



IMPROVING STUDENTS' SPEAKING SKILL AND INTEREST THROUGH DUOLINGO AS GAMIFICATION APPLICATION

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Abstract: This experimental method focused on the effectiveness of *Duolingo* as a gamification application strategy to improve students' speaking skills and interest, and to confirm the correlation between them. The participants were the tenth graders of *SMAN 1 Mande* selected randomly to be the experimental and control classes. The instruments were the pre-post speaking skill test and the pre-post speaking interest questionnaire. The analysis revealed that the significant score (2-tailed) or (P) of the post-speaking skill test obtained by both experimental and control classes was 0.00. Thus, the significant difference was confirmed. The quality of the experimental class on speaking skills was higher than that of the control class. It was decided that *Duolingo*, as a gamification application strategy, had an effective impact on improving speaking skills. Moreover, all significant scores (2-tailed) or (P) of the post-speaking interest questionnaire obtained by both experimental and control classes were 0.00. Thus, the significant difference was confirmed. The quality of the experimental class on speaking interest was higher than the control class. It exposed that *Duolingo*, as a gamification application strategy, had an effective impact on improving speaking interest. The experimental class achieved a mean score of 88.47, whereas the control class obtained a mean score of 79.17. The experimental class achieved a mean post-speaking interest score of 123.75, whereas the control class scored 99.69. Whereas, correlation coefficient was 0.007. Moreover, the significance score between speaking interest and speaking skill in the experimental class was 0.963, which was more than 0.05. Therefore, it implied that students' speaking skills did not correlate significantly with their speaking interest. It could be concluded that *Duolingo*, as gamification, was quite effective in improving students' speaking skills and speaking interest, but there was no correlation between speaking skills and speaking interest

Keywords: *Duolingo*; gamification; speaking skill; speaking interest.

INTRODUCTION

English becomes prominent in communication since it is spoken around the world as international language. In Indonesia, the students have learnt English since they were in both primary and secondary schools. There are six skills in English that the students should learn, namely listening, speaking, reading, viewing, writing, and presenting (Curriculum Merdeka; Kemdikbudristek, 2022). The students should be focus on learning these skills if they want to master English because each skill will be intercorrelate each other.

According to English Learning Achievement

(*Capaian Pembelajaran Bahasa Inggris*) for listening-speaking elements, by the end of Phase E (grade X), the students use English to communicate with teachers, peers and others in a variety of situations and purposes. They use and respond to the questions and use some strategies to initiate and sustain the conversation and discussion. They understand and identify the main ideas and the relevant details of discussions or presentations on the topics that are close to the youth live. They use English to express opinions on youth related issues and to discuss youth related interests. They give opinions and make comparisons. They use non-

verbal elements such as gestures, speed, and intonation to be understood in some contexts.

From the English Learning Achievement above, it can be interpreted that speaking as one of productive skills, will be very useful in communication because the students use English to communicate with teachers, peers and others in a variety of situations and purposes that close to their youth life. In addition, speaking can measure how fluent and understand the students' in English communication. The mastery of speaking skills in English is a priority for many second language or foreign language learners (Bahadorfar & Omidvar, 2014).

According to Hotmaria (2021) high school students have problems in English lessons, most students have low ability in speaking English, both from pronunciation, grammar and vocabulary, this is due to internal and external factors. The statement has similarities with my teaching experience since the year of 2010. Speaking skill needs students' braveness when they speak out to convey their message or idea into the interlocutor. Ironically it was found that the students still had difficulties in speaking production. It can be proven during speaking activity process where more than a half of the students in classroom will be silent. The students look like have no interest in speaking because of several reasons. The students said that they are afraid to speak English while others said that they are shy of being criticized and laughed by their classmates if they're mispronounce of the words when they speak. Other students said that they don't understand how to speak the sentence because they have limited vocabulary in English. As a result, they are fearful to speak out when speaking activity time and also get low speaking score because of these reasons that aforementioned.

In term of that, the students' interest in learning English is important since they will not be able to learn if they are not interested. The students who are enthusiastic about learning English will complete their work without feeling rushed because enthusiasm is one of the most powerful motivators for learning English (Sabila, 2019). In the other words, interest is as a power to force students to learn. Student who has interest in speaking will be forced to learn and practice it, but student who has no interest in speaking will have no motivated to learn moreover have no motivated to practice it. So that if the teachers want to success in doing teaching and learning process, they should give the stimulus to the students in order to their interest in following the teaching and learning

process through an appropriate strategy (Kohar et al., 2022). One of the strategies that is expected to improve the students' speaking skill and interest is the use of gamification because it relates to students' life in digital era. Gamification is one of the learning methods that is suitable for the conditions of today's digital (Farhan, 2019).

Gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning, and solve problems (Kapp, 2012). Gamification can be applied also in speaking because basically, any task, assignment, process or theoretical context can be gamified. Using games in teaching and learning transforms the traditional method of transmitting knowledge. The incorporation of games in learning triggers students to be autonomous learners and enhances their learning in various fields of knowledge (Kapp, 2012). By using gamification in learning, we can provide a stimulus to three important parts namely Emotional, Intellectual, Psycomotoric (Farhan, 2019). Moreover, the learning process by using gamification can increase the students' motivation in learning speaking. The students will feel happy because learning is more varied. High motivation in learning will increase students' interest to follow the full lesson.

Based on that explanation, it can be concluded that gamification can be used to improve the students' speaking skill and interest in order to make they speak English more active, fun, fluently, and also have better interest to speak English. One of gamification application is Duolingo that employs a game principle technique to motivate the students to continue their English studies.

In playing Duolingo, the students require to complete various stages because it is constructed like a computer game. After a student has mastery and completed of the prior content or level, the subsequent lessons are accessible. So, Duolingo will assist the students in learning to practice and mastery speaking skill because Duolingo provides some exercise options include vocabulary, listening and transcription, sentence completion, and speaking via a microphone to make the students learn without being ashamed and hesitate. In the end, the users may complete a range of sorts of exercises (Hafifah, 2019).

Therefore, the researcher is very interested in conducting research to investigate the effectiveness of Duolingo as gamification application in improving students' speaking skill and interest because Duolingo as free language learning application, can be used by the students to

practice their English speaking whenever and wherever they want.

METHOD

The quantitative approach was used in this study, and the method of research was a quasi-experimental design. This study used two classes with different treatment between experimental and controlled class. It belonged to nonequivalent control-group design, since the experimental group A and the control group B took a pre-test and post-test, but only the experimental group received the treatment. The experimental class (A) was taught by using *Duolingo*. The teacher taught the material and engaged the students in speaking activity using a gamification application, named *Duolingo*. Meanwhile, the controlled class (B) was taught by using the conventional strategy. The teacher taught the material and engaged the students in speaking activity without any application.

This study used the test and questionnaire on the control and experiment class to see the effectiveness of *Duolingo* as gamification application in improving students' speaking skill and speaking interest. The validity and reliability of both instruments were confirmed prior to applying them in the study. The effectiveness can be seen from the improvement of students' score of experiment class in the post-test. Then those final scores were used to see the correlation between the students' speaking and speaking interest. The quasi experiment examined the control class (the class by using conventional strategy) and experimental class (the class taught by using *Duolingo*). The steps of experiment used the post-test control group design proposed by Wibawa et al., (2016).

The sample of this research was two classes of the tenth-grade students of SMAN 1 Mande. The sample was class X - 1 and X - 5 that consisted of 36 students. The numbers of subject involved in this study were 72 students from two classes. In class X - 1 as an experimental group used gamification as a media in teaching speaking skill. In class X - 5 as a control group used conventional strategy in teaching speaking skill. Selecting the sample from the population conducted simple random sampling that all tenth grades students have an equal chance of being selected to be the sample of this research. Randomization refers to randomly assigning subjects to the experimental and control groups Leavy (2017). The sample of this research chose to be the experimental class and control class.

After having experimental class and control class, the researcher found out their homogeneity.

It was useful to make both classes comparable as stated by Wibawa et al., (2016) that the experimental class and control class should be homogeneous in order to control the variables. The data to find out their homogeneity used students' daily English speaking score, and it was analyzed. The process of analyzing the homogeneity used SPSS 22 namely Levene's test with level of significance 5% ($\alpha:0.05$).

Then, each class was given pre and post test using speaking test based on Curriculum Merdeka gained from the content of English Learning Achievement (*Capaian Pembelajaran Bahasa Inggris*) for listening-speaking elements and was combined with the elements of speaking according to Miftahussurur (2018). The material was about Opinion Expression that was given as a test to identify and measure the elements of speaking, namely pronunciation, grammar, vocabulary, fluency, and comprehension. In addition, pre and post speaking interest questionnaire were given to both classes including attention, enjoyment, and curiosity (Eidswick, 2009). After that, the researcher examined the normality using the certain statistic formula in the SPSS 22 (Statistical Package for the Social Science) to gain the difference and to correlate between speaking skill and speaking interest

RESULTS AND DISCUSSION

Speaking skill through Duolingo as a gamification strategy

In this part, this study focused on first research question namely explaining the finding and discussing about How different is the result quality of speaking achieved by the tenth graders of *SMAN 1 Mande* who are taught through *Duolingo* as gamification strategy and those who are taught through conventional strategy?

The first research question was formulated in the following hypothesis: $H_0.1$: There is not any confirmation of significant effectiveness in the tenth-grade students' speaking skill achieve through *Duolingo* as gamification strategy comparing to conventional strategy in SMAN 1 Mande. $H_1.1$: There is confirmation of significant effectiveness in the tenth-grade students' speaking skill achieve through *Duolingo* as gamification strategy comparing to conventional strategy in SMAN 1 Mande.

To evaluate the hypotheses formulated in this study, the analysis of the post-speaking skill test results from both the experimental and control classes was emphasized. The primary objective was to determine whether the hypotheses could be

accepted or rejected based on the data obtained. both classes are presented in tables 1 and 2.
The results of the post-speaking skill tests from

Table 1. *Descriptive statistics of pre and post-test data in experiment class*

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Experiment Class	36	65	80	73.06	3.224
Post-Test Experiment Class	36	80	95	88.47	3.342
Valid N (listwise)	36				

Table 2. *Descriptive statistics of pre and post-test data in control class*

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Test Control Class	36	65	80	71.81	3.197
Post-Test Control Class	36	70	85	79.17	3.684
Valid N (listwise)	36				

The findings indicated that the experimental class achieved a mean score of 88.47, whereas the control class obtained a mean score of 79.17. This demonstrates that the experimental class outperformed the control class in the post-test.

Furthermore, the statistical analysis on table 3 showed the results of Man Whitney U statistics that a p-value (Sig. 2-tailed) of 0.000. Since the p-value is less than 0.05 as the following table.

Table 3. *Mann-Whitney U test of speaking skill test data*

	Test Statistics ^a
	Student Speaking Score
Mann-Whitney U	51.500
Wilcoxon W	717.500
Z	-6.933
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Class

It confirmed a statistically significant difference in speaking skill test scores between the experimental and control groups. This suggested that the experimental group, which used *Duolingo*, demonstrated significantly higher speaking proficiency compared to the control group.

Therefore, the use of *Duolingo* as a gamification tool had a substantial positive effect on students' speaking skills. Moreover, it was supported by the N-Gain test results for the experimental class as the following table.

Table 4. *Descriptive N Gain of speaking skill test*

Class	Statistic	Std. Error	
NGain_Percent Experiment (Duolingo)	Mean	57.4537	
	95% Confidence Interval Lower Bound for Mean	53.8748	
	Upper Bound	61.0326	
	5% Trimmed Mean	57.1708	
	Median	60.0000	
	Variance	111.882	
	Std. Deviation	10.57741	
	Mean	23.3401	
	Control (Conventional)	95% Confidence Interval Lower Bound for Mean	17.9931
		Upper Bound	28.6871
5% Trimmed Mean		23.7215	
Median		25.0000	
Variance		249.736	
Std. Deviation		15.80305	

It consisted of 36 students, the average N-Gain score was 57.45%, placing it within the "quite effective" category. Consequently, the null hypothesis was rejected, and the alternative hypothesis was accepted, confirming that there is a significant difference in the speaking skill outcomes between the two classes, with the experimental class showing superior improvement, and the use of the gamification through Duolingo is quite effective in enhancing the speaking skills of tenth-grade students.

This result is further substantiated by comparing the pre-test and post-test scores of the experimental class. As displayed in Table 1, the mean score of the pre-speaking skill test was 73.06, while the mean score of the post-speaking skill test increased to 88.47. The Wilcoxon Signed-Rank Test results show a Z-score of -5.412 and a p-value of 0.000. Since the p-value is less than 0.05, the null hypothesis is rejected, indicating a significant difference between the pre-test and post-test scores of the experimental group.

Based on these findings, it can be concluded that the implementation of the gamification strategy through *Duolingo* effectively enhanced students' speaking skills. Thus, there is a significant difference in speaking performance between the experimental and control classes, with the experimental class demonstrating higher achievement. Accordingly, the null hypothesis is rejected, and the alternative hypothesis is accepted, confirming that the use of gamification strategies through *Duolingo* yields a significant improvement in students' speaking proficiency compared to conventional methods.

In light of these findings, it is recommended that educators incorporate *Duolingo* as a supplementary tool in teaching speaking skills. *Duolingo*'s interactive and gamified features provide students with engaging and varied exercises, facilitating improvements in vocabulary acquisition, pronunciation, grammar, and fluency. For instance, Saputra et al. (2023) reported that 90% of students experienced enhancements in their English speaking abilities after using *Duolingo*, particularly in vocabulary, pronunciation, and fluency. Additionally, research conducted by Kazu and Kuvvetli (2025) underscores that *Duolingo*'s dynamic and interactive exercises, which include accuracy-evaluated speaking components, offer a more effective alternative to traditional rote learning methods.

Furthermore, *Duolingo*'s gamified approach fosters increased student engagement and reduces

speaking anxiety, thereby promoting more active participation. This recommendation is supported by Kusumaningrum and Riyandari (2020), who demonstrated that consistent use of *Duolingo*, combined with immediate feedback, significantly improved students' speaking performance. Similarly, Putri and Marlina (2021) highlight that *Duolingo* encourages learner autonomy, allowing students to practice and refine their speaking skills beyond classroom settings. Therefore, integrating *Duolingo* into speaking instruction not only supports the development of students' speaking proficiency but also fosters greater motivation and interest in language learning.

Moreover, the students require to complete various stages to play *Duolingo* since it is like a computer game. Thus, students have to master and complete the prior content or level to access the subsequent lessons. Therefore, *Duolingo* will assist them in learning to practice and master speaking skill because it provides some exercise options include vocabulary, listening and transcription, sentence completion, and speaking via a microphone to make the students learn without being ashamed and hesitate and it correlates with this study focusing on speaking skill. In the end, they may complete a range of sorts of exercises (Hafifah, 2019).

Speaking interest Duolingo as a gamification strategy

In this part, this study focused on second research question namely explaining the finding and discussing about how different is the result quality of speaking interest level achieved by the tenth graders of *SMAN 1 Mande* who are taught through *Duolingo* as gamification strategy and those who are taught through conventional strategy?

The second research question was formulated in the following hypothesis: H_{0.2}: There is not any expose of effectiveness in the tenth-grade students' speaking interest level achieved through *Duolingo* as gamification comparing to conventional strategy in *SMAN 1 Mande*. H_{i.2}: There is an expose of effectiveness in the tenth-grade students' speaking interest level achieved through *Duolingo* as gamification comparing to conventional strategy during in *SMAN 1 Mande*.

To evaluate the hypotheses, the analysis focused on the post-speaking interest questionnaire results from both the experimental and control classes, aiming to determine the acceptance or rejection of the proposed hypotheses as the following table.

Table 5. Descriptive statistics of pre and post-respond data in experiment class

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Respond Experiment Class	36	69	83	76.03	3.000
Post-Respond Experiment Class	36	120	128	123.75	1.888
Valid N (listwise)	36				

Table 6. Descriptive statistics of pre- and post-questionnaire in control class

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Respond Control Class	36	70	83	75.83	2.772
Post-Respond Control Class	36	90	110	99.69	5.666
Valid N (listwise)	36				

Tables 5 and 6 presented that the experimental class achieved a mean post-speaking interest score of 123.75, whereas the control class scored 99.69, indicating a higher mean in the experimental

group. Additionally, the Mann-Whitney U test results in Table 6 showed a U value of 0.000, a Z-score of -7.313, and a p-value of 0.000. Since the p-value is less than 0.05 as the following table.

Table 7. Mann-Whitney U Test of speaking interest questionnaire data Test Statistics^a

	Student Respond Score
Mann-Whitney U	0.000
Wilcoxon W	666.000
Z	-7.313
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Class

The results indicated a statistically significant difference in speaking interest questionnaire scores between the two classes. This suggested that students in the experimental class, who used Duolingo, showed significantly higher speaking interest compared to those in the control class.

Therefore, the use of Duolingo as a gamification tool had a significant impact on enhancing students' speaking interest. Moreover, based on the N-Gain test results for the experimental class as the following table.

Table 8. Descriptives N Gain score of speaking interest questionnaire

Class	Statistic	Std. Error	
NGain_Percent Experiment (Duolingo)	Mean	59.6483	
	95% Confidence Interval Lower Bound for Mean	57.6836	
	Upper Bound	61.6129	
	5% Trimmed Mean	59.4492	
	Median	60.0000	
	Variance	33.717	
	Std. Deviation	5.80660	
	Control (Conventional)	Mean	23.2873
		95% Confidence Interval Lower Bound for Mean	20.9621
		Upper Bound	25.6124
5% Trimmed Mean		23.2380	
Median		24.2718	
Variance		47.225	
	Std. Deviation	6.87204	

It consisted of 36 students, the average N-Gain score was 59.64%, placing it in the quite effective category. Consequently, the null hypothesis was rejected in favor of the alternative hypothesis,

suggesting that the gamification through Duolingo strategy notably enhanced speaking interest levels compared to conventional methods and it was quite effective in enhancing the speaking interest of

tenth-grade students.

This conclusion was further supported by comparing the pre- and post-speaking interest questionnaire results of the experimental class, as shown in Table 4. The pre-speaking interest mean was 76.03, while the post-speaking interest mean rose to 123.75. Moreover, the Wilcoxon Signed-Rank Test results indicated a Z-score of -5.245 and a p-value of 0.000, which was less than the significance threshold of 0.05. This indicated significant differences between pre- and post-questionnaire scores, reinforcing that the gamification strategy effectively enhanced speaking interest. Therefore, the null hypothesis (H0) was rejected, and the alternative hypothesis (H1) was accepted, demonstrating a significant positive impact on students' speaking interest levels through the gamification strategy compared to conventional methods.

These findings underscored the influence of appropriate methodologies on students' speaking interest. Integrating gamification strategies, particularly through platforms like Duolingo, into speaking instruction was strongly recommended to enhance students' interest and proficiency in speaking skills. Duolingo's gamified approach incorporates challenging tasks, reward incentives, and systematic levels, which have been shown to motivate learners and improve language acquisition (Shortt et al., 2021). Furthermore, *Duolingo* offers a range of interactive exercises designed to develop various language skills, including speaking. Users engage in speaking exercises where they pronounce words and phrases, evaluated by the app for accuracy. This dynamic approach contrasts with traditional methods that may rely heavily on rote memorization and passive listening (Kazu & Kuvvetli, 2024).

Additionally, implementing Duolingo as a technology-based instructional medium has been

found to significantly enhance students' speaking skills across aspects such as fluency, accuracy, pronunciation, and vocabulary (Aisyah & Hidayatullah, 2023). Moreover, gamification elements within *Duolingo*, such as points, levels, and leaderboards, have been demonstrated to increase student motivation and engagement in language learning activities (Amin, 2021). Therefore, incorporating Duolingo's gamified learning experiences into speaking instruction can effectively support the development of students' speaking abilities and foster greater enthusiasm for language learning.

The correlation between students' speaking and speaking interest

In this part, this study focused on third research question namely explaining the finding and discussing about how is the correlation between students' speaking and speaking interest?

The third research question was formulated in the following hypothesis: H_{0.3}: There is not any significant correlation between speaking and students' speaking interest. H_{i.3}: There is a significant correlation between speaking and students' speaking interest.

To test both hypotheses, the result analysis of post-speaking skill test and post-speaking interest questionnaire revealed by both experimental and control class became the focus of the discussion. Its purpose was to analyze whether the hypotheses were accepted or rejected to decide the confirmation of possible correlation between speaking and speaking interest.

The correlation analysis of post-speaking skill test and post-speaking interest questionnaire of the experimental class was displayed at the table 7. Meanwhile, the correlation analysis of post-speaking skill test and post-speaking interest questionnaire of the control class was displayed at the table 8 as the following table.

Table 9. *Correlations of experimental class*

			Speaking Interest	Speaking Score
Kendall's tau_b	Speaking Interest	Correlation Coefficient	1.000	.007
		Sig. (2-tailed)	.	.963
		N	36	36
	Speaking Score	Correlation Coefficient	.007	1.000
		Sig. (2-tailed)	.963	.
		N	36	36

Table 10. *Correlations of control class*

			Speaking Interest	Speaking Score
Kendall's tau_b	Speaking Interest	Correlation Coefficient	1.000	.149
		Sig. (2-tailed)	.	.271
		N	36	36

Speaking Score	Correlation Coefficient	.149	1.000
	Sig. (2-tailed)	.271	.
	N	36	36

The table 7 showed that The Kendall's tau b correlation test results indicated a correlation coefficient of 0.007 between speaking interest and speaking score in experimental class, with a p-value of 0.963. Since the p-value was greater than 0.05, the correlation was not statistically significant. This suggested that there was no strong relationship between students' speaking interest and their speaking scores in the experimental class. Nurgiyantoro et al., (2015) said that if significance score (2 tailed) more than 0,05, there is not significant correlation. Based on that, there was not significant correlation between score of post-speaking skill test and score of post-speaking interest questionnaire of speaking interest.

The table 8 above showed that the Kendall's tau b correlation test results for the control class indicated a correlation coefficient of 0.149 between speaking interest and speaking score in control class, with a p-value of 0.271. Since the p-value was greater than 0.05, the correlation was not statistically significant. This suggested that there was no meaningful relationship between students' speaking interest and their speaking scores in the control class. It lined with Nurgiyantoro et al., (2015) said that if significance score (2 tailed) more than 0,05, there is no significant correlation. Therefore, the alternative hypothesis was rejected and the null hypothesis was accepted.

A substantial body of research supported the existence of a positive correlation between students' interest in speaking and their proficiency in speaking skills. For example, a study conducted at MAN 2 Bukittinggi identified a significant relationship between students' enthusiasm for speaking and their speaking performance, indicating that higher levels of interest contribute to better speaking outcomes (Fatima & Putri, 2022). In a similar vein, Miftahussurur (2018) found that students who exhibit a strong interest in speaking activities consistently achieve higher scores in speaking assessments, highlighting the crucial role of personal interest in language learning. Additionally, research published in the *English Education Journal* also reported a significant correlation between students' interest and their English-speaking performance, emphasizing that increased engagement positively influences their speaking abilities (Rahmawati, 2020). Moreover, Afna and Sutriani (2018) demonstrated that students with greater interest in

speaking are more inclined to enrich their vocabulary, which plays a vital role in achieving fluency. Sari (2019) further reinforced this view by establishing that students' motivation, which is closely related to their interest, has a considerable impact on their speaking competence. Taken together, these findings suggest that cultivating students' interest in speaking activities is essential for promoting the development of their speaking skills.

CONCLUSION

The findings of this study indicated three key results. First, the experimental class demonstrated a significant improvement in speaking skill, as evidenced by the hypothesis results, which showed a statistically significant difference between the experimental and control groups. The experimental class achieved a mean score of 88.47, whereas the control class obtained a mean score of 79.17. It meant the experimental class outperformed the control class in terms of speaking skill quality. Additionally, the experimental class achieved N-Gain score 57.45% and control class achieved N-Gain score of 23.34%, it confirmed there was effectiveness of gamification through the *Duolingo* strategy in enhancing speaking proficiency.

Second, the results also revealed a significant improvement in students' speaking interest in the experimental class. The hypothesis results indicated a meaningful difference between the experimental and control classes, with the experimental class achieving higher levels of speaking interest. The experimental class achieved a mean post-speaking interest score of 123.75, whereas the control class scored 99.69. Moreover, the experimental class obtained N-Gain score 59.64% and control class achieved N-Gain score of 23.28%. This finding supported the effectiveness of gamification through the *Duolingo* strategy in increasing students' engagement and motivation in speaking activities.

Finally, based on the analysis of the post-test speaking proficiency scores and post-questionnaire results on speaking interest in the experimental class, as well as the correlation analysis in the control class, the study found a positive weak correlation between speaking proficiency and speaking interest, since the correlation coefficient was 0.007. Moreover, the significance score between speaking interest and speaking skill in the

experimental class was 0.963, that is more than 0.05. This confirmed that an increase in students' speaking interest didn't correlate with an improvement in their speaking skills.

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