

## The Influence of Word Wall on Students' Interest and Learning Outcomes

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### Abstract

A word wall is a fun, entertaining learning media game. This study aims to determine the effect of word wall media on student interest and learning outcomes. The research used the experimental method, Quasi Experimental form with Nonequivalent Control Group Design. Determination of the experimental and control classes using a simple random sampling method, treatment in the experimental class using word wall media, and media box questions in the control class. The data collection instrument for pretest-posttest learning outcomes is in the form of multiple-choice questions. Meanwhile, interest in learning was measured using a questionnaire with the Linkert scale. Analysis of learning interest data using the t-test obtained the value of student interest in learning ( $0.000 < 0.05$ ). The value of student learning outcomes based on the U-Mann Whitney test obtained a value of ( $0.000 < 0.05$ ), and the effect size of the results showed that the media word wall affects an interest in learning by 58.9% with an effect size value of 1.1 (large). The highest learning interest indicator is feeling happy, with a percentage of 71% in the experimental class. The effect of word wall media on learning outcomes is 79.4%, and the effect size value is 1.9 (large). The completeness value of the posttest in the experimental class was 89%, while in the control class, the percentage of completeness was 45%. It is concluded from this research that there are differences and the influence of word wall media on students' interests and learning outcomes.

**Keywords:** media word wall, interest in learning, learning outcomes

## *Pengaruh Penggunaan Word Wall terhadap Minat dan Hasil Belajar Siswa*

### Abstrak

Word wall merupakan media pembelajaran yang menyenangkan dan menghibur. Penelitian ini bertujuan untuk mengetahui pengaruh media word wall terhadap minat dan hasil belajar siswa. Metode penelitian menggunakan eksperimental dengan desain Nonequivalent Control Group Quasi Experimental. Penentuan kelas eksperimen dan kontrol menggunakan metode simple random sampling, dengan perlakuan penggunaan media word wall pada kelas eksperimen dan kotak soal pada kelas kontrol. Instrumen pengumpulan data untuk pretest-posttest hasil belajar berupa soal pilihan ganda. Minat belajar diukur menggunakan kuesioner dengan skala Linkert. Analisis data minat belajar menggunakan uji t diperoleh nilai minat belajar siswa  $0,000 < 0,05$ . Nilai hasil belajar siswa berdasarkan uji U-Mann Whitney adalah  $0,000 < 0,05$ , dan effect size hasil menunjukkan bahwa media Word wall mempengaruhi minat belajar sebesar 58,9% dengan nilai effect size sebesar 1,1 (besar). Indikator minat belajar tertinggi adalah merasa senang, dengan persentase 71% pada kelas eksperimen. Pengaruh media Word wall pada hasil belajar mencapai 79,4%, dan nilai effect size sebesar 1,9 (besar). Nilai ketuntasan pada posttest pada kelas eksperimen mencapai 89%, sedangkan pada kelas kontrol persentase ketuntasan sebesar 45%. Dapat disimpulkan bahwa terdapat perbedaan dan pengaruh media word wall terhadap minat dan hasil belajar siswa.

**Keywords:** media word wall, minat belajar, hasil belajar

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## INTRODUCTION

Interest in learning is an attitude of obedience to learning activities, both regarding learning planning and the initiative to do business in earnest (Nurhasanah & Sobandi, 2016). Students' initial interest can be triggered by stimulating their curiosity. Students must be involved in learning activities; this is so that students can connect between new incoming information and existing students' prior knowledge, which will motivate students Kong & Li (2016). According to Nursyam (2019), interest in learning is the desire to do something because of interest and pleasure in work, including learning. Interest in learning and contribution to improving learning outcomes because a person's activities depend on his interests (Asiyah et al., 2020). The results of research conducted by Nurlia et al. (2017) show that if the student's interest in learning is high, the tendency of the learning outcomes obtained will also be high. Students' interest in learning has a positive and significant effect on learning outcomes. Rusmiati (2017) states that interest in the teaching and learning process is one of the factors that have a significant influence on learning achievement. Students with a high interest in learning will get exemplary learning achievements.

Based on the results of observations made by researchers, it was found that the problem was the lack of interest in student learning. The average student learning outcomes in biology subjects were still below the KKM due to the lack of creativity and lack of skill of teachers in the use of learning media, as well as the limited facilities available. at the school, therefore teachers still often use conventional media, namely only using print media without variations with learning models; teachers never use android-based learning media because they are not good at operating, so they are less effective in conveying material. From the results of interviews with biology teachers, the teacher said that classroom learning usually often uses the lecture learning model. This learning model is still teaching so that only students who pay attention understand the material the teacher presents. During the learning process, students only listen to the theory from the teacher or learn independently from reading books. Students often feel sleepy, learning also feels dull, and students find it challenging to understand the material presented, so students are less interested in learning. This makes the results of the average student score still below the KKM.

Each school has different Minimum Completeness Criteria (KKM) according to school policy. The success of learning can be measured based on KKM. The learning process, especially biology subjects, has not yet reached the KKM. The minimum completeness criteria (KKM) that students must achieve is 70. Based on the results of the average mid-semester test for the academic year 2021/2022, information is obtained for class XI, MIA with an average score of 64.72, XI IIS 1 average score of 58, 49, and XI IIS 2 with an average score of 59.15 students who have not yet achieved complete learning outcomes. This shows that the success rate of students is still below the minimum completeness criteria. Students are considered successful in the classical learning process if they have reached 75% and get a score above the KKM or the same as the KKM.

Klein (2018) said that "learning can be defined as an experiential process resulting in a relatively permanent behavior change those temporary states, maturation, on innate response tendencies cannot explain. According to Sukiyasa & Sukoco (2013), learning outcomes are the impact of all processes of acquiring knowledge, the results of training, the results of, and the behavior change process that can be measured through behavioral tests, cognitive ability tests, and psychomotor tests. Learning with an impression filled with happiness and fun will be easy to remember. A learning method is needed that provides the content of happiness and pleasure. To achieve pleasure in learning, media is needed that helps create this atmosphere (Isti et al., 2020; Riyanto et al., 2019; Wuryanti & Kartowagiran, 2016).

Learning media plays an important role in learning in addition to teaching methods. These two elements are interrelated. The use of learning media can generate new desires and interests, generate motivation and stimulation of learning activities, and even bring psychological effects on students

(Wuryanti & Kartowagiran, 2016). Learning media is used to convey or provide information to students (Nurrita, 2018). Using appropriate and varied learning media according to needs can optimize the acquisition of student learning outcomes (Rusdewanti & Gafur, 2014). In addition, another determinant of learning success is the accuracy of the application of learning models and media (Salsabila et al., 2020).

Media word wall is a network-based digital gamification application that provides various game and quiz features that educators can utilize in delivering material evaluation (Khairunisa, 2021). According to Lestari (2021), word wall is helpful as a learning resource, media, and fun assessment tool for students. This game can be used via a laptop or smartphone. In the word wall application, there are pictures, audio, animation, and interactive games that can make students interested.

Learning media that can be used for games is word wall media. Word wall learning media can improve students' ability to master the material (Sartika, 2017). According to Sari & Yarza (2021), the advantage of word wall is that this application is free for basic options. There are many educational game features provided, in addition to accessing it, students do not need to download the application; students only need to access the link that the teacher shares. In addition, word wall Media can be printed in PDF form, making it easier for students constrained by the network. Word wall media is flexible because it can be used in the face-to-face learning process (PTM) and can also be used during a pandemic or online learning. Word wall allows students to compete, so students are more motivated to learn.

Several studies on the use of word wall media have been carried out by Launin & Setiawan, (2022) entitled "The influence of word wall online game media to increase student interest in learning in grade IV" then research conducted by Sari et al. (2021), entitled "the influence of word wall game on history learning outcomes for class XI MIPA SMA 2 Lubuk Basung" and Kadaruddin et al. (2020) entitled "Word wall media: An effective teaching technique to enrich students' vocabulary in secondary level of education". The three studies were able to prove that the use of word wall media had a positive effect on student learning outcomes and interests. The effort in this study is that researchers apply to learn by collaborating between the Team Games Tournament learning model using a smartphone during the face-to-face learning process. In contrast, this word wall media in previous research was used only for distance learning. Researchers do this to eliminate student boredom and improve student learning outcomes. All class XI students already have cell phones based on Android, but their use is still not optimal. Students only use cell phones to access social media and occasionally search for answers on google. Based on the problems above, the researchers are interested in conducting research that aims to determine the effect of word wall learning media on student interests and learning outcomes.

## METHOD

The research was carried out using an experimental method. The form of research uses Quasi-Experimental Design with Nonequivalent Control Group Design. This study involves the independent variable (independent variable), the dependent variable (dependent variable), and the control variable (control variable). The independent variable is the treatment variable for the experimental class, namely the word wall learning media, and the treatment variable for the control class, namely the box questions learning media. While the dependent variable is interest and student learning outcomes. The control variables in this study are the material taught to the experimental group and the control group is the material of the human respiratory system, the teacher who teaches the experimental group and the control group is the researcher, and the time allocation for the experimental group and the control group was carried out in two meetings each. To clarify the design of this study can be seen in Table 1.

Table 1. *The Research Design of the Nonequivalent Control Group Design*

Group	Pre-Test	Treatment	Final Test
E	T1	X1	T2
K	T1	X2	T2

E = Experimental Class, K = Control Class, X1 = Experimental Class Treatment  
X2 = Treatment of Control Class, T1 = Initial test (pre-test), T2 = Final test (post-test)

The population in this study were all students of class XI totaling 61 students, consisting of 3 classes, namely class XI MIA (22 students), XI IIS 1 (19 students), and class XI IIS 2 (20) students. The sample in this study was all members of the population by taking samples using a simple random sampling technique, namely taking samples from the population at random without regard to the existing strata in the population.

Data collection techniques using learning outcomes test techniques and questionnaires. The data collection instrument in this study was in the form of multiple-choice questions and an interest questionnaire in the form of closed answers using the Linkert Scale. Before the question instrument is used, the validity of the criteria is carried out by conducting field trials, and then an analysis is carried out where validity, reliability, level of difficulty, discriminatory, and distractibility tests are carried out by conducting field trials. The questionnaire instrument test uses data validity and data reliability.

The validity of the items was carried out before carrying out the research. The analysis of the validity of the items aims to determine the level of validity of the questions that will be used as evaluations in the cognitive domains of pre-test and post-test. The validity of the items is needed to determine the quality of the test items in the study. The questions that have been prepared are tested first on the students of class XII MIA with a total of 30 students. The results of the validity of the items can be seen in the following validity Table 2.

Table 2. *Validity of Pretest, Posttest, and Interest Questionnaire*

Question	Question number	
	Valid	Invalid
<i>Pretest</i>	1,3,5,7,8,10,11,12,13,14,15,16,18,2,6,19	4,9,17,20
<i>Posttest</i>	4,13,5,6,7,11,12,14,16,17,18,20,8,9,19	1,2,3,10,15
Interest Questionnaire	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,18,20	17.19

Based on the validity table 2 of the pretest questions, it is known that the number of items that are valid and suitable to be used is 16 questions, 4 items are invalid and cannot be used. Meanwhile, on the validity of the post-test questions, it is known that the number of questions that are valid and feasible to use are 15 questions, 5 items are invalid and cannot be used. In this study, 15 pretest and 15 post-test questions were used. Meanwhile, the interest questionnaire trial, which consisted of 20 statements, showed that there were 18 valid questions and 2 invalid questions. The multiple-choice pretest and posttest questions were taken from items that were declared valid, namely 15 multiple choice questions for the pretest and 15 multiple choice questions for the post-test. For the interest questionnaire, 18 valid statements were used.

Reliability relates to reliability or consistency, meaning that no matter how many questions are tested, they have almost the same value. Based on the test results for Class XII MIA students, totaling 30 students on April 14, 2022, the reliability coefficient value ( $r_{11}$ ) was obtained, for the pretest it was 15.69, for the posttest it was 11.2. and for the interest questionnaire is 0.84. Referring to the value of the relationship between the reliability coefficient and the quality of the instrument, the level of the test relationship is very high. The results of the analysis of the level of difficulty of the questions can be seen in the following Table 3.

Table 3. *Difficulty Levels of Pretest and Posttest Questions*

Question	Question Number		
	Hard	Currently	Easy
<i>Pretest</i>	2,3,6,9,10,12,15,16,19	4,5,7,8,11,13,14,17,18,20	1
<i>Posttest</i>	2,6,8,12,19	1,3,4,5,7,9,10,11,13,14,15,16,17,18,20	-
Amount	14	25	1

Distinguishing power is the ability of a test item for learning outcomes to be able to distinguish between high-ability test takers and low-ability test takers. A good question has high discriminatory power, meaning that the question can distinguish between upper-group students and lower-group students. The results of the analysis can be seen in the following Table 4.

Table 4. *Distinguishing Power of Pretest and Posttest Questions*

Question	Question Number			
	Very well	Well	Enough	Bad
<i>Pretest</i>	-	5,12,14	1,2,3,4,6,7,8,10,13,15,16,18,19	9,11,17,20
<i>Posttest</i>	-	5,9,12,14,16	4,6,7,8,11,13,15,18,19,20	1,2,3,10,17
Amount		8	23	9

Items with good distractors will be chosen evenly by students who answer incorrectly. From the results of the distractor index of the pretest questions, it was found that 10 questions with all the choice options were accepted without improvement, while 10 questions with several options were corrected. Then the results of the distractor index of posttest questions, obtained 15 questions with all options accepted, while 5 questions with several options were corrected.

Furthermore, the entire research sample was given a pretest of learning outcomes in the form of multiple-choice questions as many as 15 questions that had criteria validity. After being given treatment, the sample was given a questionnaire of 18 statements and a posttest of learning outcomes with questions that were different from the pretest questions with 15 items. The pretest-post-test learning outcomes data and student questionnaires were then processed and analyzed.

## RESULT AND DISCUSSION

### Result

#### Learning Outcomes

##### *Normality test of learning outcomes*

To find out whether there are differences in student learning outcomes between the experimental class and the control class, the SPSS 17.0 for windows application is used. The results of the normality test can be seen in Table 5.

Table 5. *Normality test of Experimental and Control Class Learning Outcomes*

Class	Shapiro-Wilk		
	Statistics	df	Sig.
Experiment	.895	19	.039
Control	.918	19	.104

Based on Table 5 the results of the normality test showed that the experimental class students' learning outcomes had a significant score of 0.039 and the control class had a significant score of 0.104. The level of significance used is 0.05. For the experimental class, the significant number is less than 0.05 ( $0.039 < 0.05$ ), so  $H_0$  is rejected, meaning that the data is not normally distributed. As for the control class, because the significant number is greater than 0.05 ( $0.104 > 0.05$ ), then  $H_0$  is accepted, meaning that the data is normally distributed.

##### *U-Mann Whitney test study result*

Statistical tests were carried out using SPSS 17.0 for windows with a significant level of 0.05. The results of the U-Mann Whitney test on the value of student learning outcomes obtained a significant number of 0.000. The results of U-Mann Whitney student learning outcomes can be seen in Table 6.

Based on the hypothesis,  $H_0$  = Learning using word wall learning media does not affect student learning outcomes. While  $H_a$  = learning with word wall learning media does not affect student learning outcomes. The level of significance used is 0.05. Because the significance number is less than 0.05 ( $0.000 < 0.05$ ), then  $H_0$  is rejected. It can be concluded that there is an influence of word wall learning media on learning outcomes.

Table 6. *U-Mann Whitney Test Value of Learning Outcomes*

	Score
<i>Mann-Whitney U</i>	17,5
<i>asympt. Sig. (2-tailed)</i>	0.000

This research was conducted in two different classes, namely the experimental class and the control class. The experimental class used in this study was class XI IIS 1, which consisted of 19 students. The control class used in this study was class XI IIS 2, which consisted of 20 students. The average value of student learning outcomes in the experimental class and control class can be seen in Table 7.

Table 7. *Student Learning Outcomes of Experiment and Control Class*

Class	Average Value		Completeness Percentage
	Pretest	Posttest	Posttest score
Experiment	3	80	89%
Control	36	67	45%

From Table 7 the average value of the pretest in the experimental class is lower than the value of the control class but the average value of the posttest in the experimental class is higher than the control class. This means the media used in the experimental class is successful.

The Minimum Completeness Criteria (KKM) for biology subjects that must be achieved by students is 70. Based on the results of posttest scores, students who complete the experimental class are more than the control class. The percentage of mastery learning in the experimental class was 89% while in the control class the percentage of completeness was 45%.

The effect of word wall learning media on student learning outcomes was analyzed using Effect Size (ES). Effect size calculation results obtained on student learning outcomes are 1.9 so that the criteria for the magnitude of the effect size (ES) are classified as large with a percentage value of 79.4%. Thus, learning with word wall learning media has a major influence on student learning outcomes on the material of the respiratory system in humans.

### Interest to learn

#### *Normality test of learning interest*

The results of the study analysis carried out using the SPSS 17.0 application for windows. The results of the data analysis were carried out can be seen in Table 8.

Table 8. *Normality Test of Learning Interest in Experimental and control Classes*

Class	Shapiro-Wilk		
	Statistics	df	Sig.
Experiment	.953	19	.444
Control	.938	20	.216

Based on Table 8 the results of the normality test obtained results of student interest in the experimental class with a significant number of 0.444 and the control class with a significant number of 0.216. The level of significance used is 0.05. For the experimental class the significant number is greater than 0.05 ( $0.444 < 0.05$ ) and in the control class ( $0.216 > 0.05$ ), then H<sub>0</sub> is accepted, meaning that the data is normally distributed. Based on the normality test, the two classes were normally distributed, then continued with the homogeneity test.

#### *Calculation of homogeneity test of student interest*

Table 9 show the results of the homogeneity test of the interest in learning questionnaire have a significant number of 0.496. The significant level used is 0.05. The significant number of interests in learning is greater than 0.05 ( $0.496 > 0.05$ ), then H<sub>0</sub> is accepted, meaning that the data is normally distributed, then proceed with the t-test.

Table 9. *Homogeneity Test of Students' Learning Interest*

Shapiro-Wilk		
Statistics	df	Sig.
.473	37	.496

**T-test calculation**

Table 10 show the results of the interest in learning t-test are 0.000. the significant level used is 0.05. The significant number of students interest in learning is small from 0.05 ( $0.000 < 0.05$ ), then  $H_0$  is rejected, meaning that the data is not normally distributed. Based on the results of the t-test of the two classes not normally distributed, it can be concluded that there is an influence of word wall learning media on learning interest.

Table 10. *T-test of Student Learning Interest*

Test Value 95		
<i>T</i>	<i>df</i>	<i>Sig.</i>
.4357	37	.000

This research was conducted to collect data through student learning interest questionnaires. The distribution of the questionnaire in this study was carried out using the Linkert scale. The results of research on the effect of word wall learning media on students' interest in learning in biology class XI in the experimental class and control class can be seen in Figures 1 and 2.

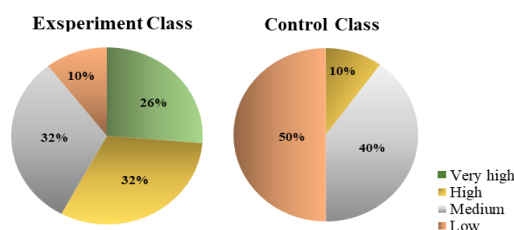


Figure 1. Percentage of Interest in learning experimental and control class students

Based on Figure 1. the percentage of student interest in the experimental class and control class, student interest in the experimental class obtained 5 students with very high student interest category (26%), 6 students with high-interest category (32%), 6 students with medium category (32%), and 2 students with low-interest category (10%). Meanwhile, there were no students in the control class who were in the very high category, 2 students were in the high-interest category (10%), 8 students were in the moderate interest category (40%), and 10 students were in the very low category (50%).

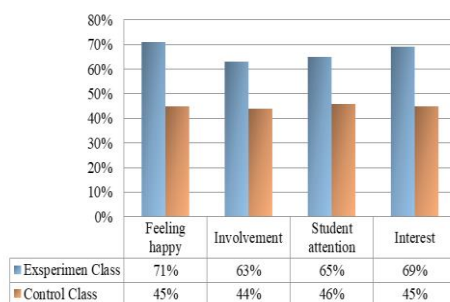


Figure 2. Percentage of learning interest indicator experiment and control class

Figure 2. shows that the average of the indicators in the experimental class is higher than the control class in the category of pleasure, student involvement, student attention, and student interest in the experimental class which is higher than the control class.

The effect of word wall learning media on students' interest in learning was analyzed using Effect Size (ES). The result of the calculation of the effect size obtained on the student learning interest questionnaire was 1.1 so the criterion for the magnitude of the effect size (ES) was classified as large with a percentage value of 58.9%. Thus, learning with word wall learning media has a major influence on student learning outcomes.



## Discussion

### *Learning outcomes*

Based on student learning outcomes, the average result of the control class's pretest score is higher than that of the experimental class, while the experimental class's average posttest score is higher than that of the control class. Before being given treatment (pretest) none of the experimental and control class students were completed. After being given treatment, students who completed the experiment class totaled 17 students and 2 students did not complete from 19 students while students who completed the control class amounted to 9 students and 11 students did not complete from 20 students.

The large number of students who did not complete the control class was influenced using the learning media used. The experimental class used word wall media and the control class used the question box media. Even though they have used the Team Games Tournament (TGT) learning model the learning media used makes some students only rely on friends who are considered able to answer correctly and quickly during the game tournament phase.

Based on the learning carried out, the average pretest-posttest score in the experimental class has increased, this proves that student learning outcomes after treatment have progressed. If seen from the table of Cohen's interpretation criteria, learning by using word wall media has an effect in large categories with a percentage of 79.4% on increasing student learning outcomes. This shows that learning through word wall media has a positive influence on learning outcomes.

The results of this study are the same as the results of previous studies. Based on the results of research from Sari et al. (2021), shows that a significance value of  $0.000 > 0.05$  is obtained so that there is an influence of android-based quiz game media (word wall) on the learning outcomes of students in class X MIPA at SMAN 2 Lubuk Basung. This increase in learning outcomes is due to being influenced by a new learning atmosphere such as changes in subject teachers and the way the teacher delivers material that is different from usual. In addition, it is influenced by the strategy of subject teachers including in the evaluation process, the evaluation used is using a word wall application in the form of an educational game with a quiz game feature. This is also in line with the results of research by Lubis & Nuriadin (2022) who stated in the results of their research that from the test of students' ability to work on test questions using the word wall application, it is known that students can work on questions without any difficulty in using them, students are enthusiastic and happy in working on the questions given and the results value of students on the use of the word wall application is can increase student learning outcomes. This increase in learning outcomes is due to the word wall application that looks attractive, presents interesting quizzes, and helps teachers make it easier to convey material so that learning outcomes increase. Then the results of research conducted by Minarta & Pamungkas (2022) stated that the results of learning economics after using word wall learning media in class affected the learning outcomes of XI IPS 1 Lamongan students.

Learning media is one of the most important factors in the world of education. Learning using the right media will provide optimal results for students' understanding of the material being studied (Mardhiah & Ali Akbar, 2018). According to Tobamba et al. (2019) media is a tool used by a teacher for their learning activities. In addition, according to Audia et al. (2021) learning media is a tool to accelerate the delivery of material in the learning.

The influence of media on student learning outcomes on the respiratory system material in humans is because the experimental and control classes are given different media. From the results of research in the control class using the question box media, students only rely on a few group friends who are considered to understand the material to answer or deliver answers to questions during the game tournament phase while other students are playing, some are silent, some are sleepy, and some are busy.

In the experimental class using word wall media when the learning process in the game tournament phase the students seemed enthusiastic, each group only used one smartphone so each participant in the group played the game in a relay to compete with other groups. In word wall media, games include quizzes, matchmaking or pairing, word search, word randomization, and so on. Another interesting thing is that this game can be played offline with printable facilities available and supports sharing to other platforms. At the time of the study, each group was required to prepare a smartphone with internet access. Each member of the group plays one game according to their ability level in turn



waiting for their turn. Students are responsible for carrying out their respective roles to complete the game seriously because the accuracy and speed of students playing the game determine the group's victory. Games are given according to the ability level of students.

The word wall application is a type of interactive learning media in the form of games that can be accessed easily online via word wall.net with attractive and varied displays, which will be answered by students so that they can motivate students (P. M. Sari & Yarza, 2021). In the word wall application, students can do repetitive tasks if they answer the questions incorrectly or fail in the challenge to get a high score. There are various templates in this application. Students who answer questions in the word wall application can find out whether the selected answer is right or wrong by clicking show answer. In addition, students can also see directly the value obtained and can see the ranking obtained by clicking the leaderboard or leaderboard.

### ***Interest in learning***

The results of the analysis of students' interest in learning in the experimental class get interested in learning with high criteria. Student interest is based on indicators of feeling happy, there are sub-indicators of participating in biology lessons with pleasure and feeling not lazy and bored in participating in biology lessons. Indicators of student involvement, there are active sub-indicators in group discussions, willingness to ask questions, and actively answering questions. Indicators of student attention are sub-indicators of paying attention to the teacher's explanation and repeating the subject matter at home. The indicator of student interest is that there are sub-indicators of being interested in the teacher delivering the material, getting learning experiences, and being present during learning.

Based on the data on student interest in learning in the form of the percentage of interest given to the experimental class and control the percentage of interest in learning in the experimental class is higher than in the control class. The results showed that the percentage of student's interest in the experimental class was in the high category. Interest plays an important role as a condition for achieving student success. Interest will grow because of the level of response to something, no interest means no real learning (Wahid et al., 2021). According to Kartika et al. (2019), in terms of learning, interest is a very big influence on the process and learning outcomes. If someone is not interested in learning something, then it is not expected to work well. Rusmiati (2017) said interest in learning is the encouragement that a person has to carry out learning activities. Interest in the teaching and learning process is one of the factors that have a big influence on learning achievement. Students with a high interest in learning will get good learning achievements. Interest is a liking, fondness, or pleasure for something (T. J. Wulandari et al., 2019).

Based on the results of the study, the average indicators in the happy feel category, student involvement, student attention, and student interest in the experimental class were higher than in the control class. The highest indicator category is the indicator of the category of students' feelings of pleasure.

The first indicator is feeling happy. Feelings of pleasure are when a student has a feeling of liking for a lesson, then the student will continue to learn what he likes without feeling forced to learn. The indicator of feeling happy, there are sub-indicators, namely following biology lessons with pleasure and not feeling lazy and bored in participating in biology lessons. The percentage result obtained from the experimental class is 71% in the high category and the control class is 45% in the medium category.

The second indicator is student involvement. Student involvement is a person's interest in the object that causes the person to be happy and interested in doing or working on the activities of the object. There are sub-indicators of student involvement, namely being active in group discussions, willingness to ask questions, and actively answering questions. The percentage results obtained from the experimental class were 63% in the high category and the control class was 44% in the medium category. This is in line with Prisuna (2021) and Nurmawarni (2022) who states that student involvement is a willingness or tendency in the subject to be actively involved in learning.

The third indicator is student attention. Student attention is the concentration of students on observation and understanding, to the exclusion of others. Students who have an interest in a particular object will automatically pay attention to that object. There are sub-indicators of student attention, namely paying attention to the teacher's explanation and repeating the subject matter at home. The

percentage results obtained from the experimental class were 65% in the high category and the control class was 46% in the medium category.

The last indicator is student interest. Student interest is related to the student's driving force for interest in an object, person, activity, or bias in the form of an affective experience stimulated by the activity itself. There are sub-indicators of student interest, namely being interested in the teacher delivering material, getting learning experiences, and being present when learning. The percentage results obtained from the experimental class are 69% in the high category and the control class by 45% in the medium category. This is in line with Tafonao (2018) who states that the use of media in teaching should be a part that must receive attention from the teacher as a facilitator in every learning activity.

The influence of word wall learning media on interest in learning can be seen from the interest questionnaire given. It can be seen from the average percentage of interest. This shows that learning through word wall media has a positive influence on students' interest in learning. If seen from the table of Cohen's interpretation criteria, learning using word wall media has a large category effect on increasing student interest in learning.

This is in line with the results of Pradani's research (2022) who stated in his research results that the application of word wall media was able to increase the learning interest of fourth-grade science students. This can be seen from the results of using word wall media to increase student interest in learning. This can be seen from the aspect of student activity, the criteria for assessing observations are measured through several indicators which show that after using word wall media, students' attitudes begin to actively ask in groups if it is difficult to answer questions, actively fill in attendance, and actively collect assignments. While other research, namely the results of research by Launin, et al. (2022) explained that the use of word wall online game media can affect student learning interest as evidenced by the results of the questionnaire in the use of word wall online game media increased by 6, 35. This increase is due to the use of varied media by teachers in delivering learning materials through the use of word wall online game media. Further research was carried out by research according to Khairunisa (2021) the application of online gamification with word wall had quite effective results in increasing the absorption of learning materials. The research that has been done states that the word wall application is proven to increase students' learning motivation.

The use of learning media can foster students' interest in learning new things in the learning material delivered by the teacher so that it can be easily understood (Nurrita, 2018; R. Wulandari, 2019). Interesting learning media for students can be a stimulus for students in the learning process. Educational games are one of the game models that are used to provide teaching and increase the knowledge of users through unique and interesting media (Ma'ruf, 2021). Learning media is a tool used by teachers in the teaching and learning process that is useful for attracting students' attention, increasing creativity, and delivering learning materials. With the learning media, it is expected to increase students' learning motivation (Tafonao, 2018).

In the control class using the question box media, students still lack participation in answering questions during the tournament phase, students tend to be quiet, and some look sleepy. There is still a lack of student participation because they only rely on one of their group friends who are considered to have high abilities, students with medium-low abilities are mostly hesitant and even embarrassed to express their opinions to answer questions.

In the experimental class using word wall media can make student learning more interesting. Students in the learning process seem to be focused when playing games and some students can be seen encouraging their group mates when playing games. In addition, all students play an active role in the learning process.

Based on the research results, Mujahidin et al. (2021) stated that teachers felt a significant change in student responses when using the application. Students become more enthusiastic, do not procrastinate on assignments, and are more active in accepting learning. This is because this application makes it easier to make questions, makes it easier to assess because the recap of the scores will be calculated automatically. In addition, this application and makes it easier for students to understand where he answered the wrong answer.

This study uses 4 kinds of features, in the basic choice of word wall media there are 18 features, this word wall media can only be seen because it is a visual media. The features used in this study are the labeled diagram feature, the match-up feature (adjusting), the gameshow quiz feature (game show quiz), and the word search feature (word search). train to analyze the relationship between the structure

of the tissues that make up organs in the respiratory system and identify disorders of the respiratory system in humans. The use of games makes students forget for a moment that they are still in the learning process. The labeled diagram feature is a game that is done by arranging images through the drag method. The match up (adjusting) feature is a game that is intended to match questions and functions or definitions. The gameshow quiz feature is a multiple-choice game with time limits, lives, and bonuses. The word search (word search) feature is a game to find the letters hidden on the grid (boxes).

In this study, the labeled diagram feature contains a game of compiling or showing the location of the respiratory organs in humans. The way it works is labeling objects on an image that involves students' visuals so that students can find out where the location and names of the respiratory organs in humans are. Then the match-up feature contains a game to match pictures of the organs of the respiratory system in humans with function or definition. In this educational game, students are asked to choose the right answer between the picture and the statement so that students can coordinate by dragging the picture to the appropriate statement. Furthermore, the gameshow quiz feature contains multiple-choice games on the respiratory mechanism in humans with life and time limits. Students are asked to work on a quiz by choosing the correct answer in the allotted time. If students answer incorrectly, it reduces the opportunity to play. In the game show quiz feature, there is accompaniment music and there is a bonus board that contains additional time, additional lives for doing quizzes as well as additional points that can make students happy so that it is interesting and increases students' liking. In the wordsearch feature, it contains a game of finding hidden letters in the form of disorders of the human respiratory system, after the hidden word is found the player matches the word with a suitable explanation of respiratory disorders in humans. Students are asked to look for words that match the material in an irregular table. additional life for doing quizzes as well as additional points that can make students happy so that it is interesting and increases student interest. In the wordsearch feature, it contains a game of finding hidden letters in the form of disorders of the human respiratory system, after the hidden word is found the player matches the word with a suitable explanation of respiratory disorders in humans. Students are asked to look for words that match the material in an irregular table. additional life for doing quizzes as well as additional points that can make students happy so that it is interesting and increases student interest. In the wordsearch feature, it contains a game of finding hidden letters in the form of disorders of the human respiratory system, after the hidden word is found the player matches the word with a suitable explanation of respiratory disorders in humans. Students are asked to look for words that match the material in an irregular table. After the hidden word is found, the player matches the word with a suitable explanation of respiratory disorders in humans. Students are asked to look for words that match the material in an irregular table. After the hidden word is found, the player matches the word with a suitable explanation of respiratory disorders in humans. Students are asked to look for words that match the material in an irregular table.

The success of word wall learning media on learning interest, in addition to being based on calculated data, there are factors behind this research, such as word wall media providing opportunities for students to play while learning under with the learning model used (Team Games Tournament). In addition, the varied display makes students not bored with learning. Then the award for students in the form of praise and there is an opportunity for each group to get the top rank in finding answers to questions.

## CONCLUSION

The use of word wall learning media has a positive impact on students' learning outcomes and interest in learning. This is supported by the average results of interest in learning and the value of learning outcomes obtained, as well as the Effect Size test results, which indicate a high influence of the treatment. The U-Mann Whitney test also confirms the significant impact of the word wall media on student learning outcomes, with a high Effect Size of 1.9. Similarly, the t-test shows a significant impact on student interest in learning, with a high Effect Size of 1.1. These results suggest that the use of word wall media can be a useful alternative for presenting material in biology classes, as it can improve both student interest and learning outcomes. Teachers are therefore encouraged to consider incorporating word wall media into their teaching practices.

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