



# Gamified Team Tournaments with QuizWhizzer: Igniting English Learning Outcomes

Satriani<sup>1</sup>, Am mang Latifa<sup>2</sup>, Salasiah Am made<sup>3</sup>, Rafi'ah Nur<sup>4</sup>

<sup>1,2,3,4</sup>Pendidikan Bahasa Inggris, Program Pascasarjana, Universitas Muhammadiyah  
Parepare, Sulawesi Selatan

Corresponding E-Mail: [satrianitabran91@gmail.com](mailto:satrianitabran91@gmail.com)

Received: 2025-01-11 Accepted: 2025-07-28

DOI: 10.24256/ideas.v13i2.6169

## Abstract

This study aims to evaluate the effectiveness of the Team Game Tournament (TGT) learning model supported by QuizWhizzer in improving the English learning outcomes and motivation of ninth-grade students during the 2024–2025 academic year at UPTD SMPN Satap 9 Barru. The research employed a true-experimental design involving both pretest and posttest administered to control and experimental groups. The experimental group was treated using the combination of TGT and QuizWhizzer, while the control group was taught using Quizizz. A total of 29 students participated in the study, divided into 15 students in the experimental group and 14 in the control group. Data were collected using English learning achievement tests and student motivation questionnaires, and then analyzed using SPSS 29. The results of the normality and homogeneity tests showed that both groups' pretest and posttest data were normally distributed and homogeneous. Normality was assessed using the Kolmogorov–Smirnov test, while homogeneity was evaluated through Levene's test (Sig. = 0.569 > 0.05). The Independent Samples Test showed a Sig. (2-tailed) value of 0.020, which is lower than the significance threshold of 0.05 (0.003 < 0.05), indicating a significant difference between the two groups. The experimental group demonstrated a notable improvement in learning outcomes, with scores increasing from a pretest average of 60.80 (min = 44, max = 80) to a posttest average of 86.13 (min = 76, max = 96). In comparison, the control group improved from a pretest average of 50.86 (min = 36, max = 64) to a posttest average of 80.57 (min = 72, max = 92). These findings confirm that the use of TGT supported by QuizWhizzer is more effective in improving students' English learning outcomes than the use of Quizizz. Therefore, this combination can be considered an innovative and impactful instructional strategy for enhancing English achievement in junior high school settings.

**Keywords:** *Collaborative learning; QuizWhizzer; Team Game Tournament*

## **Introduction**

Integrating gamified tools and collaborative learning strategies has transformed the education landscape, particularly in language learning (Yacob et al., 2022). As active participants in the learning process, learners play pivotal roles in determining the success of teaching strategies, particularly in collaborative and gamified educational settings (Nur et al., 2014). Among these innovations, QuizWhizzer and Team Game Tournament (TGT) have gained prominence for their ability to boost student engagement and learning outcomes (Kazu & Kuvvetli, 2023). Gamification, defined as the application of game elements in learning contexts, introduces mechanisms such as points, badges, and leaderboards to create a more interactive and enjoyable learning experience (Park & Kim, 2021).

Beyond entertaining students, gamification can enhance motivation and academic achievement (Naseri et al., 2023). Hellín et al., (2023), highlighted that gamified environments significantly enhance student engagement, with the majority of participants reporting a heightened sense of involvement in their learning (Latifa & Wadjedy, 2020). Similarly, Rivera & Garden (2021) that the incorporation of gamification elements in educational settings led to measurable academic improvements, with students achieving higher performance outcomes compared to traditional methods.

QuizWhizzer exemplifies how gamified tools can enrich the learning experience (Yanuarto & Susanti, 2023). Features like instant feedback, leaderboards, and interactive quizzes foster active participation and peer collaboration (Zainuddin, 2024). Furthermore, these elements align with the principles of active learning, which emphasize student engagement and real-time interaction to deepen understanding (Alamri, 2024). Suwarni et al., (2023) emphasized the importance of timely feedback in driving effective learning, a core element of QuizWhizzer's design. As timely feedback allows students to identify gaps in their understanding and adjust their strategies, it becomes an essential component in achieving better academic outcomes (Luo, 2022). However, as Saputra & Rusmana (2021) noted, accessibility remains a key challenge, underscoring the need for equitable access to such digital tools to ensure inclusivity.

Complementing gamification, TGT is a collaborative learning strategy that merges teamwork with competition. Originally conceptualized by Slavin (1995), TGT has proven to enhance both academic and social skills. Studies by (Nurchasanah (2020) and Hidayah & Sari (2020) highlighted how TGT fosters motivation, communication, and critical thinking. By encouraging students to work together towards shared objectives, TGT not only improves learning outcomes but also builds essential interpersonal skills (Aidarahma et al., 2022). This strategy also creates a more engaging learning environment, making students feel more active and enjoy the learning process more deeply (Latifa, 2021). Nonetheless, its success relies on thoughtful planning, such as structuring tasks and balancing team

compositions to promote active participation (Tussadiah & Febriyana, 2021).

These approaches are grounded in well-established educational theories. Vygotsky's (1978) social constructivism underscores the importance of learning through social interaction within the Zone of Proximal Development (ZPD). In this context, TGT facilitates peer collaboration, enabling students to achieve beyond their individual capacities. Similarly, Werbach & Hunter's (2012) gamification theory highlights how game elements like rewards and competition can sustain engagement and motivation. These theories, alongside Krashen (1982) emphasis on meaningful input in language learning, provide a robust framework for integrating QuizWhizzer and TGT into English education.

Despite their potential, existing studies often explore gamification and TGT separately, leaving a gap in understanding their combined impact. While QuizWhizzer has been shown to enhance engagement (Hamid et al., 2022) and TGT has demonstrated improvements in collaboration and motivation (Riyanti et al., 2024), little is known about how these strategies work together to support English learning outcomes. Addressing this gap is crucial, particularly in the face of persistent challenges such as low motivation and disengagement among language learners. A survey by the British Council (2022) revealed that 60% of students find traditional methods monotonous, which negatively impacts their learning. Similarly, data from the Ministry of Education and Culture (2021) indicated that only 40% of students meet expected English proficiency levels by the end of secondary school. These findings underscore the urgency of adopting innovative teaching strategies that resonate with students.

In the Indonesian junior high school context, improving students' English learning outcomes remains a persistent and widespread challenge. Many students exhibit low levels of achievement, which are often linked to traditional teaching methods, minimal use of interactive media, and lack of contextualized learning experiences (Ding & Yu, 2024). Particularly in under-resourced or rural schools, English instruction tends to rely heavily on rote memorization and textbook-centered learning, which limits students' ability to internalize and apply language knowledge effectively (He, 2024).

These conditions not only hinder academic progress but also contribute to student disengagement, making it increasingly difficult to meet curriculum targets and national education standards. Therefore, there is an urgent need to explore innovative instructional approaches that can enhance student participation and improve measurable learning outcomes in English classrooms.

This study seeks to examine how the integration of Team Game Tournament (TGT) supported by QuizWhizzer affects students' English learning outcomes. The primary research question guiding this investigation is: *"How do team game tournaments supported by QuizWhizzer influence students' English learning outcomes?"* In this study, learning outcomes are operationally defined as students'

academic performance in four targeted skill areas: vocabulary, grammar, listening comprehension, and reading comprehension.

Grounded in social constructivist and gamification theory, this research hypothesizes that the integration of collaborative and competitive learning methods will result in significantly improved learning achievement compared to conventional approaches. By fostering active participation, contextual engagement, and immediate feedback, the TGT-QuizWhizzer approach is expected to enhance students' mastery of English language content in a measurable and meaningful way.

## **Method**

This study employed a quantitative approach to analyze the impact of team-based tournaments supported by QuizWhizzer on students' English learning outcomes. The primary aim was to measure the significant differences in students' English learning outcomes before and after the intervention using gamified and collaborative learning methods. A quantitative method was deemed appropriate as it facilitates measurable data collection and statistical analysis to clearly demonstrate the effectiveness of QuizWhizzer in educational contexts. A t-test was utilized to test the hypothesis that significant differences exist between the control and experimental groups. This study aimed to contribute to the development of more effective and engaging methods for teaching English.

The participants in this study were 29 ninth-grade students from UPTD SMPN Satap 9 Barru during the 2024–2025 academic year. This population was chosen because ninth graders are at an optimal cognitive stage to engage with structured language tasks and collaborative learning strategies. Importantly, each grade level at this school consists of only one class, which limited the possibility of expanding the sample across multiple groups. Therefore, all students in the ninth-grade class were involved in the study and randomly assigned into two groups using a lottery method: an experimental group of 15 students (TGT + QuizWhizzer) and a control group of 14 students (Quizizz). Despite the relatively small sample size, this design enabled in-depth classroom observation and consistent implementation across six sessions.

The instruments used in this study included pre-tests and post-tests designed to assess students' English proficiency. The pre-test measured the students' baseline abilities before the intervention, while the post-test evaluated improvements in their skills following the application of QuizWhizzer and team-based tournaments. These instruments provided quantitative data essential for analyzing the differences in learning outcomes between the control group and the experimental group. This data is expected to offer a clear picture of the effectiveness of the implemented methods in improving students' English learning outcomes.

The intervention was conducted over six sessions, each lasting 80 minutes over a three-week period. In the experimental group, students were introduced to the Team Game Tournament mechanics and trained in using QuizWhizzer during

the first session. The subsequent sessions involved collaborative team-based learning activities, gamified quiz rounds via QuizWhizzer, and immediate feedback to support comprehension and motivation. The control group received similar material but through individual quiz practice using Quizizz, without the elements of collaboration or structured competition.

The data collection process began with the administration of a pre-test to assess students' initial English proficiency. Afterward, students were divided into two groups: a control group and an experimental group. The control group was taught using Quizizz, while the experimental group used QuizWhizzer combined with the team game tournament method. The intervention took place over six sessions, each designed to facilitate active student interaction and enhance learning motivation. Upon completing the intervention, both groups undertook a post-test to evaluate differences in learning outcomes. This procedure ensured that the collected data accurately reflected the impact of the methods on students' English learning outcomes (Outhwaite et al., 2020).

The data analysis aimed to evaluate the effectiveness of using QuizWhizzer in the Team Game Tournament (TGT) method to improve students' learning outcomes. Data from the pre-tests and post-tests were analyzed using a t-test to compare the average learning outcomes of the control and experimental groups. The t-test was deemed appropriate for determining significant differences between two independent groups (Hazra & Gogtay, 2016). The results are expected to provide clear insights into the impact of the applied learning methods on students' English learning improvement. The data were analyzed using IBM SPSS Statistics 29, employing an independent samples t-test to compare performance between the two groups, and paired sample t-tests for within-group improvements. A significance level of  $p < 0.05$  was used to determine statistical relevance.

## Results

The results of this study were analyzed using the SPSS 29 statistical application, employing descriptive and inferential approaches to evaluate the impact of integrating Team Game Tournament (TGT) and QuizWhizzer on students' English learning outcomes. The analysis focuses on determining whether the data meets the assumptions required for parametric tests, such as normality and homogeneity, before conducting further statistical tests.

Table 1. Tests of Normality

Class	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Result Pre-test (Control)	.199	14	.139	.941	14	.435
Post-test (Control)	.180	14	.200*	.945	14	.485
Pre-test (Experimental)	.190	15	.152	.944	15	.430
Post-test (Experimental)	.203	15	.097	.914	15	.155

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The normality test aims to ensure that the data on student learning outcomes in this study are normally distributed. The normality test results show a significance value greater than 0.05, which means that the data is normally distributed. This ensures that the normality assumption is met, so parametric statistical analysis, such as the t-test, can be validly used to evaluate differences in learning outcomes between experimental and control groups. With normal data distribution, the analysis results have high accuracy in representing the relationship between the variables under study.

Table 2. Tests of Homogeneity of Variance

		Levene			
		Statistic	df1	df2	Sig.
Value	Based on Mean	.332	1	27	.569
	Based on Median	.202	1	27	.656
	Based on Median and with adjusted df.	.202	1	25.692	.657
	Based on trimmed mean	.278	1	27	.602

The homogeneity test was conducted to determine whether the variance of the learning outcomes data from the two groups was similar. Based on the results of the Levene test, the significance value of 0.569, greater than 0.05, indicates that the variances of the two groups are homogeneous. This equality of variance is important for the validity of the t-test analysis, as it allows direct comparison between the experimental group using Team Game Tournaments with QuizWhizzer and the control group using Quizizz. The homogeneity of the data supports the conclusion that the differences in learning outcomes found come from the treatment given, not from differences in group variance.

Table 3. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretest (Control Group)	14	36	64	50.86	8.796
Posttest (Control Group)	14	72	92	80.57	6.047
Pretest (Experimental Group)	15	44	68	53.60	7.059
Posttest (Experimental Group)	15	80	96	87.20	5.060
Valid N (listwise)	14				

Based on the descriptive statistical analysis, both the control and experimental groups demonstrated improvements from pretest to posttest. In the control group, pretest scores ranged from 36 to 64 with a mean of 50.86 and a standard deviation of 8.796. The posttest scores increased significantly, ranging from 72 to 92, with a mean of 80.57 and a standard deviation of 6.047. Meanwhile, the experimental group had a higher pretest mean score of 53.60, with scores ranging from 44 to 68 and a standard deviation of 7.059.

Following the intervention using the Team Game Tournament method supported by QuizWhizzer, the experimental group's posttest scores increased notably, with a mean of 87.20, ranging from 80 to 96, and a standard deviation of 5.060. The comparative increase in posttest scores indicates that the learning strategy implemented in the experimental group was more effective in enhancing students' English learning outcomes compared to the single-method approach used in the control group.

Table 4. Independent Samples Test

Independent Samples Test											
		Levene's Test for Equality of		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the	
						One-Sided p	Two-Sided p			Lower	Upper
Value	Equal variances assumed	0.332	0.569	-3.210	27	0.002	0.003	-6.629	2.065	-10.866	-2.391
	Equal variances not assumed			-3.190	25.449	0.002	0.004	-6.629	2.078	-10.905	-2.352

Based on the Independent Samples Test table, the Levene's test result shows a significance value (Sig.) of 0.569, which is greater than the threshold of 0.05. This indicates that the variance in learning outcomes between the group treated with Gamified Team Tournaments with QuizWhizzer and the other group is

homogeneous. Assuming equal variances, the t-test result shows a significance (two-tailed) value of 0.003, which is less than 0.05. This result indicates a statistically significant difference in students' English learning outcomes before and after being treated using the method. The average difference in learning outcomes between the groups is -6.629, with a 95% confidence interval ranging from -10.866 to -2.391, demonstrating a substantial impact of the treatment on students' academic performance.

Table 5. Independent Samples Effect Sizes

		Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
Value				Lower	Upper
	Cohen's d	5.557	-1.193	-1.978	-.389
	Hedges' correction	5.718	-1.159	-1.922	-.378
	Glass's delta	5.060	-1.310	-2.167	-.421

The effect size analysis was conducted using Cohen's *d*, Hedges' *g*, and Glass's delta to assess the practical significance of the intervention. Cohen's *d* yielded a value of -1.193 (95% CI: -1.978 to -0.389), indicating a large effect size, while Hedges' *g* showed a similar result at -1.159 (95% CI: -1.922 to -0.378), accounting for small sample bias. Glass's delta reported the highest value of -1.310 (95% CI: -2.167 to -0.421), reinforcing the robustness of the intervention effect. These findings demonstrate that the combination of Team Game Tournament and QuizWhizzer produced not only statistically significant differences but also substantial educational impact, confirming the effectiveness of this innovative approach in improving students' English learning outcomes.

The findings of this study indicate that the implementation of Gamified Team Tournaments with QuizWhizzer significantly improves students' learning outcomes in English language learning. This method not only provides an innovative, technology-based learning experience but also effectively enhances student engagement and motivation to learn. The effectiveness of this method is evident from the significant difference in learning outcomes between the students who received the treatment and those who did not.

Therefore, Gamified Team Tournaments with QuizWhizzer can be recommended as an interactive and effective teaching approach to support the achievement of learning objectives in English classes. Integrating technology with gamified learning methods offers an innovative solution to increase student engagement and improve overall learning outcomes (Bouchrika et al., 2021).



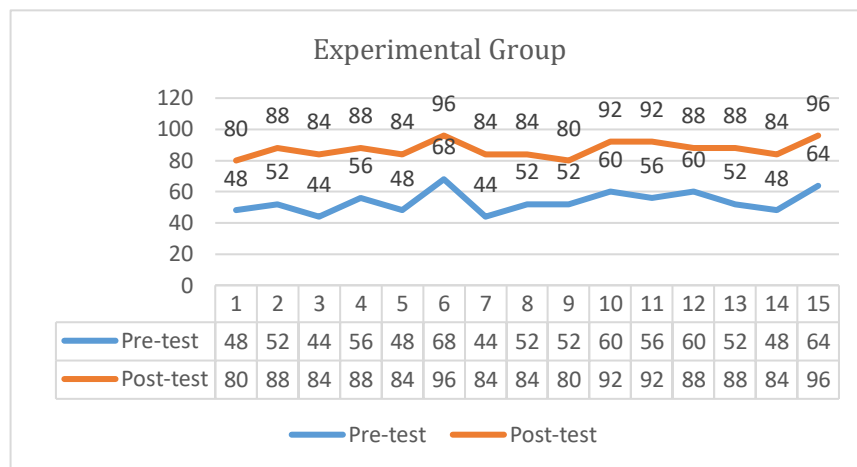


Figure 1. comparison of pre-test and post-test scores in the experimental group

The data above presents a notable improvement in the English learning outcomes of students in the experimental group after receiving instruction through the integration of Team Game Tournament (TGT) and QuizWhizzer. The pre-test scores ranged from 44 to 68, with a mean of 53.60 (SD = 7.059), reflecting generally low to moderate English proficiency prior to the intervention. Following six structured learning sessions using TGT and QuizWhizzer, post-test scores increased significantly to a range of 80 to 96, with a higher mean of 87.20 (SD = 5.060). The average gain of 33.6 points not only indicates a meaningful academic improvement, but also confirms the effectiveness of the collaborative and gamified strategy in enhancing students' comprehension and engagement.

Every student in the experimental group (N = 15, 100% response rate) showed progress from pre- to post-test. Even the student with the lowest pre-test score (44) improved to 84, while the highest scorer advanced from 80 to 96. This consistent improvement across all ability levels suggests that the method is both inclusive and impactful, particularly for students with initially weaker performance. Observations during the treatment revealed high levels of student enthusiasm, active group discussions, and visible motivation to participate, reflecting the influence of gamification and cooperative competition in sustaining engagement and learning focus.

The data emphasizes that the elements of competition and team collaboration applied in the classroom play a crucial role in enhancing students' motivation and learning outcomes. The consistent improvement across all students demonstrates that this method is not only effective in increasing their understanding of the learning material but also positively impacts their engagement and active participation in the learning process. Therefore, this method can be recommended as an innovative learning approach that supports optimal improvement in students' learning outcomes.

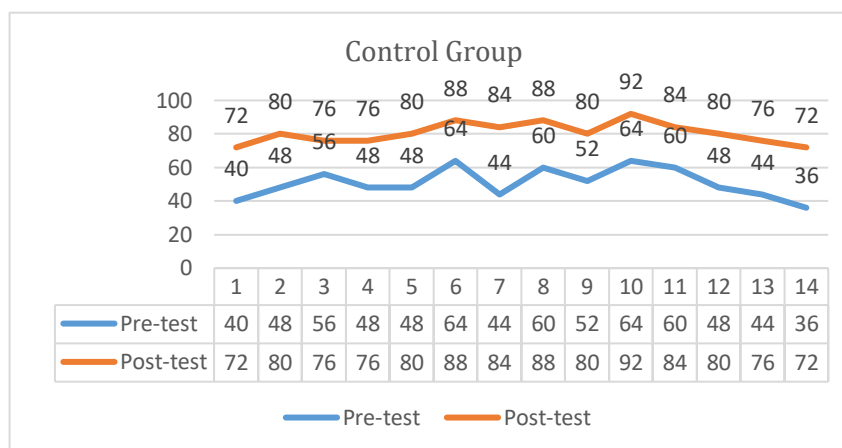


Figure 2. comparison of pre-test and post-test scores in the control group

The data shows the learning progress of the control group, which used Quizizz as the primary learning tool. The group's pre-test scores ranged from 36 to 64, with a mean of 50.86 (SD = 8.796). After six sessions using Quizizz, post-test scores improved to between 72 and 92, with a mean of 80.57 (SD = 6.047). The improvement of approximately 29.71 points demonstrates that Quizizz contributed positively to students' learning outcomes, especially through individual quizzes with instant feedback and engaging visuals.

However, the gains in the control group appeared more uniform and moderate compared to those in the experimental group. The student with the lowest pre-test score (36) increased to 72, and the highest pre-test scorer (64) reached 92. While progress was evident, classroom observations noted more passive interaction, as most students worked independently, with limited collaboration or peer-to-peer learning. This outcome suggests that while Quizizz can effectively support comprehension, it may not promote the same level of dynamic engagement and motivational reinforcement as the combined TGT and QuizWhizzer approach.

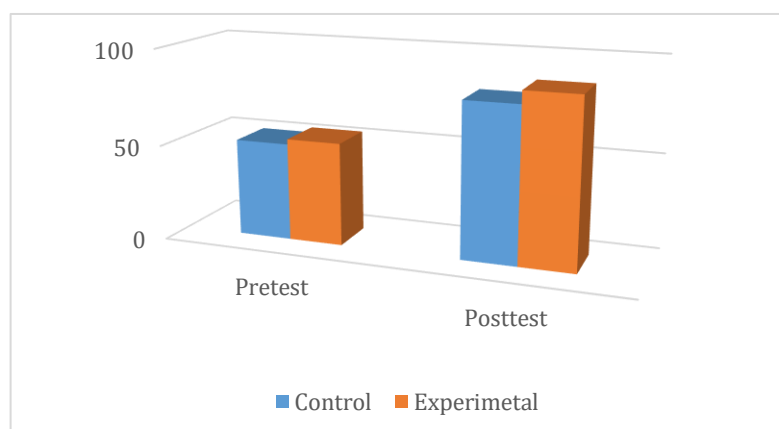


Figure 3. The comparison of pre-test and post-test mean score of the experimental and the control group.

In addition to the statistical analyses, a visual comparison of mean scores further reinforces the differences in learning outcomes between the two groups. As depicted in the figure, both the control and experimental groups demonstrated improvements from pretest to posttest. However, the increase in the experimental group was more substantial. The control group showed an improvement from a pretest mean of 50.86 to a posttest mean of 80.57, while the experimental group improved from 53.60 to 87.20. This visual evidence supports the statistical findings, clearly illustrating that the integration of Team Game Tournament (TGT) and QuizWhizzer produced greater academic gains. The use of collaborative and gamified strategies in the experimental group not only enhanced performance but also created a more dynamic and interactive learning environment.

While Quizizz proved to be an effective digital learning tool, its impact appears to be more moderate when compared to the TGT and QuizWhizzer combination. The improvements in the control group were more uniform, suggesting a consistent but less varied effect across students. In contrast, the experimental group exhibited not only higher average gains but also more notable individual progress, particularly among students with initially lower scores. This contrast suggests that the inclusion of competition and team collaboration elements as embedded in the experimental method provides added value in promoting deeper engagement and comprehension. Therefore, although both methods contributed positively to learning outcomes, the experimental approach demonstrated superior effectiveness in fostering meaningful learning improvements.

## Discussion

The results showed that the implementation of team game tournament with QuizWhizzer significantly improved students' English learning outcomes compared to the Quizizz-based method. In the experimental group, the pre-test scores ranged from 44 to 68 with an average of 54, increasing to 80 to 96 with an average of 87 after the intervention. Meanwhile, the control group using Quizizz showed a lower improvement, from pre-test scores of 36 to 64 with an average of 51 to post-test scores of 72 to 92 with an average of 81. These findings suggest that the use of competition-based gamification and team collaboration through QuizWhizzer not only improved students' material understanding, but also their learning motivation and active engagement during the learning process.

This significant change can be explained through Vygotsky's social constructivism theory (1978), which emphasizes the importance of social interaction in learning, as well as Werbach & Hunter's gamification theory (2012), which shows how competition and reward elements can motivate students more effectively. Teachers need to pay attention to the importance of designing lessons that support active collaboration and healthy competition among students, while

students should be directed to utilize immediate feedback and interactive learning experiences to identify and correct their shortcomings. Thus, the integration of gamification technology such as QuizWhizzer is able to create an inclusive and effective learning environment to improve student learning outcomes.

The use of *Team Game Tournament* (TGT) supported by QuizWhizzer in English language learning has significant practical implications for teachers, students and all educational stakeholders. For teachers, the findings demonstrate the importance of designing learning strategies that are not only oriented towards meeting curriculum targets but are also able to increase student motivation and active engagement. The use of gamification elements, such as competition, rewards and team collaboration, requires careful planning, from the preparation of interactive materials to the formation of heterogeneous working groups to e(Firmansyah & Rosmansyah, 2024)(Firmansyah & Rosmansyah, 2024).

On the other hand, the challenge of forming balanced teams (heterogeneous in ability and participation) required careful teacher attention and classroom management. This highlights the need for clear guidelines in team selection to ensure all students benefit equally. In this collaborative setting, students are encouraged to share ideas and work together when they encounter difficulties in understanding the text, fostering a sense of mutual support and collective problem-solving (Nur, 2021).

By providing immediate feedback and fun learning experiences, teachers can create a conducive learning environment for all students, both high and low ability, creating a learning atmosphere that encourages active participation and healthy competition (Dörnyei & Muir, 2019). In terms of cost-effectiveness, Quizizz is easier to implement due to its ready-to-use format and lower preparation requirements, making it suitable for schools with limited resources. However, QuizWhizzer and TGT, though requiring more preparation, offer higher pedagogical value when effectively managed. Schools and teachers need to weigh the trade-off between ease of implementation and the depth of student engagement.

For education policy makers and other education actors, the results of this study highlight the need to support the use of technology in the learning process through providing equal access and training for teachers in implementing gamification-based methods. Investment in technology infrastructure and capacity building for educators are key to maximizing the effectiveness of this method. In addition, education actors at the school level are expected to encourage collaboration and competition-based learning innovations, by adapting this approach to their respective local contexts. Thus, educational policies that support the integration of gamification such as QuizWhizzer in English language learning can have a positive impact not only on improving student learning outcomes, but also on developing 21st century skills, such as communication, cooperation, and creative problem solving.

To ensure that such policy-driven innovations lead to long-lasting improvements, it is also necessary to consider the sustainability of the method's effectiveness over time. While the study showed short-term gains in learning outcomes and motivation, further longitudinal research is needed to assess whether such improvements can be maintained. Future studies might explore how frequent use, periodic reinforcement, or gradual integration of such tools influence long-term student achievement and engagement.

The results of this study make a significant theoretical contribution to the development of English language education and teaching, particularly at the junior secondary school level. In the context of learning based on Vygotsky's social constructivism theory (1978), the use of *Team Game Tournament* (TGT) and QuizWhizzer supports collaborative learning that encourages students to learn through social interaction within the *Zone of Proximal Development* (ZPD). This approach not only strengthens students' understanding of English materials, but also provides a more meaningful learning experience through collaboration and competition. By integrating gamification elements such as rewards, immediate feedback and leaderboards, this research enriches active learning theory which emphasizes the importance of students' involvement in the learning process as active subjects, not just recipients of information.

More broadly, this research also contributes to the development of English language learning theories that are relevant to the needs of the 21st century. The findings show that the use of technology such as QuizWhizzer, which supports gamification-based learning, not only improves students' motivation and learning outcomes but also facilitates the development of communication and problem-solving skills. In the context of English language teaching, this approach helps students improve language skills through interactive practice and meaningful repetition (Nitta & Baba, 2018).

In addition, these results provide a conceptual framework for educational researchers and practitioners to further explore the effectiveness of integrating gamification and collaborative learning in various aspects of language teaching. Thus, this study is not only relevant to English language teaching theory but also broadens the scope of educational technology implementation in supporting more innovative and inclusive learning.

This study has some similarities with previous research in terms of the positive impact of using gamification and collaborative learning strategies on student learning outcomes. As revealed by Yaccob et al., (2022) and Kazu & Kuvvetli (2023) the integration of gamification tools such as QuizWhizzer can improve student engagement and their academic outcomes. In addition, the research of Hellín et al., (2023) and Rivera & Garden (2021) also support that gamification elements such as leaderboards, points, and rewards have a significant impact on student motivation and performance. These findings are in line with research

results showing that TGT, as a collaborative method designed to blend teamwork and competition, is able to improve students' social and academic skills, as proposed by Nurchasanah (2020). Support from previous research shows consistency in the effectiveness of gamification and collaboration approaches to learning, particularly in the context of language education.

However, the difference of this study lies in the exploration of the combination between gamification through QuizWhizzer and TGT collaborative learning strategy, which has rarely been discussed in one integrated study. Previous research tends to focus on one of the approaches, thus providing less insight into how these two strategies can complement each other in improving student learning outcomes. For example, Hamid et al., (2022) focused more on the role of QuizWhizzer in increasing student engagement, while Riyanti et al., (2024) emphasized the contribution of TGT in building collaboration and motivation.

This study fills the gap by showing that the combination of these two approaches not only increased students' motivation and engagement but also significantly improved their English learning outcomes. This difference may be due to the more holistic approach in this study, which was designed to integrate aspects of gamification and collaboration together, resulting in a more comprehensive impact on student learning.

## **Conclusion**

This study shows that the use of Team Game Tournament (TGT) supported by QuizWhizzer significantly affects the improvement of students' learning outcomes in English language learning. The results of the analysis showed a significant difference between the group of students using this method and the control group using the conventional Quizizz based method. The TGT-based gamification method with QuizWhizzer increased students' engagement, motivation, and understanding of learning materials more effectively through elements of healthy competition and team collaboration. Thus, the integration between interactive gamification and collaborative learning approaches can strengthen student learning outcomes and create a more inclusive learning experience.

However, this study has some limitations. One of the main limitations is the limited sample size, which involved only 29 students from one school. This limits the generalizability of the results to a wider population. In addition, this study only focused on cognitive aspects in the form of learning outcomes without further examining affective aspects or social skills that may also be improved through this method. Future research should include a larger sample size from different school backgrounds to increase external validity. In addition, further research should also examine the impact of this method on social skill development, long-term motivation, as well as the utilization of this method in other subjects.

As a recommendation for future study development, further research could explore the development of a more adaptive gamification-based learning platform, tailored to heterogeneous student ability levels. In addition, collaboration between

researchers, educational technology developers, and policy makers needs to be strengthened to design gamification-based learning models that can be widely applied at various levels of education. With continuous innovation, this method is expected to not only improve students' academic achievement but also support the development of 21st century skills such as teamwork, problem solving and digital literacy.

## References

- Aidarahma, A., Wijayatiningsih, T. D., & Aimah, S. (2022). Probing How Flashcards and Teams Games Tournament Boost EFL Learners' Vocabulary. *Premise: Journal of English Education and Applied Linguistics*, 11(3), 595–614.
- Alamri, I. K. A. (2024). Gameful learning: Investigating the impact of game elements, interactivity, and learning style on students' success. *Multidisciplinary Science Journal*, 7(2), 1.
- Bouchrika, I., Harrati, N., Wanick, V., & Wills, G. (2021). Exploring the impact of gamification on student engagement and involvement with e-learning systems. *Interactive Learning Environments*, 29(8), 1244–1257.
- Ding, A.-C. E., & Yu, C.-H. (2024). Serious game-based learning and learning by making games: Types of game-based pedagogies and student gaming hours impact students' science learning outcomes. *Computers & Education*, 218, 105075.
- Dörnyei, Z., & Muir, C. (2019). Creating a motivating classroom environment. *Second Handbook of English Language Teaching*, 719–736.
- Firmansyah, F. H., & Rosmansyah, Y. (2024). Exploring Collaboration in Multiplayer Gamification: A Systematic Literature Review. *IEEE Access*.
- Hamid, M. K. A., Ambikapathy, M., & Zauddin, H. (2022). Gamification and student engagement during COVID-19: An analysis of "Quizwhizzer" application in virtual classes. *SEARCH Journal of Media and Communication Research*, 14, 113–121.
- Hazra, A., & Gogtay, N. (2016). Biostatistics series module 3: comparing groups: numerical variables. *Indian Journal of Dermatology*, 61(3), 251–260.
- He, B. (2024). An Exploration of a New Relationship Between Teaching and Learning and Its Application to Classroom Teaching in China. *Educational Innovation Research*, 2(2), 47–59.
- Hellín, C. J., Calles-Esteban, F., Valledor, A., Gómez, J., Otón-Tortosa, S., & Tayebi, A. (2023). Enhancing student motivation and engagement through a gamified learning environment. *Sustainability*, 15(19), 14119.
- Hidayah, I. N., & Sari, S. M. (2020). Application of cooperative learning type teams games tournament (TGT) to increase the student's activity. *AIP Conference Proceedings*, 2215(1).
- Iksan, M., Husnaini, H., & Masruddin, M. (2022). Implementation of weekly English

- Program with fun learning method for Pesantren students. *Ethical Lingua: Journal of Language Teaching and Literature*, 9(2), 872-879.
- Ismayanti, D., Said, Y. R., Usman, N., & Nur, M. I. (2024). The Students Ability in Translating Newspaper Headlines into English A Case Study. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, 12(1), 108-131.
- Kazu, İ. Y., & Kuvvetli, M. (2023). A triangulation method on the effectiveness of digital game-based language learning for vocabulary acquisition. *Education and Information Technologies*, 28(10), 13541–13567.
- Krashen, S. (1982). *Principles and practice in second language acquisition*.
- Latifa, A. (2021). Collaborative learning as a strategy to improve the English Reading Comprehension of Indonesian learners in the agribusiness department at Muhammadiyah University of Parepare. *Journal of English Language Teaching and Applied Linguistics*, 3(2), 78–84.
- Latifa, A., & Wadjedy, M. F. (2020). The Implementation of Jigsaw Technique with Musical Background in Comprehending Reading Text. *Celt: A Journal of Culture, English Language Teaching & Literature*, 20(1), 117–141.
- Luo, Z. (2022). Gamification for educational purposes: What are the factors contributing to varied effectiveness? *Education and Information Technologies*, 27(1), 891–915.
- Naseri, R. N. N., Abdullah, R. N. R., & Mohd, M. (2023). *The Effect of Gamification on Students' Learning*.
- Nitta, R., & Baba, K. (2018). Understanding benefits of repetition from a complex dynamic systems perspective. *Learning Language through Task Repetition*, 279–309.
- Nur, R. (2021). Implementing cooperative integrated reading and composition (CIRC) method to enhance the reading comprehension of Indonesian EFL learner. *Journal of English Language Teaching and Applied Linguistics*, 3(11), 52–64.
- Nur, R., Zulfah, Z., & Latifah, A. (2014). *Listening Comprehension: An IPA-based Needs Analysis of Indonesian English Education Students*.
- Nurchasanah, S. (2020). The use of Team Game Tournament method to improve the students' reading comprehension. *Edulingua: Jurnal Linguistik Terapan Dan Pendidikan Bahasa Inggris*, 7(1).
- Outhwaite, L. A., Gulliford, A., & Pitchford, N. J. (2020). A new methodological approach for evaluating the impact of educational intervention implementation on learning outcomes. *International Journal of Research & Method in Education*, 43(3), 225–242.
- Park, S., & Kim, S. (2021). Is sustainable online learning possible with gamification? —The effect of gamified online learning on student learning. *Sustainability*, 13(8), 4267.
- Rivera, E. S., & Garden, C. L. P. (2021). Gamification for student engagement: a framework. *Journal of Further and Higher Education*, 45(7), 999–1012.



- Riyanti, R. F., Suranto, S., Yusof, N., & Febriyanti, A. (2024). Improving Learning Outcomes and Learning Motivation of Students Through Teams Games Tournament Learning Model (TGT). *Jurnal VARIDIKA*, 1–12.
- Saputra, E. R., & Rusmana, N. (2021). Students' experience of online game-based assessment tool during emergency remote teaching. *Journal of Physics: Conference Series*, 1987(1), 012012.
- Suwarni, S., Lubna, L., Aimang, H. A., Cakranegara, P. A., & Pratama, D. (2023). Quizizz Gamification of Student Learning Attention and Motivation. *Al-Ishlah: Jurnal Pendidikan*, 15(2), 1369–1376.
- Tussadiah, H., & Febriyana, M. (2021). The Analysis of the Effectiveness of Team Type Cooperative Learning Model Tournament (TGT) Based on the Snake and Ladder Game Media in Indonesian Literature Online Material during the Covid-19 Pandemic. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(1), 780–786.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* (Vol. 86). Harvard university press.
- Werbach, K., & Hunter, D. (2012). *For the win* (Vol. 51). Wharton digital press Philadelphia.
- Yaccob, N. S., Rahman, S. F. A., Mohamad, S. N. A., Rahim, A. A. A., Rashid, K. K. A., Aldaba, A. M. A., Yunus, M. M., & Hashim, H. (2022). Gamifying ESL Classrooms through Gamified Teaching and Learning. *Arab World English Journal*.
- Yanuarto, W. N., & Susanti, L. M. (2023). Utilizing QuizWhizzer Apps to enhance students' mathematical ability in game-based learning model. *Math Didactic: Jurnal Pendidikan Matematika*, 9(2), 199–212.
- Zainuddin, Z. (2024). Integrating ease of use and affordable gamification-based instruction into a remote learning environment. *Asia Pacific Education Review*, 25(5), 1261–1272.