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THE EFFECTIVENESS OF WORDWALL-BASED GAME SHOWS IN INCREASING STUDENTS' INTEREST IN LEARNING ECONOMICS

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ABSTRACT
Students' low interest in economics classes, particularly when it comes to the topic of national income, results from the use of conventional teaching methods that do not sufficiently motivate students to actively participate in the learning process. Therefore, a teaching approach that utilizes interactive media is needed like a Wordwall-based game. **This study was aim** to determine the effectiveness of using a Wordwall-based game show on students' interest in learning during economics classes at SMAN 2 Batu. **The method** used in this study is quantitative quasi-experimental approach with a non-equivalent control group design. The study involved two classes, an experimental class and a control class, each consisting of 36 students. Data were collected through a learning interest questionnaire. Before hypothesis testing, the data's normality and homogeneity were assessed; the results indicated that the data were not normally distributed. Data analysis continued with nonparametric tests, the Mann-Whitney U test and the N-Gain test. The analysis **result** of the research data shows a significant difference in learning interest between the two groups, with a significance value of 0.000 < 0.05. The N-Gain test results for the experimental class were 0.52, classified as moderate, indicating that the implementation of a Wordwall-based game show on the topic of national income can effectively help increase students' interest in economics. The **conclusion** this study that the use of gamification-based digital platforms such as Wordwall has the potential to serve as an innovation in the development of interactive learning media that can increase student interest during the learning process. The **contribution** of this research lies in providing empirical evidence regarding the effectiveness of Wordwall as a gamification-based learning medium to increase students' interest in learning economics, especially in national income materials.
Keywords: economic lesson; game show; learning interest; Wordwall

ABSTRAK
Minat mahasiswa yang rendah terhadap kelas ekonomi, terutama dalam topik pendapatan nasional, disebabkan oleh penggunaan metode pengajaran konvensional yang tidak cukup memotivasi siswa untuk berpartisipasi aktif dalam proses pembelajaran. Oleh karena itu, pendekatan pengajaran yang menggunakan media interaktif diperlukan seperti game berbasis Wordwall. ***Tujuan*** *penelitian ini untuk menentukan efektivitas penggunaan acara permainan berbasis Wordwall terhadap minat siswa dalam belajar selama kelas ekonomi di SMAN 2 Batu.* ***Metode*** *penelitian ini menggunakan pendekatan kuantitatif kuasi-eksperimental dengan desain kelompok kontrol yang tidak setara. Studi ini melibatkan dua kelas, satu kelas eksperimental dan satu kelas kontrol, masing-masing terdiri dari 36 siswa. Data dikumpulkan melalui kuesioner minat belajar. Sebelum pengujian hipotesis, normalitas dan homogenitas data dinilai; Hasilnya menunjukkan bahwa data tidak terdistribusi secara normal. Analisis data berlanjut dengan uji nonparametrik, uji Mann-Whitney U, dan uji N-Gain.* ***Hasil*** *analisis data penelitian menunjukkan perbedaan signifikan dalam minat belajar antara kedua kelompok, dengan nilai signifikansi 0,000 < 0,05. Hasil tes N-Gain untuk kelas eksperimental adalah 0,52,*

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diklasifikasikan sebagai moderat, menunjukkan bahwa pelaksanaan acara permainan berbasis Wordwall dengan topik pendapatan nasional dapat secara efektif membantu meningkatkan minat siswa terhadap ekonomi. ***Kesimpulan*** *penelitian ini menunjukkan bahwa penggunaan platform digital berbasis gamifikasi seperti Wordwall berpotensi menjadi inovasi dalam pengembangan media pembelajaran interaktif yang dapat meningkatkan minat siswa selama proses pembelajaran.* ***Kontribusi*** *penelitian ini terletak pada penyediaan bukti empiris mengenai efektivitas Wordwall sebagai media pembelajaran berbasis gamifikasi untuk meningkatkan minat belajar ekonomi siswa, khususnya pada materi pendapatan nasional.*
Kata kunci*: acara kuis; minat belajar; pelajaran ekonomi;* Wordwall

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Introduction

Interest in learning is one of the internal factors that plays a strategic role in determining the success of the learning process (Hidayatullah et al., 2026). According to Slameto (2010), interest is defined as an individual's tendency to feel drawn to and pay attention to an activity that arises without any element of coercion. In the context of education, interest in learning is a crucial dimension that influences student engagement and achievement throughout the learning process (Herpratiwi & Tohir et al., 2022). Students with high interest tend to demonstrate greater enthusiasm and more active engagement in the learning process (Daniel et al., 2024), whereas students with low interest tend to be passive and struggle to achieve optimal learning outcomes (Charismana et al., 2022). These findings indicate that interest in learning plays a crucial role in encouraging students to be more focused, active, and enthusiastic during the learning process (Bella, 2024).

Various efforts have been made to increase students' interest in learning, one of which is through the implementation of innovative learning media and strategies. Advances in digital technology in the field of education have encouraged teachers to create more interactive learning experiences through the use of technology-based media (Msambwa et al., 2024; Zhang et al., 2024). The Game-Based Learning (GBL) approach has attracted the attention of many researchers as a promising alternative to traditional learning. A number of studies indicate that the use of educational games in learning can create an enjoyable learning environment while encouraging student engagement (Li et al., 2024; Nadeem & Oroszlanyova, 2023; Rambe et al., 2024). Kangas et al (2024), in their systematic review, found that the interactive elements in game-based learning effectively reduce boredom and increase students' interest in learning compared to conventional instruction. Meanwhile, Sun et al (2024) explained that the elements of competition, challenges, scoring systems, and feedback found in GBL contribute to increased student engagement during the learning process. One digital platform that supports the implementation of this approach is Wordwall, an online service that provides a variety of interactive activities that can be tailored to learning

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materials, making the delivery of content more enjoyable and varied (Nisa & Susanto, 2022; Pradani, 2022; Safitri et al., 2022)

Studies on the effectiveness of Wordwall as a learning tool have been conducted by a number of researchers over the past decade. Zulfah (2023) demonstrated that the use of Wordwall has a significant impact on fostering students' interest in learning, in line with the findings of Putri & Prasetyo (2025), who showed that Wordwall significantly increases interest in learning. Dewi (2024) found that the use of Wordwall in economics instruction was able to increase student participation and engagement, while Fatma et al. (2022) demonstrated that game-based media in general can increase student engagement during instruction. Hidayah & Fauzi (2024) demonstrated through a pretest-posttest experimental design that there was a significant increase in students' interest and motivation to learn following the use of Wordwall. In line with this, Safitri & Nugroho (2024) found that students were more active and showed greater interest in learning after Wordwall was implemented in the classroom. Marisa et al. (2024) and Belvin et al. (2024), using a pretest-posttest control group design, revealed that students who learned using Wordwall appeared more enthusiastic and active, resulting in an increase in their interest in learning compared to before the use of this medium.

Nevertheless, there are several significant gaps in the existing literature. First, most previous studies examining Wordwall such as those by Hidayah & Fauzi (2024), Safitri & Nugroho (2024), Marisa et al. (2024) were conducted in general subjects like science, language, and mathematics; consequently, research specifically examining the effectiveness of Wordwall in fostering interest in learning economics remains very limited. The only study addressing the context of economics that of Ermawati & Gumilar (2024) measured only learning outcomes, not students' interest in learning. Second, previous studies generally implemented Wordwall in the form of quizzes, assessments, or practice exercises (Kusuma 2024; Nisa & Susanto, 2022), whereas its use in a game show format which comprehensively integrates elements of intergroup competition, group collaboration, a real-time scoring system, and immediate feedback has not been extensively studied. Third, none of these studies focused on national income a topic that is among the most abstract and conceptual in high school economics and requires a more engaging and interactive learning approach. The novelty of this study lies in the specific application of Wordwall in a game show format for teaching national income in high school economics, which substantially distinguishes it from previous studies.

Based on observations at SMAN 2 Batu, students' interest in economics remains relatively low. This is evident in their lack of participation and engagement during economics lessons. As a result, students' engagement in the learning process is suboptimal, which affects their mastery of the subject matter. Therefore, teaching tools are needed that can create a more active and enjoyable learning environment. The use of Wordwall-based game shows can be a potential solution to help increase students' interest in learning. This game-based approach

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is considered capable of creating a more enjoyable learning environment, thereby engaging students and making economics lessons more lively and interesting (Daniel et al., 2024; Zeng et al., 2024).

Based on the above discussion, the hypothesis of this study is that there is a difference in learning interest between students who participate in Wordwall-based game show learning and those who participate in conventional learning. Therefore, this study aims to analyze the effectiveness of using Wordwall-based game shows on students' learning interest in the economics subject, specifically the national income module, at SMAN 2 Batu.

Research Methods

This study employed a quantitative research method with a quasi-experimental approach. This approach was chosen to examine the effectiveness of using a Wordwall based game show on students' interest in learning economics. The research design utilized a non-equivalent control group design, which involved two groups: an experimental class that received the treatment and a control class. The experimental group was taught using Wordwall, while the control group received instruction through conventional methods. In this study, the independent variable (X) was the use of Wordwall based game shows, while the dependent variable (Y) was students' interest in learning.

The study was conducted during the even semester of the 2025/2026 academic year at SMAN 2 Batu, located in Batu City, East Java. The study was conducted in the economics course, focusing on the topic of national income. The study population consisted of 11th-grade students in the Economics Track 1 and Economics Track 2 classes. The sampling technique used was cluster random sampling, which involves randomly selecting samples based on pre-existing groups or classes. This technique was chosen because the study population consisted of several classes with relatively similar characteristics, ensuring that each class had an equal chance of being selected as a research sample. Through this technique, a research sample of 72 students was obtained, consisting of 36 students in the experimental class and 36 students in the control class. The experimental class used was the 11th-grade Economics Track 2 class, while the 11th-grade Economics Track 1 class was designated as the control class.

This study began by assessing students' initial interest through a pretest questionnaire on learning interest administered to both groups before the intervention was implemented. Next, learning activities in the experimental class were conducted using a Wordwall-based game show; the intervention was implemented over two sessions covering the topic of national income. The implementation of the Wordwall-based game show followed the Game-Based Learning framework, which consists of the pre-game, game, and post-game phases. During the pre-game phase, the teacher briefly outlined the learning objectives, provided an overview, and explained the material. The teacher then explained the game rules and divided the students into several groups. During the game phase, students participated in the Wordwall game, which contained questions on the

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topic of national income. Each group discussed the questions to determine the best answer and received an immediate score based on the accuracy of their responses. In the post-game phase, the teacher and students discuss the answers, reinforce the material, reflect on the learning process, and summarize the material that has been studied. Meanwhile, the control class participated in learning using conventional methods. After the entire treatment sequence was completed, both groups took a posttest in the form of a questionnaire on student learning interest to assess changes in students' interest levels after participating in the learning activity.

The data collection method used a questionnaire designed to measure students' level of interest in learning before and after the intervention. This questionnaire was developed based on indicators proposed by Slameto, which include 1) enjoyment; 2) student interest; 3) student attention; and 4) student engagement in learning. The research instrument consists of 20 questions, and each indicator comprises five items rated on a five-point Likert scale with a score range of 1–5: strongly agree (SS), agree (S), neutral (N), disagree (TS), and strongly disagree (STS). The use of the Likert scale aims to measure the respondents' level of agreement with each question related to students' interest in learning. The higher the score obtained by the respondents, the higher the level of students' interest in learning.

The instrument was empirically validated prior to use through validity and reliability tests to ensure the suitability of the questionnaire to be used in the study. Validity testing was conducted to determine the ability of each questionnaire item to measure the variables under study. Validity testing was performed using the product-moment correlation; the suitability of each questionnaire item was determined by comparing the calculated r value with the table r value at a specific significance level. An item is considered valid if the calculated r is higher than the table r. Meanwhile, the reliability test aims to determine the instrument's consistency in producing stable and reliable data. The instrument's reliability is measured using Cronbach's alpha. The instrument is considered reliable if it achieves a Cronbach's alpha value above 0.70.

Data analysis was conducted using IBM SPSS Statistics software. Before hypothesis testing, the research data were first analyzed using normality and homogeneity tests as prerequisite tests. The normality test was conducted to determine whether the data on students' interest in learning in the experimental and control classes followed a normal distribution, while the homogeneity of variance test was conducted to assess the equality of variances across groups. Hypothesis testing was performed using a parametric test specifically, the independent samples t-test if the research data met the normality assumption. Conversely, if the data obtained do not meet the normality requirement, a nonparametric test specifically the Mann-Whitney U test is used as an alternative. Subsequently, an N-Gain calculation is performed to determine the extent of the increase in students' learning interest following the instructional intervention.

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Results and Discussion

1. *Instrument Validation*
   a. *Validity and Reliability Testing*

The research instrument was empirically validated before use. The instrument, which took the form of a learning interest questionnaire, was tested for validity and reliability to ensure its suitability as a measure of the research variables. The results of the instrument's validity testing are presented in Table 1.

Table 1. Validity test results

No	Question	calculated r	Table r	Remarks
1	P1	0,789	0,232	Valid
2	P2	0,828	0,232	Valid
3	P3	0,841	0,232	Valid
4	P4	0,891	0,232	Valid
5	P5	0,847	0,232	Valid
6	P6	0,748	0,232	Valid
7	P7	0,741	0,232	Valid
8	P8	0,862	0,232	Valid
9	P9	0,855	0,232	Valid
10	P10	0,860	0,232	Valid
11	P11	0,746	0,232	Valid
12	P12	0,801	0,232	Valid
13	P13	0,782	0,232	Valid
14	P14	0,852	0,232	Valid
15	P15	0,796	0,232	Valid
16	P16	0,778	0,232	Valid
17	P17	0,743	0,232	Valid
18	P18	0,778	0,232	Valid
19	P19	0,838	0,232	Valid
20	P20	0,824	0,232	Valid

Source: Compiled by researchers, 2026

Table 1 shows the results of the validity test, indicating that all items in the research instrument obtained a calculated r value of 0.232, which is greater than the critical r value. Based on these results, all items were deemed valid. These results indicate that each item is capable of measuring the learning interest indicator in accordance with the variable being measured. Thus, the questionnaire used as a tool to collect data for this study can be considered suitable for use in this research.

A reliability test was conducted to ensure that the research instrument has a good level of consistency in measuring the variable of learning interest. The reliability test in this study used a Cronbach's Alpha coefficient of >0.70. The results of the instrument's reliability test are presented in Table 2.

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Table 2. Realibility test results

Cronbach's Alpha	Number of Item	Notes
0,972	20	Highly Reliable

Source: Compiled by researchers, 2026

Based on the data in Table 2, a Cronbach's Alpha value of 0.972 was obtained, indicating that the research instrument has a very high level of reliability. Therefore, the learning interest questionnaire is suitable for use as a research data collection tool because it is capable of measuring variables consistently.

2. Descriptive Analysis

Descriptive analysis was used to describe the degree of increase in students' interest in learning after the learning process took place in both the experimental group and the control class (Bayu et al., 2024). This analysis was conducted based on the pretest and posttest results to determine the average change in students' interest in learning after the implementation of the Wordwall-based game show. Based on the results of the descriptive analysis of students' learning interest, the findings are presented in Table 3.

Table 3. Descriptive results of the pretest and posttest

Class	N	Minimum	Maximum	Mean
Pretest Eksperiment	36	32	59	47,47
Posttest Eksperiment	36	38	85	75,19
Pretest control	36	22	54	41,14
Posttest control	36	25	57	40,17

Source: Compiled by researchers, 2026

Table 3 shows that the average pretest score for the experimental group was 47.47, while that for the control group was 41.41. These findings indicate that the initial levels of students' interest in learning in both classes were relatively similar, with no significant difference between them. After the intervention was administered, the average posttest score for the experimental group increased to 75.19, while the control group achieved an average of only 40.17. These results indicate that the use of a Wordwall-based game show was effective in increasing students' interest in learning the national income topic in economics.

3. Prerequisite Tests

a. Normality Test

Prerequisite tests aim to determine whether the data are normally distributed or not, as a condition for using parametric statistical tests. In this case, the prerequisite test used was a normality test on the pre-test and post-test data regarding students' interest in learning in the control and experimental classes.

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The Shapiro-Wilk test was used because the sample size was less than 100. The results of the normality test are presented in Table 4.

Tabel 4. Normality test

Data	Sig (*Shapiro-Wilk*)	Notes
Pretest Control	.039	Non-Normal
Postest Control	.117	Normal
Pretest Eksperiment	.001	Non-Normal
Postest Eksperiment	.000	Non-Normal

Source: Compiled by researchers, 2026

Based on the results of the normality test in Table 4, the significance values were less than 0.5, indicating that the data are not normally distributed. Therefore, hypothesis testing did not use the parametric Independent Samples t-test but instead employed a nonparametric statistic. Before conducting hypothesis testing, a homogeneity test was first performed to determine whether the variances of the data in the experimental and control classes were homogeneous.

b. Homogeneity Test

A dataset can be considered homogeneous if it has a significance value > 0.05. The homogeneity test is used to determine whether the variances of the data between the experimental and control groups are homogeneous or equal. The results of the homogeneity test are presented in Table 5.

Table 5. Results of the homogenity test

data	*Levene Statistic*	df1	df2	Sig.	Notes
Pretest	7.474	1	70	.008	Not Homogeneous
Posttest	.000	1	70	.992	Homogeneous

Source: Compiled by researchers, 2026

Based on the results of the homogeneity test presented in Table 5, the pre-test significance value was 0.008, which is less than 0.05, indicating that the data variances between the experimental and control classes are not homogeneous. Meanwhile, the post-test significance value of 0.992 is greater than 0.05, so the data variances between the two classes can be considered homogeneous. Although the post-test data meet the assumption of homogeneity, the research data as a whole are considered not to meet this assumption. Therefore, the hypothesis test for this study uses the alternative option, namely the nonparametric Mann-Whitney U Test.

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4. Hypothesis Testing

Mann-Whitney U Test

One nonparametric statistical test used to test hypotheses is the Mann-Whitney U Test. This test is conducted to analyze hypotheses and obtain information regarding differences between two independent groups when the research data do not meet the assumptions of a normal distribution (Park, 2025). The results of the Mann-Whitney U Test are shown in Table 6 and Table 7.

Table 6. Ranks for the Mann-Whitney test

Class	N	Mean Rank	Sum of Ranks
Class 1 (control)	36	19,07	686,50
Class 2 (eksperiment)	36	53,93	1941,50
Total	72		

Source: Compiled by researchers, 2026

Table 7. Mann-Whitney test

Test Statistic	Score
Mann-Whitney U	20,500
Wilcoxon W	686,500
Z	-7,073
Asymp. Sig. (2-tailed)	0,000

Source: Compiled by researchers, 2026

Based on the data in Table 7, the Asymp. Sig. (2-tailed) value is 0.000, which is less than 0.05. This indicates that there is a significant difference in students' learning interest between the experimental class and the control class. The mean rank of the experimental class, 53.93, is higher than that of the control class, 19.07. Thus, the research hypothesis stating that there is a difference in students' learning interest between the class using a Wordwall-based game show and the class using conventional instruction is accepted.

5. N-Gain Test

The N-Gain test was conducted to measure the extent of the increase in students' interest in learning after receiving the instructional intervention. The N-Gain categories in this study follow Richard Hake's classification. The results of the N-Gain test are shown in Table 8.

Table 8. N-Gain test results

Class	N	Minimum	Maximum	Mean	Std.Deviation
Control	36	-26,92	10,26	-2,106	8,49242
Eksperiment	36	3,13	74,63	52,56	17,52438
Valid N (listwise)	36				

Source: Compiled by researchers, 2026

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The data in Table 8 show that the average N-Gain for the experimental group was 0.52, or 52.56%, falling into the moderate category, while the control group achieved an N-Gain of -0.02, or -2.10%, falling into the low category. These results indicate that the use of Wordwall-based game shows is more effective in increasing students' interest in learning than conventional instruction.

The findings indicate that an increase in students' interest in learning is influenced by the teaching strategies and media used by teachers during the learning process. Logically, students will be more interested in participating in learning activities that are designed to be interactive, enjoyable, and actively engage students. In the experimental class study, learning was not teacher-centered but involved students in game-based activities that required them to think, discuss, collaborate, and compete with other groups. These conditions created a more engaging learning environment, making students more enthusiastic about participating in the lessons. When students are interested in the learning process, their attention and engagement also increase. This increase, in turn, fosters a greater interest in learning among students.

These results align with the Game-Based Learning approach, which explains that game-based learning can enhance students' motivation, engagement, and participation in the learning process. Interactive game activities provide a more enjoyable learning experience, thereby reducing boredom during instruction (Liping et al., 2024). The use of a Wordwall-based game show creates a more active learning environment, making students more interested in participating in economics lessons.

On the other hand, the findings of this study are supported by Self-Determination Theory, proposed by Edward L. Deci and Richard M. Ryan, which explains that students' interest in learning increases when their needs for autonomy, competence, and relatedness are met. In this study, autonomy was evident when students were given the opportunity to actively participate in the game and determine their group's strategy. Competence was evident when students successfully answered questions and earned scores as a form of recognition of their abilities. Meanwhile, relatedness was evident through interactions and cooperation among students during the game. By fulfilling these three needs, students will be more interested and actively engaged in every stage of the learning process.

Based on Slameto indicators of learning interest, the use of Wordwall-based game shows yielded positive results. This was evident in the students' increased enjoyment, interest, attention, and engagement in economics lessons. Students appeared more focused during lessons, were active in group discussions, and were more enthusiastic about answering questions. This indicates that the use of game-based interactive learning media not only impacts students' cognitive aspects but also their affective aspects during the learning process. This improvement in affective aspects is reflected in the increased enthusiasm, engagement, and participation of students in learning activities.

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The significant increase in learning interest observed in this study is closely linked to several supporting factors that influence the effectiveness of the Wordwall-based game show. First, the integration of intergroup competition into the game show format fosters extrinsic motivation in students to outperform other groups, thereby encouraging more active engagement throughout the learning process. Second, Wordwall's engaging visual features, animations, and interface effectively capture students' attention and sustain their focus longer than conventional, monotonous instruction. Third, the real-time scoring system in the game show provides immediate feedback to students on their answers, allowing them to quickly assess their understanding of the national income material. Fourth, the group format of the game show fosters cooperation among students, where each group member feels responsible for the team's success, thereby encouraging more active discussion. Fifth, the fun learning atmosphere created by the game successfully reduces students' boredom with abstract economic concepts, leading to greater student participation throughout the learning activity.

The results of this study align with and reinforce several findings from previous studies. This study is consistent with Hidayah & Fauzi (2024), who demonstrated a significant increase in students' interest in learning through the use of Wordwall. These findings are also consistent with Marisa et al. (2024), who found that students who learned using Wordwall were more enthusiastic and active, resulting in a significant increase in their interest in learning. Furthermore, this study aligns with Safitri & Nugroho (2024), who found that the implementation of Wordwall made students more active and led to higher learning interest. This study is also consistent with Kangas et al. (2024), who, in their systematic review, confirmed that interactive elements in game-based learning are effective in increasing students' learning interest compared to conventional learning.

These findings also demonstrate that game-based learning media can increase student engagement during the learning process (Fatma et al., 2022). Zulfah (2023) study also shows that the use of Wordwall can significantly increase students' interest in learning. However, this study differs from previous research because Wordwall was not merely used as a learning quiz tool but was implemented in a game show format that integrates competition and collaboration among students in economics learning. Another difference lies in the research context this study specifically focused on the topic of national income, an abstract and conceptual concept in high school economics that has not been extensively studied before. These findings complement the research by Ermawati et al. (2024), which previously examined only the effect of Wordwall on learning outcomes in economics, by demonstrating that Wordwall in a game show format can also increase students' interest in learning. In this regard, the use of a Wordwall-based game show has proven effective in creating a more interactive learning experience and increasing student engagement throughout the economics learning process.

Nevertheless, this study has a number of strengths and limitations that need to be considered. The strength of this study lies in the use of a pretest-posttest

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quasi-experimental design with a control group, which allows for a direct comparison between the experimental and control classes, thereby enabling a more objective measurement of the effectiveness of the Wordwall-based game show and avoiding the biases commonly found in studies without a comparison group. Furthermore, the implementation of Wordwall in a game show format which integrates intergroup competition, group collaboration, a real-time scoring system, and immediate feedback has been extensively studied in previous research; thus, this study makes a meaningful contribution to the development of the literature in the context of economics education in Indonesia. On the other hand, a limitation of this study lies in its sample scope, which involved only one school SMAN 2 Batu meaning the findings cannot yet be broadly generalized to other schools with different student characteristics, facilities, and learning conditions. Furthermore, external factors such as internet connectivity, device availability, and students' digital literacy levels have the potential to influence the research results but could not be fully controlled during the conduct of this study.

Therefore, the results of this study suggest that game-based learning media can be used as an effective alternative to enhance students' interest in learning economics. In practical terms, these findings indicate that high school economics teachers can utilize Wordwall-based game shows as a learning medium that is easily accessible via digital devices available at school, making it highly practical for widespread implementation without the need for expensive specialized equipment. Furthermore, these results also reinforce the application of Game-Based Learning in creating more interactive and student-centered learning experiences. Theoretically, this study provides empirical evidence that strengthens the framework of Game-Based Learning as an instructional approach capable of increasing students' interest, engagement, and active participation in the economics learning process, while also affirming the relevance of Self-Determination Theory in the context of technology- and game-based learning in the era of digital education.

Conclusion and Suggestion

Based on the results of the study, it can be concluded that the use of Wordwall-based game shows has proven effective in increasing students' interest in learning economics at SMAN 2 Batu. The results of the Mann-Whitney U Test showed a significance value of 0.000 < 0.05, indicating a significant difference in learning interest between the experimental class and the control class. Additionally, the N-Gain test results showed that the experimental class achieved a 52.56% increase in learning interest, classified as moderate, while the control class showed a decrease of -2.10%, classified as low. These findings indicate that Wordwall-based game shows are effective in increasing students' interest in learning economics, specifically regarding national income.

Based on the research results, it is recommended that teachers utilize Wordwall-based game shows as an alternative learning medium to enhance students' interest in learning. Furthermore, schools can support the use of

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technology-based learning media by providing adequate facilities and infrastructure. For future researchers, it is recommended to conduct similar studies on different topics, educational levels, or variables, with a broader sample size and a longer study period to obtain more comprehensive results.

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