**EXPLORING THE RELATIONSHIP BETWEEN THE USE OF GOOGLE DOCS AND ESL LEARNERS' WRITING PROGRESS**

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**Abstract**

This experimental study wants to find out if there is a link between ESL students' writing progress and how they use Google Docs to keep track of their work. The study's goal is to find out if using Google Docs to track the progress of assignments helps ESL students get better at writing. The research will employ a quantitative methodology. Participants will be ESL students enrolled in a writing course at a polytechnic in Malaysia. Participants will be assigned randomly to either the control or experimental groups. The control group will track assignment progress using conventional methods like paper logs and spreadsheets. The experimental group will document their assignment progress using Google Docs. Data will be collected using pre- and post-test writing evaluations that are graded using a standard rubric. In addition, participants' writing progress will be monitored using Google Docs data, including revision history and the number of teacher comments. The participants' grades in the control and experimental groups will also be compared to evaluate whether there is a significant difference in learning results. The pre and post-test writing assessments' results will be analysed using descriptive statistics, including means, standard deviations, and frequencies. A t-test will be performed to assess whether there is a significant difference in writing progress between the control and experimental groups. We will utilise regression analysis to examine the association between using Google Documents and writing progress while adjusting for other variables that may influence writing success. The size of the sample and the use of a single polytechnic will limit the scope of the study. In addition, the study will not examine Google Docs' usefulness for tracking development in other language-learning domains, such as reading or speaking. This study will shed light on the relationship between using Google Docs as an assignment progress tracker and the writing progress of ESL students. The results can inform the development of technology-based solutions to improve ESL learners' writing skills.

**Keywords:** Google docs; collaborative learning; writing skills; assignment tracker; Malaysian polytechnic

**JEL Code:** I

**1. INTRODUCTION**

Technology has become integral to education in recent years, transforming traditional teaching methods and opening new learning opportunities. Google Docs, a free online word-processing platform that enables real-time collaboration and sharing, has garnered widespread popularity in the teaching and learning community. Google Docs offers numerous opportunities for augmenting writing instruction and boosting student engagement for educators, particularly English teachers. There has been a growing interest in using technology as a teaching tool. Google Docs has been adopted by numerous educators as a means of supporting students’ learning and fostering collaborative writing practises.

While there is a significant body of literature on the use of technology in education, there is a dearth of research on using Google Docs as an instructional writing aid, particularly in the context of the English classroom. This research paper examines the theoretical foundations of collaborative writing and technology integration in education to resolve this gap in the literature. This paper will also examine the practical applications of Google Docs in the English classroom, including its impact on student engagement, writing proficiency, and overall learning outcomes. This paper aims to provide a comprehensive overview of the potential benefits and challenges of using Google Docs as a teaching and learning tool, as well as practical recommendations for educators seeking to integrate this platform into their writing instruction and practises by synthesising these various perspectives, specifically from the viewpoint of an English instructor. By using theories and concepts related to collaborative writing and technology integration in education, this paper will examine the advantages and disadvantages of using Google Docs as an instructional instrument for writing. Through an analysis of existing literature and a case study of an English classroom, this paper seeks to shed light on the potential of Google Docs as a tool for enhancing student writing, learning, and achievement.

Google Docs has been extensively utilised in the field of education. It has garnered considerable interest from educators worldwide. Google Docs has become a valuable and convenient teaching and learning instrument. While there have been previous studies on the use of technology in language learning, there is still a lack of knowledge regarding the specific effects of using Google Docs to monitor students' writing assignment progress. Several studies have investigated the use of Google Docs in the context of peer feedback (De-Marcos et al., 2014) and collaborative writing (Gao et al., 2015). The literature suggests that technology can positively impact language learning outcomes (Zhao et al., 2019). However, there is a paucity of research on ESL students using Google Docs as an assignment tracker. This research gap highlights the need for additional investigation into the potential benefits of using Google Docs to monitor assignment progress in ESL writing courses. The proposed study aims to contribute to the existing literature by addressing this research gap and providing valuable insights into the application of technology to language acquisition.

**1.1 Problem of Statement**

This study investigates the potential impact of using Google Docs to monitor assignment progress on ESL students' writing abilities in a Malaysian polytechnic. Despite the increasing use of technology in language education, little research has been conducted on the efficacy of technology-based solutions for monitoring students' assignment progress and enhancing their writing skills. Conventional methods for monitoring students’ progress, such as paper logs and spreadsheets, may not provide adequate data on the writing process, limiting teachers' ability to provide timely feedback and guidance. Consequently, this study aims to determine whether using Google Docs as an assignment progress record can improve the writing skills of ESL students.

**1.2 Research Objectives**

The research objectives can be stated as follows:

1. To determine whether using Google Docs to track assignment progress significantly affects ESL students' writing progress.
2. To compare the writing progress of the control group, who track their progress using conventional methods, with the experimental group, who use Google Docs to track their progress.

Overall, the objectives of this study are to explore the usefulness of Google Docs as an assignment progress tracker for ESL students and to assess its impact on their writing progress.

**1.3 Research Questions**

In this regard, this study aims to discover the use of technology in language acquisition. This study aims to investigate the relationship between using Google Docs to monitor assignment progress and the writing progress of ESL students. This study will provide valuable insights into how technology can improve ESL students' writing skills by examining the efficacy of Google Docs in tracking students' progress in language learning. The findings of this study can inform the development of technology-based solutions for language learning, thereby enhancing students' academic performance and success.

1. Does using Google Docs to track the progress of assignments significantly impact the writing progress of ESL students?
2. Are there any significant differences in learning outcomes between ESL students who use conventional methods like paper logs and spreadsheets to track assignment progress and those who use Google Docs?

**Research Hypotheses**

HO₁: There is no significant differences in learning outcomes between ESL students who use conventional methods like paper logs and spreadsheets to track assignment progress and those who use Google Docs.

HA₁: There is significant differences in learning outcomes between ESL students who use conventional methods like paper logs and spreadsheets to track assignment progress and those who use Google Docs.

**1.4 Significance of Study**

1. *i. English language educators*

The results of this study will shed light on the effectiveness of using Google Docs as an assignment progress tracker to improve ESL students' writing abilities. English language educators can benefit from this study by appreciating the potential of technology-based solutions to improve teaching and learning practices. In addition, they can implement Google Docs into their curriculum to help students monitor their writing progress and receive feedback from teachers, which can result in improved writing skills.

*ii. Department of Polytechnic Education Malaysia*

This study can contribute to the Department of Polytechnic Education Malaysia's endeavours to enhance the quality of English language education in the nation. The findings can assist them in making well-informed judgements regarding the utilisation of technology in teaching and learning practices. In addition, it can inform policymakers and curriculum designers on integrating technology-based solutions into English language education to improve student learning outcomes.

*iii. Malaysian Higher Education Institutions*

This study's findings can contribute to enhancing English language education in Malaysia. It can reveal the efficacy of technology-based solutions in teaching and learning practices. The study can also serve as a foundation for future research on the impact of technology on language acquisition in other areas, such as reading and speaking. The findings can help policymakers and curriculum designers improve the quality of postsecondary education in the United States.

*iv. Stakeholders, Industry Collaborators, and Panels*

This study's findings can be helpful to Malaysian stakeholders, industry collaborators, and committees involved in English language education. The study can shed light on using technology-based solutions in teaching and learning practices, leading to improved student outcomes. They can use the findings to create programmes and initiatives incorporating technology to improve English language learning outcomes. The study's findings can also contribute to the evolution of assessment and evaluation practises in English language education.

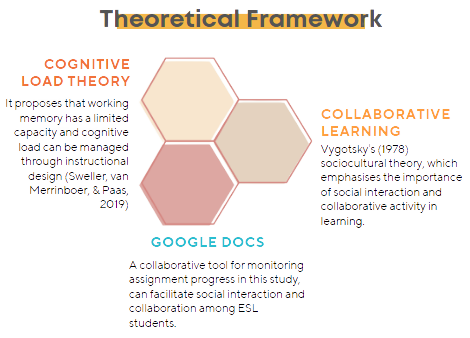
**2. THEORETICAL FRAMEWORK**

This study's theoretical framework can be found in Vygotsky's (1978) sociocultural theory, which emphasises the importance of social interaction and collaborative activity in learning. According to this theory, learning is social interaction and collaboration with more knowledgeable others, such as teachers, peers, or technology (Lantolf & Thorne, 2006). Google Docs is used as a collaborative tool for monitoring assignment progress in this study, which can facilitate social interaction and collaboration among ESL students.

The cognitive load theory, which proposes that working memory has a limited capacity and cognitive load can be managed through instructional design (Sweller, van Merrinboer, & Paas, 2019), can also inform this study. Using Google Docs to monitor assignment progress, students can alleviate some cognitive burden of keeping track of multiple assignments and deadlines, allowing them to concentrate more on the writing process.

The nature of the research question, which seeks to investigate the relationship between using Google Docs to monitor assignment progress and ESL students' writing progress, supports using a quantitative methodology in this study. This form of inquiry is amenable to statistical analysis, a defining characteristic of quantitative research methods (Creswell & Creswell, 2017).

This study's theoretical framework is based on sociocultural and cognitive load theories to comprehend the potential advantages of using Google Docs as a collaborative tool for monitoring assignment progress among ESL students.



**3. LITERATURE REVIEW**

In recent years, the importance of technology in education has increased. With the proliferation of digital tools, there has been a significant shift in the approach to instruction and learning. Google Docs is one such tool that has garnered popularity among educators. Google Docs is a web-based tool that facilitates collaborative writing and has grown in popularity among educators, particularly in university contexts where academic and communicative English is taught. In this literature review, we will examine the various studies conducted on using Google Docs in teaching and learning, focusing on its function in facilitating the delivery of academic English.

**3.1 Google Docs**

Google Docs has been recognised as an effective instrument for facilitating the teaching of academic English in university settings. Andrian Ting (2020) emphasises the importance of Google Docs as an effective English language learning tool. In addition, M. Alharbi (2020) argues that Google Docs facilitates and supports pedagogical practises in a writing course at a sizeable Saudi university, providing evidence that Google Docs supports writing instruction. Moreover, Kyeong-Ouk Jeong (2016) suggests that Google Docs can be used to create a web-based platform for students to submit and peer-edit their English essays. By providing a platform for students to collaborate on their writing assignments, this has the potential to enhance the learning experience.

In a qualitative study, Abrams (2019) found that collaboratively oriented groups produced texts with more amazing propositional content and greater coherence than less collaborative groups. This research involved 28 first-year German students at an American university. The study demonstrated the advantages of using Google Docs as a collaborative writing platform. Similarly, F. Hidayat (2020) discovered that Google Docs is an effective instrument for peer feedback in a college-level writing course. The research utilised Google Docs to assist students in writing a report.

Deb Lawrence and Kean-Wah Lee (2017) discovered that using Google Docs can positively influence the character of ESL writing. Twenty Form 5 students with moderately proficient to weak proficiency participated in the investigation. The study's findings indicated that students' writing skills could be enhanced after completing an online English course using Google Docs to teach writing.

In a separate study, Kok Yueh Lee and D. Hassell (2021) discovered that students preferred Google Docs' real-time accessibility and time-saving features over face-to-face interactions. Google Docs was utilised in the study as a collaborative writing medium for a research report assignment. In the research, 34 first-year students participated.

Nihla Afdaliah, Uswatunnisa Uswatunnisa, and Rina Marliana (2019) discovered that using Google Docs as an innovative collaboration tool in writing activities significantly improved students' collaborative writing grades, attitudes towards employing Google Docs in collaborative writing, learners' social skills, and technological knowledge. The study employed a quasi-experimental design with 54 participants, all AP I and AP II pupils at SMKN 2 Majene in Majene.

Lastly, Thi Hang Nguyen (2023) discovered that using Google Docs substantially enhances students' writing skills and desire to learn writing. There were 45 EFL students included in the study, 40 of whom were female and 5 of whom were male. The research employed a questionnaire-based survey and evaluation of student writing samples.

Nevertheless, privacy and security concerns are obstacles to implementing Google Docs to monitor writing assignments. Due to the cloud-based nature of Google Docs, students' personal information and assignment content may be susceptible to unauthorised access and use (Lumby & Morrison, 2020). Unfamiliarity with the platform can lead to errors and confusion when using its features (Moss, 2017). In addition, students may encounter technical difficulties, such as poor internet connectivity or device compatibility issues, which can hinder their ability to use Google Docs effectively (Stallings & Caverly, 2021).

In addition, incorporating Google Docs in the classroom requires time-consuming and resource-intensive training for instructors and students (Moss, 2017). There may also be resistance to the use of technology in the classroom, especially among instructors who are unfamiliar with digital tools or who favour traditional teaching methods (Kurniawati, 2021).

Despite these disadvantages, the advantages of using Google Docs to monitor writing assignments outweigh the disadvantages. Therefore, it is essential to provide instructors and students with adequate support and training to overcome these obstacles and effectively utilise the platform in the classroom. Overall, the reviewed literature indicates that Google Docs is an effective tool for facilitating collaborative writing activities, enhancing writing abilities, and enhancing students' learning experiences. The studies emphasise the benefits of using Google Docs in various contexts, such as peer feedback, collaborative writing, and web-based platforms for submitting and editing writing assignments.

**3.2 Collaborative Learning and Writing**

Education research has focused on collaborative writing, with Google Docs being one of the most prominent online platforms for such activities. Multiple studies have demonstrated that using Google Docs can enhance students' writing, digital literacy, and social skills.

In an English class for senior high school students, Nabhan and Sa'diyah (2021) found that using Google Docs for collaborative writing enhanced the students' enthusiasm, digital literacy, social skills, and writing skills. In a separate study, Olesen (2020) conducted ethnographic video examinations and discovered that Google Docs assisted single group members in establishing multimodal leadership to dominate the hybrid learning space of group work settings.

Sholihah and Setyandari (2018) proposed using Google Docs as an alternative method to improve writing ability. They discovered that reviewing students' work on Google Docs was an effective way to improve writing ability. Similarly, Nasri et al. (2022) discovered that Google Docs was an effective collaborative learning tool in an English writing skills course. After five weeks of using the platform, 98 ESL students from three faculties improved their writing abilities.

Zainal and Fan (2022) investigated the impact of Google Docs on collaborative writing using a mixed methods approach. Each pair of students improved their drafts of academic essays before submitting the final draft, indicating that Google Docs is a valuable instrument for revising and editing written work.

Google Docs has also demonstrated potential in facilitating writing instruction. M. Alharbi (2020) investigated the use of Google Docs in a writing course at a significant Saudi university. Google Docs increased student engagement and facilitated collaboration, according to the study. The tool also fostered peer review and improved student work quality. These results indicate that Google Docs helps enhance writing instruction. Google Docs facilitates collaborative writing in EFL classes, improves students' writing skills and digital literacy, and boosts their motivation and engagement; instructors should provide clear instructions and guidelines for using Google Docs, scaffold the writing process, and offer feedback and support throughout the project. (Eftekhari, M., & Amini, M. (2021).)

Google Docs can be used to establish a web-based platform for students to submit and edit their English essays. Kyeong-Ouk Jeong (2016) investigated the use of Google Docs in developing a web-based peer-editing platform. According to the study, Google Docs increased student engagement and facilitated collaborative learning. The tool also fostered peer review and improved student work quality. These results indicate that Google Docs is an effective tool for constructing a web-based peer-editing platform.

Academic writing relies heavily on collaborative writing, and Google Docs has been demonstrated to be an effective instrument for facilitating collaboration. Z. Abrams (2019) conducted a study investigating the use of Google Docs for collaborative writing by German language students at an American university. The study discovered that collaboratively-oriented groups produced texts with more amazing propositional content and greater coherence than groups with a less collaborative mindset. These results indicate that Google Docs is an efficient instrument for collaborative writing.

In a qualitative study involving 28 first-year German learners at a university in the United States, Abrams (2019) discovered that collaboratively-oriented groups produced texts with more excellent propositional content and coherence than less collaborative groups. Similarly, Hidayat (2020) discovered that using Google Docs for peer feedback in a college-level writing course effectively assisted students with report writing. Lawrence and Lee (2017) discovered that the nature of Form 5 ESL writing could change positively for 20 students from moderately proficient to weak proficiency levels.

In addition, Kok Yueh Lee and Hassell (2021) discovered that 34 first-year students preferred the real-time accessibility and time-saving characteristics of Google Docs over face-to-face instruction. The purpose of the study was to maximise student learning by measuring various factors, including students' attitudes and preferences towards Google Docs as a collaborative writing platform, their attitudes and preferences towards a traditional face-to-face approach, the real-time accessibility of the platform, and its time-saving features.

These studies demonstrate how Google Docs can be utilised to facilitate writing instruction and collaborative writing assignments. The findings imply that using Google Docs in the classroom can improve students' writing skills and increase their engagement.

**3.3 Assignment Tracker**

The use of technology in education has significantly altered the educational landscape. Google Docs is one of the most ubiquitous tools used in classrooms. Google Docs is a web-based word-processing application that enables real-time collaboration, document sharing, and editing. Assignment tracking is one feature that makes Google Docs appealing to educators.

Using Google Docs to monitor student assignments has yielded promising results in increasing student engagement, collaboration, and writing skills. Google Docs enabled instructors to monitor student progress and provide timely feedback, according to the studies analysed in this review of the relevant literature. Google Docs is, therefore, a valuable instrument that educators can use to facilitate student learning and enhance the teaching and learning experience. Multiple studies have examined the use of Google Docs for assignment tracking. Lee et al. (2016) investigated the use of Google Docs for tracking students’ progress in a college-level writing course. The study discovered that using Google Docs increased student accountability and participation in the writing process. According to the study, using Google Docs made it simpler for instructors to monitor student progress and provide feedback.

Lin et al. (2017) investigated using Google Docs to monitor student assignments in an English class for high school students. The study discovered that using Google Docs increased student engagement, facilitated communication, and improved their writing skills. The authors also noted that Google Docs offered an effective means of managing student assignments and grades. Similarly, Tang et al. (2018) investigated using Google Docs to monitor student assignments in an eighth-grade English class. According to the study, using Google Docs enhanced students' writing skills and increased their learning motivation. In addition, the authors discovered that Google Docs enabled instructors to provide timely and personalised feedback to students, which enhanced the learning experience.

In addition, Lin et al. (2020) investigated using Google Docs in a college-level writing course to monitor student assignments. The study discovered that using Google Docs increased student engagement and collaboration, increased their comprehension of the writing process, and improved their writing skills. On the other hand, Kurniawati (2022) examined using Google Docs in educational contexts to facilitate proofreading, feedback-giving, and activity tracking. The study found that Google Docs benefited teachers and students because it enabled teachers to readily track students' activities and monitor their progress while allowing students to receive immediate feedback and improve their writing skills. Google Docs also improved student collaboration by allowing them to work together and provide feedback to one another. The study found that using Google Docs to facilitate learning and enhance student writing outcomes is an effective strategy.

In conclusion, this literature review suggests that Google Docs is an effective instrument for facilitating the delivery of academic English, supporting writing instruction, establishing a web-based platform for peer editing, and facilitating collaborative writing. It has been discovered that using Google Docs increases student engagement, promotes peer review, and improves the content of student work. These results suggest that Google Docs should be incorporated into the teaching and learning of academic English in university settings as an essential tool. Google Docs' potential in additional educational contexts requires additional investigation.

**4. RESEARCH METHODOLOGY**

**4.1. Purpose and Importance of the Research**

This study aims to determine if there is a correlation between using Google Docs to monitor assignment progress and ESL students' writing improvement. The purpose of the study is to determine whether the use of Google Docs can improve writing outcomes for ESL students. This research is significant because it aims to shed light on the effectiveness of using Google Docs as an assignment tracker for enhancing ESL students' writing skills. The quantitative methodology of the study will permit the accumulation of objective and quantifiable data regarding the impact of Google Docs on writing progress. The study can determine whether using Google Docs has a statistically significant effect on writing outcomes by randomly assigning participants to either the control or experimental group and utilising pre-and post-test assessments. In addition, by monitoring participants' progress with Google Docs data, the study can shed light on how Google Docs supports writing development via features such as revision history and teacher remarks. This study's findings will inform the development of technological solutions that can improve the writing skills of ESL students. However, the scope of the study is limited to a single polytechnic and concentrates exclusively on writing development, excluding other language-learning domains. Despite these limitations, this study contributes to the field of education by offering evidence-based insights into the use of Google Docs as an assignment tracker for enhancing ESL students' writing skills.

**4.2. Population and Sample of the Research**

The research population consists of all 168 pupils from the eight classes of the first semester. A subset of these individuals will be chosen to participate in the study and constitute the research sample. The sample selection criteria may include language proficiency and willingness to partake.

**4.3. Research Method**

The research method employed in this study is quantitative. Specifically, the study will use assignment results as the primary data source. This will involve collecting numerical data from the assignments completed by students over the five weeks. The data collected will then be analysed using statistical methods to identify any significant differences between the control and experimental groups. The t-test will determine whether there is a statistically significant difference between the control and experimental groups regarding writing progress. The t-test will compare the means of both groups' pre-and post-test scores to determine whether there is a significant difference between the two groups' writing progress. The t-value is determined by dividing the difference between the two groups' means by the standard error of the difference. The resulting t-value is then compared to a critical value from a t-distribution table to ascertain the statistical significance of the difference. A significant difference exists between the two groups if the t-value exceeds the critical value. In this study, the researchers will employ a paired samples t-test when the same group of participants is tested twice. The control and experimental groups will be given pre- and post-test writing assessments, and their mean scores will be compared using a paired samples t-test. The t-test will enable the researchers to determine whether using Google Docs to track assignment progress results in a significant difference in writing progress compared to traditional methods. The objective of using a quantitative research method is to provide empirical evidence of the relationship between using Google Docs to track assignment progress and the writing progress of ESL students. The study's results will contribute to understanding how technology can be utilised to improve language learners' writing skills.

**4.4. Data Collection**

Over five weeks, the assignment results of both the control and experimental groups will be collected as part of the data collection procedure. The participants' demographic information will also be gathered, including their language proficiency and willingness to participate. Using the t-test, the assignment results will be used to compare the writing development of both groups. The data will be gathered and stored on password-protected computers to assure confidentiality and privacy.

**4.5 Data Analysis**

Using statistical software such as SPSS, the collated data will be analysed. The t-test will analyse the data and determine whether the control and experimental groups significantly differ in writing progress. The paired samples t-test will compare the pre-and post-test mean scores of both groups. The obtained t-value will be compared to a critical value from a t-distribution table to determine whether the two groups statistically differ in writing progress.

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| --- | --- | --- | --- | --- | --- |
| **Table 1. Gender of Respondents** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 61 | 56.5 | 56.5 | 56.5 |
| Female | 47 | 43.5 | 43.5 | 100.0 |
| Total | 108 | 100.0 | 100.0 |  |

In this study, 61 male and 47 female first-semester students responded to the pretest and post-test control and experimental group. In other words, 56.5% of male students joined the assignment writing project, while 43.5% of female participants joined the assignment writing project.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 2. Paired Samples Statistics** | | | | | |
|  | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Pretest Controlled Group | 13.41 | 54 | 2.430 | .331 |
| Posttest Controlled Group | 17.70 | 54 | 2.392 | .326 |
| Pair 2 | Pretest Experimental Group | 13.93 | 54 | 2.264 | .308 |
| Posttest Experimental Group | 23.54 | 54 | 3.112 | .424 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 3. Paired Samples Test** | | | | | | | | | |
|  | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| Pair 1 | Pretest Controlled Group - Post-test Controlled Group | -4.296 | 3.231 | .440 | -5.178 | -3.414 | -9.772 | 53 | .000 |
| Pair 2 | Pretest Experimental Group - Post-test Experimental Group | -9.611 | 3.141 | .427 | -10.468 | -8.754 | -22.487 | 53 | .000 |

The mean of the pretest and post-test for the experimental group were 13.93 and 23.54, respectively. The present and post-test mean for the control group were 13.41 and 17.70, as shown in Table 2. The mean difference between the control and experiment groups are 4.296 and 9.611, and the p-value is lower than 0.05, as shown in Table 3. This means there was a statistically significant rise in students’ scores in the post-test in the experiment group compared to the control group. Therefore, this study rejects the hypothesis that there is no significant differences in learning outcomes between ESL students who use conventional methods like paper logs and spreadsheets to track assignment progress and those who use Google Docs.

**4.6 Ethical Consideration**

This study will adhere to ethical considerations, including obtaining participants' informed consent and protecting their privacy and confidentiality. Before involving children in the study, their parents or guardians will provide informed assent. The researchers will ensure that participant information remains private and is not shared with unauthorised parties. Participants may disengage from the study at any time without incurring a penalty.

**DISCUSSION AND CONCLUSION**

**5.1.** **Interpretations of the Study**

This study examined Communicative English course students' learning outcomes to determine the effect of using Google Docs to monitor assignment progress. The sample comprised 108 students in their first semester; 61 males and 47 females were divided into experimental and control groups. The experimental group comprised students who tracked assignment progress using Google Docs, whereas the control group relied on conventional methods such as paper records and spreadsheets.

56.5 percent of male students participated in the assignment writing exercise, compared to 43.5 percent of female students. The experimental group's mean pre-and post-test scores were 13.93 and 23.54, while the control group's pre-and post-test scores were 13.41 and 17.7. The difference between the experimental and control groups' mean ratings was statistically significant (p 0.05).

Therefore, the study concludes that using Google Docs to monitor assignment progress positively affects ESL students' learning outcomes. The results refute the null hypothesis that there is no significant difference between the learning outcomes of pupils using conventional methods and those using Google Docs.

These results point to a meaningful impact on the existing literature on the effectiveness of technology in education and provide valuable insights for educators and policymakers attempting to improve ESL students' learning outcomes. However, future research is required to investigate the causes of the gender gap in participation rates and the impact of specific technologies on the learning outcomes of ESL students.

On the other hand, according to the study's findings, a greater proportion of male students (56.5%) participated in the assignment writing endeavour than female students (43.5%). This observation raises concerns about potential factors contributing to differences in academic technology engagement and motivation between male and female students.

The statistically significant increase in post-test scores among the experimental group who used Google Docs to monitor assignment progress suggests that this technology positively affects ESL students' learning outcomes. These findings suggest that Google Docs may enhance academic performance through improved organisation, collaboration, and feedback exchange.

The study provides insights for instructional design and implementation for educators working with ESL students with practical implications. Incorporating technology tools such as Google Docs into classroom activities can potentially increase student engagement, collaboration, and learning outcomes. These results demonstrate the significance of adopting innovative teaching practices that leverage technology to create a more interactive and effective learning environment.

* 1. **The Implication of the Study**

This study has significant implications for a variety of stakeholders in the field of language education. First, the findings offer valuable guidance for curriculum development of language educators about the efficacy of using Google Docs as an assignment progress tracker to improve the writing progress of ESL students. This knowledge can help language educators develop technology-based solutions for language learning that can improve students' academic success and performance. Second, the findings of the study can inform policymakers and decision-makers in the education sector, particularly those concerned with technology integration in language education, about the advantages of using Google Docs as an assignment progress tracking. Lastly, the study's findings apply to researchers interested in examining the efficacy of technology in language education. This study's findings can serve as a foundation for future research. This study underlines the potential benefits of using technology in language education and offers valuable insights into how technology can enhance the writing skills of ESL students.

**5.2 Limitations of the Study**

Firstly, the relatively small sample size is one of the limitations of this study, which may limit the generalizability of its findings. The study is also limited to a single institution, which might not be representative of other polytechnics in Malaysia. Lastly, the study is restricted to using Google Docs as the primary technology; other technological solutions may not produce comparable results.

The overall objective of this study's methodology is to provide empirical evidence regarding the correlation between using Google Docs to monitor assignment progress and the writing development of ESL students. The study's findings will contribute to our understanding of how technology can be utilised to enhance language learners' writing skills.

**5.3 Recommendation for Future Research**

Based on the study's findings, it is suggested that educators and institutions consider using Google Docs to monitor assignment progress and enhance ESL students' writing skills. The study provides evidence that the use of Google Docs has a positive effect on the writing progress of students in comparison to conventional methods. Therefore, language educators can utilise Google Docs to provide students with feedback and track their progress.

While the current study sheds light on the advantages of using Google Docs, additional research is required to investigate the mechanisms and factors contributing to the observed differences in learning outcomes. In addition, future research could investigate the long-term effects of technology tools on ESL students' academic performance and assess potential variations in outcomes across demographic variables such as age, language proficiency, and socioeconomic status.

In addition, it is suggested that additional research be conducted on the application of technology to language acquisition. Future research can investigate the impact of other technological tools on the writing abilities of language learners. In addition, future research can investigate the long-term effects of using Google Docs or other technological tools on language learners' writing skills.

Finally, it is suggested that language educators receive training and support in effectively using technology tools in the classroom. Institutions can provide educators with training programmes on effectively integrating technology tools into language learning curricula to maximise the benefits of technology.

**5.6 Conclusion**

This investigation aimed to determine the effect of using Google Docs to monitor assignment progress on the writing development of ESL students. The results indicate a statistically significant difference in writing progress between the control group, which tracked assignment progress using conventional methods, and the experimental group, which tracked assignment progress using Google Docs. The findings imply that using technology, such as Google Docs, can improve the writing skills of ESL students by enabling real-time assignment monitoring and peer feedback opportunities.

The results of this study have practical implications for English language educators, policymakers, and other stakeholders in Malaysia's higher education system. The findings imply that integrating technology into language learning programmes can improve students' outcomes. English language educators can use these findings to create more effective and efficient teaching strategies incorporating technology to engage students better and monitor their progress.

In conclusion, this study contributes to the expanding body of research on using technology in language learning and offers valuable insights into how technology, specifically Google Docs, can enhance ESL students' writing skills. The study recommends that English language educators and policymakers consider integrating technology, such as Google Docs, into language acquisition programmes to improve students' academic performance and success. Additional research is required to determine the efficacy of other technological tools and interventions for language acquisition.

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