

INTEGRATING GAMIFICATION STRATEGY TO STIMULATE STUDENTS' INTEREST AND MOTIVATION ON ENGLISH LESSON AT SMP NEGERI 26 MAKASSAR

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Abstract

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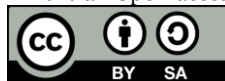
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The goal of this research is to clearly identify more about the problem of the gamification learning approach by using teaching materials based on gamification achievement in face-to-face learning and how Android applications used as a way of mobile learning to overcome these problem. This study aims to examine the application of gamification to stimulate students' interest and motivation in the concept of mobile learning by using a learning resource named *Lima Sahabat* for learning among seventh graders of junior high school. A Quasi-experimental study design was used (non-equivalent control group Pre-Test and Post-Test designs). The population in this study were all the seventh-grade students (224 students) and the samples were class VII.2 (31 students) and VII.3 (31 students). The result for interest there was an increase of 1,9 points for the control class (72,74-70,84), while in the experimental class there was an increase of 14,52 points (78,23-63,71) and the result of motivation there was an increase of 1,03 points for the control class, while in the experimental class there was an increase of 18,87 points. The significance value of 0.000 for the learning interest variable and 0.001 for the learning motivation variable is less than 0.05 (5%), the null hypothesis (H₀) was rejected and the alternative hypothesis (H₁) was accepted. By accepting the alternative hypothesis (H₁), it can be concluded that gamification effects the interest and learning motivation of class VII students at SMP Negeri 26 Makassar in English Lesson.

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INTRODUCTION

English is being studied in several nations, including Indonesia. The use of English is widespread in business, technology, tourism, and education. In particular for English education, formal or structured learning environments are not required. Massive technological advancement changes school planning and creates new opportunities.

Technology integration in education is now a standard practice, and it helps the teaching and learning process by making it more appealing on its own if the environment. Particularly challenging are the disciplines that are learned, like English. Therefore, the teacher must organize classroom so that students are interested in participating in class learning. The procedure will be teaching easy to follow. To get students interested, it's important to find out what they want, connect lessons to real-world problems, given them a chance to succeed, and use different ways to teach. It is a fact that English instruction has not advanced as quickly as was formerly though. Things that are frequently observed when students show little interest in the subject due to influencing variables such as models, techniques, process, and learning tools that fail to hold their interest throughout teaching and learning activities. The COVID-19 pandemic, which has spread to every currently the biggest issue, forcing students to complete the lessons they are learning at home. Because it was challenging for pupils to comprehend this circumstance, virtual worlds needed to be well-designed to keep their interest. The students frequently weren't prepared to adjust to the new situation. Because of this, instruction methods used during the pandemic included digital tools to help students better understand what they were learning. Every country on the globe, including Indonesia, has been affected by a pandemic sickness. The use of the *Lima Sahabat* Android application, which measures the effectiveness of English learning outcomes, has increased significantly with a percentage increase of 59. p -value = 0.00, which is less than 0.05, according to study done by Agung., (2022). This is because technology develops, many learning platforms become more sophisticated. Online learning helped researchers find these results. Maruli and Wayan also discovered that the preferred CTM, which leans toward teacher-centered learning, has a tendency to adopt a one-way communication style, is poor for fostering students' thinking abilities, and prevents them from realizing their full potential (Hong & Masood, 2014). The importance of a learning approach is shown by the rise in student interest in learning. Educational practices must be formed in order to maintain student interest in learning. When learning English, there are many different materials that must be grasped, which wears out the tired. According to Zahedi et al., among the educational approaches, gamification is a technique that has generated lot it is fascinating and motivation, and it is backed by Attali as a successful way to do this (Chans & Portuguez Castro, 2021).

Gamification has numerous definitions. Some of these definitions are reviewed. Researchers and practitioners are becoming increasingly interested in gamification as a game-based technology (Fathian et al., 2020). According to Koivisto and Hamari, gamification has attracted a lot of interest, particularly in educational settings. For example, since game development learning speculations primarily pull from the gamifying education and learning has a long history and is based on psychological theoretical foundations. See, for example, Deterring and an easily comprehended context by Landers. The trend of gamifying education and learning has been accelerating due to technological developments enabling more digitalized learning environments as well as the use of, for example technical possibilities developed in relation to video games to create immersive and engaging learning experiences (Majuri et al., 2018). According to Jackson and McNmara, gamification is one of the most frequently used instructional strategies for motivating students and increasing their involvement and excitement throughout the learning process. Lui's research shows that most people think of gamification as one of the most fun, interesting, and useful strategies out here (Dehghanzadeh., 2021). According to Singh et al, although the practice of integrating gamification has been carried out to boost interaction and motivation in distance learning environments, it was identified that more interaction and research are needed for it is anticipated that it will be employed face-to-face or mixed with technological assistance. Even after the outbreak, these new technologically based, gamified environments will continue to exist (Chans & Portuguez Castro, 2021). The use of technology in face-to-face learning is quite effective when using the *Lima Sahabat* Android Application. Therefore, the concept of gamification with the reason to integrate learning concept of gamification with the *Lima Sahabat* Android Application is the reason to integrate learning concepts that increase student interest and motivation face-to-face interaction. One solution is to use gamification, which is a to engage users and solve problems. Researchers are interested in developing English learning applications using the Android gamification method to stimulate students' interest and motivation based on the challenges that have been identified previously and the findings of several previous experiments. Based on the experience of the researcher at SMPN 26 Makassar. Based on the preceding text, the following research problem is:

1. How is the learning interest of class VII Students of SMPN 26 Makassar towards on English lesson?

2. How is the learning motivation of class VII Students SMPN 26 Makassar towards on English lesson?
3. Does gamification effect learning interest and motivation of class VII students of SMPN 26 Makassar on English lesson?

LITERATURE REVIEW

The researcher mentions several research results, which are listed as follows; 1. Anwari., (2018) in his journal, "*The effect of Gamification on Students.*" This study intends to look into how gamification affects students' motivation to learn English. Gamification uses game-based student response (GBSR) as an example. To evaluate the impact of gamification on students' motivation for learning English, researchers used semi-structured interviews and the intrinsic and extrinsic motivation scale as part of their case study methodology. 2. Agung et al., (2022) on their journal "*The Effectiveness of Lima Sahabat to Enhance the Students ' Vocabulary Achievement.*" The use of the gamification-based *Lima Sahabat* Android application which measures the effectiveness of English learning outcomes using pre-experimental research methods has increased significantly with a percentage increase of 59. $p - value = 0.00$ which is less than 0.05. 3. Chans & Portuguez Castro., (2021) on their journal, "*Gamification As A Strategy To Increase Motivation And Engagement In Higher Education Chemistry Students.*" The findings show that gamification increases students' motivation and interest, improves attitudes, encourages behaviors such as regular attendance and keeping the camera on during lectures, and improves student grades. This study discusses the need for planning techniques to increase student motivation in online classes and suggest instruments for measuring outcomes using a quasi-experimental research methodology. Those who wish to apply it to other disciplines or modify it may find it useful.

According to a study by Deterding et al., it is more important to use game design aspect in non-game situations than a full game program to enable individual to finish tasks. Storyline, challenge, competition, role play, goals, feedback, and social contact are the fundamental components of the DGBL, which is supported by Lo et al. Competition is a useful tool for enticing players to advance and succeed in the game (Liu et al., 2022). According to the research by Alsawaier (2018) gamification is a technique used in education that tries to leverage game design dynamics in the learning environment to engage and interact directly

with students, enabling them to dramatically increase their academic, cognitive, and social capabilities. Utilizing strategies to get people interested, spur them on to action, and encourage learning and problem-solving (Manzano-León et al., 2021). Gamification as a teaching strategy is becoming more popular. . Gamification is, in fact, a technique. It is the deal method for junior high school students to learn vocabulary in the context of other languages because it is regularly used. In agreement with Dehghanzadeh and Dehghanzadeh researchers who researched the use of gamification in language learning (LFL) discovered that vocabulary and grammar skills were the most frequently investigated fundamental language skills, with the targeted education levels of the participants showing that most articles (50%) selected high school student, followed by university students (35%), and elementary students or lower levels (15%). But they found that the reviewed publications didn't talk about Indonesia as much as they thought they would (Agung et al., 2020). Several studies have shown that adopting more varied media and strategies than conventional ones can increase students' motivation and interest in learning. The *Lima Sahabat* Android-based gamification application is one of the various gamification models that can be used in English learning activities. This one method of using gamification in learning to increase student interest and motivation. Students do not experience boredom when using the gamification-based learning method model, so students can learn well.

Gamification is a very effective method for increasing the enjoyment and engagement of monotonous or unpleasant chores or activities. One tactic is to reward both virtual and non-virtual behavior to encourage users to use the functions and library resources. Receiving a gift or praise will motivate a certain person to increase library visits. In order to compete for spots on a leader board, visitors to the library are "challenged" to do a variety of tasks that will help them earn high scores. The increased activity inside a library gives its role and purpose additional weight (Barokati, 2017). Gamification has a lot of room for more research, especially in terms of how it affects learner motivation. Buckley and Doyle say that gamification has become one of the most popular ideas and cutting-edge ways to teach. It is used in many schools and institutions around the world to get students interested learning and to motivate them to learn (Zainuddin & Keumala, 2021).

Concept of Gamification one of the factors allowing gamification to flourish in the sphere of education is the use of educational games. In essence, the game technology that has

been created consists of game components like points, levels, leaderboards, and others. The science of gamification was used to construct the game's components. Differences in gamification between serious games despite being two distinct scientific concepts, gamification and games can result terminology misunderstandings because they have many of the same concept and aspect. Typically, games are referred to by a variety of other terms, such as learning simulation, digital game-based learning, and others. In structured, meaningful, and purposeful gaming circumstances, serious games are played. In their study, Derrberry and Serious classified serious games (Marisa et al., 2020). Huang and Soman, outline their straightforward five-step gamification process (Ardiana & Loekito, 2020). The first step is to comprehend the context and audience, in the second stage, learning objectives are chosen, the third stage consists of organizing experience, Identification of resources is the fourth stage, the fifth stage is the actual deployment of the gamification component. According to Alsawaier (2018). there are several game elements that must be present in gamification and can be applied. The use of the concept of gamification in the process of developing teaching materials for learning concepts that are tailored to needs and situations at the time of learning takes place. There are eight game elements that can be used, namely (Abdul Rahman et al., 2018); Rules, Challenges, Points, Levels, Badges, Onboarding, Rewards, Leaderboard.

The Android application *Lima Sahabat* is one of the online games that is played through a browser and is already a part of the gamification concept. The arrangement of instructional video games is made based on the player types, stages of the design process, and research done during the design phase using Unity 3D. Scenarios are created for the different types of players to inspire and amuse students (Oyuncu et al., 2022). Interest is a feeling of liking and being interested in a certain action or set of actions. This is shown by the desire or tendency to pay attention to the action or set of action without being asked, which brings pleasure. These elements are classified into two categories: internal factors and external. Motivational and interest-related factors are internal variables that affect one another. That issue of necessities and wants will always be tied to interest (Erdoğdu, 2019). As shown from a relational and practical standpoint, Dewey asserts that interest is a dynamic, goal-oriented process of interaction between a person and the object of their interest (Hilppö & Stevens, 2021). From a teaching perspective, it's crucial that students repeatedly engage in engaging, enjoyable, difficult, and meaningful learning activities when learning English because these

experiences can spark situational interest, which can eventually grow into an individual interest in learning English, and with such is the continuous self-motivation (Ainley & Ainley, 2011). Indicators Interest of Learning they are interest, feelings of pleasure, attention, participation, desire awareness.

The learning process becomes more personal for the learner when they are actively participating in it. According to Haruna et al., various measures of student engagement can be used, including visible behaviors such as focused individual attention, learning clarity, and orientation. Furthermore, (Suryasa et al., 2017) students' desire to learn the English language can be a valuable source of information and understanding for the implementation of pertinent programs or activities to create a more stimulating learning environment. Despite the fact that motivation and engagement go hand in hand, the two concepts are not interchangeable, and the presence of one does not always indicate the presence of the other. Brooks and Goldstein claim that motivation is connected to psychological factors that influence behavior and decision-making (Alsawaier, 2018). Lewis and Hill, who defined motivation as the desire, willingness, or enthusiasm to do something, provided evidence in support of that opinion. As a result, many academics have attempted to define motivation, which is a concept that is difficult to do so. Several primary needs that influence learners' motivation have been identified by McCormick and James (Pgri, Buana, & Pertiwi, 2020) including: The need for simulation, The need for knowledge, The need to analyze and internalize the results of investigation, manipulation, activity, The need for ego enhancement. Indicators of motivation in learning they are perseverance, activeness, passion, attendance, tenacity.

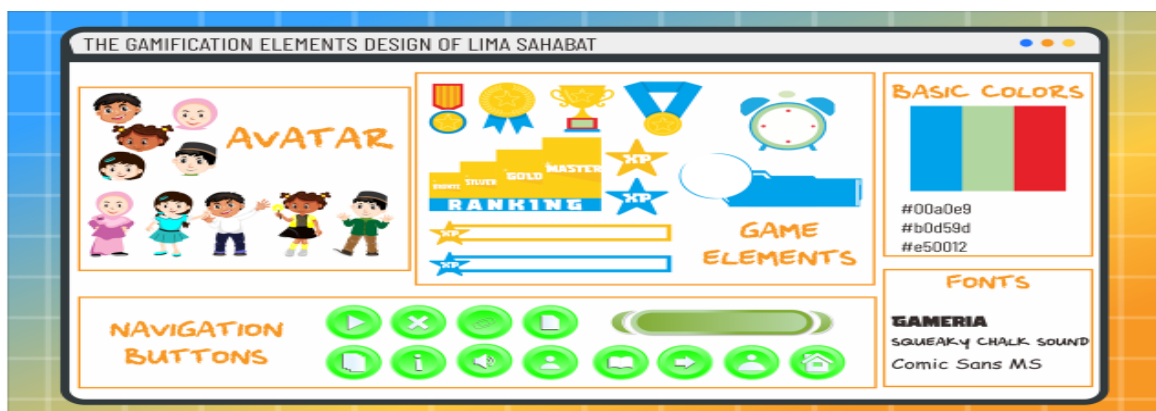


Figure 1 Elements Design of Lima Sahabat

<http://bit.ly/lessonplanLimaSahabat>

METHODS

The experimental study that was selected is a quasi-experimental study. This is so because people were be the research's primary focus. With quasi-experimental research, the researcher attempts to ascertain how an experiment or treatment would affect the subject's desired qualities. The dependent variable appears to be impacted by the treatment given to the independent variable. The experimental (treatment) group and the control group are the two subject groups in this study, which employs a classical experimental design (Classical Experimental Design). Variable Independent (X) namely gamification Variable Dependent (Y) namely students' learning interest (Y_1) and learning motivation students (Y_2). The all students of SMP Negeri 26 Makassar with the number 224 during the academic year 2021-2022 make up the population of this study. The research was picking two classes the study's samples, namely class VII.2 as the experimental class and VII.3 as the control class at SMP Negeri 26 Makassar each totaling 31 specifically class VII of SMP Negeri 26 Makassar.

RESULT AND DISCUSSION

Result

1. Comparison of Values Before and After Treatment in the Control Class

The mean indicators of interest and learning motivation of control class students before and after the treatment can be seen in the table below:

Table 1. Comparison Of Average Interest Indicators Before and After Treatment In The Control Class

No.	Indicators Interest	Mean	
		Before Treatment	After Treatment
1.	Feeling of Pleasure	16,13	16,13
2.	Interest	14,23	14,23
3.	Attention	14,65	16,39
4.	Participation	13,55	13,71
5.	Desire, Awareness	12,29	12,29

Table 2 Comparison of Average Motivation Indicators Before and After Treatment In The Control Class

No.	Indicators Motivation	Mean	
		Before Treatment	After Treatment
1.	Perseverance	17,61	18,29
2.	Activeness	15,19	15,35
3.	Passion	17,87	17,90
4.	Attendance	13,35	13,68
5.	Tenacity	13,03	12,94

Comparison of the average indicators of interest and motivation to learn before and after treatment in the control class can be visualized in the following diagram:

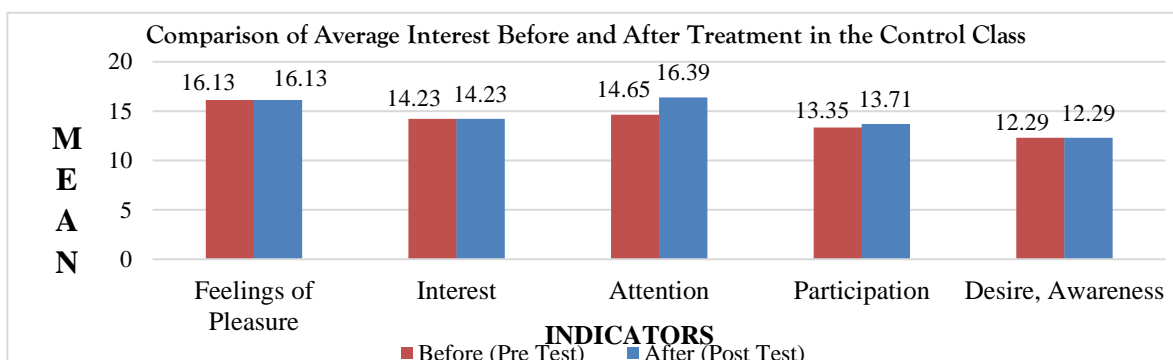


Figure 2. Comparison of Average Interest Indicators Before and After Treatment in the Control Class

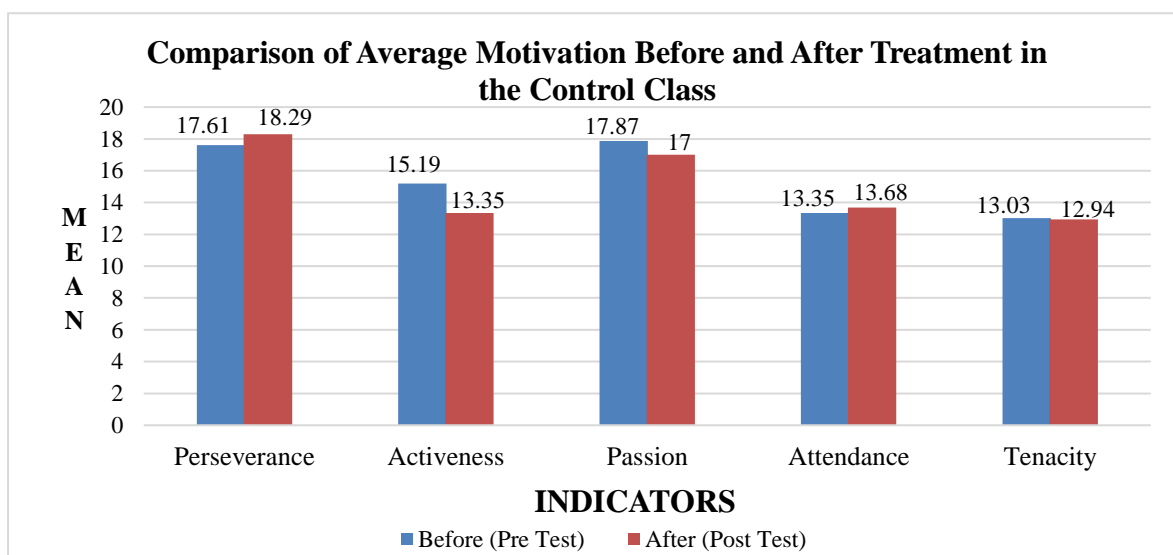


Figure 3. Comparison of Average Motivation Indicators Before and After Treatment in the Control Class

2. Comparison of Values Before and After Treatment in the Experiment Class

The mean indicators of interest and learning motivation of experiment class students before and after the treatment can be seen in the table below:

Table 3. Comparison of Average Interest Indicators Before and After Treatment In The Experimental Class

No.	Indicators Interest	Mean	
		Before Treatment	After Treatment
1.	Feeling of Pleasure	15,74	19,65
2.	Interest	12,94	16,03
3.	Attention	13,39	18,26
4.	Participation	11,35	13,29
5.	Desire, Awareness	10,26	11,00

Table 4. Comparison Of Average Motivation Indicators Before And After Treatment In The Experimental Class

No.	Indicators Motivation	Mean	
		Before Treatment	After Treatment
1.	Perseverance	14,13	18,26
2.	Activeness	12,35	16,13
3.	Passion	11,55	17,77
4.	Attendance	10,81	14,20
5.	Tenacity	11,58	12,84

Comparison of the average indicators of interest and motivation to learn before and after treatment in the control class can be visualized in the following diagram:

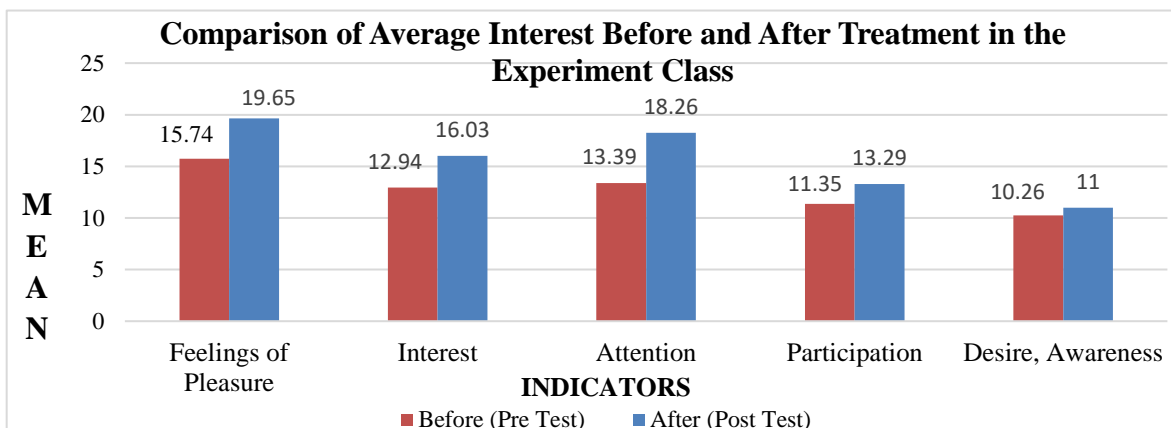


Figure 4. Comparison of Average Interest Indicators Before and After Treatment in the Experiment Class

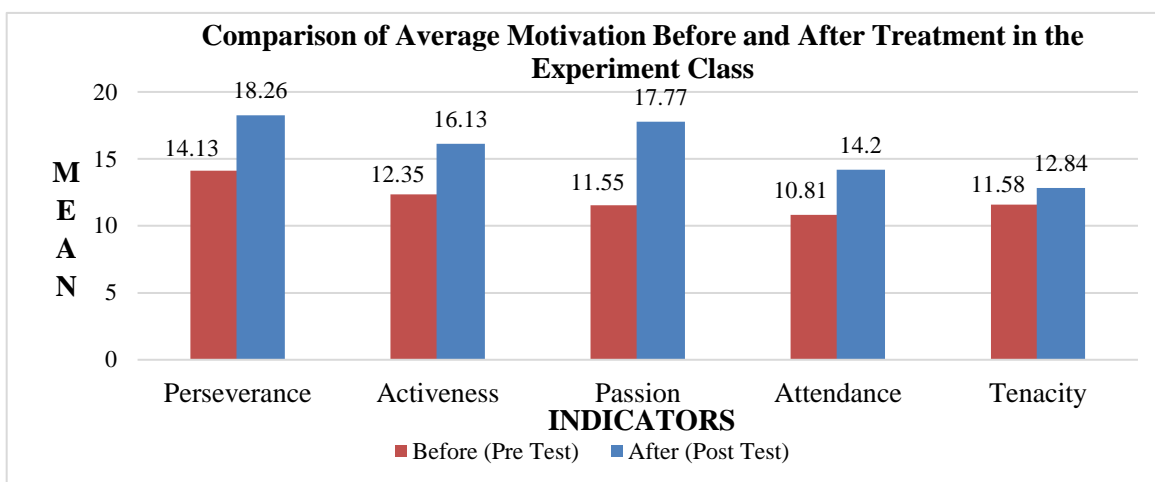


Figure 5. Comparison of Average Motivation Indicators Before and After Treatment in the Experiment Class

As can be observed from the comparison of values in the diagram above, there was an increase in interest and motivation for learning in the experimental class after treatment learning methods and approaches that used gamification.

This hypothesis was analyzed by Wilcoxon test. The following is a summary of the results of testing the hypothesis with the Wilcoxon Test.

Table 5. Summary Results of The Wilcoxon Test

Variabel	Significance		Conclusion
	5%	Wilcoxon Test Results	

Interest	0,05	0,000	0,000 < 0,05. Ho rejected
Motivation	0,05	0,001	0,001 < 0,05. Ho rejected

Concluded that gamification affects the interest and learning motivation of class VII students in English at SMP Negeri 26 Makassar.

DISCUSSION

Based on the results of the analysis of the data obtained from the above calculations related to the research that was conducted at SMP Negeri 26 Makassar, it can be seen that the results of the research and the treatment (experiment) given to the sample had a significant influence on students' interest and motivation to learn. These findings are in keeping with earlier studies showing that, even when done online, gamification can increase student interest and motivation. So that this study's findings can corroborate the claim made by Chans & Portuguez Castro, (2021) that gamification can also be face-to-face. This can be seen from the average value (Me) obtained by the control class and the experimental class.

There was an increase of 1,9 points for the control class (72,74 – 70,84), while in the experimental class there was an increase of 14,52 points (78,23– 63,71). The learning interest of experimental class students increased by 14,52 points when compared to the initial value before treatment. In addition, the effect of gamification on students' learning interest can be seen from the increase of 14,52 points in the experimental class which is higher than the increase in the control class which is only 1,9 points. The learning interest of the experimental class students increased from 0% of students who were included in the high interest category, to 22,58% after being treated using learning methods and approaches through gamification. This is evident from the final score of students' learning motivation in the experimental class which increased by 18,87 points when compared to the initial value before treatment. In addition, the effect of gamification on student learning motivation can be seen from the increase of 18,87 points in the experimental class which is higher than the increase in the control class which is only 1,03 points. With gamification, the learning motivation of the experimental class students increased from 0% to 41,93% of students with high motivation. Based on the statistical analysis carried out, it can be seen that there is an effect of applying gamification on the interest and learning motivation of class VII students in English subject.

The result research Agung et al., (2022) online learning effective with the *Lima Sahabat* android application, which combines gamification approaches and methods besides being supported by Anwari, (2018), is very significant according to previous research. This can enhance the classroom environment for the benefit of students. Analysis with the Wilcoxon test shows that the significance value for the learning interest variable and learning motivation variable is less than 5% significance value. Because the significance value of 0.000 for the learning interest variable and 0.001 for the learning motivation variable is less than 0.05 (5%), the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted. By accepting the alternative hypothesis (H_1), it can be concluded that gamification affects the interest and learning motivation of class VII students at SMP Negeri 26 Makassar in English Lesson.

CONCLUSION

Students' interest and motivation in learning English in the control class and experimental class before and after learning with gamification can provide a comparison that the experimental class is proven to be able to stimulate student interest and motivation compared to the control class which has no gamification treatment besides that it can also provide effectiveness when face-to-face learning uses gamification in the *Lima Sahabat* android application. Before being given treatment, 3,23% of control class students had a high/good learning interest, while 96,77% of students' interest was included in the medium/average category. After treatment, 9,68% of students were in the high/good learning interest category, while 90,32% of students were in the moderate/average interest category. Whereas for the experimental class before being given treatment, there were 0% of high /good interest students, 96,77% of moderate/average interest students, and 3,23% of low/poor interest students in the experimental class. In the experimental class after the treatment on gamification, as many as 22,58% of students had a high/good learning interest, and 77,41% of students had a moderate/average learning interest. the control class and the experimental class, with 22,58% of students in the control class having high/good learning motivation and 77,41% of students having moderate/average learning motivation in the control class, both before and after treatment. Meanwhile, 0% of students in the experimental class were included in the high/good category of learning motivation, and 90,32% were included in the medium/average and 9,68% low/poor category. There was an increase after receiving

treatment using gamification techniques. 41,93% of students have a high/good desire to learn, while 58,06% have a moderate/average desire to learn. The significance value of 0.000 for the learning interest variable and 0.001 for the learning motivation variable for class VII English students at SMP Negeri 26 Makassar clearly shows the effect of gamification on learning interest and motivation. H_0 was rejected and H_1 was accepted because the variable significance value was less than 0.05 (5%): Gamification had an effect on motivation and interest in learning English for class VII students of SMP Negeri 26 Makassar.

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