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Utilization of Weak Artificial Intelligence for Interactive Learning

Abdal Zikri[a], Hari Anna Lastya[a]

[a]Universitas Islam Negeri Ar-Raniry Banda Aceh

E-mail: 210211009@student.ar-raniry.ac.id

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Abstract

The use of artificial intelligence technology can be realized in various aspects, including in the learning process that implements weak artificial intelligence (gamma.app) as a newer, innovative and creative learning medium. This study aims to explore the use of gamma.app in creating a more interactive and effective learning experience in schools and to determine students' responses to AI. This study uses a quantitative approach with an experimental method with pre-test sheets, post-test sheets, and questionnaire sheets as research instruments. The experiment was conducted by utilizing weak artificial intelligence (gamma.app) during the learning process. This study shows that gamma.app can help teachers and students in creating interesting and communicative presentations, as well as increasing student engagement in the learning process. This is evident from the results of the pre-test and post-test sheets that there is a significant difference in the average score, namely pre-test 44.1% and post-test 65.1% as well as the achievement of learning objectives. The use of gamma.app can foster student activeness and creativity during learning. The results of student responses show that 93.5% strongly agree with the use of weak artificial intelligence for interactive learning.

Keywords: *Gamma.app, Weak Artificial Intelligence, Learning,*

Abstract

Penggunaan teknologi kecerdasan buatan dapat diwujudkan dalam berbagai aspek, termasuk dalam proses pembelajaran yang mengimplementasikan kecerdasan buatan lemah (gamma.app) sebagai media pembelajaran yang lebih baru yang inovatif dan kreatif. Penelitian ini bertujuan untuk mengeksplorasi penggunaan gamma.app dalam menciptakan pengalaman belajar yang lebih interaktif dan efektif di sekolah serta mengetahui respons siswa terhadap AI. Penelitian ini menggunakan pendekatan kuantitatif dengan metode eksperimental dengan lembar pre-test, post-test serta lembar kuesioner sebagai instrumen penelitian. Eksperimen dilakukan dengan memanfaatkan kecerdasan buatan lemah (gamma.app) selama proses pembelajaran. Penelitian ini menunjukkan bahwa gamma.app dapat membantu guru dan siswa dalam membuat presentasi yang menarik dan komunikatif, serta meningkatkan keterlibatan siswa dalam proses pembelajaran. Hal ini terlihat dari hasil lembar pre-test dan post-test bahwa terdapat perbedaan signifikan pada nilai rata-rata, yaitu pre-test 44,1% dan post-test 65,1% serta pencapaian tujuan pembelajaran. Penggunaan gamma.app mampu menumbuhkan keaktifan siswa dan kreatif selama pembelajaran. Tampak hasil respon siswa, bahwa 93,5% sangat setuju dengan penggunaan kecerdasan buatan lemah untuk pembelajaran interaktif.

Kata Kunci: Gamma.app, Kecerdasan Buatan Lemah, Pembelajaran

Introduction

The increasingly rapid development of information technology in the current era of globalization can no longer be avoided by its influence on the world of education. Global demands require the world of education to always adapt technological developments to efforts to improve the quality of education, especially the adjustment of the use of information and communication technology for the world of education [1][2]. Educational technology is the application of scientific knowledge to learning which as a result of which learning goals can be achieved effectively and efficiently [3], which is not only limited to tools and goods or hardware *but* also *software* and *brainware*.

AI or artificial intelligence is a branch of computer science that focuses on creating systems that can perform tasks that typically require human intelligence. Such as, programming, understanding language, learning ability, understanding language, recognizing patterns, and making decisions [4]. AI is expected to continue to grow, with enormous potential to transform and support various fields such as industries such as companies, factories, healthcare and even the world of education [5].

The development of AI in the world of education began in the 1960s, when researchers began to develop systems that could mimic the human learning process. One of the important milestones is the emergence of programs such as "PLATO" that are used for distance education [6]. Since then, AI technology has been evolving. In the 1980s, the concept of computer-based learning began to be introduced, and in the 2000s, with advances in machine learning algorithms and big data, AI began to be widely applied in the education system [7]. Today, AI is used for learning personalization, student data analysis, and adaptive educational content development. This allows for more effective education and according to the needs of the individual

In today's learning, the development of AI design is a necessity to support the education system. *Weak AI* is a type of AI based on its level of ability, *weak AI* is the weakest type because it is only able to work based on certain parameters and according to the commands given by humans themselves, in contrast to *general AI* which is able to understand, teach and adapt on par with humans such as robotics which has been widely used [8]. One of the *weak* AI that can be used to help the learning process is Gamma.app, which is one of the artificial intelligence-based platforms or commonly called *Artificial Intelligence* [9]. This platform presents several main features, one of which is the creation of presentation slides automatically and freely, thus facilitating the presentation process of teacher and student learning results by making power point slides automatically and quickly. The involvement of artificial intelligence will help students more easily understand the lessons in the classroom and facilitate interaction between students and teachers and also save time during the learning process [9][10]. Meanwhile, the interaction between humans and artificial intelligence is one of the solutions or collaborations to help humans in the world. However, the use of *weak AI* (gamma.app) for the learning process also has some limitations or challenges in its application, such as the availability of facilities such as laptops or cellphones as one of the learning media, then there must also be an internet connection to be able to access and utilize gamma.app in the learning process [11].

In the teaching and learning process in schools, *AI* is one of the simplest and easiest to use media to help the learning process. It is more interactive at school. The results of observations at SMK SMTI Banda Aceh school regarding how teachers and students in the classroom apply *Weak AI (gamma.app)* in interactive learning, in the learning process in the classroom teachers and students have applied *weak AI* in the learning process in the classroom in the basic subjects of mechanical engineering and the researcher wants to see firsthand how students respond to the application of *weak AI* in supporting an interactive learning process in the classroom that students are more enthusiastic about paying attention to the material delivered by the teacher and making the classroom atmosphere more active after applying *weak AI* in learning.

Research by Johnson et al. examines how AI technology can improve personalized learning for students. This study used a quasi-experimental method involving 120 high school students. The results show that AI-based learning platforms are able to increase student understanding by 25% compared to conventional methods, especially in mathematics subjects [8]. Research *on Artificial Intelligence Virtual Assistants in Hybrid Learning Environments,* stated that Virtual assistant AI supports hybrid classroom management by providing features such as automated schedules, task reminders, and discussion forums [6]. The results of the study show that AI helps maintain a smooth learning process, especially in remote or hybrid learning situations. AI-based chatbots support students in answering questions related to learning materials in real-time, increase student engagement, and reduce the burden on teachers in answering repetitive questions [10]. The results of the study show AI functions as a learning assistant, increasing efficiency and facilitating self-paced learning. A study underlined several challenges in AI implementation in teaching practice, which provide guidelines for developing the field [12] while addressing ethical, technical, and pedagogical concerns in AI-assisted education

The difference between the previous research and the one that will be carried out is that the previous study focused more on how AI can be used for distance learning and take advantage of learning flexibility [13]. Meanwhile, the research that will be conducted focuses on direct or face-to-face learning by emphasizing the aspect of interactivity assisted by AI. This shows that there are differences in the scope, methods, and objectives of the research. In this study, the researcher utilizes one type of *weak AI* that has developed today, namely gamma.app which is one of the platforms that can be used in the learning process in the classroom.

Literature Study

a. Utilization of *Weak Artificial Intelligence*

Artificial Intelligence or commonly abbreviated as AI is artificial intelligence which is a branch of computer science that focuses on creating systems that can perform tasks that usually require human intelligence. Such as, programming, understanding language, learning ability, understanding language, recognizing patterns, and making decisions [14]. AI is expected to continue to grow, with enormous potential to transform and support various fields such as industries such as companies, factories, healthcare and even the world of education [9].

Weak Artificial Intelligence is one of the artificial intelligences that can be used to obtain profits, conveniences and benefits. By making use of something, an ordinary person will think more critically, broadly, and skilled, because in utilizing something that exists, a person must also be able to consider the results obtained and the future impact on himself, the people around him, and his environment from something [15]. *Weak Artificial Intelligence* is also known as simple artificial intelligence or *narrow* AI, referring to artificial intelligence that is designed and systemed for tasks or a series of tasks in schools or in certain agencies that can be used by a teacher, student, employee and even ordinary people [16]. The system is excellent in its predetermined scope but lacks the general cognitive capabilities of human intelligence. *This weak AI* operates in well-defined parameters such as facial recognition, voice recognition, learning platforms and so on and cannot adapt to tasks outside of the programmed capabilities.

b. Interactive Learning

Interactive Learning is a model of learning approach that involves students to be active during the learning process, thus students can interact with teachers, friends and be more active and able to better understand the learning material [11]. This interactive learning aims to increase student involvement, understanding, and information retention through more interesting and non-monotonous activities.

Features of interactive learning

- Interaction, students are required to increase interaction with teachers, friends and learning materials such as conducting discussions, questions and answers, and other activities.
- Flexible, interactive learning can usually be tailored to the needs and learning styles that students prefer at the time of learning
- Active involvement, students are required to be more involved or more active during the learning process through activities that involve them to take more part in the learning process
- Activity-based learning, interactive learning is often based on activities designed to promote learning such as projects, simulations, presentations, games and more [1].

Interactive learning methods

- Educational games, students and students can learn through a game designed to teach or provide information about learning concepts and materials.
- Group discussions, students and students discuss and exchange ideas in a forum or group to discuss material or problems in learning.
- Presentation, students and students present the results of analysis or research that has been carried out.

c. Mechanical Engineering Fundamentals Lesson

The basics of mechanical engineering is one of the subjects at the vocational level or equivalent that studies the basic principles and fundamental concepts in the field of mechanical engineering [17]. The basics of mechanical engineering also include about the definition of mechanical engineering, the use and safety of mechanical engineering, the history of the development of mechanical engineering, and the scope of

mechanical engineering work.

In this study, the researcher applies the use of *weak AI (*gamma.app) in interactive learning in the classroom in the subject of the basics of mechanical engineering in the basic engineering material of the production process in the field of machine manufacturing. At the end of the phase, students are expected to be able to understand the basic techniques of the production process through introduction and brief tactics related to the entire production process and cutting and non-cutting technologies consisting of round, square shapes and special profiles applied in the industry. And it is hoped that students will be able to present the results of the practicum in the field by utilizing *weak AI* (gamma.app) as an alternative in a more interactive and efficient learning process.

Methodology

The type of research used in this study is an experimental method with a quantitative approach. Basically, the quantitative approach is carried out in inferential research (in the context of hypothesis testing) and bases the conclusions of the results on a probability of error of rejecting the hypothesis nil. With the quantitative method, the significance of group differences or the significance of the relationship between the variables being studied will be obtained. In general, quantitative research is large sample research. In this study, there is a group that is selected by the researcher by considering various aspects in order to be able to represent other groups, then given a pretest to find out the initial state of whether there is a difference between after the experimental trial and before the implementation of the experiment.

In this study, the researcher carried out a learning process by utilizing *weak artificial intelligence* (gamma.app) in presenting learning materials, and students will also be given LKPD by utilizing *weak artificial intelligence* (gamma.app) in the completion process. The steps to use gamma.app platform are:

1. Type "gamma.app" on a browser like Chorome or others, then click "Sign up" then "get started for free"
2. Next, select the menu provided according to your data and according to your needs such as profession, what is used for and others.
3. Next, choose one of the available menus as needed.

4. Next, fill in the format as needed such as the title, number of slides, then click "Create an Outline"

5. Next, you can remove or add large headings, text content, and image sources as needed for the presentation then click "continue"

6. Next select the desired theme, after the ppt finishes automatically then click the three dots in the right corner (**...**) Then select Export to save the PPT to your ranking.

During the learning process, the researcher also used a quantitative approach with *the Quasi Experimental* method with *Pretest-Posttest Control Group Design* and questionnaire sheets. In this study, there was a group that was selected by the researcher to be a treatment group, then given a pretest and also a questionnaire sheet before and after the experimental treatment to find out the state before the experimental treatment and after the experimental treatment. This research was conducted to find out and obtain an overview of how to use *artificial intelligence* in the learning process in the classroom.

The population in this study is all students of SMK SMTI Banda Aceh which totals 647 students. Then sampling is carried out using *the purposive sampling technique*, which is a sample determination technique based on the researcher's consideration of which samples are most suitable, useful and considered to be able to represent a population. The sample in this study is 16 students X TMI B SMK SMTI Banda Aceh. Samples were selected with several considerations that had been analyzed such as representativeness, representativeness or having the same characteristics as the population, availability, and then the ease of access of researchers to select samples.

This research was carried out for 9 hours during the learning process at SMK SMTI Banda Aceh by involving students of class XB TMI in the subject of mechanical engineering fundamentals with electrical fundamentals material. In this study, a *pre-test, post-test* sheet and a questionnaire sheet were used as research instruments used in the research experiment. In the *pre-test sheet,* there are 5 questions about the basics of electricity that are distributed to each student before the lesson is carried out with the aim of measuring students' initial knowledge of the basics of electricity. Then the *post-test* sheet also contains 5 questions about the basics of electricity that have been discussed during learning which will be distributed to each student after completing the learning to measure the improvement of students' understanding of the basics of electricity and obtain results whether the learning objectives are achieved. After completing the post-test sheet, the researcher distributed a questionnaire sheet containing 6 questions about the use of *weak artificial intelligence (gamma.app)* during the learning process, with an alternative choice of answers (1) disagreeing, (2) agreeing, (3) agreeing, and (4) strongly agreeing. Filling out this questionnaire sheet is filled in by marking (√) the answers filled in by students.

In this study, the data obtained is analyzed using descriptive and inferential statistical techniques, after all the data is collected, the next stage is data analysis, because at this stage the researcher can formulate the results of his research. The data that has been collected is then processed using appropriate statistics. In analyzing the data of this research, there are several processing steps, namely:

1. Evaluation of students' skills

This analysis was carried out to find out whether there was an improvement in student skills through the use of *weak artificial intelligence (gamma, app).* The steps in the processing of test data are as follows:

a. Score each student's pre-test and post-test answer sheet
b. Calculate the pre-test and post-test answer scores of students using formulas.

$$\text{Value} = \frac{\text{Number of correct answers}}{\text{Total score}} \times 100 \quad \ldots\ldots\ldots \quad (1)$$

c. Calculate the average test score of students in the experimental class and class is not control. average score

$$= \frac{\text{Total Student Score } (\Sigma)}{\text{Number of students (N)}} \times 100 \quad \ldots\ldots (2)$$

d. Measure the level of concept mastery by comparing the percentage of average scores of students' pre-test and post-test test results.

To determine the level of mastery of students' concepts, assessment guidelines based on percentage categories adapted from Martala (2014), as shown in Table 1.

Table 1. Concept Mastery Category

Value	Category
81% - 100%	Excellent
61% - 80%	Good
41% - 60%	Enough
21% - 49%	Less
0% - 20%	Very less

2. Normality Test

The normality test was carried out to find out whether the data from the research results on students' skills in the basic mechanical engineering subject by utilizing *weak artificial intelligence (gamma.app)* was useful or not. The normality test used in data processing in this study is Shapiro-Wilk, because the number of samples is less than 50. This test is used to find out whether *the data on the results of pre-test* and *post-test* student skills is distributed normally or not. Statistically tested using SPSS, the hypothesis normality test tested was:

Ho : *Pre-test* and *post-test results* are normally distributed
Ha: *Pre-test* and *post-test results* data are not distributed normally

The significance level used in this normality test is $\alpha = 0.05$. If the results of the Shapiro-Wilk test show a significance value (Sig.) greater than 0.05, then the data is considered to be normally distributed and H_0 is accepted. Conversely, if the significance value is less than or equal to 0.05, then the data is not normally distributed and H_0 is rejected. The Shapiro-Wilk normality test formula is used to calculate the statistical value of W, which is a measure that shows how close the distribution of the sample data is to the normal distribution.

3. Hypothesis Testing

The next step in this research process is to conduct a hypothesis test to find out Ho: The application of *Artificial Intelligence (weak AI)* in the learning process in the classroom has no benefit in improving interactive learning in the classroom in the subject of the basics of mechanical engineering. Then Ha: The application *of Artificial Intelligence (weak AI)* in the learning process in the classroom has no benefit in

improving interactive learning in the classroom in the subject of the basics of mechanical engineering. Because this study involved a group of students who were given *a pre-test* and *a post-test*, a paired t-test was used. This test is one of the statistical tests used to see if there is a significant difference between the before and after values of treatment in the same group. Decision-making criteria: • If Sig. (2-tailed) < 0.05, then H_0 is rejected, meaning that there is a significant difference between pre-test and post-test. • If Sig. (2-tailed) ≥ 0.05, then H_0 is accepted, meaning there is no significant difference.

4. Student Response

Data on student responses were obtained through questionnaires, then analyzed descriptively using percentages to see the tendency of responses to the use of *weak artificial intelligence (gamma.app)* for interactive learning in the classroom. The percentage criteria obtained are interpreted based on the assessment categories from Sumartini, Pebriani, and Puspitasari (2022) as shown in table 2 below.

Table 2 Student Response Percentage Criteria

Prentase	Category
0 – 19,99	Very less
20 – 39,99	less
40 – 59,99	enough
60 – 79; 99	good
80 - 100	Excellent

Results and Discussion

a. Results of pre-test post-test scores

Before learning, the researcher first gives a pre-test to each student and gives a post-test to each student after the learning has been completed. The results of the pre-test and post-test scores obtained from each X TMI B student can be seen in table 3.

Table 3. Pre-test *and* Post-test *Score Results* for Class X TMI B Students

No	Student's name	*Pre-test*	*Post-test*
1	ZN	39	68
2	MDA	37	73
3	MS	18	49
4	GBV	44	41
5	JR	32	46
6	DPN	53	59
7	SR	56	70
8	MRAG	53	64
9	AKZ	43	61
10	ANR	78	86
11	FAP	82	83
12	MA	22	87
13	FRR	33	86
14	MR	70	82
15	FH	19	32

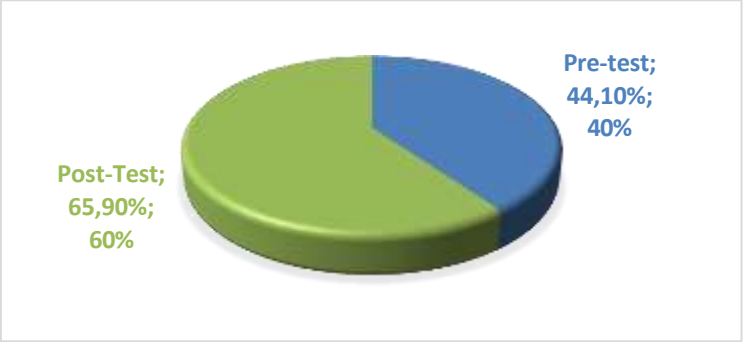
16	IIS	27	68
Average		44,1	65,9

Based on Table 3, the lowest score of students during *the pretest* was 18 and the highest score was 82. The average *pretest score* is 44.1. Referring to the KKM score (Minimum Completeness Criteria) which is 70, the number of students who managed to achieve the KKM and was declared complete was 3 people and those who did not succeed in achieving the KKM and were declared incomplete were 13 people. Based on the data obtained, the percentage of student completeness is 18.75%.

Meanwhile, the results of the *posttest* can be seen that the lowest score of students is 32 and the highest score is 87. The number of students who reached the KKM and was declared complete was 6 people and those who did not succeed in reaching the KKM amounted to 10 people, so that the percentage of student completeness achieved was 37.5%. Although the average *posttest* score did not reach the KKM, but when compared to the average *pretest score,* the student's score experienced a 2-fold increase from *pre-test* to *post-test score.*

Based on the results of table 3, it shows that the use of *Weak Artificial Intelligence* for interactive learning shows an increase in the average student score from 44.1% to 65.9% and achieves learning goals. Based on the description above, the average *pretest* score before the implementation of learning that utilizes *weak artificial intelligence (gamma.app)* and the average score of *the posttest* after the implementation of learning that utilizes *weak artificial intelligence (gamma.app)* has a difference. The explanation can be seen in Figure 1.

Figure 1. Pretest *and* Posttest *Average Scores*



The Normality test was carried out using *the one sample kolmogorov-Smirnov test*. The results can be seen in table 4 and table 5.

Table 4**.** Descriptive Normality Test

Descriptions			Statistics	Std. Error
Pretest	Mean		44.1250	4.99823
	95% Confidence Interval for Mean	Lower Bound	33.4715	
		Upper Bound	54.7785	
	5% Trimmed Red		43.4722	
	Median		41.0000	
	Variance		399.717	
	Minimum		18.00	
	Maximum		82.00	

	Range		64.00	
	Interquartile Range		27.00	
	Skewness		.576	.564
	Kurtosis		-.538	1.091
Postet	Mean		65.9375	4.28512
	95% Confidence Interval for Mean	Lower Bound	56.8040	
		Upper Bound	75.0710	
	5% Trimmed Red		66.6528	
	Median		68.0000	
	Variance		293.796	
	Std. Deviation		17.14047	
	Minimum		32.00	
	Maximum		87.00	
	Range		55.00	
	Interquartile Range		31.25	
	Skewness		-.496	.564
	Kurtosis		-.671	1.091

Table 5. Normality Test

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
Pretest	.127	16	.200*	.939	16	0.338
Postet	.138	16	.200*	.935	16	0.288

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Based on Table 5, the normality test shows the results that:

1. In *the significance pretest:* 0.338 > 0.05, the research data is normally distributed.
2. In the *significance posttest:* 0.288 > 0.05, the research data is normally distributed.

The next step in this research process is to conduct a hypothesis test to find out whether the use of weak artificial intelligence in interactive learning in the classroom has benefits or not. Because this study involved a group of students who were given a pre-test and a post-test, a paired t-test was used. This test is one of the statistical tests used to see if there is a significant difference between the before and after values of treatment in the same group, which can be seen in table 6.

Table 6. Hypothesis Test Results

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	pretest - posttest	-21.813	19.080	4.770	-31.979	-11.646	-4.573	15	.000

Based on Table 6, a Sig. (2-tailed) value of 0.000 was obtained, so it can be concluded that Ha was accepted because of 0.000<0.05. This shows that student learning outcomes during *the pretest* are different from the student learning outcomes during *the posttest*. Thus, it can be concluded that the use of *weak artificial intelligence* (gamma.app) for interactive learning in the classroom is able to affect student learning outcomes.

b. Student Response Questionnaire

The response questionnaire was given at the end of the learning, after the implementation of the learning model. The results can be seen in Table 7

Table 7. Results of the Student Response Questionnaire

No	Name student	Question item number/Questionnaire Result Score						Student Response Score Results			
		1	2	3	4	5	6	Disagree %	Quite agree %	Agree %	Strongly agree %
1	ZN	4	4	3	4	4	4	0	0	16,7	83,3
2	MDA	4	4	4	4	4	4	0	0	0	100
3	MS	3	4	4	4	4	4	0	0	16,7	83,3
4	GBV	4	3	3	4	3	3	0	0	66,8	33,2
5	JR	4	4	4	4	4	4	0	0	0	100
6	DPN	4	4	4	4	3	3	0	0	33,2	66,8
7	SR	3	3	4	4	3	3	0	0	66,8	33,2
8	MRAG	4	3	4	4	4	4	0	0	16,7	83,3
9	AKZ	4	4	3	4	4	3	0	0	33,2	66,8
10	ANR	4	4	4	4	4	4	0	0	0	100
11	FAP	4	4	4	4	3	4	0	0	16,7	83,3
12	MA	4	4	4	4	4	4	0	0	0	100
13	FRR	4	3	4	4	4	3	0	0	33,2	66,8
14	MR	4	3	3	4	4	4	0	0	33,2	66,8
15	FH	4	4	4	3	4	4	0	0	16,7	83,3
16	IIS	4	4	4	3	3	4	0	0	33,2	66,8
Average score		96%	92%	93%	96%	92%	92%	∑ 93.5%			

Based on Table 7, the percentage for the first statement item is 96% who strongly agree with the use of AI. In the second item of statement, the percentage of student responses of 92% was found to strongly agree that AI helps facilitate learning. In the third item of statement, the percentage of student responses was obtained of 93% who stated that they strongly agreed and agreed that *weak Artificial Intelligence* (gamma.app) helps increase creativity. In the fourth item of statement, the percentage of student responses was 96% who stated that they strongly agreed that *weak Artificial Intelligence (gamma.app)* helps increase activeness in learning. In the fifth point of statement, the percentage of student responses was 92% who stated that they strongly agreed about understanding the learning material by utilizing *weak Artificial Intelligence* (gamma.app*).* In the sixth item of the statement, the percentage of student responses was 92% who expressed strong agreement about their interest in the use of AI for learning.

Based on student response data, it shows that the use of *weak Artificial Intelligence* (gamma.app) for interactive learning can help increase activeness, creativity, material understanding and interest in the use of AI for learning. It was tested from the results of the questionnaire sheet which stated that they strongly agreed and agreed with the 6 statements stated on the student questionnaire sheet. This result similar with [18], believed that the implementation of AI-based technology significantly increases the effectiveness of learning.

Conclusion

Based on the results of research experiments and data analysis, it can be concluded that the use of *Weak Artificial Intelligence* (gamma.app*)* for interactive learning can be applied by teachers and students in the learning process as evidenced from the *pre-test post-test* sheetwhich shows an increase in student learning outcomes from 44.1% to 65.9% and the achievement of learning goals after learning. The use of *Weak Artificial Intelligence* (gamma.app*)* can also be applied in the learning process because it can increase creativity, activeness and understanding of learning materials as evidenced by the answers of the questionnaire sheets distributed to each student after learning with the highest answer results of 96%. AI can support more adaptive and effective learning, including automated assessments and materials tailored to student needs [19]. With an average score of 93.5% of all questionnaire statements, which stated that they strongly agree and agree with the use of *Weak Artificial Intelligence* (gamma.app) for interactive learning. Gamma AI has proven effective when used as a creative tool to produce more interesting learning media and support the learning process [20].

Based on the results of the research that has been concluded above, in an effort to improve the quality of education, it is necessary to put forward several suggestions, including, for teachers, they must pay more attention to the character and condition of students when the learning process takes place. Referring to the results of this study, although student learning outcomes have increased, but when viewed from the average score of students is still below the KKM (Minimum Demand Criteria).

References

[1] A. A. Hasmori, H. Sarju, and R. Hamzah, "Education, Curriculum and Society One Integration," *J. Edupres*, vol. 1, pp. 350–352, 2011.
[2] J. S. Pahlawan, "The Use Of Wordwall Media In Increasing Student Interest In Electrical Engineering Drawing Class X Smkn 1 Darul Kamal Aceh Besar," in *International Conference On Vocational Education, Electrical & Electronic Engineering*, 2024, pp. 104–111.
[3] S. Qadri, Riza Rahmad, "The articel Desain E-Modul Sistem Instalasi Kelistrikan Cerdas Berbasis IoT pada Mata Kuliah Teknik Instalasi Listrik," *J. Pendidik. Tek. Elektro*, vol. 1, no. 16–36, 11AD.
[4] A. J. E. Oktavianus, L. Naibaho, and D. A. Rantung, "The Utilization of Artificial Intelligence in Learning and Assessment in the Digitalization Era," *J. Sci. Technol. Kridatama*, vol. 5, no. 2, 2023.
[5] A. C. Puspitaningrum, "The Utilization of Artificial Intelligence Technology in the Provision of Teaching Materials for Teachers of SMAN 1 Waru Sidoarjo," *J. Progress. Community Serv.*, vol. 8, no. 2, 2024.
[6] Gonzalez and Ahmed, "Artificial Intelligence Virtual Assistants in Hybrid Learning." 2023.
[7] H. Kurniawan, A. S. W.U., and R. W. Tambunan, "The Potential of AI in Increasing Creativity and Literacy in Indonesian Language Learning," *J. Young Indones. Expert.*, vol. 5, no. 1, 2024.
[8] Johnson, "Using Artificial Intelligence to Enhance Adaptive Learning Systems in Classrooms," *J. Sci. Technol.*, vol. 1, no. 2, 2021.
[9] S. Marwanti and A. Gafur, "Educational Technology," *J. Sci. Educ.*, 2020.
[10] S. Siaulhak, S. Kasma, and N. Nirsal, "The Utilization of Artificial Intelligence in

Supporting Learning Skills of SMAN 2 Palopo City," *J. Informatics Abdimas*, vol. 1, no. 1, 2023.

[11] E. D. Sherly and Kisno, "The Effectiveness and Impact of the Utilization of Artificial Intelligence in Chinese Language Learning," in *Proceedings of the National Seminar on Teacher Training and Education (SNKP*, 2023.

[12] S. Celik, Ismail; Dindar, Muhterem; Muukkonen, Hanni; Järvelä, "The Promises and Challenges of Artificial Intelligence for Teachers: a Systematic Review of Research," *TechTrends*, vol. 2022, no. 66, pp. 616–630.

[13] W. Soeryanto and M. A. Nurtanto, "The Use Of Goegle Classroom In Improving Learning Achievement On Apprenticeship Program In Vocational School," *Intersci. J.*, vol. 2, no. 2, pp. 35–36, 2017.

[14] Z. M. Luthfansa and Rosiani, "The Utilization of Wireshak for Sniffing Data Communication with HTTP Protocol on Internet Networks," *J. Inf. Eng. Educ. Tecnhol*, vol. 5, no. 1, pp. 34–39, 2021.

[15] M. Hussain, M. Hasan, and M. Taimoor, "Penetration Testing In System Administration," *J. Sci. Tecnhol. Res*, vol. 6, no. 6, pp. 275–278, 2017.

[16] S. Sanjaya and Arsa, "Evaluation of Website Security of Institution X Through Penetration Testing Using ISSAF Framework," *J. Pigeon Sci.*, vol. 8, no. 2, 2020.

[17] M. Novak, "Intelligent Inspection Probe For Monitoring Bark Beetile Activities Using Embedded IoT Real-Time Object Detection," *J. Eng. Sci. Tecnho*, vol. 5, no. 1, 2024.

[18] S. Nasution, Juni Erpida; Yanis, Afrida; Alfaina, Annis; Ramadanti, Dwi; Imam, Muhammad Khoirul; Desriani, Rospita; Dewi, "Pengaruh Kecerdasan Buatan (Ai) Terhadap Efektivitas Pembelajaran Mahasiswa Prodi Manajemen Pendidikan Islam," *Indones. J. Islam. Stud.*, vol. 1, no. 1, pp. 43–49, 2025.

[19] L. Meir, Revi Levina; Purnama, Dane Keisya; Az Zahra, Malika; Salsabilah, Fitrotunnada; El Hakim, "Peluang Dan Tantangan Pemanfaatan Teknologi Ai Dalam Dunia Pendidikan," *J. Ilm. Penelit. Mhs.*, vol. 3, no. 4, pp. 629–639, 2025.

[20] Y. Vebby;, Afriansyah; Turnandes, "Pelatihan Aplikasi Gamma Ai Sebagai Alat Bantu Kreatif Dalam Pembelajaran Dan Presentasi Siswa-Siswi Smkn 5 Pekanbaru," *J-COSCIS J. Comput. Sci. Community Serv.*, vol. 5, no. 2, pp. 329–335, 2025.