added their

views on Canva that "a lot of students will be more excited to study if they see a colourful theme or picture and even a clip on the slide.". From these reflections, it indicates Canva's effectiveness to motivate and support learning. Sugiarni et al., (2024), states Canva to be a high medium tool to foster students engagement and interest.

Overall, the data showed that Canva positively impacted students' motivation, aligning with (MLT), principles of Dual Channel, Limited Capacity and Actives Processing. Tilana and Dewi (2024), notes Canva's engaging visuals and audio was helpful for understanding material, linking to enhanced motivation. In terms of (SDT), Canva fostered competence (Item 4 and 5), autonomy (e.g.,S1 guided by templates), and relatedness (collaborative reflections). These outcomes fulfills SDT's core needs and contributes to students' long-term motivation towards writing, aligning with previous studies that Canva enhances motivation, confidence and creativity in writing classes (Utami & Djamdjuri, 2021).

Research Question 2: What Are The Effects of Implementing Canva towards Form 3 Students' Writing Skills?

Table 3: Differences of the Writing Test Scores between Pre-Test and Post-Test for single experimental group

SINGLE EXPERIMENTAL GROUP							
Students' Code	Pre-test	Post-test	Differences	Students' Code	Pre-test	Post-test	Differences
S01	12/20	14/20	+2	S16	12/20	14/20	+2
S02	12/20	15/20	+3	S17	12/20	13/20	+1
S03	18/20	20/20	+2	S18	15/20	20/20	+5
S04	12/20	15/20	+3	S19	18/20	18/20	0
S05	16/20	20/20	+4	S20	16/20	18/20	+2
S06	17/20	20/20	+3	S21	12/20	15/20	+3
S07	17/20	19/20	+2	S22	12/20	15/20	+3
S08	13/20	15/20	+2	S23	14/20	18/20	+4
S09	12/20	15/20	+3	S24	13/20	15/20	+2
S10	13/20	14/20	+1	S25	17/20	19/20	+2
S11	12/20	15/20	+3	S26	12/20	13/20	+1
S12	12/20	15/20	+3	S27	12/20	18/20	+6
S13	12/20	15/20	+3	S28	15/20	19/20	+4
S14	12/20	15/20	+3	S29	16/20	20/20	+4
S15	12/20	14/20	+2	S30	16/20	20/20	+4
Mean							
Pre-test	13.80						
Post-test	16.53						

Table 3 presents the scores for the pre-test and post-test for the single experimental group. Students initially scored between 60% and 90%, indicating a moderate level of writing proficiency. After the intervention, scores significantly improved, ranging from 65% to 100%. This suggests notable improvements in terms of writing performance.

Student 27 gained the most improvements (18/20) for the posttest, with an increase of 30%, (from 60% to 90%), while student 19 showed to substantial change, maintaining a high score of 90%. Overall, these results demonstrates that Canva significantly impacted students'

writing development that may be potentially affected by motivation and engagement during the learning process.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	SINGLE EXPERIMENTAL PRE-TEST	13.80	30	2.188	.399
	SINGLE EXPERIMENTAL POST-TEST	16.53	30	2.460	.449

Paired Samples Correlations

					Significance	
		N	Correlation		One-Sided p	Two-Sided p
Pair 1	SINGLE EXPERIMENTAL PRE-TEST & SINGLE EXPERIMENTAL POST-TEST	30	.860		<.001	<.001

Paired Samples Test

		Paired Differences							Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	SINGLE EXPERIMENTAL PRE-TEST - SINGLE EXPERIMENTAL POST-TEST	-2.733	1.258	.230	-3.203	-2.264	-11.904	29	<.001	<.001

Figure 2: Single Experimental Group's Paired T-test

Figure 2 presents the results for the Paired T-test for the single experimental group. Where the results showed improvements through mean scores from 13.80 to 16.53, with a 2.73 increase for the post-test. Pre-test and post-test scores revealed there is strong positive correlation ($r = 0.860$). These statistics showed a significant difference ($t = 11.904$, $p < 0.001$), indicating that students' writing performance was developed and had great improvements after implementing Canva.

According to the results from the pre-test and post-test, Canva definitely made a huge impact towards students writing skills, which is evident based on strong statistical support, reflecting on the effectiveness of the intervention. Furthermore, this study confirms that students feel motivated, interested and has willingness to write when Canva is implemented, aligning with the results of Yundayani et al., (2019) study. Other than that, document analysis is used to analyse the changes in content for developed writing performances for research question 2.

Table 4: Pre-test and Post-test changes of Student A, B, C and D based on CEFR Writing Assessment Scale

Criteria	Student A (High Achiever)	Student B (Most Improved)	Student C (No Change)	Student D (Average)
Content	Consistent, and all content mentioned is relevant to the question. Idea development from 2 to 3 points.	Showed improvement in presenting ideas. Content was very relevant based on the task. Idea development from 2 to 6 points.	Content was relevant and constantly good. Idea reduced from 3 to 2, but does not interfere with task.	Content was relevant to the task. Idea expanded from 2 to 3 points.
Communicative Achievement	Writing was able to produce well-written straightforward ideas, using the conventions of the communicative task.	Writing show the enhancement of straightforward ideas, using the conventions of the communicative task.	Produce text that communicates in simple ways, presenting informal manner.	Slight improvement in terms of producing communicative text, presented informal manner in simple way.
Organisation	Exemplified enhancement in improved use of connectors and cohesive devices.	Improved used of simple connectors and cohesive devices.	Remain well organised with good use of connectors and cohesive devices.	Text is connected using basic connectors.
Language	Used simple vocabulary appropriately, no noticeable errors were found.	Errors were noticeable, meaning can be determined and used basic vocabulary reasonably.	Errors were noticeable, meaning can be determined and used basic vocabulary reasonably.	Used basic vocabulary, errors were noticeable and impede meaning at times.
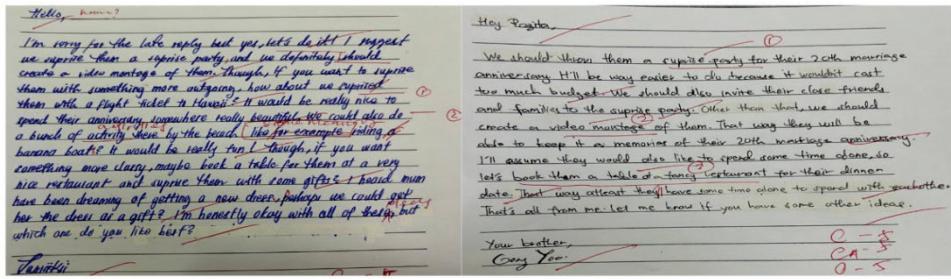
Figure 3: Students A (top) and B's (bottom) Writing Samples — Pre-Test (left) and Post-Test (right)
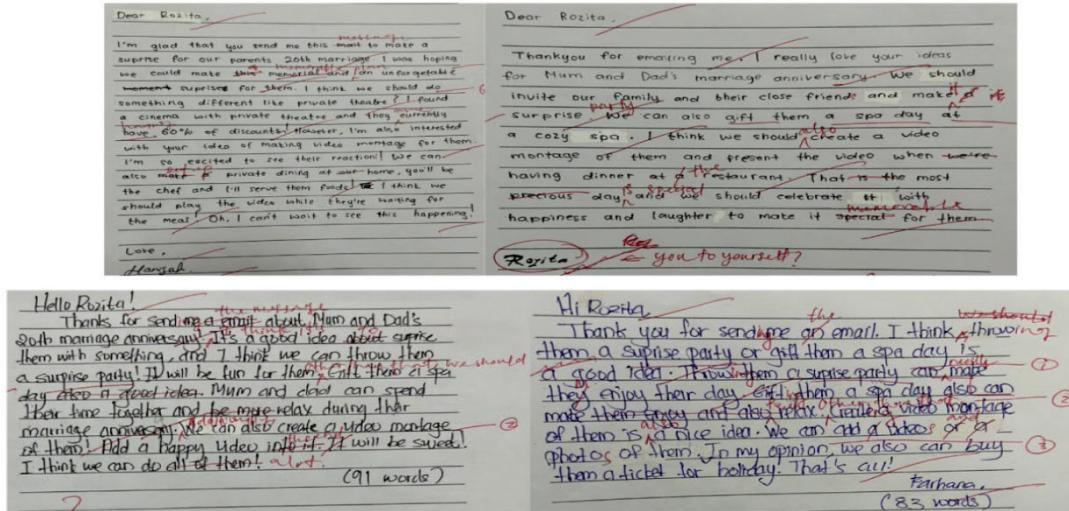
Figure 4: Student's C (top) and D's (bottom) Writing Samples — Pre-Test (left) and Post-Test (right)

Table 4 presents the findings from the writing samples for students' A,B,C and D from the pre-test and post-test measured using CEFR's Writing Assessment Scale. While, **Figure 3 and 4** shows the writing samples for 4 selected students' based on the pre-test and post-test. Student A is high achiever, Student B showed the most improvements, Student C had no changes and Student D is an average achiever.

Student A, showed improvements in paragraph organisation and language use post-intervention, using cohesive devices like "other than that" and "also". Aligning with SDT's autonomy, where Canva-made templates and visuals scaffolded learning at their own pace. Abdulla (2024) notes, digital tools help reduce writing anxiety, supporting students' creative expression. Language score was improved from 4 to 5, with fewer errors, this indicates the impact of Canva in enhancing literacy output. Sugiarni et al. (2024), emphasised Canva's role in improving writing and fostering 21st-century skills like creativity. In this case, the use of elements (text, visuals) aligns with the principles (MLT), activating dual channels and promoting active process.

Student B showed the most improvements (+6 points), especially in content, where they added detailed ideas such as "buy tickets to New York" vs earlier "a trip to Bali" on their pre-test, showing stronger elaboration. These improvements align with the notion that writing is an essential tool for critical thinking (Prakong, 2024, as cited in Rahayu & Hartini 2025). Additionally, Rezkyana and Agustini (2022), also found that using Canva in teaching writing procedure text helped enhance students' critical thinking skills, supporting the idea that this digital tool can improve both writing and critical skills. Organisation was also improved with connectors like "After they got back", while grammatical accuracy increased. These sufficient changes reflects SDT's principle of autonomy, competence and relatedness. This shows that students can explore ideas collaboratively and independently. Canva's textual and visual elements fosters comprehension, matching with MLT. These improvements are supported by previous research done by Abdulla (2024) he highlighted Canva's role in students' interest to write and idea generation.

Student C showed no noticeable improvements, they maintained consistent performance in all criteria. The post-test revealed that they reduced one idea omitting "private cinema". This suggest although Canva stimulates idea generation, it may be less impactful for high-proficiency learners. From this, it implies that motivational tools must consider learner differences like student C. As this study was conducted in an urban area, students are bound to have access to other digital tools, leading them to explore other apps beyond Canva, which may limit impact.

Student D, an average achiever, showed only modest progress in terms of criterias. Content were only expanded slightly with improved communicative achievement (e.g. clearer suggestions like "gift them a spa day") expanding from previous vague answers. However, they still struggle with organisation and grammar. As grammar remained weak and was persistent with errors, while connectors used were simple "and". This implies more time is needed for Canva to impact writing competence. Based on SDT, autonomy means free will in making decisions or choices (Guay, 2022, as cited in Sudin & Swanto, 2024). Additionally, this links to the matter that student D may need extended exposure to Canva in long run to develop autonomy and competence. This aligns with the statement, where teachers are to provide procedural autonomy support in learning classrooms (Núñez & León, 2015, as cited in Sudin & Swanto, 2024).

IMPLICATIONS OF THE STUDY

The present study showed sufficient positive impact towards the implementation of Canva, significantly enhancing students' motivation in writing. Its multimodal features aligns with Multimedia Learning Theory, suggesting it manages cognitive overload, making learning more engaging and fun while also fulfilling Self-Determination Theory through autonomy, competence and relatedness, meeting students' needs and boosting intrinsic motivation. Improvements in writing performance highlighted Canva's role in supporting idea expansion, writing structure, creativity, leading to authentic writing outputs (Abdulla, 2024). Thus, making writing lessons more enjoyable for ESL learners.

However, effective integration requires stable and proper infrastructure like stable WiFi and functional LCD projector screens to accommodate the use of Canva, as repeated technical issues may disrupt teaching and learning. Teacher training is also highly needed to overcome technical barriers, ensuring the frequency of successfully implementing digital integrated lessons. Overall, this study highlights Canva's potential to not only support writing skill development but also scaffold digital literacy, critical thinking and student engagement among ESL learners, aligning it 21st-century learning. These findings suggests that Malaysian educational institutions should consider its wider adaption in classroom practices in the usage of digital platforms like Canva to lead proactive, student-centred, and future ready ESL classroom environments.

RECOMMENDATIONS FOR FUTURE RESEARCH

To enhance comprehensive analysis, future studies are encouraged to shift and expand this study across diverse educational settings, including rural and suburban schools while also involving larger, mixed-gender and multi-grade samples to enhance generalisability of findings. A longitudinal approach is advised as it could provide sufficient insights on how Canva influences motivation and writing development across a broader student population in a long-term manner. Additionally, the employment of control and experimental groups could strengthen the overall relevance of Canva's impact on enhancing motivation, leading to better writing skills.

CONCLUSION

In conclusion, this intergration of Canva in English language classrooms enhanced students' motivation and writing skills. Retrieved data from both quantitative and qualitative results revealed positive impacts, where the majority of students agreeing with motivational-related items from the questionnaire. Other than that, Canva's multimodal elements like visuals and videos were highlighted in students reflections. This proves that the use of Canva supported students in idea expansion, creative expression and fostered engagement. Positive effects were seen on students' writing performances as the post-test scores showed significant improvements, signifying that students demonstrated better writing skills after the intervention.

Reflecting on the theories of Multimedia Learning Theory and Self-Determination Theory, the results highlighted Canva's potential in scaffolding autonomy, competence and relatedness, especially in writing instructions. These findings provide valuable insights for educators and curriculum planners to consider adapting Canva as a learning medium for future writing classes. Additionally, future research should include different educational settings, mixed-gender groups with an increase sample population, as well as experimental and control groups, to investigate and deepen the findings of Canva's long-term impact.

Co-Author Contribution
The authors declare no conflict of interest. Author 1 conducted fieldwork, prepared the literature review, methodology, data entry, performed statistical analysis and interpret results. Author 2 oversaw writing, reviewed and edited.

Ethics Statement
The research followed all applicable ethical standards. Participation was voluntary, and confidentiality was ensured.

REFERENCES

Abdulla, B. I. F. (2024). Unleashing Creative Potential: Exploring the Transformative Impact of Canva on students' engagement and performance in writing. *Zanco Journal of Humanity Sciences*, *28*(1). https://doi.org/10.21271/zjhs.28.14

Agusta, D. (2015). *Improving students' ability in writing narrative texts using short animated stories at class viii c of smpn 2 sanden, bantul in the academic year of 2013/2014*. http://eprints.uny.ac.id/26574/

Cahyono, B. Y., & Rahayu, T. (2020). Efl students' motivation in writing, writing proficiency, and gender. *TEFLIN Journal - a Publication on the Teaching and Learning of English*, *31*(2), 162. https://doi.org/10.15639/teflinjournal.v31i2/162-180

De Smedt, F., Rogiers, A., Heirweg, S., Merchie, E., & Van Keer, H. (2020). Assessing and Mapping reading and writing motivation in third to eight Graders: A Self-Determination Theory Perspective. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.01678

Husni, N. & Rahayu. (2022). Improving students' writing skill of procedure text by using Canva application. *Enrich., 3*(2), 39–47. https://doi.org/10.36546/pbi.v3i1.799

Jamaludin, N. F., & Sedek, S. F. (2024). CANVA as a digital tool for effective student learning experience. *Journal of Advanced Research in Computing and Applications., 33*(1), 22–33. https://doi.org/10.37934/arca.33.1.2233

Kitjaroonchai, N. (2013). Motivation toward English language learning of students in secondary and high schools in Education Service Area Office 4, Saraburi Province, Thailand. *International Journal of Language and Linguistics, 1*(1), 22. https://doi.org/10.11648/j.ijll.20130101.14

Nurmilah, N., Friatin, L. Y., & Irianti, L. (2023). The teacher's perception of using Canva application in teaching creative writing. *Journal of English Education Program (JEEP), 10*(2), 131. https://doi.org/10.25157/(jeep).v10i2.11690

Rahayu, T., & Hastini, H. (2025). The Effect of Canva Application on Students' Motivation and Engagement in Writing Among Senior High School. *ELS Journal on Interdisciplinary Studies in Humanities, 8*(2), 631–638. https://doi.org/10.34050/els-jish.v8i2.44971

Ramlatchan, M. (2019). *Chapter 3: Multimedia Learning Theory and Instructional Message DesignDesign* (Vol. 1). Norfolk, VA: Kindle Direct Publishing. https://digitalcommons.odu.edu/cgi/viewcontent.cgi?article=1002&context=instructional_message_design

Rezkyana, D., & Agustini, S. (2022). The use of Canva in teaching writing. Proceedings Series on Physical & Formal Sciences, 3, 71–74. https://doi.org/10.30595/pspfs.v3i.267

Sudin, V. D. K., & Swanto, N. S. (2024). Enhancing esl learners reading comprehension and motivation via ai-generated personalised reading texts. *International Journal on E-Learning Practices (IJELP), 7*(1). https://doi.org/10.51200/ijelp.v7i1.5440

Sugiarni, N., Widiastuti, D. E., & Tahrun, N. (2024). The implementation of Canva as a digital learning tool in English learning at vocational school. *English Learning Innovation, 5*(2), 264–276. https://doi.org/10.22219/englie.v5i2.34839

Tilana, F. P., & Dewi, D. N. (2024). Enhancing Student Literacy: Canva and Quizizz as digital Multimodal tools. *Journal of English Education, 12*(2), 463–474. https://journal.uniku.ac.id/index.php/ERJEE/article/view/9578

Utami, Y., & Djamdjuri, D. S. (2021). Students' motivation in writing class using of canva: students' perception. *ENGLISH JOURNAL, 15*(2), 83. https://doi.org/10.32832/english.v15i2.5536

Yundayani, A., Susilawati, & Chairunnisa. (2019). Investigating the effect of Canva on students' writing skills. *Journal of English Education, 2*(7). https://journal.uniku.ac.id/index.php/ERJEE/article/view/1800

Yuni, T., Anam, S., & Retnaningdyah, P. (2022). Implementing CANVA in the digital learning process for junior high school. *Jurnal Education and Development, 10*(3), 708–712. https://journal.ipts.ac.id/index.php/ED/article/view/4346/2696

THE IMPACT OF DIGITAL STORYTELLING ON STUDENT SPEAKING PROFICIENCY AT SM STELLA MARIS, TANJUNG ARU

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Abstract

This study investigates the impact of digital storytelling (DST) on secondary school students' speaking proficiency in an ESL classroom. The research was driven by the need for engaging, technology-enhanced approaches that support Malaysian learners who frequently struggle with low confidence, limited vocabulary, and speaking anxiety. Using a qualitative case study design, the study involved 25 Form 4 students and collected data through semi-structured interviews and student reflective journals. The data were analysed using Braun and Clarke's thematic analysis framework. The findings reveal that digital storytelling contributed positively to students' speaking development. Students reported improvements in confidence, fluency, vocabulary use, and pronunciation awareness. They also felt more motivated and less anxious when speaking, particularly when creating and presenting personally meaningful stories. The project fostered autonomous learning, as students took ownership of their scripts, recordings, and multimedia outputs. Despite these benefits, the study also identified challenges such as scriptwriting difficulty, technical issues, and time constraints. Overall, the study concludes that digital storytelling is an effective pedagogical tool for enhancing speaking proficiency in ESL learners. Its integration in classrooms promotes language development, learner engagement, motivation, and reflective practice. The findings offer valuable implications for English language teaching in Malaysia and suggest that DST can serve as a practical and meaningful addition to current instructional practices in secondary schools.

Keyword(s): *digital storytelling, speaking proficiency, English language learning*

INTRODUCTION

In the past few decades, the landscape of language education has undergone significant changes, particularly in the teaching of English as a Second Language (ESL). Language teaching has evolved from traditional grammar-based instruction to communicative and learner-centred approaches, reflecting the growing need to prepare students for real-world communication. One of the most influential changes in this field has been the integration of technology into language teaching and learning. In an increasingly digital world, technology not only enhances access to resources but also reshapes how students engage with language. Digital tools, especially multimedia platforms, have enabled learners to become active creators of content rather than

passive recipients. This shift aligns with broader educational goals to foster learner autonomy, creativity, and critical thinking skills essential for success in the 21st century (Robin, 2008; Kim, 2014).

Among the various innovations in digital pedagogy, digital storytelling (DST) has gained attention as a powerful tool for language learning. Digital storytelling refers to the use of digital tools to tell personal or academic stories by combining narrative with multimedia elements such as voice recordings, images, videos, and music. This method supports language development by providing learners with opportunities to plan, script, revise, and present stories in their own voices. The process naturally involves multiple stages of language use, including brainstorming, writing, speaking, and editing, making it particularly suitable for developing speaking skills in ESL learners (Ohler, 2013; Liu et al., 2018).

Speaking proficiency remains a core concern in Malaysian secondary schools, where students often struggle expressing themselves confidently in English (Juhana, 2012). Despite the national emphasis on communicative language teaching and the implementation of CEFR-aligned syllabi, many students still struggle with oral fluency, pronunciation, and idea development. As a result, students who possess sufficient grammatical knowledge and vocabulary still find it challenging to articulate their thoughts effectively. Even students who demonstrate adequate vocabulary and grammar knowledge may struggle to express their ideas clearly in spoken English due to anxiety, limited exposure on the language, and lack of communication practice (Leong & Ahmadi, 2017).

Digital storytelling offers an opportunity to create a safe, meaningful, and supporting environment in which students can experiment with spoken language (Robin, 2008). The ability to pre-record, edit, and revise their speech allows learners to minimise anxiety and take greater ownership of their learning. Unlike traditional oral presentations, which rely heavily on memorization and live delivery, digital storytelling enables multiple attempts, reducing performance pressure. This promotes gradual improvement in fluency and accuracy over time. Furthermore, the multimodal nature of DST encourages learners to consider how language, visuals, and sound interact to create meaning which is a critical awareness in today's media-rich communication environment (Walsh, 2011).

From a theoretical perspective, this study draws on constructivist and sociocultural learning theories. According to Vygotsky (1978), learning occurs most effectively when it is socially constructed and mediated through tools and interaction. DST provides such mediation by enabling collaboration, sharing, and reflection. It also supports learner autonomy, as students make decisions regarding topic selection, scriptwriting, voice recording, and editing.

Previous studies have shown that digital storytelling can enhance vocabulary, motivation, and language awareness among ESL learners (Kim, 2014; Liu et al., 2018). However, there is comparatively less research that investigates how DST influences speaking proficiency, particularly in terms of confidence, fluency, and language awareness. In Malaysia, few qualitative studies have examined how students perceive their own progress when using digital storytelling as part of an ESL classrooms. Furthermore, while quantitative studies may demonstrate measurable improvement, they often overlook the personal and reflective growth learners experience during creative processes (Braun & Clarke, 2019; Robin, 2016).

This study addresses that gap by exploring how digital storytelling influences speaking performance from students' perspectives, using reflective journals and interviews as primary data sources. The research was conducted during a teaching practicum at a secondary school in Sabah. The participants were Form 4 students with low to intermediate proficiency in spoken English. Over several weeks, they were guided through the process of creating digital stories, from

planning and scriptwriting to voice recording and editing their own videos. Students also maintained reflective journals to document their thoughts and experiences throughout the project. Upon completion, semi-structured interviews were conducted with selected participants to gain deeper insights into their experiences. The goal was to understand how students perceived the impact of digital storytelling on their speaking skills and which aspects of the process contributed most to their development.

In the Malaysian education system, speaking proficiency is assessed through both formative and summative assessments. The CEFR-aligned Secondary School Standard Curriculum (KSSM) curriculum implemented under the emphasizes communicative competence, yet classroom realities often reveal a gap between curriculum aims and student performance. Many teachers face challenges balancing syllabus demands with limited time for speaking-focused activities. This study responds to that gap by introducing a feasible and engaging strategy that can be integrated into everyday classroom practice without sacrificing core curriculum goals.

This study aims to investigate how digital storytelling, as a pedagogical strategy, influences students' speaking proficiency in the ESL classroom. Specifically, it seeks to understand how learners experience and reflect on their speaking development through the lens of their own voices. In line with this aim, the study has two main objectives: (1) to evaluate the impact of digital storytelling on students' speaking proficiency, and (2) to determine the most effective ways to incorporate digital storytelling into English speaking lessons. To achieve these objectives, the following research questions have been formulated:

i. How does digital storytelling affect ESL students' speaking proficiency in terms of confidence, fluency, and language awareness?
ii. What are the students' perceptions of using digital storytelling as part of their English lessons?

LITERATURE REVIEW

Constructivist Learning Theory

Constructivist Learning Theory explains that learners develop their knowledge through meaningful experiences rather than just passively receiving information. In this view, learning becomes more effective when students are involved in tasks that requires them to explore, reflect, and make decisions. Hence, digital storytelling supports this idea because students are able to participate in multiple stages of creating a story–planning, writing, recording, and revising. These stages allow better understanding of language as it involves hands-on tasks.

Kim et al. (2023) found that students engage actively in the lesson through digital storytelling as they could create, share, and reflect on their stories. In a study by Lambert (2020), digital story telling provides a contextual platform where students could relate their lessons to real-life situations thus making the learning process more meaningful. Digital storytelling often involves collaborative task. Since digital storytelling often involves group work, it also reflects the social element of constructivism, where students learn by collaborating, exchange ideas, and supporting each other's progress.

Multimodal Learning Theory

Multimodal Learning Theory focuses on how students learn better when information is presented through different modes such as visual, auditory, and kinaesthetic channels. Digital storytelling naturally supports multimodal learning because students combine images, audio, music, narration, and sometimes movement. These features help cater to diverse learning styles and increase comprehension in the lesson.

According to Shin et al. (2020), students understand the content more effectively when learning materials include multiple modes of representation. Walsh (2011) also emphasised that utilising interactive media and digital appliances in storytelling enables students to engage with the lesson actively and help them interpret meaning beyond written text alone. Designing digital stories allow students to make creative choices on visuals, sound effects, and pacing. This aids the understanding on how meaning is constructed in digital environments, which is an important literacy skill in the 21st century.

Digital Storytelling and Speaking Proficiency

Previous research consistently shows that digital storytelling is beneficial for improving English speaking skills. Kim (2014) reported that students involved in digital storytelling activities showed significant improvement in oral proficiency compared to those who learned in a traditional way. The opportunity to record and re-record their voices helps students gain confidence and become aware of their pronunciation, fluency, and clarity in speaking English.

Robin (2016) explained that digital storytelling encourages oral practice in a low-pressure environment, allowing students to speak more naturally. As a result, the students also increased their confidence and fluency conversing in English.

Furthermore, Ohler (2013) stated that the oral practice is more valid and engaging to the students as they could actually personalise the learning experience. Students enhance their motivation and actively participate in the speaking activities because they could connect the language learning with their personal experiences through the narration of their own stories. Liu et al. (2018) found that DST activities encouraged students to monitor their speaking and revise their language use, thus improving their fluency and accuracy.

Effective Digital Storytelling Techniques

Studies have identified several key elements that make digital storytelling effective in the classroom. First, the combination of multimedia elements helps maintain students' attention and increase motivation. In research by Liu et al., (2018), applying media such as images, audios, and videos into storytelling activities brings a positive impact on students' engagement and language skills.

Second, collaborative storytelling has been shown to foster peer learning. Moradi and Chen (2019), stated in research that students who work together to plan and produce a story have more opportunities to negotiate meaning, practise oral language, and exchange feedback. Not only does this improve language skills but it also builds confidence and teamwork.

Third, utilising software and platforms to aid the creation and sharing of the digital storytelling has also been said to be an effective method. Storybird, Animoto, and VoiceThread are some of the examples of the platforms which enables students to combine the medias conveniently and make the storytelling process more fun and easily accessible (Hwang et al.,

2014). When students choose the media, sequence their story, and adjust their voice recordings, they become more autonomous and take ownership of their learning process.

METHODOLOGY

Research Design

This research employed a qualitative research design using a case study approach to explore the impact of digital storytelling on students' speaking proficiency. The primary aim was to investigate how students experience and perceive the use of digital storytelling in developing their oral communication, particularly in terms of confidence, fluency, and language awareness. The qualitative design allowed for an in-depth understanding of the phenomenon through the voices of the learners themselves, enabling the researcher to capture the complexity of their personal growth during the storytelling process.

Participants

The participants were 25 Form 4 students from a secondary school in Sabah, Malaysia. The class was selected based on convenience sampling, as the researcher was undertaking her practicum at the school. The students came from a variety of socio-economic backgrounds and were generally considered to have low to intermediate proficiency in spoken English. Most of them had limited opportunities to speak English outside of class and displayed reluctance in participating in oral activities before the intervention.

Participation in the project was voluntary, and ethical clearance was obtained from the school and the Faculty of Education and Sports Studies, Universiti Malaysia Sabah. Parental consent was also obtained for students under the age of 18.

Research Instruments

Two main instruments were used in this study:

1. Reflective Journals

Students were required to maintain reflective journals throughout the digital storytelling project, documenting their weekly experiences, challenges, and self-assessments. These journals provided insight into the learners' evolving perceptions and linguistic awareness. The entries were unstructured to encourage honesty and spontaneity, but students were occasionally guided by prompts such as "How did you feel recording your voice this week?"

2. Semi-Structured Interviews

In addition, one-on-one semi-structured interviews were conducted at the end of the project with selected participants to further explore the impact of the experience. The interview questions were open-ended and designed to elicit elaborated responses about their speaking development, confidence level, and reflections on the storytelling experience. Interviews were conducted in a relaxed manner so that students could express themselves comfortably.

Research Procedures

The digital storytelling project was carried out over four weeks. The process was divided into several phases:

Week 1: Introduction to Digital Storytelling
- Students were introduced to the concept of digital storytelling.
- Sample videos were shown to help them understand the structure and purpose of digital storytelling.
- Students brainstormed ideas for their stories.

Week 2: Scriptwriting and Peer Review
- Students drafted their scripts based on their chosen topics.
- Peer review sessions were conducted where students gave feedback to classmates.
- The researcher guided students in revising their scripts, focusing clarity, vocabulary, and coherence.

Week 3: Recording and Editing
- Students record their voice narration.
- They selected visuals, music, and other multimedia elements.
- Basic video editing tools or mobile apps were used to produce the digital stories.
- The researcher assisted students facing technical difficulties.

Week 4: Presentation and Reflection
- Students presented their completed digital stories in class.
- They submitted their final reflective journals for analysis.
- Selected students were interviewed.

Data Collection

Data were collected from two sources: reflective journals and interview responses. Journals were submitted weekly, allowing the researcher to track changes in students' confidence and speaking experiences over time. Interviews were audio-recorded with permission and later transcribed. Collecting data from different sources helped strengthen the reliability of the findings.

Data Analysis

Data analysis was conducted using reflective thematic analysis, following Braun and Clarke's (2019) six-phase model: familiarization with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.

The researcher:
1. Read the journals and transcripts repeatedly to become familiar with the content.
2. Generated initial codes by identifying meaningful statements.
3. Grouped similar codes into potential themes.
4. Reviewed and refined the themes to ensure accuracy.
5. Named and described each theme clearly.

6. Used the themes to write the findings and discussion.

To enhance credibility, peer debriefing was used. Another TESL student reviewed the coding and interpretation to reduce bias.

Ethical Considerations

All participants were assured that their responses would remain anonymous and confidential. Reflective journals were not graded to ensure honest feedback. Students were also allowed to withdraw at any point without penalty. All data received were used solely for research purposes.

FINDINGS & DISCUSSION

This section presents and interprets the data obtained from reflective journals and interview responses of Form 4 students from SM Stella Maris, Tanjung Aru. The study aimed to evaluate the impact of digital storytelling on students' speaking proficiency and determine the most effective ways to implement this teaching strategy. Thematic analysis was used to identify emerging patterns from the qualitative data. Two key themes emerged: (1) Enhanced Speaking Proficiency, and (2) Increased Engagement and Motivation.

Enhanced Speaking Proficiency

The first key finding of the study indicates a significant improvement in students' speaking performance after participating in the digital storytelling project. Students expressed that their fluency, confidence, and vocabulary range had improved over the course of the task. This aligns with the findings of Amaliah et al. (2022), who stated that digital storytelling creates an environment where students feel more confident in using English orally. Similarly, Rahayu et al. (2023) found that students improved their vocabulary, pronunciation, and sentence structure through repeated speaking practices in storytelling tasks.

A student stated, *"I feel more fluent because I had to keep practicing before recording the story. I also learned new words when writing my script."* This reflects the learning process described by Liu et al. (2018), who emphasized the role of storytelling in promoting self-monitoring and language revision, which are essential for speaking development. Another student shared that the ability to re-record their story gave them more confidence, allowing them to focus on clear pronunciation and natural intonation.

These findings support the theory of Vygotsky (1978), who argued that language development is facilitated through socially mediated learning. In digital storytelling, students not only practiced speaking individually but also received guidance and peer support, promoting internalization of language forms. Additionally, the findings resonate with Kim (2014), who suggested that digital storytelling can foster learner autonomy and oral proficiency through planning, rehearsing, and producing spoken texts.

Increased Engagement and Motivation

The second theme highlighted that students were highly engaged and motivated throughout the digital storytelling process. Many students mentioned that creating their own stories made them feel excited about using English, as it gave them a sense of ownership over their learning.

According to Sahril et al. (2023), when students are given the opportunity to be creative and tell their own stories, they become more personally invested in the learning process.

One student shared, *"I enjoyed doing this because it was like making a mini movie. It was fun and made me want to do better."* This reflects the motivational power of storytelling emphasized by Robin (2016), who noted that digital storytelling combines cognitive, emotional, and social engagement—key factors in successful language learning. The combination of visuals, audio, and self-expression in a meaningful context resulted in increased learner engagement, which aligns with the multimodal learning theory (Shin et al., 2020).

Furthermore, students reported enjoying the collaborative aspects of the project. They appreciated sharing ideas with friends and learning from each other. This finding is consistent with Kim et al. (2023), who emphasized that collaborative storytelling fosters peer interaction, which supports language practice and critical thinking.

Challenges and Student Suggestions

Although the overall experience was positive, students also reported several challenges:

- *Difficulty in Writing Scripts*
  A few students found it difficult to write coherent scripts in English, especially when translating personal stories or ideas from their mother tongue.

- *Technical Issues*
  Others mentioned technical difficulties, such as unfamiliarity with editing tools or inconsistent internet access at home.

- *Time Constraints*
  Students needed extra time as they had to do multiple recording attempt which delayed the next step of their project.

Students suggested to allow more time for editing in class, provide workshops for script writing, and permitting group-based DST projects. These suggestions highlight the need for teachers scaffolding, especially when introducing new digital tools.

Comparison with Previous Studies

The findings of this study are consistent with previous research that supports the use of digital storytelling as a tool for improving speaking skills. Moradi and Chen (2019) found that students participating in digital storytelling projects were more confident and articulate speakers. The current findings also complement those by Lambert (2020), who noted that digital storytelling provides a student-centered approach that encourages creativity and enhances communication skills.

However, this study also found that not all students equally enjoyed the digital storytelling process. A few students mentioned challenges related to technical issues, time constraints, or shyness during recording. This highlights the importance of providing adequate scaffolding and support to ensure all students benefit from the experience.

Limitations of the Study

This study has several limitations that should be acknowledged. First, the sample size was small and involved only one Form 4 class from one of an all-girls secondary school. Hence, the findings may not represent the experiences of students in other schools or different proficiency levels. This is due to the fact that the participants shared similar backgrounds and were taught by the same practicum teacher. A larger and more diverse sample might produce different insights.

Second, the study relied mainly on self-reported data from reflective journals and interviews. Although these methods provided rich insights, the responses may contain personal bias or may not fully reflect students' actual speaking performance. Some students may have written what they believed the teacher wanted to hear.

Third, the project was conducted over a short period of four weeks. This limited timeframe made it difficult to evaluate long-term impacts in speaking proficiency or the sustainability of the skills students developed.

Lastly, students' access to digital tools varied. Some students had difficulty with editing applications or lacked devices at home to proceed with the production of the story. These issues may have affected their overall experience with digital storytelling.

Implications of the Study

Despite its limitations, this study offers valuable implications for language educators. Digital storytelling can be an effective strategy for promoting speaking proficiency in ESL classrooms. Teachers should consider incorporating structured yet flexible storytelling projects to provide students with authentic speaking opportunities. It is recommended that future research explore the impact of digital storytelling on different language components (e.g., grammar, pronunciation, coherence) and include a wider demographic of students.

Moreover, studies combining qualitative and quantitative methods could offer deeper insights into the measurable progress students make in their speaking abilities. A longitudinal design could also help assess how the benefits of digital storytelling sustain over time.

Recommendations for Future Research

Future research could explore the long-term impact of digital storytelling on language proficiency, especially in different school contexts or among students of varying proficiency levels. Comparative studies involving traditional oral presentations versus DST could also offer valuable insights into which method is more effective in promoting language use and confidence.

Furthermore, future studies might consider incorporating quantitative measures, such as pre- and post-speaking tests or rubrics, to assess actual language improvement more objectively. Researchers could also investigate the role of teacher guidance, peer collaboration, or multilingual approaches in shaping students' experience with DST.

Lastly, further research can explore how digital storytelling influences other language skills, such as writing or listening, or how it supports learners with special needs or anxiety. With the growing relevance of multimedia learning, expanding studies in this area can contribute significantly to both language education and digital pedagogy.

In a nutshell, the integration of digital storytelling into the English language classroom presents a promising strategy for enhancing students' speaking skills and overall engagement. With careful planning and support, DST can empower learners to take charge of their learning,

connect emotionally with their content, and develop 21st-century skills that extend beyond the language classroom.

CONCLUSION

This study explored the impact of digital storytelling (DST) on the speaking proficiency of Form 4 students in a Malaysian secondary school. Using data collected from reflective journals and semi-structured interviews, the findings revealed several key benefits of incorporating DST into English language lessons.

The study found a notable increase in students' confidence and fluency when speaking English. Firstly, through repeated practice, rehearsals, and the opportunity to edit their recordings, students overcame their initial fear of speaking and demonstrated greater ease in expressing themselves. Secondly, emotional expression played a key role in helping students communicate more naturally. Many felt more engaged and motivated when telling personal stories and using tone, music, and visuals to enhance their delivery. The project also fostered a strong sense of creativity and ownership, with students actively involved in choosing topics, writing scripts, and editing their own videos. In addition, they gained technical and digital skills while developing a deeper awareness of language use, especially in grammar, pronunciation, and vocabulary. Most importantly, students reflected positively on their personal growth, noting improvements in time management, self-expression, and self-confidence.

These findings suggest that DST is an effective tool not only for improving speaking proficiency, but also for enhancing motivation, digital literacy, and learner autonomy. Its use in the classroom can transform the traditional speaking task into a more engaging, student-centred, and meaningful learning experience.

However, this study also faced a few limitations. The sample size was small and limited to one class, which restricts the generalisability of the findings. Since the study relied on self-reported data (journals and interviews), some responses may be influenced by personal bias or memory recall. Additionally, the differences in students' technical skills could have affected their performance and overall experience of the project.

Beyond language development, this project nurtured students' digital literacy and soft skills, including time management, creativity, storytelling structure, and independent learning. Many participants expressed pride in completing a task that felt meaningful and creative. The process of revising recordings, curating visuals, and delivering a final product gave them a sense of achievement rarely experienced in conventional oral assessments. This demonstrates that DST does not only enhance speaking skills but also supports the holistic development of learners in a technology-integrated classroom.

Co-Author Contribution

The authors declare no conflict of interest. Author 1 conducted fieldwork, prepared the literature review, methodology, data entry, performed statistical analysis and interpret results. Author 2 oversaw writing, reviewed and edited.

Ethics Statement

The research followed all applicable ethical standards. Participation was voluntary, and confidentiality was ensured.

REFERENCES

Amaliah, R., Handayani, F., & Lestari, R. (2022). Improving students' speaking skill through digital storytelling. Journal of English Language Teaching and Linguistics, 7(2), 456–470. https://doi.org/10.21462/jeltl.v7i2.867

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health, 11(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Hwang, W., Shadiev, R., Hsu, J., Huang, Y., G., & Lin, Y. (2014). Effects of storytelling to facilitate EFL speaking using Web-based multimedia system. *Computer Assisted Language Learning, 29*(2), 215–241. https://doi.org/10.1080/09588221.2014.927367

Juhana, J. (2012). Psychological Factors That Hinder Students from Speaking in English Class (A Case Study in a Senior High School in South Tangerang, Banten, Indonesia). *Journal of Education and Practice,* 3(12), 100-110. https://www.iiste.org/Journals/index.php/JEP/article/dpwnload/2887/2913

Kim, S. H. J. (2014). Developing autonomous learning for oral proficiency using digital storytelling. Language Learning & Technology, 18(2), 20–35. https://www.lltjournal.org/item/2821

Kim, D., Park, H., & Vorobel, O. (2023). Exploring collaborative digital storytelling: Pedagogical applications in EFL classrooms. ECNU Review of Education, 6(2), 230–251. https://doi.org/10.1177/20965311231151021

Lambert, J. (2020). Digital storytelling: Capturing lives, creating community. *Journal of Media and Communication Studies, 9*(2), 45-55.

Leong, L. M., & Ahmadi, S. M. (2017). An analysis of factors influencing learners' English speaking skill. *International Journal of Research in English Education, 2*(1), 34-41. https://doi.org/10.18869/acadpub.ijree.2.1.34

Liu, K., Tai, S. J. D., & Liu, C. C. (2018). Enhancing language learning through creation: The effect of digital storytelling on student learning motivation and performance in a school English course. Educational Technology Research and Development, 66(4), 913–935. https://doi.org/10.1007/s11423-018-9592-z

Moradi, H., & Chen, H. I. (2019). The use of digital storytelling in second language acquisition: A scoping review. Behavioral Sciences, 9(12), 147. https://doi.org/10.3390/bs9120147

Ohler, J. B. (2013). Digital storytelling in the classroom: New media pathways to literacy, learning, and creativity (2nd ed.). Corwin Press.

Rahayu, F., Yunita, W., & Yufrizal, H. (2023). Digital storytelling: Enhancing students' speaking skills in EFL classrooms. Journal of English Language Studies, 8(1), 55–66. https://doi.org/10.30870/jels.v8i1.17984

Robin, B. R. (2008). Digital storytelling: A powerful technology tool for the 21st century classroom. Theory Into Practice, 47(3), 220–228. https://doi.org/10.1080/00405840802153916

Robin, B. R. (2016). The power of digital storytelling to support teaching and learning. Digital Education Review, 30, 17–29. https://doi.org/10.1344/der.2016.30.17-29

Sahril, N., Munir, N., & Munir, B. (2023). Students' perception of digital storytelling in improving their speaking skill. Pedagogia: Jurnal Pendidikan, 12(2), 389–400. https://doi.org/10.21070/pedagogia.v12i2.1659

Shin, D. S., Cimasko, T., & Yi, Y. (2020). Multimodal composing in multilingual classrooms: A sociocultural view of meaning making. Journal of Second Language Writing, 48, 100731. https://doi.org/10.1016/j.jslw.2019.100731

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.

Walsh, M. (2011). Multimodal literacy: Researching classroom practice. Newtown, Australia: Primary English Teaching Association.

EXPLORING THE USE OF GAMIFICATION TO ENHANCE ESL STUDENTS' CLASS PARTICIPATION

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Abstract

This research analysed the use of gamification to enhance ESL students' class participation among 26 students studying at a rural school in Sabah, Malaysia. The purposes of this study were to investigate whether gamification enhances students' participation during English lessons and to investigate ESL students' views on the use of gamification during English lessons. Using a qualitative approach, the participants were observed and interviewed. The key findings of this study revealed that gamification can enhance student participation and decrease language anxiety, which effectively increased the motivation of the participants. Findings also showed that the participants found enjoyment in English lessons and became more cooperative through gamification. Additionally, their motivation was influenced by their surroundings. The study is congruent with previous studies of similar contexts, and it is generally recommended for educators to experiment with the use of gamification in their practice. Future research should expand their sample diversity as secondary school students remain understudied.

Keyword(s): *Class participation, ESL students, gamification, gamified learning, reward*

INTRODUCTION

In response to the modernity of the world, the education system has procured a method of bridging the gap between education and entertainment through a new type of pedagogy by gamifying education (Desnenko et al., 2021). The term gamification is commonly defined as the use of gaming components into non-gaming contexts (Zhang & Yu, 2022). Gamification can be applied according to teachers' or students' preference, for instance giving out rewards (Yaccob et al., 2022) or using learning platforms such as Kahoot! (Desnenko et al., 2021).

An issue often seen in education is students lacking the motivation to learn (Hussain et al., 2021), which is also something that affects student participation (Yaccob et al., 2022). Hussain et al. (2021) explained that the loss of motivation to learn is caused by students feeling overwhelmed, hopeless, or uninterested. In English as a Second Language (ESL) classrooms, Naeem et al. (2023) explained that it can be caused by ambiguous lessons, content irrelevancy, and language anxiety, the latter of which is supported by Desnenko et al. (2021) as well. Fortunately, gamification resources such as Kahoot! offer an interactive learning experience and enhance student participation (Kiiashko & Yashkina, 2021), which provides a viable solution for teachers to address issues related to student participation (Yaccob et al., 2022).

Despite the many studies conducted on gamification as well as student participation, there

was a gap identified within the existing literature. Notably, there is limited inquiry on the use of gamification and how it affects participation among secondary school students in the ESL context. This study aims to address the gap through implementation of gamification such as Kahoot!, Quizziz, Baamboozle, and reward system into English lessons over the duration of three months.

In addition, the researcher presents suggestions and possible alternatives for educators who may come across similar issues in relation to student participation. Other than that, the findings of this study can also be insightful for educators specifically in the ESL field so that they are able to make the necessary changes in their practice through implementing the suggestions provided in this study, which can be beneficial for the students as well.

The research questions in this study are as follows:
1. How does the use of gamification enhance student participation during class?
2. What are the students' views towards the use of gamification in English lessons?

LITERATURE REVIEW

Class Participation in the ESL context

An absence of class participation hinders students from understanding what they are learning and obstructs them from applying the skills in situations outside of their school (Razawi et al., 2023). John et al. (2023) states that disengaged students will lead to the teacher wasting time trying to control unruly students which will lead to a disturbed lesson flow. Thus, it is important for ESL educators to prioritise enhancing class participation to ensure students can achieve a good level of understanding towards the target language.

Naeem et al. (2023) explained that demotivation is the primary reason for passivity in ESL classrooms as students found the content in their textbook uninteresting and irrelevant to their language learning needs, as well as being too complex for their understanding. Additionally, it was also mentioned how teachers also contribute to students being non-participative particularly if there is a lack of teacher-student interaction. Further investigation towards ESL students also uncovers that language learning can be unsuccessful because of language anxiety and self-doubt (Rafiq et al., 2020; Desnenko et al., 2021; Rahim et al., 2023).

Gamification in the ESL context

Gamification can revolutionise pedagogy for educators across the globe as this approach can be an easy way for teachers to integrate ICT into their class (Desnenko et al., 2021), aside from improving ESL students' learning experience (Kiiashko & Yashkina, 2021). Games can attract the attention of students and when a lesson is paired with gaming elements such as leaderboards and rewards, it motivates students to interact more with the class (Bodyk & Karnoza, 2024). It also improves engagement through instilling positive feelings towards language learning and gives the opportunity for ESL students to build their own knowledge (Rafiq et al., 2020) as well as providing an interactive learning experience (Kiiashko & Yashkina, 2021), which can be especially useful for students who are adverse to the use of textbooks due to the content not being appealing to them (Naeem et al., 2023).

Constructivism revolves around the concept that to gain relevant knowledge, an individual

must be an active participant in its creation (Zajda, 2021). Gamification relates to constructivism as it heavily emphasises student participation through the environment it creates as well as the type of activities that are conducted in gamified lessons, when a lesson is paired with gaming elements such as leaderboards and rewards, it motivates students to interact more with the class (Bodyk & Karnoza, 2024).
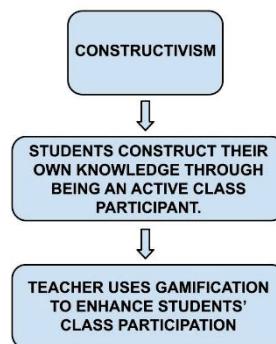
Figure 1: Relationship Between Constructivism and Gamification

Figure 1 presents the correlation between constructivism and gamification. Bodyk and Karnoza (2024) expressed that students gain autonomy through gamification and promote problem-solving, which is a method that constructivism heavily emphasises as a way of knowledge acquisition. As stated, without active engagement, students cannot gain knowledge that is consequential.

METHODOLOGY

This research involves an emphasis on students' behaviour and motivation, as such the qualitative research approach would be most suitable (Ponce et al., 2022; Oranga & Matere, 2023). Data was collected through two methods which are observations and interviews in a period of three months. Observation checklists and field notes (FN) were utilised six times each within the span of three months, four of the checklists and field notes were during a gamified lesson and two during a non-gamified lesson to observe any effects or changes that happened within the three months. Interviews were conducted at the end of the research, and the participants were briefed on the purpose of the interview and the concept of gamification to ensure the participants understood the questions. In order to retain the anonymity of the interviewees, they are referred to as A, B, and C.

Gamification was used in two ways, through gamification applications which were Kahoot!, Baamboozle, and Quizziz, and a reward system where participants were given physical rewards such as candies, stickers, and snacks when they participated during activities and lessons. Observations were utilised to address the first research question whereas interview was used to answer the second research question.

Three research instruments were used, the Student Engagement Observation Checklist (SEOC) developed by Finn et al. (1991), Observational Protocol and Interview Protocol by Creswell (2006). The SEOC originally contained 29 items, each categorised into four scales which are Effort (E), Initiative (I), Disruptive behaviour (D), and Inattentive behaviour (N). The checklist also features a Likert scale that ranges from 1 (never) to 5 (always). Only 10 items were deemed to

be the most relevant to the purposes of this study. The Observational Protocol includes a header that contains basic information about the observation and two sections. The descriptive section is a summary of the lesson, written in chronological order. The reflective notes section is the researcher's reflection of each phase or activities that was conducted during the lesson. The Interview Protocol by Creswell (2006) contains a header that includes information about the interview to ensure organisation and clarity, which was altered for relevancy purposes.

The participants in this study comprised of 26 ESL students who were 13 years old and were enrolled in a rural school in Sabah. The participants were selected using convenient sampling by choosing students that the researchers had immediate access to. The proficiency level of the participants of the study ranged from lower intermediate to intermediate with Bahasa Melayu as the main language that is used within and outside of school.

The model of Trustworthiness proposed by Lincoln et al. (1985) was utilised for this research as a method of assuring trustworthiness, credibility was established through methodological triangulation by implementing multiple methods of data collection. Stahl and King (2020) mentioned to ensure transferability, the data should be highly descriptive which can be done by including contextual information regarding the data collection. As such, highly descriptive research instruments were employed in this study including Student Engagement Observation Checklist (SEOC) by Finn et al. (1991), Observational Protocol and Interview Protocol by Creswell (2006). Lincoln et al. (1985) asserts that observation that is done continuously and repeatedly is important in enhancing dependability, Kakar et al. (2023) adds that it can also enhance the stability of the data and research. For that reason, a total of six observations were conducted to improve the dependability of this study. To establish confirmability, reflexivity was practiced through bias awareness. Participants of this study are the researcher's students and biases might skew the findings.

The data collected was analysed thematically through the six phases suggested by Braun and Clarke (2021) which involves data familiarisation, data coding, initial theme generation, theme refining, defining, and naming, and finally the write up.

FINDINGS & DISCUSSION

The findings revealed that students' class participation was significantly enhanced, and the students held positive views towards the use of gamification. Once the data was coded, three themes that were most prominent throughout the analysis emerged, as shown in Table 1.

Research Questions	Themes	Sub-themes
How does the use of gamification enhance student participation during class?	Increased Motivation	Gamified Environment
		Positive Reinforcement
What are the students' views towards the use of gamification in English lessons?	Improvement in Class Activities	Activities Promoting Engagement
		Sense of Achievement
	Improvement in Classroom Environment	Cooperative Classmates

Table 2: Themes and Sub-themes

Theme 1: Increased Motivation

The findings showed that using gamification, student participation was enhanced as it increased the motivation of the participants. Motivation was increased through two ways, gamified environment and positive reinforcement. A gamified environment which, as the data suggests, is an environment that is fun, competitive, cooperative, and manageable. Table 2 illustrates the improvement in positive behaviour among the participants once gamification was implemented, with Lesson 1 (L1) scoring significantly lower as it was a non-gamified lesson. Although, gamification had little to no impact on one negative behaviour, (D) Needs to be reprimanded which is generally scaled at 3. The researcher found students tend to get carried away during moments of excitement and contention which may explain why this behaviour scored higher during L5.

Item	Lesson 1 (L1): Non-Gamified Lesson	Lesson 2 (L2): Baamboozle	Lesson 3 (L3): Reward System	Lesson 4 (L4): Non-Gamified Lesson	Lesson 5 (L5): Kahoot!	Lesson 6 (L6): Quizziz
(E) Pays attention in class	3 (Sometimes)	4 (Sometimes)	5 (Always)	4 (Sometimes)	5 (Always)	5 (Always)
(E) Work well with other students	2 (Never)	3 (Sometimes)	5 (Always)	3 (Sometimes)	5 (Always)	5 (Always)
(I) Participate actively in discussions	3 (Sometimes)	4 (Sometimes)	5 (Always)	4 (Sometimes)	5 (Always)	5 (Always)
(E) Completes tasks given	3 (Sometimes)	5 (Always)	5 (Always)	3 (Sometimes)	5 (Always)	5 (Always)
(N) Doesn't seem to know what is going on in the class	3 (Sometimes)	3 (Sometimes)	2 (Never)	3 (Sometimes)	2 (Never)	2 (Never)
(I) Ask questions to get more information	4 (Sometimes)	3 (Sometimes)	3 (Sometimes)	4 (Sometimes)	4 (Sometimes)	5 (Always)
(D) Talk with classmate too much	4 (Sometimes)	3 (Sometimes)	3 (Sometimes)	3 (Sometimes)	3 (Sometimes)	2 (Never)
(I) Raise his/her hand to answer question or volunteer information	2 (Never)	2 (Never)	5 (Always)	5 (Always)	5 (Always)	5 (Always)
(E) Gets discouraged and stop trying when encountering an obstacle in school work	4 (Sometimes)	3 (Sometimes)	2 (Never)	2 (Never)	1 (Never)	1 (Never)
(D) Needs to be reprimanded	3 (Sometimes)	3 (Sometimes)	2 (Never)	2 (Never)	4 (Sometimes)	3 (Sometimes)

Table 2: Student Engagement Observation Checklist (SEOC)

However, Table 2 illustrates that learning platforms wield different results as observed by the researcher. L2 which used Baamboozle, could not foster the gaming environment as effectively as L5 and L6, which used Kahoot! and Quizziz respectively. L5 and L6 scored 5 in items that are relevant to student participation which are (E) Work well with other students and (I) Participate actively in discussions, whereas L2 scored lower.

Participants were less engaged with Baamboozle possibly due to the mechanics of the application as unlike Kahoot! and Quizziz, Baamboozle only requires one device, which is controlled by the teacher whereas the other learning platforms used, the students were given a device so that they can answer the questions that are shown on the whiteboard. This means that students require a certain level of interactivity for a gamified lesson to effectively foster participation which is supported by other researchers such as Kiiashko and Yashkina (2021) and Zhang and Yu (2022) who mentioned that the autonomy that gamification provides is the reason as to why students become more motivated to participate.

Themes	Sub-themes	Excerpts from Field Note (FN)
Increased Motivation	Gamified Environment	"—taunting made the other students— more competitive and determined" (FN, L5) "Group members even scolded if they noticed their friends were slacking" (FN, L5) "Competitiveness highly and positively impacted students' energy and participation" (FN, L6)
	Positive Reinforcement	"The researcher explained that volunteers will be rewarded— volunteer increased drastically" (FN, L3) "Encourage students to answer even if they might be incorrect" (FN, L3) "Requested more reflective questions so they can receive a reward for answering" (FN, L3)

Table 3: Field Notes Excerpts

In addition, positive reinforcement was most effective in encouraging student participation. Students who were shy or less proficient in using English were highly participative in the lesson as they were determined to get the reward for volunteering and participating in the lesson. Additionally, students were not focused on avoiding mistakes as shown in Table 3, *"encourage students to answer even if they might be incorrect"* (FN, L3) and in Table 2, where the item *(E) Gets discouraged and stop trying when encountering an obstacle in school work*, decreased throughout the research. This signifies that positive reinforcement allows students to view making mistakes as something that is a part of the process and encourages them to try harder regardless of the outcome, essentially reducing students' language anxiety or self-doubt, which is something that has been discussed by other researchers as well such as Rafiq et al. (2020), Desnenko et al. (2021), and Rahim et al. (2023).

Unexpectedly, in subsequent lessons, the effects of the reward system were still observable even in non-gamified lessons as students were considerably more inclined to participate in discussions or activities compared to prior lessons where gamification was yet to be

implemented. This was particularly apparent in the fourth observation, a non-gamified lesson that was conducted after the researcher implemented a reward system. The researcher observed that although participants were less excited, their cooperation maintained. Once the researcher compared L1 and L4, which were both non-gamified lessons, it could be seen that there was improvement in students' overall participation and attentiveness, illustrated in Table 2, where items that pertain to attentiveness such as *(E) Pays attention in class* and *(I) Participate actively in discussions* increased from 3 to 4.

Theme 2: Improvement in Class Activities

Theme	Sub-Theme	Excerpts from Interview (I)
Improvement in Class Activities	Activities Promoting Engagement	*"I like both, because both are fun"* (B, I2) *"The whole class is cooperative because the games are challenging"* (B, I2) *"Te games make it more fun"* (C, I3)
	Sense of Achievement	*"I feel proud whenever I get candy"* (A, I1) *"When there are games the boys become annoying. So I want to beat them"* (A, I1) *"I always get excited when I get the rewards"* (B, I2) *"Very happy and it makes me more motivated to learn English—"* (C, I3) *"I like to see me win and answer correctly"* (C, I3)

Table 4: Improvement in Class Activities

The interviewees held the opinion that gamification had a positive impact on their class activities as can be seen in Table 4. When asked about the use of gamification, the responses they gave had an emphasis on fun. The consensus that students have for gamification is that it provides entertainment for them, which is why they are more motivated to participate. However, it can also be understood that students became more engaged not purely because of entertainment. As shown in the table above, students found gamified lessons and activities to be challenging, and this element is what caused them to be more engaged in lessons overall. The participants' opinion can be understood as the researcher applied gamification through implementing a reward system as well as learning platforms such as Kahoot! and Quizziz, which gives students a reason to compete and challenge their classmates.

Additionally, gamified activities were able to create a better sense of achievement in the students, which promoted participation as the students wanted to pursue that sense of achievement. This finding proves that students are interested in classroom activities where they can experience gratification as well as receiving tangible achievements for their efforts, as mentioned by one interviewee, *"I always get excited when I get the rewards"* (B, I2).

Theme 3: Improvement in Classroom Environment

Theme	Sub-Theme	Excerpts from Interview (I)
Improvement in Classroom Environment	Cooperative Classmates	*"The boys become easier to manage during games, so activities move more smoothly"* (A, I1) *"The whole class is cooperative because the games are challenging"* (B, I2) *"My group becomes more cooperative because we want to answer questions together"* (C, I3) *"Makes the class more easier because students are easier to manage"* (C, I3)

Table 5: Improvement in Classroom Environment

The participants held positive views towards the classroom environment during gamified lessons. Table 5 shows that interviewees attributed the overall positive classroom environment to gamification and cooperation from their classmates. It was interpreted that students struggled with activities during English lessons because of their classmates' behaviour and that gamification addressed this issue and provided students a better experience. Other than that, the participants cited that their classmates were more cooperative because gamification made activities more challenging. This finding validates Yaccob et al.'s (2022) statement that gamification gives opportunities for students to interact and collaborate with their classmates, which may explain why the students perceive their classmates to be more cooperative in gamified lessons. Moreover, based on the responses shown in Table 5, non-gamified lessons perhaps provide insufficient challenge for the students, which causes unenthusiasm to participate and that students are impartial to activities that do not contain any obstacles as the students mentioned that their classmates are more cooperative because of how gamification makes activities more challenging.

Limitations

Despite data concurring with previous findings, there are limitations in the study such as researcher bias. Data and findings could possibly be interpreted in a manner that is positive or beneficial for this study, as such the researcher could also have interpreted behaviours that were observed during this study in a biased way that aligns with what the researcher wanted to observe. Additionally, although participants were asked to give their honest opinions, participant bias might have affected the outcome as participants might have answered questions according to what they think the researcher wants instead of giving an unbiased opinion.

Recommendations

The findings of this study proved that gamification using apps such as Kahoot!, Quizziz, and Baamboozle holds great potential in improving secondary school students' participation during English lessons. Teachers should therefore consider integrating digital games to motivate students to learn English in school. This is especially aligned with the Ministry of Education's aim to improve the digital literacy of school students as well as teachers. A paper-free option is also

available on Quizziz, this may be a useful alternative if students cannot bring gadgets to school. Since this study was conducted in a relatively short period of time, future studies can focus on the long-term effects of implementing gamification in English classes.

CONCLUSION

The findings of this study suggest that the use of gamification and receiving positive reinforcement enhances student participation and that students held positive views on gamified English lessons. The findings indicated that gamification can enhance student participation and decrease language anxiety, which effectively increases the motivation of students. Findings also showed that the students find enjoyment in English lessons through gamification, become more cooperative through gamification, and that their motivation is influenced by their surroundings. As such, educators should consider experimenting with their teaching practices by utilising gamification, especially for those struggling with students who seem disengaged and unmotivated to learn English. In particular, the study demonstrates how gamification can become a substantial tool to further one's practice or improve the learning experience of students.

Co-Author Contribution
The authors declare no conflict of interest. Author1 conducted the fieldwork, prepared the literature review, and oversaw the writing. Author 2 guided the data collection procedures and reviewed the manuscript.

Ethics Statement
The research followed all applicable ethical standards. Participation was voluntary, and confidentiality was ensured.

REFERENCES

Bodyk, O., & Karnoza, I. (Eds.). (2024). Gamification in English Language Teaching: Theoretical Foundations of Motivation Via Game Strategies. *Complexities of Education of Modern Youth and Students.* https://doi.org/10.46299/isg.2024.2.15

Braun, V., & Clarke, V. (2021). Thematic Analysis. In *SAGE Publications Ltd.* SAGE Publications Ltd. https://uk.sagepub.com/en-gb/eur/thematic-analysis/book248481

Creswell, J. W. (2006). *Qualitative inquiry and research design: Choosing Among Five Approaches*. SAGE Publications, Incorporated.

Desnenko, S., Pakhomova, T., Starostina, S., & Tokareva, J. (2021). Gamification in the formation of digital skills of future teachers. *E3S Web of Conferences*, 273, 12118. https://doi.org/10.1051/e3sconf/202127312118

Finn, J. D., Folger, J., & Cox, D. (1991). Measuring Participation among Elementary Grade Students. *Educational and Psychological Measurement*, *51*(2), 393–402. https://doi.org/10.1177/0013164491512013

Hussain, S., Akram, M., & Hussain, M. A. (2021). Effects of Motivational Strategies on ESL Learners' Proficiency: A Study of Graduate Students. *Pakistan Journal of Educational Research, 4*(1). https://doi.org/10.52337/pjer.v4i1.153

John, J. G., Gopal, R., Singh, C. K. S., Yesupatham, K. M., & Pratama, H. (2023). Reaching out to group contingencies in the ESL classroom. *Journal of Higher Education Theory and Practice, 23*(1). https://doi.org/10.33423/jhetp.v23i1.5794

Kakar, Z. U. H., Rasheed, R., Rashid, A., & Akhter, S. (2023). Criteria for Assessing and Ensuring the Trustworthiness in Qualitative Research. *International Journal of Business Reflections, 4*(2), 150–173. https://doi.org/10.56249/ijbr.03.01.44

Kiiashko, D., & Yashkina, V. (2021). Using the Platform Kahoot! as a Means of Gamification in the Process of Teaching English as ESL. *Anglistics and Americanistics, 1*(18), 79–83. https://doi.org/10.15421/382113

Lincoln, Y. S., Guba, E. G., & Pilotta, J. J. (1985). Naturalistic inquiry. *International Journal of Intercultural Relations, 9*(4), 438–439. https://doi.org/10.1016/0147-1767(85)90062-8

Naeem, W., Ashraf, Z., & Afsar, Z. A. (2023). Factors causing ESL students' demotivation to learn English. *Global Language Review, VIII*(I), 114–122. https://doi.org/10.31703/glr.2023(viii i).11

Oranga, J., & Matere, A. (2023). Qualitative Research: Essence, types and Advantages. *OALib, 10*(12), 1–9. https://doi.org/10.4236/oalib.1111001

Ponce, O. A., Gómez-Galán, J., & Pagán-Maldonado, N. (2022). Qualitative research in education. *IJERI International Journal of Educational Research and Innovation, 18,* 278–295. https://doi.org/10.46661/ijeri.5917

Rafiq, K. R. M., Pazilah, F. N., Tong, G. Y., Yunus, M. M., & Hashim, H. (2020). Game On! Development and evaluation of computer games for ESL Classroom. *International Journal of Scientific and Technology Research, 9*(2), 1976–1980. https://www.ijstr.org/final print/feb2020/Game-On-Development-And-Evaluation-Of-Computer-Games-For-Esl Classroom.pdf

Rahim, M. E. A., Rahim, E. M. A., Razawi, N. A., & Mohamed, N. (2023). MORE Thank Child's Play: Tackling speech anxiety among Malaysian ESL learners through Gamification. *Idealogy Journal, 8*(2). https://doi.org/10.24191/idealogy.v8i2.450

Razawi, N. A., Mohamed, N., Abd Rahim, M. E., & Abd Rahim, E. M. (2023). Improving the use of lecture videos to increase student engagement in ESL blended learning classrooms. *Students' Perception and Challenges of Learning the English Subjects Through Online Classes, 18*(2), 71–99. https://ir.uitm.edu.my/id/eprint/81001/

Stahl, N. A., & King, J. R. (2020). Expanding Approaches for Research: Understanding and Using Trustworthiness in Qualitative Research. *Journal of Developmental Education, 44*(1), 26 28. https://www.jstor.org/stable/45381095

Yaccob, N. S., Rahman, S. F. A., Mohamad, S. N. A., Rahim, A. a. A., Rashid, K. K. A., Aldaba, A. M. A., Yunus, M. M., & Hashim, H. (2022). Gamifying ESL Classrooms through Gamified Teaching and Learning. *Arab World English Journal, 8,* 177–191. https://doi.org/10.24093/awej/call8.12

Zajda, J. (2021). Constructivist learning theory and creating effective learning environments. In *Globalisation, comparative education and policy research* (pp. 35–50). https://doi.org/10.1007/978-3-030-71575-5_3

Zhang, Q., & Yu, Z. (2022). Meta-Analysis on investigating and comparing the effects on learning achievement and motivation for gamification and Game-Based learning. *Education Research International, 2022,* 1–19. https://doi.org/10.1155/2022/1519880

THE EFFECTS OF THE USE OF YOUTUBE VIDEOS IN PRE-WRITING ACTIVITY ON STUDENTS' WRITING ABILITY

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ABSTRACT

This research aimed to investigate the effects of using YouTube videos in a pre-writing activity on students' writing ability. It also explored the experiences, perceived benefits, and the role of YouTube videos as a powerful tool in the efforts to enhance students' writing ability. This study involved 31 Form Four students from Sekolah Menengah Kebangsaan (SMK) Taman Ria Tuaran. To provide a comprehensive understanding of the effectiveness and experiences associated with the implementation of YouTube videos into pre-writing activity, this research adopted a quantitative approach, including a Quasi-experimental design, specifically a Pre-Test and Post-Test, and survey questionnaires to explore both students' writing performances, experiences, behaviors, and interactions on the use of YouTube in pre-writing activity. The data were analyzed by hypothesis testing as well as descriptive statistics. Therefore, findings revealed a statistically significant improvement in writing scores, with the mean increasing from 13.19 in the pre-test to 17.32 in the post-test. A paired-samples t-test confirmed this improvement was highly significant ($t(30) = 11.86$, $p < .001$) and based on these results, the null hypothesis was rejected, indicating that the use of YouTube videos in pre-writing activities led to significant gains in students' writing ability, including richer content, better organization, improved communicative achievement, as well as enhanced language use. Implications suggested that the findings of this study can help students stay motivated, generate ideas, and write with more confidence. Teachers can use it to make pre-writing activities more engaging and effective, while policymakers can consider adding multimedia-based strategies to the curriculum to improve ESL writing outcomes.

Keyword(s): *Pre-writing, YouTube videos, Writing Ability, Ideas Generation*

INTRODUCTION

The education sector is one of the sectors that has been impacted significantly due to the advent of digital technology that grows rapidly year by year. In the classroom especially, the integration of technology such as ICT and multimedia has been widely used to make the teaching and learning process more engaging and interesting in the effort to attract students' attention and spark their enthusiasm to learn. Among the various digital tools that are invented and accessible, YouTube can be considered as the platform that is usually used especially in teaching and learning as it contains many contents that comply with the educational needs and preferences. In the

context of English language learning, specifically writing, pre-writing activities are paramount for generating ideas and how to execute them in a written form in an organized way. The implementation of YouTube videos in pre-writing activity, specifically brainstorming, potentially enhances students' writing performances compared to traditional pre-writing activities that usually depend on the textbook and verbal prompts.

Lawrence and Tar (2018) stated that technologies, specifically ICT have been adopted and incorporated in our educational system, which potentially bring changes in the strategies to carry out teaching and learning in the classroom. Incorporating technology, such as the use of multimedia resources, particularly videos in education, has produced and proved better results and is beneficial in students' academic performance, and among these resources, YouTube has become such a powerful educational tool to assist teachers and students, specifically in teaching and learning the English language. The use of YouTube in pre-writing activities potentially helps the students to gain ideas and enhance their understanding of the topic given, as they could visualize the task better than just looking at the pictures traditionally. Kelsen (2009) mentioned that previous research showed that YouTube has been voted as the most favorite platform to learn English by students in higher education due to its attractiveness, usefulness, and relevance to their lives that they can relate to.

This study focuses on finding out the effect of using YouTube videos in pre-writing activity on students' writing ability. Brainstorming, one of the pre-writing activities, can be defined as the process of a group discussion, usually involving the contribution of ideas and solutions to the problem spontaneously, and this activity is a fundamental pre-writing activity for students to figure out what tasks they have to do together with their requirements. Also, this research is designed to explore a comprehensive and in-depth understanding of what ways YouTube videos affect the pre-writing activity, particularly from the perspective of students' writing ability. Therefore, this present paper aims to investigate the effect of using YouTube videos in pre-writing activity on students' writing ability. To fulfill these aims, the research question of this study includes:

1. Is there a significant improvement in students' writing ability after the intervention of YouTube videos in pre-writing activities?
2. What are students' perceptions specifically on their experiences, perceived benefits, and the role of YouTube videos in their writing ability?

LITERATURE REVIEW

The Use of Multimedia as Educational Tools

Multimedia can be described as a combination of more than one media type, including text, video, audio, animation, etc. The implementation of media as educational tools offers more dynamic and engaging ways to facilitate learning compared to traditional teaching methods that depend on textual and verbal prompts. The information processing is supported by the different media elements that possibly assist the learners to visualize the information, which enhances their understanding of the particular topics. Several studies have established the importance of multimedia in education and how this integration of multimedia helps students in learning. One of the significant advantages of using multimedia as an educational tool is that it potentially enhances the engagement and motivation of the students, as the interactive and visually appealing nature that multimedia makes the learning process more interesting and can attract students' attention and increase their enthusiasm to learn. A study by Ullah and Anwar (2020)

showed that learner engagement has been positively influenced by using technology and collaborative as well as interactive activities in groups.

Active learning promotes students' participation is also another importance of multimedia in education. Some of the students are not engaged in the learning process as they do not understand the concepts and subjects, even though the teachers have explained them, as they hardly imagine and visualize the concepts without the presence of multimedia elements. A study conducted by Nadirah et al. (2020) to investigate whether there is any improvement in the reading ability of eighth-grade students with the integration of interactive media revealed that there is a significant difference in reading comprehension between the achievements of students who implemented the interactive multimedia and those who did not. This shows that in this particular study, the interactive media promotes active learning for the students, which simultaneously increases their participation in the reading comprehension, as it is more interesting than just reading the whole text, which usually feels boring that leads to demotivation of the students

Role of YouTube Videos in language teaching and learning

The implementation of YouTube videos specifically in language teaching and learning is very crucial as it enhances the educational experiences due to its diverse content and interactive features that facilitate the educators as well as students in learning a language in more effective ways. Almurashi (2016) reported a study conducted by Seilstad (2012) on the use of YouTube as an innovative method for English language teaching in Morocco found that YouTube videos are very efficient in students' achievement as well as personal reflection on their progress of learning, as he stated that the clips from YouTube are easier for related and specified teaching material. One of the significant roles of YouTube videos in language teaching and learning is that it enhances listening and speaking skills, especially for ESL. The graphics and illustrations used in YouTube-based materials allow the learners to comprehend the thing what is being said to them as well as help in mastering pronunciation and sound discrimination (Wagner in Binmahboob, 2020). It exposed the learners to authentic materials by the native speakers that eventually helped them on how to pronounce the words correctly, as well as the correct expression and intonation. A study conducted by Akbari and Razavi (2016) on the use of authentic resources specifically in EFL classrooms revealed that students' performances have been positively impacted using authentic materials from YouTube, as it is able to reduce the teaching complexities in the ESL classroom.

Furthermore, the authentic materials in YouTube videos expose the learners to real-world experiences that help the ESL learners acquire the language better. Barrs (2012) stated that since users from different cultures can upload their videos on YouTube, the role of YouTube in cross-cultural knowledge is significant. It can be supported by Alqhatani (2014) mentioned that students' listening skills potentially improved with the use of YouTube due to it being a rich source of authentic materials. For ESL learners specifically, speaking in English might be hard as English is a second language and not a mother tongue that they use daily. According to Ellis (2008) as cited in Mandasari and Aminatun (2020), students may need extra in mastering speaking skills if the exposure and practice in English is not sufficient. Therefore, YouTube videos could expose the students in authentic materials such as vlogs, tutorial videos, songs, etc., as real-life examples that they can follow, particularly in their speaking.

Dual Coding Theory

The Dual Coding Theory was introduced by Allan Paivio in 1971, which explains how humans process information through two distinct but interconnected cognitive channels, which are one for verbal information and the other for non-verbal information. This theory emphasizes that the use of both verbal and non-verbal channels enhances the learning process as it allows the learners to create multiple pathways for understanding as well as for information recall. According to Mayer (1997), stronger comprehension and greater recall could be achieved through the transmission of information through verbal (speech) and non-verbal (visual) channels.
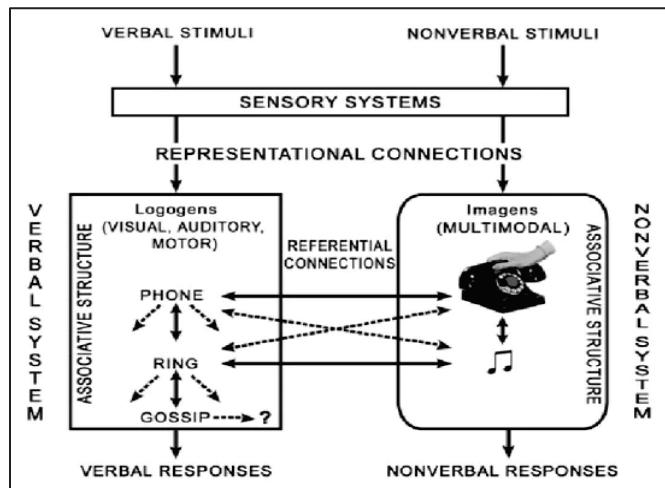
Figure 1 Dual-coding theory (Paivio, 1986).

Constructivist Learning Theory

The Constructivist Learning Theory is primarily associated with the well-known philosophers Jean Piaget and Lev Vygotsky, who laid the foundation in the educational framework that emphasizes the role of learners in constructing their understanding and knowledge through engaging with the environment and experiences. In this theory, the learning process is highlighted as an active process rather than a passive where learners engage with the new information and relate it to their prior knowledge, which potentially helps in deepening their understanding as well as promotes retention. In a constructivist environment, the primary role of the teacher should be to provide the setting and offer support to motivate or encourage the learners to create their own knowledge through their personal experiences (Lunenburg & Ornsteing, 2008; Rummel, 2008). This means that the teachers should design their lesson plan in an interactive and engaging way and not depend on traditional methods that only gain knowledge from textbooks and other textual resources.

METHODOLOGY

This study employed a quantitative approach with a quasi-experimental design, specifically a one-group pre-test and post-test, to find out if there are any significant differences in scores between the two tests. Complementing this was a survey component adopted from Alkhatiri (2019) in the form of a questionnaire also employed to gather both quantitative and qualitative data regarding

students' perceptions on the experiences, perceived benefits and interactions with the intervention of YouTube. The sample for this research study consisted of 31 form four students from SMK Taman Ria Tuaran who were enrolled in a standard English language curriculum that provided a uniform context for the intervention. The sampling technique employed in this study was convenience sampling or also known as intact group sampling, which is a non-probability sampling method that involves selecting participants who are readily available and accessible for the researcher to collect the data (Creswell, 2014).

The validity and reliability of the instruments were ensured as both writing assessments and the questionnaire were reviewed and suggested by the senior and experienced English language teacher of SMK Taman Ria Tuaran, who confirmed that the task was a reasonable measure of students' writing ability. The analytical rubric that strictly followed the Sijil Pelajaran Malaysia (SPM) examiner guidelines was used comprehensively when evaluating the writing assessment, as it consists of standardized guidelines and a common framework for assessing students' writing in both tests.

For this study, the data collected were analyzed by statistical and thematic procedures. The hypothesis testing was conducted using a Paired-Sample T-Test calculated with the SPPS software in order to determine if there was a statistical difference in students' writing performance between the pre-test and post-test scores within the single group. Also, the Paired-Samples T-Test is appropriate for comparing means specifically from the same group of subjects measured at two different points in time. For the closed-ended questions, the descriptive analysis was used, especially those that utilized the Likert Scale; the descriptive statistics, such as percentages, mean scores, and standard deviations, were used to provide a clear result of students' perceptions. Responses from the open-ended questions were analyzed with thematic analysis. This type of analysis involved a systematic process of reading, coding, and interpreting the textual data to identify recurring ideas.

FINDINGS

Descriptive Statistics of Students' Scores in Pre-test and Post-test

For Research Objective 1 (RO1), which aims to investigate if there is a significant improvement in students' writing ability with the intervention of YouTube videos in pre-writing activity, data were gathered through a pre-test and a post-test. Table 1.1 shows the descriptive statistics for the pre-test and post-test scores, including the mean, number of participants (N), standard deviation, and standard error mean for each test.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre Test	13.1935	31	2.91455	.52347
	Post Test	17.3226	31	1.73948	.31242

Table 1 Paired Samples Statistics

As shown in Table 1, the mean score for the Pre-Test was 13.19 (SD=2.91), while the mean score for the Post-Test was 17.32 (SD=1.74). The sample size for both tests is the same, which was 31 participants. The standard deviation indicates a wider dispersion of scores

compared to the Post-Test. The standard error mean for the Pre-Test was 0.52347, and for the Post-Test, it was 0.31242. These initial descriptive statistics show that there is an increase in scores from the pre-test to the post-test.

Table 2 below shows the results of the paired samples t-test, which investigate the mean difference between both pre-test and post-test scores. This table includes the mean difference, standard deviation of the difference, standard error mean of the difference, 95% confidence interval of the difference, t-value, degrees of freedom, and significance levels.

		Paired Differences							Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Pair 1	Pre Test - Post Test	-4.12903	2.15626	.38728	-4.91996	-3.33811	-10.662	30	<.001	<.001

Table 2 Paired Sample Test

The calculated t-value for the paired samples test was -10.662, with 30 degrees of freedom (df). The p-value for both the one-sided and two-sided tests was less than 0.001 ($p <$ .001). Given that this p-value is well below the conventional significance level of 0.05, it confirms that the observed difference between the Pre-Test and Post-Test scores is statistically significant. Therefore, the alternative hypothesis was accepted while the null hypothesis was rejected. There were significant differences in the writing ability of the students previously and after the implementation of YouTube in the pre-writing activity.

Students' Perceptions on The Use of YouTube

Based on the survey data in Table 3, the students reported a strong positive perception regarding the use of YouTube videos in their writing class. The first section, focusing on Experience and Engagement (Items 1-4), yielded a high total of 4.04. This indicates that students overwhelmingly found the intervention enjoyable and engaging, with the highest-rated statement across the entire survey being the preference for brainstorming with YouTube videos over traditional methods (Mean=4.13) and a strong agreement that the videos increased their motivation to write (Mean=4.13). The results suggest that the videos effectively made the pre-writing activity more interesting and pleasant.

For the second section, Perceived Usefulness (Items 5-9), the total mean was 3.96, signifying that students found the YouTube videos to be highly beneficial tools. The primary benefit perceived was in generating and organizing ideas for writing (Means: 4.06 and 4.03, respectively). While the videos were highly valued for the initial stages of the writing process, agreement was slightly lower concerning their ability to provide new vocabulary and increase confidence, suggesting that while the videos facilitate content development, their effect on linguistic acquisition and self-assurance may be less pronounced for some students.

The final section, assessing the Role in Writing Ability (Items 10-14), had a total mean of 3.77, which remains in the high level of agreement range, affirming that the videos play an important role in supporting writing skills. Students demonstrated a clear preference for

brainstorming with YouTube (Mean=4.13) and agreed the videos helped improve the quality of their drafts (Mean=3.81). However, the lowest mean score in the entire survey was for the statement regarding YouTube supporting their overall writing ability (Mean=3.42). This suggests that while students appreciate the specific, task-oriented benefits of the videos (like idea generation and engagement), some are less convinced of the videos' comprehensive impact on their general, long-term writing competence.

No	Statement	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	SD	Total Mean
1	I enjoy using YouTube videos as part of brainstorming before writing.	35.48	38.71	25.81	0.00	0.00	4.10	0.79	**4.04**
2	Using YouTube videos makes pre-writing activity more interesting than only using textbooks or teacher prompts.	25.81	61.29	9.68	3.23	0.00	4.10	0.70	
3	Brainstorming with YouTube videos makes me more motivated to write.	32.26	51.61	12.90	3.23	0.00	4.13	0.76	
4	Overall, I have a positive attitude toward using YouTube videos in writing class.	22.58	38.71	38.71	0.00	0.00	3.84	0.78	
5	YouTube videos help me generate more ideas for my writing.	32.26	32.26	25.81	0.00	0.00	4.06	0.77	**3.96**
6	Watching YouTube helps me organize my ideas better before writing.	29.03	45.16	25.81	0.00	0.00	4.03	0.75	
7	YouTube videos give me new vocabulary that I can use in writing.	29.03	38.71	32.26	0.00	0.00	3.97	0.80	
8	After watching YouTube videos, I feel more confident to start writing.	9.68	61.29	25.81	3.23	0.00	3.77	0.67	
9	YouTube videos make it easier to brainstorm about the writing topic.	29.03	38.71	32.26	0.00	0.00	3.97	0.80	
10	YouTube videos help improve the quality of my writing drafts.	16.13	48.39	35.48	0.00	0.00	3.81	0.70	**3.77**
11	Using YouTube videos helps me include more detailed ideas in my writing.	32.26	32.26	35.48	0.00	0.00	3.97	0.84	
12	I believe YouTube supports my overall writing ability.	6.45	45.16	32.26	16.13	0.00	3.42	0.85	
13	Using YouTube before writing makes me feel less anxious about writing tasks.	12.90	32.26	48.39	6.45	0.00	3.52	0.81	
14	I prefer brainstorming with YouTube videos over traditional brainstorming methods.	29.03	54.84	16.13	0.00	0.00	4.13	0.67	

Table 3: Students' Perception of The Use of YouTube

Qualitative Findings: Perceptions of Using YouTube Videos in Pre-Writing

The thematic analysis of one open-ended question ("In your opinion, how has using YouTube videos before writing helped you? What challenges did you face?"), The findings revealed there

were three prominent themes emerged, which were idea generation, accessibility and overall feeling or experiences, based on Table 4 below. For the first theme, which was idea generation, it highlighted the significant positive impact of YouTube videos, specifically in students' early stages of writing. The illustrative quotes, such as "help in generating ideas" and "generating more ideas," indicated that YouTube serves as an active catalyst for brainstorming and organizing their thoughts and ideas.

Theme	Description	Illustrative Quotes
Idea Generation	This theme encapsulates how YouTube videos actively assist students in brainstorming, organizing thoughts, and feeling more confident in starting their writing tasks.	"Help in generating ideas" "Generating more ideas"
Accessibility	This theme describes the common difficulties students faced, such as internet connectivity, video quality, and distractions.t	"Internet Connection"
Overall feeling/ experiences	This theme describes the students' feeling or any experiences on the implementation of YouTube videos in writing activity.	"Good experiences" "Attract my attention"

Table 4 Thematic Analysis of Qualitative Findings

Furthermore, the accessibility theme described the challenges related to the access and technical issues that the students might encountered with the implementation of YouTube videos. The illustrative quotes, such as "Internet connection" highlighted that connectivity issues as a specific barrier or common difficulties that the students faced and lastly, the overall feeling or experiences focused on the broader emotional responses of the students towards the use of YouTube videos in writing generally. The illustrative quotes, such as "Good experiences" and "attract my attention" indicated that the implementation of YouTube not only benefits in writing-related perspective only but also foster the engaging learning environment where students feel more enjoyable and motivated to start writing.

DISCUSSION

Impact of YouTube Video Implementation on Students' Writing Ability

The primary finding of this study was the statistically significant improvement in students' writing ability that been proven by the increased in mean score from pre-test (13.19) to 17.32 in post-test and the t-value of $p < .001$ which indicated that there were significant differences in the writing ability of the students previously and then after implementation of YouTube in pre-writing activity. This compelling finding was strongly supported the notion that students' writing abilities positively influenced by the incorporation of YouTube videos in the pre-writing activity. This

finding aligned with the study by Alemdag and Cagiltay, 2018; Chen and Liu, 2008, which advocated the use of multimedia in enhancing various aspect of language learning and found that better expression and comprehension were supported by the verbal instruction with the use of static and dynamic images in form of visualization technology.

This significant improvement of tests scores can be explained by looking at the Constructivist Learning Theory that viewed learning as an active process where learners build new ideas or concepts based upon their current and past knowledge. In a constructivist environment, the primary role of the teacher should be to provide the setting and offer the support in order to motivate or encourage the learners to create their own knowledge through their personal experiences (Lunenburg & Ornsteing, 2008; Rummel, 2008). This means that the teachers should design their lesson plan in an interactive and engaging way and not depend on traditional methods that only gain knowledge from textbooks and other textual resources. Hence, in this context of study, the implementation of YouTube videos in pre-writing brainstorming activity can be seen as an effective method in the effort to engage students participating actively in the learning process as watching a YouTube videos specifically in the pre-writing activity allow the learners to visualize concepts, interact with the new ideas gain from the videos and connect what that see and hear with their prior knowledge. In the pre-test, the mean score of 13.19 as there was no intervention of YouTube videos, instead it used traditional pre-writing methods like discussion and text-based which may not always effectively activate students' prior knowledge or facilitate the generation of ideas, especially those who are more visually or auditory oriented. The mean score in post-test increased by 17.32 proved that the implementation of YouTube offered a dynamic and interactive environment where students were actively engaged with the YouTube videos content which allowed them to generate more ideas, organize their thoughts as well as construct meaning that lead to a richer foundation for their writing.

Moreover, the significant improvement of mean score from pre-test and post-test was particularly aligned with the Dual Coding Theory which was introduced by Allan Paivio in 1971 that explains how humans process the information through two distinct but interconnected cognitive channels which are one for verbal information and the other one for non-verbal information. Specifically, in this context of study, YouTube videos serve as a multimedia tool that offers multiple senses to the learners as they process the auditory information (verbal stimuli) alongside visual information like images and animation (non-verbal stimuli) that lead to a better comprehension and understanding rather than text-only description particularly in the pre-writing activity that crucial in generation and organization of ideas. According to Mayer (1997), fully stronger comprehension and greater recall could be achieved through the transmission of information through verbal (speech) and non-verbal (visual) channels. This dual-modal input enhances students' comprehension and be strongly proven through the improvement of mean score for Content (C) with the mean score of 3.35 in pre-test to 4.52 in post-test, Communicative Achievement (CA), 3.26 in pre-test to 4.55 in post-test, Organization (O) in pre-test 3.26 increase to 4.45 in post-test as well as Language (L) with mean score of 3.32 in pre-test to 3.81 in post-test. This indicated that the efficacy of dual coding where the combination of verbal (speech) and non-verbal (visual) channels that can be acquired from YouTube videos enhances students' comprehension as it led to better retention, clearer understanding of the content as well as improved idea generation during the writing process.

Students' Perceptions of YouTube Video Use in Pre-Writing

The quantitative data showed the high mean score for the "Attitude towards Use" scale which was 4.04 indicated that generally the students enjoyed the experience, found it interesting as well as felt more engaged and confident. This positive attitude and experiences were strengthened with the qualitative theme of "Overall Feeling (Experiences)" from the open-ended question as well as "Good experiences" as they quoted.

Furthermore, students' perceptions of the direct usefulness of YouTube videos for their writing skill development were equally strong, with the "Perceived Usefulness" scale achieving a high mean score (M=3.96) that can be positioned as in the range of "agree" level of agreement. This quantitative result was strengthened by the qualitative theme of "Idea Generation" in which few students cited that YouTube videos "Help in generating ideas" and "Generating more ideas". This indicated that the students consciously recognized how the visual and auditory stimuli which can be considered as verbal and non-verbal based on the Dual Coding-Theory, assisted them overcome writer's block and developed more ideas through YouTube videos in pre-writing before they started writing.

CONCLUSION

One of the suggestions for further study is implementing the true experimental design with a control group. Since this study used specific type of research namely a one-group-quasi-experimental design and practical for real classrooms, it makes it a bit harder to ensure that the improvements in writing are solely caused by the YouTube videos as there might be other variables that contributed to the results in post-test. Furthermore, another suggestion for further study is specify the video characteristics as this current study does not specify the characteristics of videos shown to the students. Future research should consider investigating the specific videos' characteristics that might be attributed towards the writing outcomes as well as their perceptions.

The findings of this study has revealed that there was statistically significant improvement in students' writing score from pre-test to post-test and this can be proven by significant increase in total mean score from 13.19 in pre-test to 17.32 in post-test based on all four aspects of writing assessed including Content (C), Communicative Achievement (CA), Organization (O) and Language (L) that aligned with the SPM format that being used nationally. Furthermore, this study revealed the overwhelmingly positive perceptions of the students towards the intervention of YouTube videos in pre-writing activity. It was reported that students have a high level of agreement towards their engagement, enjoyment as well as motivation with the use of YouTube. They also obtained practical benefits from the implementation specifically in terms of the ability to generate ideas and structuring their thoughts.

All in all, this study contributes significantly to the academic discourse specifically on the technology-enhanced language learning as it offered holistic justification for educators to integrate the digital tools like YouTube in the classroom, provided students with proven effective and engaging learning strategy especially in tackling complex tasks such as writing task as well as it offered the curriculum developers with the data to reforms more progressive educational system that equip students with essential digital skills for the 21st century that not only enhances students' writing abilities, but also prepares them to keep up in this digitally driven world.

REFERENCES

Akbari, O., & Razavi, A. (2016). Authentic materials for learning English: A study on EFL students in Aceh. *Studies in English Language and Education, 3*(2), 147–157.

Alemdag, E., & Cagiltay, K. (2018). The use of multimedia in K–12 education: A systematic review. *International Journal of Educational Technology in Higher Education, 15*(41).

Alkathiri, L. A. (2019). Students' Perspectives towards Using Youtube in Improving EFL Learners' Motivation to Speak. *Journal of Education and Culture Studies, 3*(1), 12. https://doi.org/10.22158/jecs.v3n1p12

Almurashi, W. A. (2016). The Effective Use of YouTube Videos for Teaching English Language in Classrooms as Supplementary Material at Taibah University in Alula. *International Journal of English Language and Linguistics Research, 4*(3), 32–47.

Alqahtani, E. T. (2014). *The effectiveness of using YouTube on enhancing students' listening comprehension skills*. (Master's Thesis). Riyadh: Department of English Language and Translation.

Barrs, M. (2012). *What is the role of YouTube in cross-cultural knowledge?* (Publication no. 1530758) [Master's thesis, University of North Carolina at Chapel Hill]. UNC Chapel Hill Electronic Theses and Dissertations.

Binmahboob, T. (2020). YouTube As a Learning Tool to Improve Students' Speaking Skills as Perceived by EFL Teachers in Secondary School. *International Journal of Applied Linguistics and English Literature, 9*(6), 13. https://www.researchgate.net/publication/348770153_YouTube_as_a_Learning_Tool_to_Improve_Students'_Speaking_Skills_as_Perceived_by_EFL_Teachers_in_Secondary_School

Chen, N. S., & Liu, M. (2008). The effects of static and dynamic images on foreign language learning. *Journal of Educational Technology & Society, 11*(2), 143–158.

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

Ellis, R. (2008). Learner Beliefs and Language Learning. *Asian EFL Journal, 10*(4).

Kelsen, B. (2009). *The role of YouTube in the development of students' listening comprehension skills*. Unpublished master's thesis, University of Iceland, Reykjavik, Iceland.

Lawrence, J. E. (2013). Adoption of Information and Communication Technology (ICT) in Education in Nigeria: The Need for Effective Teacher Training and Development. *International Journal of Education and Development using Information and Communication Technology, 9*(1), 126-136.

Lawrence, J. E., & Tar, U. A. (2018). Factors That Influence Teachers' Adoption and Integration of ICT in Teaching/Learning Process. *Educational Media International, 55*(1), 79–105. https://doi.org/10.1080/09523987.2018.1439712

Lunenburg, F. C., & Ornstein, A. C. (2008). *Educational administration: Concepts and practices* (5th ed.). Wadsworth Publishing Company.

Mandasari, B., & Aminatun, D. (2020). Improving Students' Speaking Performance Through Vlog. *English Education: Journal of English Teaching and Research/English Education: Journal of English Teaching and Research, 5*(2), 136–142. https://doi.org/10.29407/jetar.v5i2.14772

Mayer, R. E. (1997). Multimedia learning: Are there two ways to learn from words? *Journal of Educational Psychology*, *89*(1), 1–18.

Nadirah, N., Asrifan, A., & Haedar, H. (2020). Interactive multimedia in EFL classroom: A study of teaching reading comprehension at junior high school in Indonesia. *Journal of Advanced English Studies*, *3*(2), 166–175.

Paivio, A. (1971). *Imagery and verbal processes*. Holt, Rinehart & Winston.

Paivio, A. (1986). *Mental representations: A dual coding approach*. Oxford University Press.

Rummel, M. K. (2008). *The relationship between the use of technology and student engagement in high school science classrooms*. (Doctoral dissertation, University of Cincinnati).

Seilstad, B. (2012). The use of YouTube as an innovative method for English language teaching in Morocco. *The Journal of Developing Areas*, *46*(1), 183–192.

Ullah, A., & Anwar, S. (2020). The Effective Use of Information Technology and Interactive Activities to Improve Learner Engagement. *Education Sciences*, *10*(12), 349. https://doi.org/10.3390/educsci10120349

Wagner, E. (2008). The effects of voice quality on listener comprehension and perception. *The Modern Language Journal*, *92*(1), 21-36.

THE EFFECTS OF USING TIKTOK VIDEOS ON SPEAKING SKILLS AMONG FORM 2 STUDENTS IN SMK INANAM, KOTA KINABALU, SABAH

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ABSTRACT

This study explores the effectiveness of TikTok videos as a device for enhancing speaking skills among Form 2 students at SMK Inanam, Kota Kinabalu, Sabah. As technology continues to shape education, digital tools such as Tik Tok offer a dynamic platform for language learning. The aim of this research is to assess how TikTok impacts students' fluency, pronunciation, vocabulary and confidence in English language. Using a quantitative research design, a survey was administered to 60 students, equally divided into TikTok users and non-users for learning English. The findings indicate that while TikTok was perceived as beneficial for improving speaking skills, no significant statistical difference was found between the two groups. The study highlights challenges such as technical difficulties, distractions and the need for curated educational content. These results suggest that TikTok has potential as a tool for language learning but require further refinement and support to maximize its educational value. Future research should explore strategies for overcoming the identified barriers to enhance TikTok's role in language education.

INTRODUCTION

In countries that were formerly colonies of the United Kingdom (UK) such as Malaysia, India and Nigeria, English language is typical taught as a second language (L2). In Malaysia, the education system is bilingual because it aims to balance local needs with global demands. Therefore, English is required at all levels of schooling (Khlaif & Salha, 2021) and mastering English is crucial for students in this era of globalization.

One critical skill in learning English is speaking, which involves expressing ideas orally (Rahmawati et al., 2023). Effective speaking enables clear communication of thoughts and ideas. With technological advancements, especially during the COVID-19 pandemic, mobile applications have become vital tools in education (Janoskova et al., 2021). Furthermore, according to Salleh and Ngui (2023), the growth of platforms like TikTok has provided new opportunities for interactive learning especially for language skills.

TikTok's popularity among youths is due to its engaging and captivating content (Rahmawati et al., 2023). It helps students to improve their vocabulary and pronunciation by offering an informal way to practice speaking. The rapid advancement of technology has impacted

many sectors, including education. However, some schools still rely on traditional methods, missing out on the benefits of digital tools. Speaking skills are crucial in learning English as a second language (Feng & Said, 2023), yet conventional methods often fail to engage students effectively. TikTok, while used mainly for entertainment, could be an effective tool for improving speaking skills.

Therefore, focused on Form 2 students of SMK Inanam, Kota Kinabalu, Sabah, this study aims to explore various key questions related to the use of TikTok video in strengthen students' speaking skills. The research questions guiding this study are as follows:

1. How effective is TikTok in enhancing Form 2 students' speaking skills at SMK Inanam?
2. What are Form 2 students' perceptions and attitudes toward using TikTok for English language learning?
3. What challenges do Form 2 students face when using TikTok to improve their speaking skills?

LITERATURE REVIEW

Effectiveness of TikTok in Enhancing Speaking Skills

Several studies have emphasized TikTok's role in improving speaking skills. According to Kristiani and Pradnyadewi (2021), YouTube videos, requiring verbal interaction, have significantly improved students' fluency and pronunciation, which can also apply to TikTok. Additionally, Rahmawati et al. (2023) noted that TikTok can positively influence students' speaking skills through imitation and vocabulary practice due to TikTok's engaging and informal content. Furthermore, Salleh and Ngui (2023) also stated that the interactive nature of Tik Tok assists students in developing communication skills through role-playing and stimulation. Hence, these findings propose that TikTok can be an effective tool to strengthen and enhance speaking skills when students are actively engaging with the content.

Students' Perceptions and Attitudes Toward TikTok for Language Learning

Students' perceptions and attitudes are important to determine the success of digital for learning. According to Janaskova et al. (2021), students are more likely to attract to platforms they find entertaining and user-friendly. Similarly, Anvarovna (2018) found that the mixture of entertainment and learning in TikTok can encourage student engagement. In addition, Feng and Said (2023) verified that students with positive attitudes toward TikTok were more motivated to learn. TikTok's ability to connect learners with peers and educators also fosters a sense of community (Charles & Soekarno, 2024). Therefore, these studies highlight the importance of students' positive perceptions for effective language learning.

Challenges in Using TikTok for Learning

Regardless of its potential, there are several challenges that impede the effective use of TikTok. According to Hu and Du (2022), insufficient in accessing technology such as unreliable internet or smartphones can obstructs consistent learning. Moreover, Feng and Said (2023) highlighted that TikTok consists of a variety content that includes non-educational material. Therefore, it is essential for educators to provide guidance and support on the effective use of TikTok and select suitable content that aligns with educational goals in order to overcome these obstacles.

METHODOLOGY

Research Design

This study uses a quantitative approach to evaluate TikTok's effectiveness in enhancing the speaking skills of Form 2 students at SMK Inanam, Kota Kinabalu, Sabah. Structured questionnaires are used to collect data on students' speaking abilities, their engagement with TikTok and motivation to use the platform for language learning.

The questionnaires, administered online via Google Forms, measures aspects of speaking skills such as pronunciation, fluency and confident. This data is analysed statistically to identify patterns and relationships allowing for reliable and valid conclusions. The findings helps to assess TikTok's role in improving speaking skills and can be applied to broader educational settings.

Participants

The participants of this study consist of 60 Form 2 students from SMK Inanam, Kota Kinabalu, Sabah, aged 14. They are divided into two groups, 30 TikTok users and 30 non-users for English learning, to maintain a fair comparison.

Population and Sample	
Population	Form 2 students at SMK Inanam, Kota Kinabalu, Sabah
Technique	Purposive Sampling
Sample	60 students

Table 1: Population and Sample

By applying purposive sampling, the study aims to provide precise data on TikTok's influence on speaking skills. This sample size is adequate for statistical analysis allowing meaningful conclusions regarding TikTok's influence on language learning.

Instrument

The study uses a structured questionnaire as its primary data collection tool to evaluate students' views on TikTok and its effectiveness in improving their English-speaking abilities. There are four key sections of the questionnaire which are demographic information, TikTok's effectiveness, student perceptions and attitudes and challenges faced by students.

Questionnaire

Section A: Demographic Information

This section gathers essential demographic data to classify participants and interpret responses according to characteristics like gender and class.

Section B: Effectiveness of TikTok in Enhancing Speaking Skills

This section measures TikTok's influence on speaking proficiency through students' self-evaluations on progress in pronunciation, fluency, vocabulary and confidence.

Items	Statements	Responses				
		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Q1	TikTok videos help me improve my English-speaking skills.					
Q2	I can speak English more fluently after watching TikTok videos.					
Q3	I learn new English vocabulary from TikTok videos.					
Q4	I can pronounce words better after watching English-speaking TikTok videos.					
Q5	I feel more confident to speak English because of TikTok content.					

Table 2: Questionnaire on Effectiveness of TikTok in Enhancing Speaking Skills

Section C: Perceptions and Attitudes Toward TikTok

This section examines the students' perceptions and attitudes toward using TikTok for learning.

Items	Statements	Responses				
		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Q1	I enjoy learning English through TikTok.					
Q2	I think TikTok is a useful tool for improving my English.					
Q3	I prefer learning English through TikTok compared to textbooks.					
Q4	Using TikTok in the classroom would make English lessons more interesting.					
Q5	I feel motivated to learn English when I see TikTok creators speaking well.					

Table 3: Questionnaire on Perceptions and Attitudes Toward TikTok

Section D: Challenges When Using TikTok

This section highlights the challenges that interfere with using TikTok in language learning including technical problems, content-related issues and potential distractions.

Items	Statements	Responses				
		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Q1	Sometimes I don't understand the English used in TikTok videos.					
Q2	I get distracted by unrelated content when using TikTok.					
Q3	I find it hard to focus on learning while using TikTok.					
Q4	My internet connection or device makes it hard to use TikTok.					
Q5	I don't always know which TikTok videos are helpful for speaking practice.					

Table 4: Questionnaire on Challenges Faced by Students

FINDINGS & DISCUSSION

Descriptive Statistics

Table 5 shows the mean values range between 3.28 to 3.72, suggesting that students generally agree that TikTok helps to enhance their speaking skills. The highest mean score (3.72) indicates that students somewhat perceive TikTok as beneficial to improves their speaking skills while the lower mean (3.28) for confidence reflects a smaller impact in this area.

On the other hand, the standard deviations that ranging from 1.376 to 1.546 reflect a moderate level of variation in responses highlighting that perceptions of pronunciation improvement vary more widely. The distribution of responses across the full Likert scale indicating diverse opinions about TikTok's effectiveness. Overall, even though is TikTok perceived as beneficial, students' views on its impacts differ.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
[TikTok videos help me improve my English-speaking skills.]	60	1	5	3.72	1.415
[I can speak English more fluently after watching TikTok videos.]	60	1	5	3.35	1.376
[I learn new English vocabulary from TikTok videos.]	60	1	5	3.42	1.499
[I can pronounce words better after watching English-speaking TikTok videos.]	60	1	5	3.32	1.546
[I feel more confident to speak English because of TikTok content.]	60	1	5	3.28	1.474
Valid N (listwise)	60				

Table 5: The Descriptive Statistics for the Effectiveness of TikTok in Improving Speaking Skills

Table 6 below shows the mean values for all items ranging between 3.27 to 3.53 which reflecting a generally favourable yet moderate perception of TikTok as a tool for learning. For instance, a mean of 3.53 indicates that some students slightly prefer learning English via TikTok compared to textbooks whereas a mean of 3.27 for enjoyment highlights variation in students' enjoyment of using TikTok for learning.

Meanwhile, the value for standard deviations is between 1.396 and 1.582 which show a moderate level of variability in responses, suggesting the students' perceptions of TikTok as a learning tool is vary among them. Some may strongly agree while others may feel neutral or disagree.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
[I enjoy learning English through TikTok.]	60	1	5	3.27	1.582
[I think TikTok is a useful tool for improving my English.]	60	1	5	3.45	1.358
[I prefer learning English through TikTok compared to textbooks.]	60	1	5	3.53	1.396
[Using TikTok in the classroom would make English lessons more interesting.]	60	1	5	3.48	1.535
[I feel motivated to learn English when I see TikTok creators speaking well.]	60	1	5	3.35	1.494
Valid N (listwise)	60				

Table 6: The Descriptive Statistic for the Perceptions and Attitudes Toward Using TikTok as a Leaning Tool

Table 7 shows the mean value for challenges ranging between 3.17 to 5.87 reflecting that students face challenges at vary levels of difficulty. The high mean of 5.87 is for "My internet connection or device makes it hard to use TikTok" indicates that technical difficulties are a significant challenge for many students. In contrast, the lower mean of 3.17 for "I don't always know which TikTok videos are helpful for speaking practice" indicates it is less of a problem. The standard deviations are range from 0.566 to 1.643 which show variability in students' responses. For instance, some students are less affected by the technical issues even though it is a generally a consistent challenge.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
[Sometimes I don't understand the English used in TikTok videos.]	60	1	5	4.18	1.081
[I get distracted by unrelated content when using TikTok.]	60	2	5	4.70	.850
[I find it hard to focus on learning while using TikTok.]	60	1	5	3.83	1.463
[My internet connection or device makes it hard to use TikTok.]	60	1	5	4.87	.566
[I don't always know which TikTok videos are helpful for speaking practice.]	60	1	5	3.17	1.224
Valid N (listwise)	60				

Table 7: Descriptive Statistics for the Challenges Faced by Students

Independent Sample Test

Table 8 shows the Levene's Test which indicates mixed equality of variances between TikTok users and non-users. The T-test results for all variables produced p-values exceeding 0.05, demonstrating that there are no significant differences between the two groups. For instance, the items "TikTok videos help me improve my English-speaking skills" (p=0.652) and "I feel more confident to speak English because of TikTok" (p=0.402) show no significant differences between the two groups. Therefore, based on the results, this research fails to reject the null hypothesis (H_0) indicating that TikTok usage does not have any significant impact towards the students' speaking abilities, fluency, vocabulary, pronunciation and confidence.

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | |
		F	Sig.	t	df	Significance One-Sided p	Significance Two-Sided p	Mean Difference	Std. Error Difference
[TikTok videos help me improve my English-speaking skills.]	Equal variances assumed	.819	.369	.453	58	.326	.652	.167	.368
	Equal variances not assumed			.453	56.927	.326	.652	.167	.368
[I can speak English more fluently after watching TikTok videos.]	Equal variances assumed	.020	.889	-1.033	58	.153	.306	-.367	.355
	Equal variances not assumed			-1.033	57.453	.153	.306	-.367	.355
[I learn new English vocabulary from TikTok videos.]	Equal variances assumed	.003	.960	-.600	58	.276	.551	-.233	.389
	Equal variances not assumed			-.600	57.967	.276	.551	-.233	.389
[I can pronounce words better after watching English-speaking TikTok videos.]	Equal variances assumed	.026	.873	-.249	58	.402	.805	-.100	.402
	Equal variances not assumed			-.249	57.996	.402	.805	-.100	.402
[I feel more confident to speak English because of TikTok content.]	Equal variances assumed	2.523	.118	.435	58	.333	.665	.167	.383
	Equal variances not assumed			.435	56.305	.333	.665	.167	.383

Table 8: Independent Sample Test

Reliability

Table 9 shows the reliability of the survey items used to measure TikTok's impact on speaking skills. The Cronbach's Alpha value of 0.897 indicating that the items assessing fluency, pronunciation and confidence in speaking are highly consistent. Therefore, this suggests that TikTok is indeed considered a valuable tool for improving speaking proficiency.

Reliability Statistics

Cronbach's Alpha	N of Items
.897	5

Table 9: The Reliability Result for Effectiveness of TikTok in Improving Speaking Skills

Table 10 states that the reliability of the items uses to measuring students' perceptions and attitudes about using TikTok for learning. The Cronbach's Alpha of 0.923 is excellent reflecting that the items was effectively capture students' attitudes towards using TikTok as an educational tool. Hence, this suggests that students have a well-formed and positive opinion regarding the TikTok's effectiveness and engagement as a learning tool.

Reliability Statistics

Cronbach's Alpha	N of Items
.923	5

Table 10: The Reliability Result for Perceptions and Attitudes Toward Using TikTok as a Learning Tool

Based on Table 11 indicates the Cronbach's Alpha value of 0.711 for the section on challenges faced by students demonstrate acceptable reliability. This indicates that the items that was used to assessing students' challenges with TikTok such as distractions, technical difficulties and focus issues are fairly consistent but some improvement is possible.

Reliability Statistics

Cronbach's Alpha	N of Items
.711	5

Table 11: The Reliability Result for Challenges Faced by Students

Limitations and Future Research

Despite its findings, this study has several limitations that should be considered. With only 60 Form 2 students from SMK Inanam, Kota Kinabalu, Sabah, the results may not be generalizable to other students in other school or regions. In addition, limited access to smartphones and the internet may affect TikTok's effectiveness especially in disadvantaged areas. Challenges also arise from the quality and appropriateness of TikTok content because not all videos are educational and suitable for students to learn. Furthermore, the teachers' training and familiarity with TikTok can influence the affect its integration into the curriculum, as many educators may need additional support in using the tool effectively for teaching.

Therefore, future studies should examine TikTok's long term impact on speaking skills in order to determine whether TikTok can enhance speaking ability among students. Moreover, increasing the sample size and include learners from other schools or regions would provide more generalizable insights. Hence, overcome challenges as well as exploring ways teachers can support and guide students in using TikTok effectively can further strengthen its role as an educational platform.

CONCLUSION

In conclusion, this study investigated the role of TikTok videos in enhancing speaking abilities among the Form 2 learners at SMK Inanam, Kota Kinabalu, Sabah. While no statistically significant difference was found between TikTok users and non-users, moderate to large effect sizes suggest that TikTok may have practical significance for some students, particularly in terms of confidence and fluency. Challenges like technical difficulties, distractions and selecting appropriate content limited its effectiveness for some.

Moreover, TikTok's effectiveness might decrease because some challenges such as technical difficulties, distractions and content selection are troublesome to some learners. Overall, this study demonstrates that TikTok has its potential to be a motivating and effective tool for language learning. However, further research is required to overcome challenges as well as to explore its long-term benefits and impacts for classroom learning.

Ethics Statement
This study followed all applicable ethical guidelines. Informed consent was obtained from all participants. Participation was voluntary and confidentiality was ensured.

REFERENCES

Anvarovna, M. M. (2018). The importance of speaking skills for EFL learners. *Достижения Науки И Образования*. https://cyberleninka.ru/article/n/the-importance-of-speaking-skills-for-efl-learners

Aziz, H. a. A., & Dali, S. Z. M. (2023). MORE THAN JUST ENGAGING? TIKTOK AS AN EFFECTIVE EDUCATIONAL TOOL. *International Journal of Education Psychology and Counseling, 8*(52), 133–142. https://doi.org/10.35631/ijepc.852011

Charles, A., & Soekarno, M. (2024). The effect of an offline TikTok 'Duet Me' on primary rural school learners' speaking skills in Banggi Island, Malaysia. *International Journal of Academic Research in Progressive Education and Development, 13*(1). https://doi.org/10.6007/ijarped/v13-i1/20788

Deng, X., & Yu, Z. (2023). An extended hedonic motivation adoption model of TikTok in higher education. *Education and Information Technologies, 28*(10), 13595–13617. https://doi.org/10.1007/s10639-023-11749-x

Feng, T. Y., & Said, N. (2023). Using TED talks videos to improve speaking skills among secondary students in Kota Kinabalu, Sabah. *International Journal on E-Learning Practices, 6*(1). https://doi.org/10.51200/ijelp.v6i1.4554

Hartini, R., Novari, A. F., & Munawaroh, T. (2023). The Effect of Using TikTok Application towards Students' Speaking Skill at the Tenth Grade Students of SMKN 5 Pandeglang in Academic Year 2022/2023. *Journal of English Education Studies, 6*(2), 16–27. https://doi.org/10.30653/005.202362.113

Hongsa, N., Wathawatthana, P., & Yonwilad, W. (2023). The effects of TikTok application on the improvement of EFL students' English-Speaking skills. *World Journal of English Language, 13*(7), 77. https://doi.org/10.5430/wjel.v13n7p77

Hu, H., & Du, K. (2022). TikTok in Mobile-Assisted English Language Learning: An Exploratory study. *International Journal of Information and Education Technology, 12*(12), 1311–1320. https://doi.org/10.18178/ijiet.2022.12.12.1755

Janoskova, P., Kovacikova, M., & Stofkova, K. R. (2021). MOBILE APPLICATIONS FOR EDUCATION USED DURING THE PANDEMIC OF COVID 19. E*DULEARN Proceedings*. https://doi.org/10.21125/edulearn.2021.1931

Khlaif, Z. N., & Salha, S. (2021). Using TikTok in education: a form of micro-learning or nano-learning? *DOAJ (DOAJ: Directory of Open Access Journals).* https://doi.org/10.30476/ijvlms.2021.90211.1087

Kristiani, P. E., & Pradnyadewi, D. (2021). The Effectiveness of YouTube as Learning Media in Improving Learners' Speaking Skills. *The Art of Teaching English as a Foreign Language, (2)*1. 10.36663/tatefl.v2i1.97

Manik, S., Sembiring, M., Padang, I., & Manurung, L. (2022). Theory of Bandura's Social Learning in the Process of Teaching at SMA Methodist Berastagi Kabupaten Karo. *Jurnal Visi Pengabdian Kepada Masyarakat, 3*(2), 85–96. https://doi.org/10.51622/pengabdian.v3i2.729

Putri, S. M. D. (2022). THE EFFECTIVENESS OF USING TIKTOK TO IMPROVE EFL LEARNERS' SPEAKING ABILITY. *MIMESIS, 3*(2), 101–110. https://doi.org/10.12928/mms.v3i2.6096

Rahmawati, A., Syafei, M., & Prasetiyanto, M. A. (2023). Improving Speaking Skills through Tiktok Application: An Endevour of Utilizing Social Media in Higher Education. *Journal of Languages and Language Teaching, 11*(1), 137. https://doi.org/10.33394/jollt.v11i1.6633

Salleh, S. Y. N. O., & Ngui, W. (2023). Using digital Multimodal composing technique to Enhance the speaking Performance of Low-Proficiency Students: a conceptual paper. *International Journal on E-Learning Practices*, *6*(1). https://doi.org/10.51200/ijelp.v6i1.4557

Shah, S. (2020). *The technological impact of COVID-19 on the future of education and health care delivery*. Pain Physician, 4S;23(8;4S), S367–S380. https://doi.org/10.36076/ppj.2020/23/s367

Syafii, M. L., Sugianto, A., & Cendriono, N. (2019). IMPROVING STUDENTS SPEAKING SKILL BY USING MULTIMEDIA PRESENTATION STRATEGY. *English Review Journal of English Education, 7*(2), 125. https://doi.org/10.25134/erjee.v7i2.1690

Sudarmo, S. (2021). Importance of speaking in English as a Foreign Language between Skillful and Thoughtful Competencies: studying sociolinguistics perspectives. *Linguistics and Culture Review, 5*(S1), 113–124. https://doi.org/10.21744/lingcure.v5ns1.1321

Tan, K. H., Rajendran, A., Muslim, N., Alias, J., & Yusof, N. A. (2022). The potential of TikTok's key features as a pedagogical strategy for ESL classrooms. *Sustainability, 14*(24), 16876. https://doi.org/10.3390/su142416876

Urhahne, D., & Wijnia, L. (2023). Theories of Motivation in Education: an Integrative Framework. *Educational Psychology Review, 35*(2). https://doi.org/10.1007/s10648-023-09767-9

USING GAMIFICATION TO ENHANCE ESL LEARNERS' MOTIVATION IN THE SECONDARY SCHOOL CONTEXT

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Abstract

This action research centers around gamification, a relatively recent and promising approach that involves incorporating game concepts into non-game situations to increase motivation. The main purpose of this study is to investigate the impact of using gamification to enhance ESL learners' motivation in the secondary school context. The research design employed is quantitative; whereby the research questions were answered using pre and post-test questionnaires to assess changes in motivation, along with survey questionnaires to explore students' demographics and perceptions related to accomplishment, challenge, competition, guided experience, immersion, playfulness, and social interaction. The key motivational factors investigated include intrinsic motivation, self-determination, self-efficacy, grade motivation, and career motivation. The data collection tools of this study are the Likert-scale structured questionnaires and pre- and post-test questionnaires, which measure motivational variables and how well gamified learning motivated them to learn. There were 55 ESL learners, namely 28 students from Form 1 students and 27 students from Form 2 in a Malaysian secondary school. The purposive sampling technique was utilized to choose the participants, whereby the sample were students who had engaged in ESL learning and had undergone the gamified lessons within a set period. The findings are intended to provide details about effective educational practices and drive future efforts for incorporating gamification into ESL instruction.

Keyword(s): *ESL, gamification, motivation, secondary school*

INTRODUCTION

The process of learning a second language is highly dependent on motivation, and in the case of countries such as Malaysia where English is a second language (ESL), this factor plays a dominant role in the integration of the language. Although the Ministry of Education has made efforts and launched various programs that are aimed at raising the level of proficiency of the English language in students, they have largely served little purpose as most learners still feel demotivated and disheartened in English lessons. In many cases, this lack of motivation is attributed to the belief that English is hard, does not apply in their day-to-day lives, or is not very interesting with its teachers following the traditional mode of teaching which uses textbooks and rote learning as the primary forms of teaching.

To counter these dilemmas, teachers have started to investigate the development of gamification to reinvigorate classroom dynamics. Gamification, or the act of inserting game-like elements, including points, badges and ranks, leaderboards to non-game settings, such as education. Gamification when used to the best of its potential, when done correctly, can yield higher levels of engagement in leaners as well as immediate feedback, which can bring the classroom to form a place where the leaners themselves are eager to contribute actively to the learning process. This is because by mirroring the game conditions, teachers can use the structure to develop a sense of accomplishment and improvement that encompasses the intrinsic motivation involved with students.

Therefore, this present paper aims to investigate gamification in ESL classrooms as one of the methods of developing motivation in ESL learners. To fulfill these aims, a research question needs to be addressed: (1) What is the impact of gamification on students' motivation levels in the classroom? (2) How do student's demographics, such as gender, age, proficiency level, or prior gaming experience affect the effectiveness of gamification in promoting motivation?

LITERATURE REVIEW

Gamification in education settings has been well discussed, especially when it comes to this strategy increasing student engagement and motivation. This research is informed by two theoretical backgrounds, which are the Self-Determination Theory (SDT) and self-Efficacy Theory. Based on SDT, learners feel more motivated when their needs in terms of autonomy, competence, and relatedness are satisfied (Deci & Ryan, 2013). Autonomy is associated with the feeling that one is in control of his or her learning; competence means feeling capable and being effective; and relatedness means feeling connected to other people. In the meantime, Self-Efficacy Theory (Bandura, 1972) implies that there is a direct correlation between the belief of people in their capability to attain success and motivation as well as performance.

Gamification also fits in both theories by providing an agency to learners through competent challenges, providing progressively ramped-up challenges to promote a sense of accomplishment, and with peers through tasks promoting competition and collaboration. Werbach and Hunter (2015) also explicate that effective gamification is dependent on mediating the three levels of design, namely, mechanics (rules, scoring systems), dynamics (emotions, behavior), and components (badges, points, leaderboards). Gamification has usefully helped with increasing vocabulary acquisition in the ESL context (Nordin et al., 2024), with encouraging participation and lowering the anxiety levels by creating a more casual atmosphere of a game in a classroom.
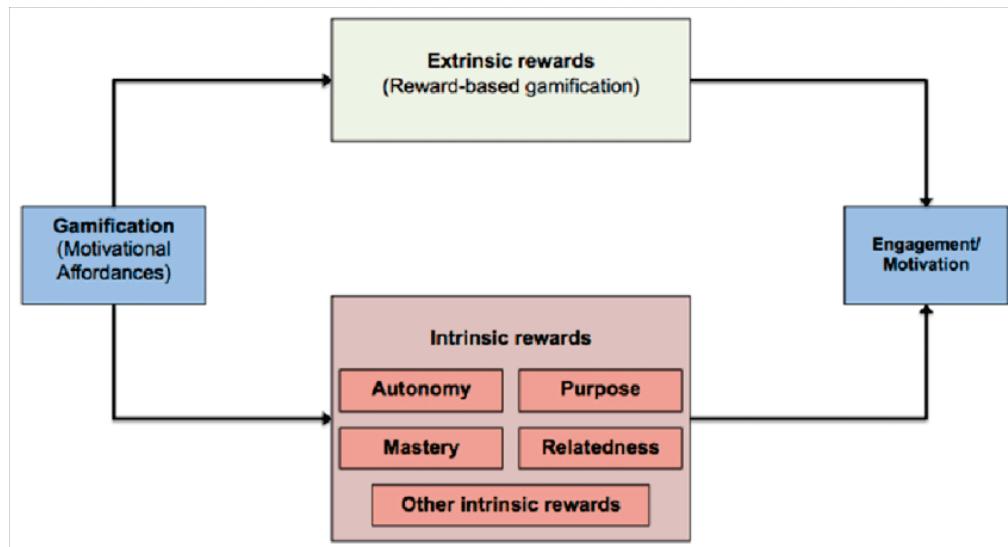
Figure 1: Motivation and engagement conceptual model (adapted from Hassan and Hamari, 2017)

The factors that may also affect the way the learners respond to the gamified instruction include demographic variables such as age, gender, prior experience with gaming, and feelings of confidence in using English. Bai et al. (2020) also reported that previous experience in gaming relative case, whereas the fact that game-based tasks were a safe environment without causing participants to feel threatened contributed to the success of other students with low self-confidence.

METHODOLOGY

This action research was done under the quantitative pre-test and post-test design, coupled with a perception survey. A total of 55 students from a private secondary school in Kota Kinabalu, Sabah were the participants. There were 31 males and 24 females that constituted the sample size, which was selected by purposive sampling because of their enrolment with their students in Form 1 and Form 2 of the ESL classes. The participants represented mixed proficiency and varied backgrounds, and they had different confidence in using English and experience in gaming elements. Next, the measures used were a motivation questionnaire, which was applied pre-test before and post-test after the intervention, comprising 23 items that would help to assess the levels of intrinsic and extrinsic motivation based on a 5-points and 4-points Likert development. A perception survey was also implemented to check the experience and attitudes of the learners towards gamification, specifically experience-based on enjoyment, autonomy, and competence.

The duration of the intervention was 1 week. In the initial day, a pre-test was carried out. During the four days, gamified ESL lessons were used, which included points, badges, quests, and leaderboards in classroom activities. During the last day of the week, students completed the post-test and perception survey.

Demographic Factor	Categories	Frequency
Gender	Male	31
	Female	24
Gaming Experience	Yes	55
	No	0
Confidence	High	37
	Moderate/Low	18

Table 2: Demographic distribution of the participants.

To maintain validity and reliability, two modified scales were used in this research. The motivation questionnaire administered in pre-, and post-test was modified in accordance with the validated questionnaire developed by and Deterding (2011), which was initially developed to assess the motivational constructs within gamified learning environments. This questionnaire was comprised of 23 items measured across the 5-points Likert scale with questions that had been modified to become linguistically clear and contextually relevant to the Malaysian secondary ESL learners. The reliability test showed that Cronbach's Alpha was 0.838 and Cronbach's Alpha in standardized items was 0.845 that showed high internal consistency. The validity of instruments was demonstrated by all the 23 questionnaire items correlating significantly and positively (0.01 and 0.05)

SPSS was used to analyse the data. The statistical significance of the differences between the pre- and post-test scores was tested with the use of paired-sample t-test. The validity of the construction was based on Pearson correlations, and Cronbach alpha was used to check the internal of construct. Descriptive statistics were employed to summarize the demographics of the participants whereas inferential statistics were employed to test the research hypothesis. Paired-sample t-test were performed to compare the motivation scores on the pre-test and post-test, which provides an opportunity to evaluate the significance and direction of change in the level of motivation concerning the gamified intervention.

The study performed an analysis based on the data through IBM SPSS. To assess internal consistency, item validity, and efficacy of a gamified intervention, descriptive statistics and Pearson product-moment correlation coefficients, paired-sample t-tests were utilized. These tests have been chosen to check the issue of whether there was a high difference in the motivation of learners before and after implementing the gamified ESL lessons.

Several strategies were used to make the analysis process more credible and reliable. Cronbach alpha test of reliability was used to test the internal consistency of motivation questionnaire. Moreover, the Pearson correlations were used to make sure that every item made a significant contribution to the construction under consideration. Though the research involved self-reports tools, anonymity was congregated to diminish the social desirability bias. There was also variability reduced through the repeated measures design where the same participants were used in the pre-tests as well as the post-tests. Although no qualitative triangulation was employed (because of the quantitative nature of the study), establishment and validation of the instruments used in the study and proper use of statistical procedures facilitated the strength of the results.

FINDINGS & DISCUSSION

The results provided in this study highlight the possibility of gamification in enhancing motivation of ESL students. The finding that the motivation scores improved immensely following the intervention concurs with the Self-Determination Theory, whereby the game elements satisfy the psychological needs of the learners in terms of autonomy, competence, and relatedness. Based on the study, one of the insights is also the importance of having game mechanics in language learning as recommended by Werbach and Hunter (2015). Moreover, the results also demonstrate the students reacted positively towards gamification, which implies the fact that they felt more engaged and willing to take part in classroom activities. The gamified learning made them feel connected to their peers during the gamified activities as if they were engaging in an enjoyable competition to become better. To most students, these experiences were like the gaming experiences that they had already been exposed to, and as such, the learning process was much easier to relate with and hence enjoyable. Next, the role of demographic variables also shows the significance of individual gamification. Gamified learning was accepted by students who are more confident and experienced in gaming. This observation aligns with the previous studies conducted by Bai et al. (2020) that stressed building games in line with the particularities of a querying learner.

The results of the current research validate the practicality of gamification as a means of increasing the motivation of ESL students. The questionnaire of the pre- and post-test motivation, based on Conradty and Bogner (2022), were modified to measure intrinsic and extrinsic components of motivation. These were adapted to the Malaysian secondary ESL contextual and culturally, and the 23 items were answered using a 5-point Likert scale administered to students. Internal consistency reliability was achieved by Cronbach alpha test results having an alpha of 0.838 for both pre- and post-test which has a high alpha. Additional validation was achieved using Pearson product-moment correlation analysis, which proved that all the items were significantly correlated with each other ($p < 0.05$) and that, therefore, they contribute to the construction that is being measured.

In the perception questionnaire, scale items were modified to be based on the Gameful Experience Questionnaire (GAMEFULQUEST), created by Högberg et al. (2019), which is used to determine the perceived gamification elements of a system. Adjustments were made to make them reflect the classroom experiences instead of computer interfaces without losing relevance as to the major constructions including enjoyment, autonomy, and social connectedness. Also, reliability checks on this instrument provided an acceptable internal consistency (Cronbach alpha = 0.780) indicating that this instrument is appropriate in measuring perceptions of a student in gamified instructions.

Paired Sample T-Test

Paired sample t-test was used to find out a statistically significant difference in the motivation of learning before and after gamified intervention. The test involved pre-test mean and post-test mean within 23 items of motivation.

Item	Time	M	SD
Q1	Pre-test	3.41	1.190
	Post-test	4.50	0.505
Q2	Pre-test	3.05	1.079
	Post-test	4.42	0.498
Q3	Pre-test	3.22	1.083
	Post-test	4.53	0.504
Q4	Pre-test	3.71	0.896
	Post-test	4.65	0.480
Q5	Pre-test	3.31	1.069
	Post-test	4.51	0.505
Q6	Pre-test	3.87	1.156
	Post-test	4.55	0.503
Q7	Pre-test	3.73	1.008
	Post-test	4.55	0.503
Q8	Pre-test	3.76	0.962
	Post-test	4.53	0.504
Q9	Pre-test	3.40	1.065
	Post-test	4.49	0.505
Q10	Pre-test	3.71	0.809
	Post-test	4.58	0.498
Q11	Pre-test	3.91	1.093
	Post-test	4.64	0.557
Q12	Pre-test	4.27	0.849
	Post-test	4.76	0.429
Q13	Pre-test	4.42	0.762
	Post-test	4.78	0.417
Q14	Pre-test	4.29	0.832
	Post-test	4.78	0.417
Q15	Pre-test	3.78	0.994
	Post-test	4.67	0.474
Q16	Pre-test	4.38	0.733
	Post-test	4.71	0.458
Q17	Pre-test	4.18	0.841
	Post-test	4.69	0.466
Q18	Pre-test	3.96	0.999
	Post-test	4.55	0.503
Q19	Pre-test	4.02	0.913
	Post-test	4.62	0.490
Q20	Pre-test	4.35	0.673
	Post-test	4.62	0.490
Q21	Pre-test	4.27	0.781
	Post-test	4.60	0.494
Q22	Pre-test	4.13	0.904
	Post-test	4.62	0.490
Q23	Pre-test	4.24	0.816
	Post-test	4.75	0.440

Table 2: Illustrates the increase in motivation scores from pre-test to post-test

There was a regular progression of scores of the motivation in the pre-test and the post-test of all items. An example of this is Item Q1 that showed an increase in its mean of 3.41 (SD = 1.190) in the pre-test to 4.50 (SD= 0.505) in the post-test. Item Q2 increased to 4.42 (SD = 0.498) with a starting value of 3.05 (SD = 1.079) and that of Item Q3 to 4.53 (SD = 0.504) with a basal value of 322 (SD = 1.083). Likewise, Item Q12 to Q 23, which already had relatively high scores in pre-tests, also displayed noticeable changes in post-test results with Q13 rising to 4.78 (SD=0.417), and Q23 to 4.75 (SD=0.440) in post-test results.

The general trend shows that after the gamified English as a Second Language lessons, the motivation of students has greatly increased. The mean for all 23 questions increased as well as the lower standard deviations of the post-test indicate that the level of agreement on the success of higher student motivation was more consistent among the students.

These outcomes indicate the efficacy of gamification in enhancing Motivation of learners and high level of compliance with the theoretical propositions of Self-Determination Theory-mainly the gratification of autonomy, competence, and relatedness needs by the gamified classroom environments.

Descriptive Analysis

Table 3 shows a descriptive statistic for 29 items "Perception Questionnaire". Each item was measured on a 4-point Likert scale and collected 55 student responses.

The mean scores between all items were between 2.85 and 3.36, which is very high, and most participants were motivated to gamified learning environment. The lowest mean was Q6 (M = 2.85, SD = 0.756) and the highest mean was Q26 (M = 3.36, SD = 0.778). The mean was above 3.0 in most of the items, which can be interpreted as positive tendency to motivational elements of gamified learning experience. Furthermore, the minimum standard deviations were 0.663 with the maximum standard deviations being 0.845, indicating a moderate consistency in responses. None of the values were out of extreme range which presents some stability concerning the answers of students.

This evidence indicates that overall students also found motivation in the gamified learning activities, though some items (Q6 and Q18) were a bit lower and may indicate the fields where gamification method can be enhanced or explained better.

Question No.	Statement	N	Mean	SD
Q1	I feel the need to complete tasks during gamified activities	55	3.27	0.679
Q2	Gamified tasks push me to improve my performance	55	2.96	0.693
Q3	I feel motivated to achieve my goals during gamified lessons	55	3.27	0.679
Q4	Gamification helps me set clear goals in learning English	55	3.04	0.693
Q5	I strive to reach higher levels when I succeed in a gamified task	55	3.11	0.809
Q6	Gamified tasks make me push my limits	55	2.85	0.756
Q7	I feel positively pressured to do my best	55	3.16	0.788
Q8	I am motivated to overcome difficult tasks during gamified learning	55	3.16	0.788
Q9	Gamification makes me work near the best of my ability	55	2.95	0.731
Q10	Gamified lessons feel like a competition	55	3.13	0.818
Q11	I am motivated to win or be the best	55	3.09	0.845
Q12	Competing with others increases my motivation to participate	55	3.07	0.766
Q13	Winning in a game-like task makes me feel successful	55	3.16	0.764
Q14	I feel guided during gamified learning	55	3.24	0.744
Q15	I know what I need to do to improve	55	2.95	0.803
Q16	I receive helpful feedback during gamified activities	55	3.25	0.821
Q17	Gamified tasks help me stay on the right learning track	55	3.02	0.782
Q18	I lose track of time during gamified learning	55	2.87	0.840
Q19	I feel fully focused when doing gamified tasks	55	3.15	0.731
Q20	I get emotionally involved in gamified lessons	55	3.02	0.805
Q21	Gamification helps me forget distractions and focus	55	3.04	0.744
Q22	Gamified tasks feel playful and fun	55	3.27	0.757
Q23	I can be spontaneous and imaginative	55	3.31	0.663
Q24	I enjoy exploring and discover new things in gamified lessons	55	3.24	0.744
Q25	Gamification sparks my curiosity in learning English	55	3.05	0.826
Q26	I feel more connected to others during gamified activities	55	3.36	0.778
Q27	I receive support or encouragement from peers	55	3.18	0.796
Q28	I feel socially involved when learning through gamification	55	3.27	0.757
Q29	I feel noticed for my achievements in gamification	55	3.25	0.775

Table 3: Descriptive Analysis (Q1-Q29)

The results of this research support the principles of Self-Determination Theory and Self-Efficacy Theory. When students attended gamified ESL lessons, there was a declared statistically significant rise in their motivation, which went in line with the idea presented by Deci and Ryan

(2013) that learners tend to be significantly more intrinsically motivated when the needs tend to be significantly more intrinsically motivated when the needs of autonomy, competence, and relatedness are satisfied. On the same note, the results conform to the Self-Efficacy Theory by Bandura (1972), in which gamified activities were used to enable students to develop confidence about their English proficiency. These findings reflect the studies discussed by Nordin et al. (2024) have revealed that gamification positively affects the level of engagement and decreases anxiety in language instruction. Nevertheless, the present research contributes variability to the existing gap filling in the research by observing the impact of demographic variables including gaming experience and self-confidence and emphasizing their role in mediating motivational outcomes in gamified environment.

The study recognizes several limitations even though it has reported favorable results. To begin with, the study was narrowed down to specific private secondary school in Sabah, and thus the overall results cannot be perceived as a full interpretation. Secondly, it can be considered that a relatively short intervention period of one week was not enough to monitor long-term motivational changes or language proficiency improvement. Thirdly, the study utilized only individual reports that may be subjected to social desirability limitation. For future studies, the researchers are advised to add a broader range of sample schools in various regions and types of schools to overcome these limitations. Longitudinal research may be used to gain an idea of the long-term effect of gamification on motivation and learning performance. The study can also be designed as a mixed-methods project where quantitative surveys (questionnaires) would help to triangulate the results of the qualitative interviews or focus groups on gamified instruction and the experience of learners using gamified instruction. Also, researchers may want to incorporate online gamification platforms and mobile applications to expand the reach of these interventions and their interactivity.

CONCLUSION

The present research paper examined how the concept of gamification affected the motivation of ESL learners in the Malaysian secondary school setting. The findings indicated that the gamified teaching methodology had a profound positive impact on intrinsic and extrinsic motivation. Upon observing students after their completion of gamified lessons, students showed an improvement of scores on motivation. The points, badges, and leaderboards kept the environment conducive to promoting the aspect of autonomy, competence, and engagement, which are constituents of the Self-Determination Theory. Students also reported positive reaction to the gamified experience as they had more enjoyment in the process and felt more confident when the process involved learning English in it.

These results confirm the goals of the research by demonstrating that gamification is practical and acceptable step towards enhancing ESL motivation. Demographic factors like the experience of playing games and self-confidence also contributed to shaping the responses among learners, which would be worthy of the study.

In general, this study proposes that gamification may be used to transform ESL classrooms into more engaging and student-centered classes. Gamified approaches can positively influence motivation and affect enjoyment in language learning when created properly. The study motivates students to use gamification in their teaching methodology and proposes teacher training programs to train the educators that would help them during implementation.

To summarize it all, it can be stated that gamification can be used as a strategy of boosting the motivation of ESL students in the Malaysian secondary school environment. With psychological

needs being fulfilled and the application of gamified teaching into ESL classrooms requires the implementation of professional development programs that would teach teachers about how to design gamification.

Ethics Statement

This study was conducted following ethical guidelines. The Faculty of Education and Sports Studies issued an official notification letter to the school participating in the research and the school administration gave approval to carry out the research. The participation was voluntary, informed consent was taken, and the data was kept confidential throughout the study.

REFERENCES

Bai, S., Hew, K. F., & Huang, B. (2020). Does gamification improve student learning outcome? Evidence from a meta-analysis and synthesis of qualitative data in educational contexts. *Educational Research Review*, *30*, 100322. https://doi.org/10.1016/j.edurev.2020.100322

Bandura, A. (1972). *Self-efficacy: The Exercise of Control*.

Conradty, C., & Bogner, F. X. (2022). Measuring students' school motivation. *Education Sciences*, *12*(6), 378. https://doi.org/10.3390/educsci12060378

Deci, E. L. (2012). *Intrinsic motivation*. Springer Science & Business Media.

Deci, E. L., & Ryan, R. M. (2013). *Intrinsic Motivation and Self-Determination in human behavior*. Springer Science & Business Media.

Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness. *In Proceedings of the 15th International Academic MindTrek Conference*, 9–15. https://doi.org/10.1145/2181037.2181040

Högberg, J., Hamari, J., & Wästlund, E. (2019). Gameful Experience Questionnaire (GAMEFULQUEST): an instrument for measuring the perceived gamefulness of system use. *User Modeling and User-Adapted Interaction*, *29*(3), 619–660. https://doi.org/10.1007/s11257-019-09223-w

Nordin, N. A., Kamaludin, P. N. H., Sharif, N. F. M., Chumari, M. Z., & Zabidin, N. (2024, June 30). *The Effectiveness Of Vocabulary Games On Vocabulary Acquisition: A Literature Review*. https://gaexcellence.com/ijmoe/article/view/585?utm_

Werbach, K., & Hunter, D. (2015). The Gamification Toolkit Dynamics, Mechanics, and Components for the WIn. Philadelphia Wharton School Press. - References - Scientific Research Publishing. https://www.scirp.org/reference/referencespapers?referenceid=2757230&utm

LEVERAGING POP MEDIA AND COMMUNICATIVE LANGUAGE TEACHING TO OVERCOME LANGUAGE ANXIETY AND ENHANCE SPEAKING PERFORMANCE AMONG MALAYSIAN SECONDARY ESL LEARNERS

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ABSTRACT

This study focuses on using contemporary pop media and Communicative Language Teaching (CLT) as a strategy to improve both the levels of language anxiety and speaking performance among ESL learners in a suburban Malaysian secondary school setting. In this context, contemporary pop media refers to short-form video content from platforms like TikTok and YouTube, current pop songs by artists such as Taylor Swift, and widely circulated internet memes. It essentially sought to establish the impact of integrating up-to-date pop media within a CLT framework on these learners' emotional affect and oral communication skills. A quantitative approach was employed with a sample size of 90 pupils in Form 2 at a secondary school in Sabah. This study involved the use of instruments such as the ELCAS (English Language Classroom Anxiety Scale — an adaptation of the established FLCAS, also known as the Foreign Language Classroom Anxiety Scale), and a tested oral fluency rubric. Through the analysis of both descriptive and inferential statistics, including paired-sample and independent sample t-tests, it has been found that this teaching strategy does significantly reduce language anxiety and enhance speaking performance among ESL learners. These findings support the potential of integrating culturally relevant media with communicative pedagogy to create more engaging and emotionally supportive language learning environments. Ultimately, the core of this study aims to challenge the conventional assumptions about the role of pop media in language learning and its potential in the language classroom when paired with an interactive and collaborative teaching method.

INTRODUCTION

In a multilingual country like Malaysia, English proficiency is a vital asset that influences academic and career competitiveness as well as social integration. The Malaysian government recognises this denominator as a national priority — with policies and initiatives that aim for pupils to be communicatively competent in the English language. The *Malaysia Education Blueprint 2013-2025* explicitly sets the goal for pupils nationwide to be proficient and globally competitive in English by 2025. However, despite more than a decade of reforms, many pupils

still struggle to speak English confidently in classroom settings. This ongoing challenge puts a pressing gap between policy aspirations and classroom realities — and highlights language anxiety as a denominator to this issue.

Language anxiety has been widely associated with a range of negative emotional and behavioural outcomes that directly impede pupils' oral performance (Faizah & Hamid, 2021). Horwitz et al. (1986) states that it manifests as a fear of negative evaluation and low confidence among language speakers. The study by Kashinathan and Aziz (2021) proved that Malaysian pupils felt insecure about constructing sentences and their word choices when speaking in English. When pupils fear being judged for linguistic mistakes, they often experience heightened tension, self-consciousness, and cognitive overload during speaking tasks. These affective responses can disrupt processing fluency, reduce risk-taking, and restrict the spontaneous use of language. Consequently, anxious pupils resort to avoidance behaviours such as staying quiet, memorising rehearsed phrases, or withdrawing from interaction, which prevents the meaningful practice needed to develop oral competence. In many Malaysian classrooms, this results in pupils who can complete written tasks but remain unable to communicate confidently, even when they possess sufficient linguistic knowledge.

The impact of language anxiety extends beyond individual performance and shapes the broader classroom environment. When large groups of pupils are reluctant to speak, oral activities become teacher-centred, and dominated by a small fraction of high-proficiency speakers. This dynamic limits peer negotiation of meaning, collaborative learning, and communicative experimentation — all of which are central to effective language acquisition. In areas where English is not the dominant social language, schools may become the only space for oral practice, which makes anxiety even more consequential. Hence the persistence of anxiety not only suppresses individual confidence, but also weakens the overall communicative ecosystem of the classroom. This reinforces a cycle where pupils avoid speaking because they rarely speak.

In response to this challenge, contemporary pop media combined with Communicative Language Teaching (CLT) offers a compelling approach to reduce language anxiety and encourage authentic participation. Pop media — including music, films, short-form videos, and social media content — provides pupils with familiar and relatable input that they already engage with outside school. Using such media in communicative tasks can lower psychological pressure because pupils perceive the content as enjoyable rather than evaluative. When integrated into CLT activities such as presentations, discussions, or collaborative meaning-making, pop media can create low-threat opportunities for oral production that emphasise expression over accuracy. This shift towards meaningful, interest-driven communication has the potential to help anxious pupils become more willing to participate and practise spontaneously. As a result, it can help them build confidence through repeated success in a supportive context.

With this context in mind, this study aims to investigate the impact of integrating contemporary pop media within a CLT framework on language anxiety and speaking performance among Form 2 ESL pupils in a Malaysian secondary school. Therefore, the study addresses two research questions:

1. What is the difference in levels of language anxiety among Form 2 pupils after using pop media and CLT in the English language classroom as an intervention?
2. What is the difference in levels of speaking performance among Form 2 pupils after using pop media and CLT in the English language classroom as an intervention?

LITERATURE REVIEW

Language anxiety is a recognised barrier in second language acquisition among Malaysian ESL learners because it interferes with their ability to communicate confidently. This was the case for the participants in the study by Faizah and Hamid (2021), who found that the majority of

them experienced moderate to high levels of speaking anxiety. These issues were related to Krashen's Affective Filter Theory (1982), which discussed how high anxiety impedes pupils' abilities to process and utilise language effectively in speaking situations. In a separate study by Nadesan and Shah (2020), it was found that anxiety, shyness, the lack of confidence, and the fear of making mistakes significantly affected Malaysian pupils' speaking skills. The psychology behind this phenomenon is explained by Krashen's Affective Filter Hypothesis (AFH), which states that high anxiety acts as a filter that blocks input from being effectively processed (Krashen, 1982). Essentially, it suggests that high anxiety is the reason why pupils lack the abilities to process and utilise language effectively in speaking situations.

To encourage pupil engagement in classroom speaking tasks, Nadesan and Shah (2020) recommended that teachers implement task-based activities in their lessons — a practice that is also vouched for by the Communicative Language Teaching (CLT) approach. While their study specifically highlighted the benefits of using Task-Based Language Teaching, the current study adopts CLT as the primary pedagogical framework. Both approaches share a common principle for using meaningful task-oriented activities that reflect the human need for natural communication. This aligns well with the study's intention to create authentic and low-pressure speaking opportunities that motivate pupils to participate more willingly. In retrospect, CLT itself has been widely implemented in Malaysian ESL classrooms because it promotes authentic communication, fluency, and interaction. Mangaleswaran and Aziz (2019) found that the approach had significantly improved Malaysian pupils' speaking skills, specifically when they practice higher order thinking skills in their oral presentations. Eddie and Aziz (2020) also confirmed that the engaging nature of CLT activities were able to contribute to a positive learning environment for pupils in the Malaysian context. Additionally, the outcomes in result of using CLT in the classroom aligns well with Krashen's Affective Filter Hypothesis as it encourages learner-centred participation, which helps reduce affective barriers especially in low-pressure settings. CLT accordingly serves as an appropriate foundation for this study to support authentic oral communication while addressing the affective barriers that inhibit pupil participation.

Although CLT proves itself to be a worthy pedagogical approach, its effectiveness is often contingent on the quality of the input and the level of engagement pupils experience when participating in communicative tasks. Without appealing content, classroom speaking activities can still feel artificial or intimidating especially for pupils who experience language anxiety. Therefore, pairing CLT with contemporary pop media theoretically offers an opportunity to make communicative tasks more relevant and enjoyable, which may help reduce anxiety and promote spontaneous oral participation. The integration of contemporary pop media — such as short-form videos, trending songs, and internet memes — offers a culturally relevant way to enhance engagement and reduce language anxiety. Pop media resonates with pupils' digital lifestyles and daily experiences; which potentially creates a low-pressure environment conducive to oral practice, once again resurfacing AFH's emphasis on reducing emotional barriers. In line with this, Ejeng et al. (2020) and Kim et al. (2022) found that media-based learning improved fluency and motivation for Malaysian pupils. Furthermore, Charles and Soekarno (2024) demonstrated that tasks using interactive TikTok roleplay videos enhanced speaking proficiency in rural Sabah. Regardless of these promising outcomes, research on the combined use of CLT and pop media in suburban Malaysian secondary schools still remain limited. Therefore, the present study seeks to address this gap by examining whether culturally relevant media-enhanced CLT lessons can simultaneously reduce language anxiety and improve oral performance.

METHODOLOGY

This study adopted a quasi-experimental quantitative design to investigate the effect of integrating contemporary pop media within a Communicative Language Teaching (CLT) framework on the levels of language anxiety and speaking performance among Malaysian secondary school pupils. It employed a single-group pre-test and post-test design to measure changes in the two dependent variables. This design was selected because it allowed the researcher to study the direct impact of the intervention on the same group of participants while maintaining feasibility in a natural classroom environment. Consequently, the design aligned with the study's aim of determining whether this targeted strategy could reduce language anxiety and promote speaking performance among participants.

The participants were 90 Form 2 pupils aged 14 from a suburban Malaysian secondary school located in Kota Kinabalu, Sabah. There were a number of 44 and 46 pupils in Class A and Class B respectively, and among them were 52 males and 32 females. The participants were selected using a non-random sampling method, and they reflected the school's typical ESL learner profile, which included pupils with varying levels of English proficiency.

Throughout the process, data were collected using two research instruments: the English Language Classroom Anxiety Scale (ELCAS) and a speaking test scored using a researcher-developed oral fluency rubric. It should be noted that the ELCAS is an adaptation of the Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz (1986) and consists of 33 items rated on a 5-point Likert scale. The scale measures three constructs of language anxiety: *Communicative Apprehension* (CA), *Fear of Negative Evaluation* (FNE), and *Test Anxiety* (TA). The questionnaire was made available in both English and Bahasa Malaysia to ensure clarity of items for all participants. Meanwhile, the speaking test used an oral fluency rubric which had been adapted from CEFR-aligned descriptors. Pupils' speaking performance were scored based on three criteria: *speech rate, pauses and fillers,* and *flow of speech*. The rubric rated performance on a 4-point scale (poor, satisfactory, good, and excellent) which allowed the researcher to track measurable changes in oral fluency during the intervention.

The validity and reliability of the study were ensured through several procedures. Although minor modifications were made to fit the context of ESL Malaysian classrooms, the ELCAS retained the validated constructs of the original FLCAS. It also underwent content and face validation by two experienced TESL lecturers in University Malaysia Sabah who assessed the appropriateness of each item for Malaysian secondary pupils. To confirm the internal consistency of the questionnaire, the Cronbach's Alpha *(α)* was calculated for each of the constructs (CA = 0.74, FNE = 0.80, and TA = 0.63) using IBM SPSS Statistics Version 29. However, it should be noted that one item was removed from each construct to improve the reliability scores, as the initial scores were below the generally accepted threshold of 0.70. Upon item reduction, the first two mentioned subscales indicate acceptable and good internal consistencies. The third subscale is fell slightly below 0.70. Despite this, it is also deemed acceptable for exploratory research (Taber, 2018). Similarly, the oral fluency rubric underwent testing via IBM SPSS Statistics analysis by using feedback from two English language teachers in the selected school. The researcher confirmed inter-rater reliability using the Intraclass Correlation Coefficient *(ICC),* in which it yielded an *ICC* value of 0.96 with a 95% confidence interval. This number indicated a strong agreement between independent raters (Koo & Li, 2016).

The researcher collected data for the study in two phases: pre-intervention (pre-test) and post-intervention (post-test). Data on pupils' language anxiety have been collected through the ELCAS questionnaire during both phases, and participants spent about 20 minutes completing their responses each time. Meanwhile, for their speaking performance, it was measured through partnered speaking tests, in which each pair of pupils performed short dialogues and picture-based descriptions within three minutes.

The intervention took place over the course of five weeks, with one communicative language teaching (CLT)-based lesson conducted for each class per week. Each lesson lasted approximately 60 minutes. The intervention used a variety of communicative activities to promote authentic oral language use and peer interaction. In the first week, pupils held group discussions based on animated film clips and short videos, which exposed them to spontaneous dialogue in a collaborative context. In the second week, pupils performed gallery walks. This involved them creating visual presentations inspired by short clips of popular films and presenting them to their peers, which encouraged authentic communication. After the school mid-term examinations, the third week focused on information-gap activities using social media posts, where pupils asked and answered questions to complete missing information. This was to support the active negotiation of meaning, which is crucial for authentic conversation. In the fourth week, pupils conducted group presentations using short-form TikTok videos that integrated multimedia content into structured oral tasks and emphasising fluency and audience engagement. In the fifth and final week, pupils carried out peer interviews inspired by pop songs that combined descriptive, narrative, and conversational skills in a low-pressure setting. The use of pop media in all sessions provided culturally relevant and relatable input.

The data collected throughout the study were analysed with the same software used for the reliability of the instruments — IBM SPSS Statistics Version 29. Descriptive statistics were used to summarise the pre-test and post-test scores for both levels of language anxiety and levels of speaking performance. Then, paired-sample t-tests determined whether the changes between the pre- and post-intervention results were statistically significant. Hence, the combination of descriptive and inferential analysis was utilised to directly address the two research questions. Overall, the use of validated instruments, a systematic intervention design, and rigorous statistical procedures ensured that the study's findings were both credible and reliable.

FINDINGS AND DISCUSSION

Levels of Language Anxiety

To begin addressing the first research question, the total scores for each participant were calculated by summing the values in participant responses to all 33 items on the ELCAS. The total scores are then categorised into three different levels, which are interpreted as follows: a total cumulative score ranging between *33 to 77* is categorised with a *low level of anxiety*, and scores ranging from *78 to 121* are categorised with a *medium level of anxiety*, while scores ranging from *122 to 165* are categorised with a *high level of anxiety*.

As seen in the descriptive statistics bar chart in Figure 1, prior to the intervention, there were 9 pupils who experienced low levels of anxiety (10.0% of total participants), 68 pupils who experienced medium levels of anxiety (75.6% of total participants), and 13 pupils who experienced high levels of anxiety (14.4% of total participants). These statistics would improve following the intervention, as the number of pupils experiencing low anxiety levels increased to 21 (23.3%), medium anxiety levels decreased to 64 (71.1%) and high anxiety levels decreased to 5 (5.6%).

In terms of inferential statistics, the mean language anxiety score decreased from 93.99 (SD = 15.207) in the pre-test to 89.02 (SD = 14.976) in the post-test, $t(89) = 3.399, p < .001$ (one-tailed). Hence, the hypothesis for the first research question is accepted: pupils did experience significantly lower levels of language anxiety post-intervention compared to pre-intervention. This statistically significant decrease also indicates that the intervention successfully created a more supportive, low-anxiety environment for learners, which align with Krashen's Affective Filter Hypothesis.
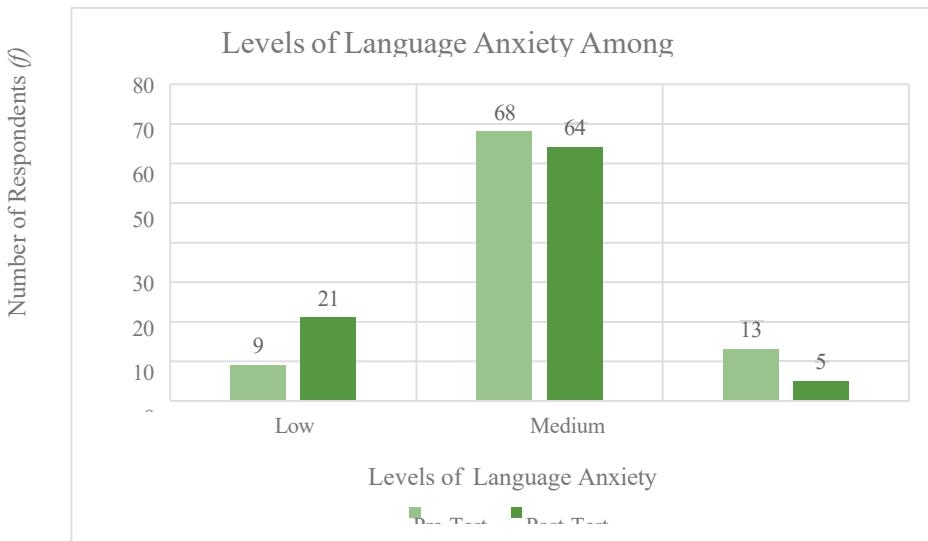
Figure 1: Bar Chart for Levels of Language Anxiety Among Participants

This result is consistent with previous research in Malaysian ESL contexts, which emphasises that language anxiety is a key barrier to oral proficiency. For example, Faizah and Hamid (2021) and Nadesan and Shah (2020) reported that pupils often avoid speaking tasks because of fear of negative evaluation and low self-confidence. Hence, the current findings confirm that reducing affective barriers can promote classroom participation and reduce avoidance behaviours. Nonetheless, the contribution of this study lies in showing that contemporary pop media can be integrated into communicative tasks to reduce anxiety in a formal classroom setting.

Levels of Speaking Performance

The second research question is addressed first by summing up participants' speaking performance scores from the speaking test as marked using the oral fluency rubric. Pupils who attained a score ranging between 3 to 5 is categorised with a *poor level of speaking performance*; a score ranging between 6 to 8 is categorised with a *satisfactory level of speaking performance*; a score ranging between 9 and 10 is categorised with a *good level of speaking performance*; and finally, a score ranging between 11 and 12 is categorised with an *excellent level of speaking performance.*

Based on Figure 2, the pre-test data revealed that the majority of participants ($n = 63$, 70.0%) fell under the poor category, followed by satisfactory ($n = 20$, 22.2%), good ($n = 6$, 6.7%), and excellent ($n = 1$, 1.1%). This distribution indicates that most pupils demonstrated low speaking performance at the baseline level. Meanwhile, post-test results showed a noticeable shift in performance levels. The number of participants categorised under poor decreased to $n = 33$ (36.7%), and the satisfactory group increased to $n = 36$ participants (40.0%). Similarly, there was an increase in the good category ($n = 16$, 17.8%) and the excellent category ($n = 5$, 5.6%). These figures suggest an overall improvement in speaking performance across the sample following the intervention, with fewer pupils falling under the lowest performance category and a higher proportion attaining satisfactory to excellent levels.
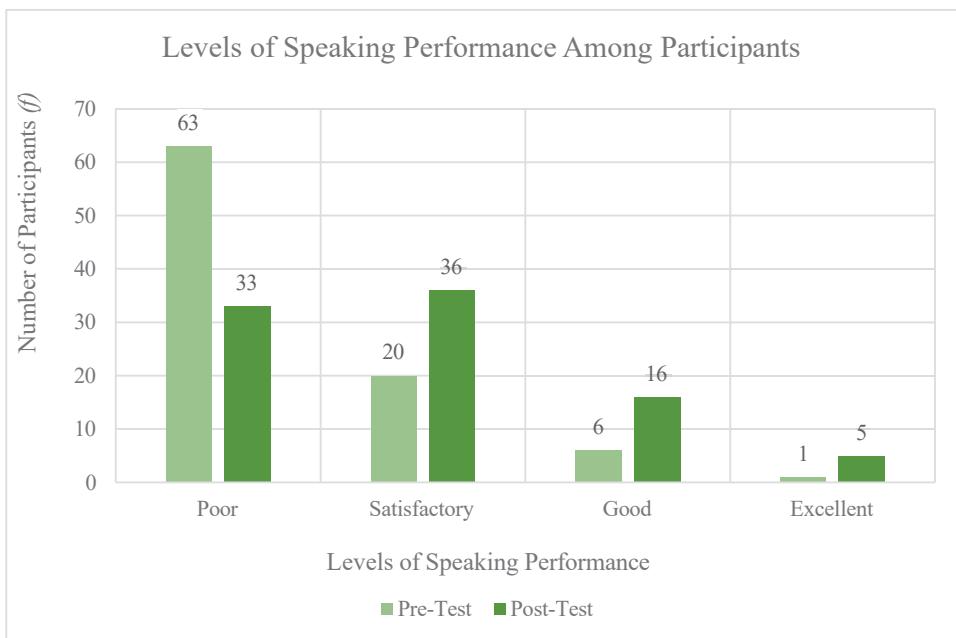
Figure 2: Bar Chart for The Levels of Speaking Performance Among Participants

The further analysis of oral fluency scores revealed a clear improvement in pupils' speaking performance after the intervention. The pre-test mean score was 5.02 (SD = 1.902), with most pupils falling in the "poor" or "satisfactory" categories. The post-test mean increased to 6.19 (SD = 2.233), $t(89) = -9.003, p < .001$ (one-tailed), and the distribution shifted as more pupils achieved "good" or "excellent" ratings. These results indicate that the integration of pop media within CLT-based tasks enhanced oral fluency, as pupils produced longer utterances, demonstrated fewer hesitations, and displayed a more natural flow of speech.

The improvement in oral performance aligns with studies that highlight the benefits of culturally relevant and media-rich instruction. This is similar to Charles and Soekarno (2024)who reported that TikTok-based speaking activities increased engagement and fluency in rural Sabah, and Kim et al. (2022) who found similar gains using short-form video platforms in ESL learning. Therefore, the current study reinforces the idea that media-integrated communicative activities not only lower anxiety but also provide meaningful opportunities for authentic speech production. In addition, the results demonstrate that pupils are more willing to participate and perform better when lessons incorporate familiar digital media that reflect their everyday experiences.

Overall Discussion and Study Limitations

The combined results suggest that lowering language anxiety and improving speaking performance are closely interconnected. Pupils who felt more at ease during the intervention were able to engage more actively in communicative tasks, which led to measurable fluency gains. These findings support the theoretical foundation of the study because Krashen's Affective Filter Hypothesis predicts that a low-anxiety environment enhances language acquisition. Nonetheless, several limitations should be acknowledged. The study involved only 90 pupils from one suburban school, which limits generalisability. In addition, the reliance on self-report measures for language anxiety introduces potential response bias, and the short duration of the intervention restricted the ability to observe long-term retention. Regardless, this study provides valuable evidence supporting the integration of pop media into CLT lessons

and paves the way for future research with larger, more diverse samples and longitudinal designs.

CONCLUSION

In short, this study investigated the impact of integrating contemporary pop media within a Communicative Language Teaching (CLT) framework on language anxiety and speaking performance among Form 2 ESL pupils in a Malaysian secondary school. The findings showed that the intervention significantly reduced language anxiety and improved speaking performance. The study answered both research questions by demonstrating that contemporary and culturally relevant media-enhanced communicative lessons can create low-anxiety environments that support oral fluency development. It further confirms that engaging instructional strategies can enhance language performance among learners and also address affective barriers that commonly inhibit second language learning.

The broader implications of these findings suggest that ESL instruction can benefit from combining communicative approaches with materials that reflect pupils' digital and cultural experiences. Hence, language teachers can incorporate pop media into task-based speaking activities to reduce anxiety and encourage authentic communication. The study also reinforces Krashen's Affective Filter Hypothesis, as the reduction in anxiety appeared to facilitate better oral performance. In addition, the positive results highlight the potential for schools to adopt creative, media-driven practices without compromising learning outcomes.

Despite these encouraging outcomes, the study had several limitations. First, the integration of technology in the classrooms was restricted due to the unavailability of equipment such as an LCD projector and functional wall plugs. This was a slight disadvantage as most pop media exist in the form of online content and rely heavily on the use of technology. The researcher brought her own projector and extension cord, but strong ambient light and the lack of blackout curtains in the classrooms prevented clear display of materials. Second, the self-reported nature of the ELCAS may have introduced bias, as pupils might not have accurately reflected their true levels of anxiety.

Finally, time constraints limited the intervention and data collection to less than ten weeks, which may have affected the magnitude of the results. Nonetheless, the findings provide a meaningful foundation for understanding how media-integrated CLT lessons can support ESL learning in similar contexts.

Future studies can try adopting longitudinal designs to explore the long-term effects of pop media integration in language instruction. Researchers could also examine the intervention's effectiveness on other language skills, such as reading, writing, and listening. In doing so, subsequent studies can deepen understanding of how contextually relevant media and communicative approaches can transform second language teaching and learning, which can strengthen the need for curriculum designs to be more dynamic and learner-centred.

Ethics Statement

This study was conducted following ethical guidelines. Informed consent was obtained from all participants prior to the collection of research data.

REFERENCES

Charles, A., & Soekarno, M. (2024). The effect of an offline TikTok 'Duet Me' on primary rural school learners' speaking skills in Banggi Island, Malaysia. *International Journal of Academic Research in Progressive Education and Development, 13*(1). https://doi.org/10.6007/ijarped/v13-i1/20788

Eddie, A. A., & Aziz, A. A. (2020). Developing Primary Students' Spoken Interaction Skill through Communicative Language Teaching. *International Journal of Academic Research in Business and Social Sciences, 10*(2). https://doi.org/10.6007/ijarbss/v10-i2/6931

Ejeng, I. E. A., Hashim, H., & Duan, S. S. (2020). Using songs to reduce language anxiety in speaking English in ESL classroom. *International Journal of Academic Research in Business and Social Sciences, 10*(2). https://doi.org/10.6007/ijarbss/v10-i2/6917

Faizah, I., & Hamid, T. M. H. TAb. (2021). *Profiling English Language Learning Anxiety among Selected Rural Area Secondary School Students in Malaysia: A Case Study.* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3776577

Horwitz, E. K., Horwitz, M. B. & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70*(2), 125–132.

Kashinathan, S., & Aziz, A. A. (2021). ESL learners' challenges in speaking English in Malaysian classroom. *International Journal of Academic Research in Progressive Education and Development, 10*(2). https://doi.org/10.6007/ijarped/v10-i2/10355

Kim, H. T., Rajendran, A., Muslim, N., Alias, J., & Yusof, N. A. (2022). The potential of TikTok's key features as a pedagogical strategy for ESL classrooms. *Sustainability, 14*(24), 16876. https://doi.org/10.3390/su142416876

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine, 15*(2), 155–163. https://doi.org/10.1016/j.jcm.2016.02.012

Krashen, S. (1982). *Principles and practice in second language acquisition.* New York: Prentice-Hall International.

Mangaleswaran, S., & Aziz, A. A. (2019). The impact of the implementation of CLT on students' speaking skills. *International Journal of Scientific and Research Publications, 9*(4), p8814. https://doi.org/10.29322/ijsrp.9.04.2019.p8814

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296.

THE EFFECT OF ONLINE GROUP DISCUSSION ON STUDENTS' SPEAKING PROFICIENCY AMONG SECONDARY SCHOOL STUDENTS

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Abstract

This research aims to investigate the effect of online group discussion on students' speaking proficiency among secondary school students and to determine their perceptions towards the method. The design of this research is quasi-experimental, consisting of 43 Form 1 Capella students from an all-boys school, SM La Salle, Kota Kinabalu, Sabah. Pre-test and post-test, and questionnaire were used to collect data for this research. The intervention was executed with a structured online group activity for several weeks. The data were analysed using paired sample t-tests and descriptive statistics. The overall findings showed significant improvement in students' speaking skills, specifically in fluency, pronunciation and vocabulary. Grammar and accuracy improved a bit. Through the questionnaire, it was reported that students have a positive view towards this method in helping them improve, mainly on their confidence, motivation and engagement. The findings are aligned with Vygotsky's Sociocultural Theory, which emphasises that peer interaction and scaffolding help learners in language learning. This research implies that the online group discussion method is an effective and student-centred structured method that can help improve speaking performance in an ESL class.

Keyword(s): *Online Group Discussion, Speaking Proficiency, Intervention, Students' Perception, Digital Learning*

INTRODUCTION

In this era of globalisation, career fields demand fluency in the English language as part of the criteria, especially in speaking. Speaking is one of the main skills in acquiring and mastering a language, especially in the Malaysian educational system, where English serves as a second language in all schools. Speaking is an essential tool in communication as it reflects a person's ability to hold a conversation, fluency, confidence and their ability to function in real-world settings (Hashim et al.,2020). However, even though speaking holds many importances skills, it is also one of the most challenging skills for many to master due to limited exposure to the targeted language. Not only that, but many people are also struggling with low self-esteem and fear of making mistakes (Kana and Hashim, 2023). In many of Malaysia's ESL classrooms, teacher-centred lesson still dominates the class and neglect the needs for students'

interaction and participation. This gap has pushed students to be reluctant to participate in speaking English.

One of the reasons why this is happening is because of the dependence on the traditional method, exam-oriented, which focuses more on grammar and writing skills. This led students to comprehend English passively but having a hard time to use it actively (Serena, 2016). The need for student-centred lesson implementation is growing rapidly as it promotes interaction and engagement and real-life communication in classroom contexts.

Fortunately, these concerns are heard by those who spend their effort actively seeking solutions to handle such challenges, and the group discussion method emerged as a promising method to address such gap. According to Bohari (2019), this method provides a space for students to practice their speaking skills, express opinions without fearing being judged and collaborate with their peers. It allows learners to interact with each other comfortably and develop critical thinking (Kusumawangtias, 2017). Kaharuddin and Rahmadana (2020) mentioned that, after conducting their study, they found that group discussion helped students with their communicative competence. This method is deeply rooted in Vygotsky's Sociocultural Theory which emphasises that learning occurs though social interaction as students build knowledge collaboratively within their Zone of Proximal Development (ZPD). However, with the rapid development of technology, online group discussions became one of the most meaningful alternatives, especially during the pandemic. Digital platforms such as Google Meet, Zoom, and Microsoft Teams allow students to communicate and interact through virtual breakout rooms, voice chats and calls while offering a flexible space to improve their speaking.

Despite several studies having been conducted on the use of online group discussions, yet there is a limited study that focuses on secondary students, especially the lower form. This study served the purpose of filling that gap by assessing not only the effect of the method but also the perceptions of students towards it. Therefore, this study addressed the research questions below:

1. Does online group discussion have any significant effect on students' speaking skills before and after the intervention?

2. How do students perceive the use of online group discussion in learning their speaking proficiency?

LITERATURE REVIEW

Speaking Proficiency in ESL Context

Speaking is one of the main cores in language competence, especially for learners in ESL class settings in like Malaysia. It is common to know that speaking consists of both verbal expressions and non-verbal cues that carry meaning in real-time, and it is crucial for daily interaction, performance in academic and employment (Hashim et al.,2020). However, according to Kana and Hashim (2023), many students struggle in speaking due to limited vocabulary and insufficient opportunities to practice. This is due to the teacher-centred methods that emphasise writing skills and grammar over oral practice. This led to students becoming passive learners with a concerning level of proficiency in speaking (Serena, 2016).

Online Group Discussions as a Pedagogical Tool.

Group discussion is a strategy that involves collaborative learning between students. it allows students to share ideas and interact with their peers to negotiate meaning in a comfortable and non-pressure environment. When it is taken into an online platform, the method extends to a virtual platform where students are allowed to engage with each other in the breakout rooms, chat functions and more. It was noted by Kusumawangtias (2017) that it helps students develop their speaking proficiency and critical thinking skills. Students are allowed to share opinions, clear misunderstandings, and support each other through online group discussions. Bohari (2019) noted that a well-structured group task can enhance pronunciation, fluency, and communicative competence. Furthermore, Kaharuddin and Rahmadana (2020) and Valentine (2023) discovered that this method helps enhance speaking ability, particularly in vocational school contexts.

Students' Perception of Online Group Discussion

The success of the method greatly depends on students' perceptions towards it. Sudiro (2022) and other fellow researchers discovered and stated in their study that students viewed the method as enjoyable and confidence-building, and very effective in enhancing their speaking skills. They also stated that students felt more motivated and less anxious and could comfortably engage during an online group task. This showed how important it is to have social and emotional support during language learning, especially for younger learners, as positive views encourage future participation, which leads to better speaking performance outcomes.

Theoretical Framework: Sociocultural Theory

This study aligned with Vygotsky's Sociocultural Theory that emphasises that learning occurs effectively through social interaction and learners acquire knowledge and develop language skills effectively by interacting with others, particularly within their Zone of Proximal Development (ZPD). Collaborative learning encourages students to have support and feedback to create a bridge over the gap between what they can do by themselves and what they can achieve with guidance. Online group discussions demonstrate this theory in practice. As students work together, they encourage and foster scaffolding for one another. An environment where collaboration is practised accelerates language learning. Therefore, this method is a practical classroom, and a flexible learning tool and helps promote language development.

METHODOLOGY

Research Design

This study utilised a quantitative approach using a quasi-experimental design with a single group to investigate the effect of online group discussion on students' speaking proficiency among secondary school students. This design was chosen to determine the effect of the intervention by comparing the performance in speaking before and after the intervention, without using a control group.

Participants

The sample of this study consisted of 43 Form 1 students (age 13) from SM La Salle Secondary School, Kota Kinabalu, Sabah. The sample was selected using a purposive sampling technique due to the students' need for improvement and availability during the study period, and their flexible time. All participants were boys and shared a common classroom instruction. Parental and school consent were obtained before the study to conduct such research.

Instruments

This study used two instruments: A speaking Test (Pre-test and Post-test) and a questionnaire. This speaking evaluation was created to assess five criteria which were fluency, pronunciation, grammar and accuracy, vocabulary, and interaction and coherence. The rubric of the score is adapted from the Common European Framework of Reference (CEFR) for consistency. The test consists of students responding to visual prompts and questions verbally and being recorded for reliability purposes, as shown in Table 1. The rubric can be seen at Appendix 1.

Table 1: Reliability Results of Pre-Test and Post-Test Data

Test	Cronbach's Alpha	Number of Items	Interpretation
Pre-Test	0.953	5	Very Good
Post-Test	0.972	5	Very Good

A questionnaire of a 10-item Likert Scale was distributed after the post-test to collect data from students on their perceptions of the method as a speaking activity. The questionnaire was adapted from Sudiro (2022) and was reviewed for face and content validity by two language experts and was also tested for reliability.

Table 2: Questionnaire on Students' Perceptions

Items	Statement	Responses			
		SD (1)	D (2)	A (3)	SA (4)
Q1	I understand the goals, rules and norms of online group discussions				
Q2	I can interact well through the online group structures used in discussions.				
Q3	I feel involved and contribute actively during online group discussions				
Q4	I can communicate effectively with my group members.				
Q5	I can achieve learning objectives through online group discussions.				
Q6	Online group discussions help me feel more prepared for class activities				
Q7	I find it easy to receive and understand feedback from teachers and peers				
Q8	Online group discussions improve my confidence in speaking English.				
Q9	I enjoy participating in online group discussions				
Q10	Online Group discussions help me improve my speaking skills.				

Procedure

This research was conducted for seven weeks, where the first week was a pre-test and the second week until sixth week was online group discussion intervention. By week seven, the post-test was held, and the questionnaire was distributed. Each session consists of an online group discussion activity such as an online role-play, presentation, pair discussion, and problem-solving. Students were guided to use English while interacting and the teacher observed and offered help for those who needed through webcams and microphones.

Data Analysis

The data collected were analysed using paired-sample t-tests to determine the significant difference in their speaking performance, and descriptive analysis was used for the questionnaire responses, and all of these were conducted using SPSS software.

FINDINGS AND DISCUSSION

The Effect of Online Group Discussion on Students' Speaking Proficiency

The data between two test showed a clear improvement in student speaking performance. The mean for pre-test was lower than post-test indicating there is an improvement, a significant difference. The paired-sample t-test analysis showed that the difference was statistically significant, $t(42) = -7.199$, $p < .001$.

Table 5: Paired Samples T-Test Results for Pre-Test and Post-Test Scores

Test	Mean	SD	N	Mean Difference	t	df	Sig.(2-tailed)
Pre-test	11.98	3.71	43				<.001
Post-test	13.07	4.17	43	1.093	-7.199	42	

Overall Results

Based on the overall results obtained from the research, the pre-test and post-test scores for speaking based on forty-three students based on five criteria, which were fluency, pronunciation, grammar and accuracy, vocabulary and interaction and coherence, have significant differences. Each criterion carries four marks with a maximum score of twenty marks for each student. For the pre-test, most students scored between 10 and 15, with the highest score being 17 and the lowest being 5, suggesting a moderate level of speaking proficiency overall. The highest average was fluency (2.7), and the lowest was interaction and coherence (2.0), indicating that students were more confident expressing ideas than maintaining an interaction flow.

The total score for the overall mean was 11.9, hinting at an overall moderate speaking ability before the intervention. For the post-test, the average total score increased to 13.0,

compared to 11.9 in the pre-test, indicating an improvement in speaking proficiency. The highest was 19, and the lowest was still 5. Fluency scored the highest mean (3.0), followed by pronunciation (2.7), and interaction and coherence remain the lowest at 2.2. Based on these results, a positive effect can be seen on students' speaking skills after the intervention.

Students' Perceptions of Group Discussion

The data collected from the questionnaire illustrated that students held a positive view towards the method. The mean scores above ranged from 3.05 to 3.23, with the highest being *"I can achieve learning objectives through online group discussions",* followed by "*I find it easy to receive and understand feedback from teachers and peers".* These data showed that online group discussion managed to create a safe, motivating and enjoyable learning environment, judging by how high the mean for the rest of the statement.

Limitations and Future Research

Despite the promising results and findings, there are a few limitations that need to be addressed. This study only used a small group as a sample from one school which in this case limits generalisation. Other than that, there was no control group used. Therefore, it is recommended that future studies should use larger and diverse samples and make sure to include control groups. It is also suggested that future studies adopt mixed approaches, such as classroom observations or interviews, for more insights. Furthermore, internet connections also became a problem for certain students and limited devices. It is suggested that future studies need to assess more carefully on students' availability before conducting the research.

CONCLUSION

Overall, we can conclude that this study aims to investigate the effect of online group discussion on students' speaking proficiency and to determine their perceptions towards the method. Based on the data presentation, it was clear that online group discussions indeed have a significant effect on students' speaking skills, especially in terms of fluency, pronunciation, and grammar. Although some of the criteria improved slightly, the overall results supported that the use of online group discussion in improving communicative competence was effective. It was also reported that students held positive views towards the method itself, emphasizing the improvement in confidence, motivation and their understanding towards lesson objectives, which supported Vygotsky's Sociocultural Theory highlights in learning through social interaction and peer scaffolding. This study supplies a precious insight into the benefits of implementing collaborative tasks in speaking lessons and foster more meaningful language through interaction and moves beyond the traditional, teacher-centred method.

Co-Author Contribution
The authors declare no conflict of interest. The author conducted fieldwork, prepared the literature review, methodology, data entry, performed statistical analysis and interpreted results, wrote, reviewed and edited.

Ethics Statement

The research followed all applicable ethical standards. Participation was voluntary, and confidentiality was ensured.

REFERENCES

Bohari, L. (2020). Improving Speaking Skills Through Small Group Discussions at Eleventh Grade Students of SMA Plus Munirul Arifin NW Praya. Journal of Languages and Language Teaching, 7(1), 68. https://doi.org/10.33394/jollt.v7i1.1441

Hashim, N. A., Mustafa, M. C., Ariffin, A., & Eshak, Z. (2020). The importance of English listening and speaking skills to preschool children in Malaysia. International Journal of Academic Research in Business and Social Sciences, 10(7). https://doi.org/10.6007/ijarbss/v10-i7/7614

Jawad, A. S. H. A., & Abosnan, S. H. (2020). The impact of using small group discussion technique on enhancing students' performance in speaking skill: a case study of Benghazi University. International Journal of Linguistics Literature & Translation, 3(7), 189–198. https://doi.org/10.32996/ijllt.2020.3.7.21

Kaharuddin, A., & Rahmadana, A. (2020). Problem-B ased Group Discussion: An effective ELT technique to improve vocational high school students' transaction AL speaking skills. Jurnal Ilmu Budaya, 8(2621–5101).

Kana, A., & Hashim, H. (2023). Enhancing Speaking Skills among Malaysian Iban Students Through The Use of Language Learning Strategies. International Journal of Academic Research in Business and Social Sciences, 13(9). https://doi.org/10.6007/ijarbss/v13-i9/18398

Kusumawaningtias, Y. (2019). The Implementation of The Small Group Method to Improve Students' Speaking Skills among the Tenth Grade of Senior High of 1 Punggur. IAIN Metro.

Rifamole, N. F., Ardiasih, L. S., & Santhi, D. Y. (2023). Improving Speaking Skills through Student Group Discussions at High School in Central Maluku. Journal La Sociale, 4(6), 372–386. https://doi.org/10.37899/journal-la-sociale.v4i6.906

Rizki, N. (2022, July 21). Applying small group discussion technique to develop students' speaking skill (A Quasi-Experimental study at the seventh grade of SMPN 13 Kota Tangerang Selatan in academic year 2020/2021). https://repository.uinjkt.ac.id/dspace/handle/123456789/62833

Serena, W. (2016, July 18). the effectiveness of group discussion on students' speaking skill (A Quasi-Experiment Study at the Eighth Grade Students of MTs Al-Falah Academic Year 2015/2016). http://repository.uinjkt.ac.id/dspace/handle/123456789/31905

Sudiro, S., Anggraini, P. L., Setyorini, M., Antasari, A. B., & Juhansar, J. (2022). Students' perceptions on the use of group discussion method towards English speaking proficiency. ACITYA Journal of Teaching & Education, 4(2). https://doi.org/10.30650/ajte.v4i2.3273

Valentine, C., Jamiluddin, J., Wahyudin, W., & Marhum, M. (2023). Developing Students' Speaking Skill through Small Group Discussion (SGD) Technique. Jurnal Onoma Pendidikan Bahasa Dan Sastra, 9(2), 1601–1608. https://doi.org/10.30605/onoma.v9i2.2895

Appendix 1

Assessment Rubric for Speaking Skill

Criteria	Fluency (4)	Pronunciation (4)	Grammar & Accuracy (4)	Vocabulary (4)	Interaction & Coherence (4)	TOTAL (20)
A1 Beginner	Struggles to form sentences; long pauses; heavy reliance on memorised phrases.	Difficult to understand due to incorrect pronunciation of words.	Uses very basic sentences with frequent grammatical mistakes that hinder understanding.	Uses very limited vocabulary. repeats basic words frequently.	Cannot sustain a conversation; relies on others to continue.	0 – 4
A2 Elementary	Can produce simple sentences but with hesitation and self correction; limited flow.	Understandable but with frequent pronunciation errors affecting clarity.	Uses simple sentence structure with some errors. struggles with tenses and complex structures.	Uses simple words and phrases; struggles to find the right words for some ideas	Can respond to simple conversation but has difficulty maintaining flow.	5 - 10
B1 Intermediate	Speaks at a steady pace with some hesitation but can self correct. Can handle basic conversations.	Mostly clear pronunciation with occasional mispronunciation. does not interfere with communication	Uses a variety of sentences structures with occasional mistakes; can communicate ideas effectively	Uses a sufficient range of vocabulary to discuss a familiar topic; occasional word-choice mistake	Can participate actively in discussion, ask and answer questions, and stay on topic	11 - 15
B2 Upper Intermediate	Speaks with confidence and minimal hesitation; can express thoughts in detail	Clear and Natural pronunciation with occasional minor mistakes	Uses a wide range of structures accurately with minimal errors.	Uses a wide range of vocabulary with some natural expressions and idioms.	Can engage in longer conversation with natural back- and forth interaction.	16 - 20