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Evaluating the Impact of Collaborative Use of Google Docs and Google Translate on English Learning Performance

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ABSTRACT

The integration of technology in education has become increasingly essential, particularly in language learning. Tools such as Google Docs and Google Translate can enhance collaborative learning by promoting interaction, peer feedback, and improved comprehension. This study investigates the impact of these tools, combined with collaborative learning methods, on students' English language performance. A quantitative approach using a post-test only design was applied. The sample consisted of 43 tenth-grade students from SMAN Khusus Olahraga Pekanbaru, selected through purposive sampling. Class X Science I (22 students) was designated as Experimental Class 1, and Class X Science II (21 students) as Experimental Class 2. Google Docs facilitated collaborative writing and peer editing, while Google Translate supported vocabulary understanding and sentence construction. A written test was used as the research instrument, and data were analyzed using an independent t-test on the N-Gain Score (%). The independent t-test revealed a significance value of $p = 0.685$ ($p > 0.05$), indicating no statistically significant difference between the two experimental groups. This suggests that the combined use of collaborative learning and translation tools had a minimal impact on improving students' English performance. The limited effect may be attributed to students' over-reliance on translation tools, which can hinder language processing and reduce opportunities for critical thinking. Additionally, the short duration of the intervention may have limited the tools' overall effectiveness.

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1. INTRODUCTION

The advancement of information and communication technology has significantly influenced education, particularly in foreign language learning. In the Indonesian context of English Language Teaching (ELT), technology serves as a critical tool for enhancing educational quality. Traditionally, English instruction in Indonesia has focused on developing reading, writing, speaking, and translation competencies. However, with the rise of digital technologies, learning methods are increasingly shifting

toward digital-based approaches, incorporating tools like Google Docs and Google Translate. These platforms provide practical solutions for aiding students in understanding English through translation and collaborative task completion.

One approach that can optimize the use of technology in English learning is the collaborative learning method. Collaborative learning involves students in the learning process by working together in groups to achieve common goals. This method aims to improve interaction between students, develop social skills, and provide opportunities for students to share knowledge with each other (Johnson & Johnson, 2008). In the context of English language learning, collaboration between students can improve language comprehension and mastery as they can learn from each other through discussion and feedback. Therefore, this method is very relevant to the application of technology in English language learning.

Although collaborative learning has great potential in improving students' language skills, some studies show that there are challenges in its implementation. One of the biggest challenges is how to effectively utilize technology to support the collaborative learning process. One of the solutions that is widely adopted is the use of digital translation tools such as Google Translate and Google Docs. Google Translate offers the convenience of translating text into multiple languages, while Google Docs allows collaboration in editing and providing feedback in real-time (Boyes, 2016). However, while both tools are beneficial, existing research shows that there are still problems in translation accuracy, especially in idiomatic sentences and complex cultural expressions (Storch, 2013).

The gap analysis in this study lies in the lack of understanding of how much influence the use of digital translation tools has in the context of collaborative learning. Most previous studies have focused more on using a single translation tool, such as Google Translate, without comparing two different tools, Google Docs and Google Translate, in a single study. Some studies show that although Google Translate can assist students in translating words or phrases, this tool still has limitations in more complex translation contexts, such as in analyzing the meaning of songs or literary texts (Medvedev, 2016). Therefore, this study aims to fill this gap by comparing the use of these two tools in collaborative learning to improve students' English skills.

Based on previous studies, technology-based learning has shown a positive impact on improving students' language skills. For example, the use of technology such as the Google Docs app gives students the opportunity to collaborate more efficiently and improve their writing skills. Google Docs allows students to provide instant feedback to each other, which can improve the quality of their assignments (Khalil, 2018). In addition, it also facilitates co-editing on larger projects, which encourages students to be more involved in the learning process collaboratively. This is in line with research by Khalil (2018), which found that the use of Google Docs can speed up the learning process by enabling collaboration without time and space barriers.

However, while technology can enhance the learning experience, some studies also note that reliance on digital tools can be problematic if not balanced with a good understanding of how to use those tools effectively. Translation tools such as Google Translate can speed up text comprehension, students often do not double-check the resulting translations. This can lead to over-reliance on technology and potentially reduce students' understanding of the material being studied. Therefore, it is important to explore how collaborative learning methods powered by technology can be integrated with more in-depth approaches, such as discussion and critical analysis of translation.

This study aims to examine the influence of the use of Google Docs and Google Translate in the context of collaborative learning in English classes. Previous research has shown that collaboration between students can increase their involvement in the learning process, especially when technology is used to support such collaboration. According to (Insai & Poonlarp, 2017), collaboration in translation training can help students detect local and global translation errors and improve decision-making and problem-solving skills. Therefore, this study will test the extent to which collaborative learning supported by translation tools can improve students' English language skills at SMAN Khas Sukan Pekanbaru.

In this study, researchers designed an experiment by comparing two groups of students who used different tools (Google Docs and Google Translate) in a collaborative learning process. This study also

aims to evaluate the effectiveness of the use of these two tools in improving students' English skills, especially in understanding the meaning of translated songs. Thus, this research is expected to contribute to the development of more effective English learning methods through technology integration, as well as provide deeper insights into the application of translation tools in the context of collaborative learning

2. METHODS

Quantitative research methods are used in this study. Specifically, the quantitative design used in this study is an experimental research design. Researchers use this technique to examine whether certain activities or materials affect participants' results. In this research, researcher use quasi-experiments in between group designs. There are two steps: treatment and post-test. At the beginning of this research, the researcher gave an introduction to the translation collaborative learning tool. Then, the researcher gave treatments to the students. And in the last session, the researcher gave the students a post-test to collect the data.

In this research, the population is the students in the tenth grade of SMA Khusus Olahraga Pekanbaru in the academic year 2022/2023, and the sample is X.IPA I and X. IPA II. The two classes are selected since the two classes have a similar mean score for English subjects (∑77, 68, and 76, 38).

This study employs a written test as its research instrument, featuring both multiple-choice and essay questions. The data collected is subjected to statistical analysis to assess the significance of the impact on students' English skills when utilizing Google Docs and Google Translate. To identify any differences between the post-test means of the two classes, an independent samples t-test is utilized. Prior to the main analysis, preliminary data assessments, including normality and homogeneity tests, are conducted to ensure the data's suitability for further examination. Both the normality and homogeneity of the data are analyzed using the Statistical Package for Social Sciences (SPSS) version 23.

3. FINDINGS AND DISCUSSION

3.1 Pre-test Data Analysis

In experimental research, students' pre-test data must be used as research data. The purpose of the pre-test data is to find out students' abilities in find the meaning of song lyric. In this pre-experimental test, the scores are taken from the students' exercise in the finding the lyrical meaning of songs that have been implemented by teachers. The normality test was analyzed by using Statistical Package for Social Sciences (SPSS) 23.

From the data, the scores of pre test was calculated by using statistical computation to draw descriptive statistics:

Table 1. Descriptive Statictic of Pre-test Score

Descriptive					
	N	Minimum	Maximum	Mean	Std. Devation
X. IPA I	22	70	81	77.68	3.578
X IPA II	21	70	82	76.38	4.455
Valid (Listwise)	21				

This table presents descriptive statistics for two data groups, namely X IPA I and X IPA II. Group X Science I has a total of 22 samples with an average score of 77.68, a minimum score of 70, and a maximum score of 81. The standard deviation of this group is 3.578, indicating that the data of X value of Science I tends to be homogeneous or not spread much around the average. On the other hand, group X IPA II had 21 samples with an average score of 76.38, the same minimum value, which was 70, and a slightly higher maximum score, which was 82. However, the standard deviation of X IPA II of 4.46 shows that the data in this group are more varied than X IPA I.

In general, the average score of X IPA I is slightly higher than that of X IPA II, but X IPA II has a greater degree of variation in scores. Although the difference in mean values between the two groups was not very significant, the distribution of X IPA II data was more spread around the mean value than X IPA I. In addition, there were 21 listwise valid data, indicating the possibility that one data did not meet the combined analysis criteria. Thus, although the values of both groups have similar characteristics, the degree of variation is the main distinguishing factor.

Regarding the pre-test data that was gained from both classes, the next calculation was the normality test and homogeneity test. The normality test and homogeneity test in the pre-test were used to continue the experiments. If the pre-test data is normal and homogeneous, then the treatment can be done. The normality test in this research used the formula Shapiro-Wilk because the sample amount of the research was less than 50. The result of the normality test of the pre-test can be seen in the following table:

Table 2. Normality Test of Pre-Test Score

Tests of Normality

	Classes	Kolmogorov-Smimov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Result	X IPA I	.280	22	.000	.725	22	.000
	X IPA II	.261	21	.001	.806	21	.001

a.Liliefors Significance Correction

This table displays the results of the Normality Test using two methods, namely Kolmogorov-Smirnov and Shapiro-Wilk, for two data groups: X IPA I and X IPA II. The results of the normality test help determine whether or not the data has a normal distribution, which is important for choosing the appropriate statistical analysis method.

In group X of Science I, the significance value (Sig.) of the Kolmogorov-Smirnov test was 0.000 and that of Shapiro-Wilk was 0.000. These two values are smaller than the significance level of 0.05 ($p < 0.05$), which indicates that the data of X Science I is not normally distributed. Similarly, in group X of Science II, the significance value of Kolmogorov-Smirnov is 0.001 and Shapiro-Wilk is 0.001, which is also smaller than 0.05. This shows that the X IPA II data is also not normally distributed.

Overall, both groups X IPA I and X IPA II showed significant results in both normality test methods. Thus, it can be concluded that the data of the two groups do not meet the assumption of normal distribution. In the context of subsequent analysis, a non-parametric statistical approach is more recommended because it does not rely on the assumption of normality.

Test of homogeneity was conducted to know whether the data from two classes have the same or different variant. The result of the homogeneity test of the pre-test can be seen in the following table below:

Table 3. Homogeneity Test of Pre-Test

Test of Homogeneity of Variances

Result			
Levene Statistic	df1	df2	Sig.
3.056	1	41	.088

This table presents the results of the Variance Homogeneity Test using the Levene's Test method. This test is used to evaluate whether or not the variance of two or more groups is homogeneous, which is important in parametric statistical analyses such as t-tests or ANOVAs.

In the table, Levene Statistic = 3.056, with degrees of freedom (df1 = 1, df2 = 41) and significance values (Sig. = 0.088). This significance value is greater than the significance level of 0.05 ($p > 0.05$). Thus, it can be concluded that the variance of the two groups is homogeneous or has the same variance.

In conclusion, the assumption of variance homogeneity is fulfilled. Therefore, if parametric statistical analyses such as t-tests or ANOVAs are performed, the variance similarity condition has been met, and the results of the analysis can be considered valid.

Table 4. Mann-Whitney of Pre-Test

Tes Statistic [a]	
	Result
Mann-Whitney	195.000
Wilcoxon W	426.00
Z	-.905
Asymp. Sig. (2-tailed)	.366

a. Gruoping variabel: Classes

This table presents the results of the Mann-Whitney U test, which was used to compare two independent groups when the data were not normally distributed. Based on the results of the analysis, the value of Mann-Whitney U is 195,000, the value of Wilcoxon W is 426,000, and the Z is -0.905. The value of bidirectional asymptotic significance (Asymp. Sig. 2-tailed) is 0.366, which is greater than the significance level of 0.05. This suggests that the difference between the two groups is not statistically significant.

Thus, it can be concluded that there is no significant difference between the two groups tested. These results show that the distribution or median of the variables compared in the two groups is relatively the same. Because this test is used in non-parametric data, this conclusion supports that the visible differences are not strong enough to be considered significant in the context of statistical analysis.

3.2 Post-Test Data Analysis

The scores of post-test were calculated by using statistical computation to draw descriptive statistics**.**

Table 5. Descriptive Statistic of Post-Test Score

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
X IPA I	22	73	94	83.59	7.281
X IPA II	21	70	94	81.67	8.297
Valid N (Listwise)	21				

Based on the table, the minimum post-test score in Experimental Class 1 was higher than that of Experimental Class 2, specifically 73 compared to 70. Meanwhile, the maximum score in both classes was identical at 94. Furthermore, the average post-test score in Experimental Class 1 (83.59) was higher than that in Experimental Class 2 (81.67).

These findings indicate that the post-test performance of students in Experimental Class 1 was superior to that of students in Experimental Class 2. The data were analyzed using a parametric approach, specifically the independent samples t-test. The results of the t-test analysis for the post-test scores are presented in the table below.

Table 6. Independent Sample T-test Result

Independent Samples Test										
		Levene's Test for		T-test for Equalityof Means						
		f	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std.Error Difference	95% Confidence Interval of the	
									lower	upper
Result	Equal Variances assumed	.568	.455	.809	41	.423	1.924	2.377	-2.877	6.726
	Equal Variances not assumed			.807	39.754	.425	1.924	2.385	-2.897	6.745

This table shows the results of the Independent Samples t-Test used to compare the averages of the two groups, with the Levene test to confirm the assumption of variance homogeneity. The results of the Levene test showed a value of F = 0.568 with a significance of 0.455. Since the significance value is greater than 0.05, it can be concluded that the variance of the two groups is homogeneous. Assuming the same variances, the "Equal variances assumed" line is used to interpret the t-test results.

In the Equal variances assumed row, the value of t = 0.809, the degree of freedom (df) is 41, and the bidirectional significance (Sig. 2-tailed) is 0.423. This significance value was greater than 0.05 ($p > 0.05$), which indicates that there was no significant difference between the mean of the two groups. The mean difference is 1.924, with a standard error of 2.377. The 95% confidence interval for the mean difference ranged from -2,877 to 6,726, which includes the number zero, thus reinforcing the conclusion that the difference was insignificant.

Thus, the results of the t-test showed that the mean of the two groups did not have a statistically significant difference. Although there is an average difference of 1.924, this value is not significant enough to conclude that there is a real difference. The assumption of variance homogeneity has been met, and the parametric test used is valid for the interpretation of these results.

Table 7. T- table Distribution Scores

d.f	$t_{0.10}$	$t_{0.05}$	$t_{0.025}$	$t_{0.01}$	$t_{0.005}$
40	1.303	1.684	2.021	2.423	2.704
41	1.303	1.683	2.020	2.421	2.701
42	1.302	1.682	2.018	2.418	2.698
43	1.302	1.681	2.017	2.416	2.695
44	1.301	1.680	2.015	2.414	2.692
45	1.301	1.679	2.014	2.412	2.690

This table presents the critical t-values for the distribution of t-Students at various degrees of freedom (df) and specific levels of significance (α). This value is used in the t-test to determine whether the statistical results are significant by comparing the calculated t-value with the critical t-value. If the calculated t value exceeds the critical t, then the null hypothesis (H_0) is rejected.

For df = 41 and significance level $\alpha = 0.05$ (two tails), the critical t-value is 1.683. Meanwhile, for df = 43, the critical t value at the same significance level is 1.681. This critical t-value decreases slightly as the degree of freedom increases, which indicates that with more data or observations, the distribution becomes closer to the normal distribution.

In conclusion, this critical t-value is used as a limiter to test hypotheses in t-tests. If the calculated t of the analysis is greater than 1.683 for df = 41 or 1.681 for df = 43 at $\alpha = 0.05$, then the result is

statistically significant. Conversely, if t is less than that value, then the null hypothesis fails to be rejected.

Normalized gain or N-gain score aims to determine the effectiveness of using certain methods or treatments. The N-gain score test was carried out by calculating the difference between the pre-test and post-test scores. We can see the table of the N-Gain results score calculation as follows:

Table 8. N-Gain Score (%) Test

No	N-Gain Sores %	
	GD EXP (X IPA I)	GT EXP (X IPA II)
1	40	0
2	13,33	6,67
3	10	18,18
4	10	13,33
5	55	10
6	0	0
7	8	63,16
8	-14,29	3,33
9	8	0
10	18,18	25
11	20	0
12	8	8
13	55	40
14	55	35
15	70	42,86
16	23,81	55
17	31,58	59,09
18	65	8
19	65	65
20	0	66,67
21	60	13,64
22	25	
Mean	28.482	25.377
Min	-14.29	.00
Max	70.00	66.67

Based on the results of the N-gain score test calculation above, it shows that the mean of N-gain score for Google documents class was 28.482% with a minimum N-gain score of -14.29% and a maximum of 70.00%. Meanwhile, the mean of N-gain score for the Google Translate class was 25.377% with a minimum N-gain score of 0% and a maximum of 66.67%.

Before interpreting the results of the independent sample t-test for the N-gain score, it is necessary to understand the categories of interpretation of the effectiveness of the N-gain value (%) below.

Table 9. Category of N-Gain Effectiveness Interpretation

Percentage (%)	Interpretation
<40	Not Effective
40-55	Less Effective
56-75	Quite Effective
>76	Effective

Next, for the first output table :

Table 10. Group Statistic N-Gain percent

Group Statistic					
	Classes	N	Mean	Std. Deviation	Std. Error Mean
NGain_percent	X IPA I (GD EXP	22	28.482	25.327	53.977
	X IPA II (GT EXP)	21	25.377	24.408	53.263

Based on the Group Statistics t able above, it is known that the average value (Mean) N-Gain Percent for the Experimental Classes were 28.482% or 28.5% (X IPA I) and 25.377% or 25.4% (X IPA II). Based on the table of categories for interpreting the effectiveness of the N-Gain value (%) above, it can be concluded that the use of collaborative learning methods with translation tools is not effective (< 40 %) in improving learning outcomes in English subjects, especially in finding the meaning of song lyrics at SMA Khusus Olahraga Pekanbaru.

The following table is the output of the independent sample t-test for the N-Gain score:

Table 11. Independent Sample T-test for N-Gain Score

Value	Df	Sig.(2-Tailed)	Sig. Level (x)	Hypothesis
NGain_Percent				
(Equal Variances assemed	41	.685	.05	Accepted HO

Based on the "Independent Samples Test" output table above, it is known that the value of Sig. (2 tailed) is 0.685 > 0.05. Thus, it can be concluded that there is no difference between the use of Google Documents and Google Translate (H_0 accepted and H_a Rejected).

Discussion

Collaborative learning is fundamentally rooted in the principles of teamwork, as it emphasizes student cooperation and mutual support in achieving shared academic goals. Unlike traditional learning methods that often focus on individual performance, collaborative learning fosters active participation by encouraging students to engage with one another through direct feedback and joint problem-solving. As noted by Miqawati (2020), this approach can transform passive learners into active participants by reducing feelings of hesitation and anxiety during the learning process.

Furthermore, Supiani (2017) highlights the effectiveness of collaborative techniques in addressing students' difficulties in writing, ultimately enhancing their writing proficiency. Johnson and Johnson (2008) also emphasize that collaborative learning nurtures essential social skills and builds mutual trust among students—elements that are crucial for a positive and productive learning environment. Additionally, as Hattie and Timperley (2007) argue, the immediate feedback exchanged in collaborative settings plays a pivotal role in helping students identify their strengths and areas for improvement, thereby supporting deeper learning and better academic outcomes.

One of the main advantages of collaborative learning is its ability to make students who were previously passive become more active in the learning process. (Miqawati, 2020) found that collaborative learning methods can help students who are usually reluctant to participate become more engaged. These passive students often feel anxious or unconfident, but in a collaborative environment, they have the opportunity to talk and interact with classmates in a more supportive atmosphere. The

study showed that group interactions helped reduce anxiety that often prevented students from being active. Thus, collaborative learning becomes an effective tool to overcome anxiety problems in learning.

Collaborative learning has also been proven to help students overcome the difficulties they face, especially in writing skills. (Supiani, 2017) found that collaborative techniques can help students overcome problems in writing texts, both in terms of structure and content. In collaborative learning, students have the opportunity to share ideas, provide constructive feedback, and improve their writing together. This reinforces the argument put forward by (Slavin, 2014), who stated that collaboration between students not only improves their academic skills, but also improves their ability to solve problems creatively. In this case, collaborative learning not only improves individual learning outcomes, but also enriches students' understanding and skills in various academic fields.

Furthermore, collaborative learning focuses not only on improving students' academic abilities, but also on developing their social skills. Research by (Johnson & Johnson, 2008) shows that through collaborative learning, students learn how to work in teams, resolve conflicts, and give and receive feedback in a constructive way. This is important because these social skills can be applied in a variety of life contexts outside of school, such as in the workplace and in society. Collaboration allows students to learn from different perspectives, develop communication skills, and reinforce a sense of responsibility towards group work. Therefore, collaborative learning not only prepares students for exams but also for greater life challenges.

With all the benefits offered by collaborative learning, it is clear that this method has great potential in improving the quality of education. As found by (Miqawati, 2020; Supiani, 2017), collaboration can overcome academic anxiety, increase student engagement, and improve their writing skills. In addition, collaborative learning also facilitates the development of important social skills. However, to maximize the effectiveness of this method, teachers need to play an active role as facilitators, who can set group dynamics and ensure that each student is actively engaged. Along with the application of technology and various learning aids, collaboration between students can be further maximized to create a more meaningful and productive learning experience.

With the help of technology, learning English become simple and more enjoyable (Cross, Block, & Vandervort, 2023). Some applications that could be used are translation tools which are google docs and google translate. It takes a few clicks for students to translate any English word. These applications are free. Despite their advantages, both applications have some disadvantages. These tools employ machine translation algorithms, which can result in inaccuracies, especially when idiomatic expressions, cultural nuances, and complex sentence structures are involved (Ranalli, 2008).

Collaboration between students can overcome the shortcomings of translation tools. Researchers found that collaboration between students helped students recognize translation errors in translation tools. (Butarbutar, Ruing, Basri, Tuharea, & Leba, 2023; Roseth, Johnson, & Johnson, 2008; Van Leeuwen & Janssen, 2019) argues that peer feedback enhances students' translation performance through discussions, comments, and negotiations. (Insai & Poonlarp, 2017), who found that participants in terms of translation training collaborated, detected local and global errors, and demonstrated higher levels of decision-making and problem-solving.

In learning English, collaborative learning methods with the help of translation tools have negative and positive effects. The negative effect is students depend on Google Translate. (Roslaini & Nugroho, 2023; Tuilan, Pabur, & Tuerah, 2023)found that 94% of students implemented Google Translate during the learning process. They needed and used Google Translate to support their learning outcome. The positive effect of using translations tools as learning aids are increasing students' English vocabulary, reducing students' errors in spelling, and improving their pronunciation (Marpaung, Sabarudin, & Mulyadi, 2021).

As well as improving English skills, collaborative learning enhances students' social-psychological well-being. (Nur & Butarbutar, 2022) found that using collaborative learning concepts in the classroom may help students become more devoted to studying, improve their attitudes toward school, reduce feelings of failure and the harmful impacts or emotions that come with them, increase their ambition

and grades, and much more. Nevertheless, teachers must face some challenges to achieve Collaborative Learning. The challenge is to remain a central figure in the learning process without controlling the moments when students have opportunities to learn (Van Leeuwen & Janssen, 2019).

In English learning contexts which employ collaborative learning method integrated with the use of digital translation tools such as Google Translate can have both positive and negative impacts. The use of translation tools in English learning has become an inseparable part of the modern learning process, especially in the context of independent learning. (Elston, Tiba, & Condy, 2022; Mutar & Hmmud, 2022; Suyahmi, 2021) found that 94% of students use Google Translate during the learning process. The high reliance on this tool shows that students find it easier and faster to get a translation of a word or sentence, which helps them understand the subject matter. While these tools are helpful, over-reliance can hinder students' ability to think critically and develop English skills independently.

One of the negative impacts of using translation tools like Google Translate is the increasing reliance of students on these tools. These machine-based translation tools, while very practical, do not always produce accurate translations, especially for idiomatic phrases or complex sentence structures (Ekalia, Selamat, Semana, Par, & Asman, 2022; Slavin, 2014). This dependency can reduce students' chances of honing their language skills directly, such as building vocabulary, understanding context, or practicing translating independently. Research by Chandra & Yuyun (2018) shows that excessive use of translation tools can discourage students from practicing speaking and writing in English, because they rely more on instant translation that is not always in context.

Despite the negative impact, the use of translation tools also has a significant positive impact, especially in improving students' English skills. (Al Momin, Kittur, Rouf, & Sadri, 2023; Johnson & Johnson, 2008) stated that digital translation tools can improve students' vocabulary, as they can easily find the meaning of words they don't know. In addition, this tool can also help reduce spelling errors and improve student pronunciation, as many translator applications are equipped with voice features that teach how to pronounce words in English (Marpaung et al., 2021). Therefore, translation tools can serve as an effective complement to English learning, especially for students who are still in the beginner or intermediate stage.

In addition to the impact on language skills, collaborative learning also has a positive influence on students' socio-psychological well-being. Nur & Butarbutar (2022) found that collaborative learning can increase students' motivation and dedication to their lessons. When students work in groups, they feel more emotionally and socially supported, which reduces feelings of failure and academic stress. Collaborative learning also helps reduce evaluation-related anxiety, as students get direct support and feedback from their peers, which facilitates more relaxed and productive learning. Additionally, with positive social interactions, students feel more connected to their classmates and school environment, which in turn can improve their attitudes toward learning.

In addition to improving socio-psychological well-being, collaborative learning can also encourage students to be more ambitious in learning and improve their academic performance. Collaborative learning can increase students' self-confidence, which ultimately has an impact on improving their grades and academic achievement. When students feel valued in a group and have the opportunity to contribute to discussions, they are more motivated to put in the effort to study. This is in line with the findings by (Roseth et al., 2008), which state that collaborative learning can lead to increased academic achievement because students feel more engaged and responsible for the success of their group.

While collaborative learning has many benefits, its implementation in the classroom is not without its challenges. One of the main challenges faced by teachers is how to remain a central figure in the learning process without controlling every moment of student interaction (Hattie & Timperley, 2007; Hussin, Harun, & Shukor, 2019; Lomas, Burke, & Page, 2008; Subandoro & Sulindra, 2019). Teachers must be able to create a supportive environment where students feel free to collaborate and share ideas with each other without fear or embarrassment. However, in some situations, especially in large classes or with students who are less accustomed to working in groups, managing group dynamics can be

challenging. Therefore, it is important for teachers to have skills in facilitating collaborative learning, ensuring that every student is engaged and that no one feels left out.

4. CONCLUSION

This quasi-experimental study aimed to examine the effectiveness of translation tools integrated with collaborative learning methods in improving students' English performance. The findings indicate that while both Google Docs and Google Translate had a measurable influence on student outcomes, the impact was relatively modest. Statistical analysis—including the t-obtained value ($0.409 < 1.683$), mean N-Gain percentages (24.482% for Google Docs and 25.377% for Google Translate), and a significance value of $p = 0.685$ ($p > 0.05$)—supports the acceptance of the null hypothesis, suggesting no significant difference in effectiveness between the two tools. These results imply that although technology-assisted collaborative learning has potential, its influence on English language performance in this context was limited.

Several limitations affected the study's outcomes. Students were often distracted by other applications while using their devices, and some lacked interest in learning English, which likely influenced their engagement. Moreover, unfamiliarity with Google Docs in the experimental group reduced its optimal use, and over-reliance on translation tools limited students' opportunities for critical thinking and independent language processing.

Future research should consider extending the duration of the intervention to allow for deeper integration of the tools and better familiarity among students. Additionally, combining digital tools with structured guidance and teacher facilitation may improve learning outcomes. Further studies could also explore the impact of such tools across different proficiency levels or in blended learning environments to generate more comprehensive insights.

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