

Using AI Talking Photo in Student Presentations

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Abstract

This research stems from elementary school teachers' complaints regarding the quality of student presentations. The purpose of this study was to test a new presentation method using AI Talking Photo. This was an experimental study using a pretest-posttest control group design. In this design, two classes were tested: an experimental class and a control class in fifth grade. Each class consisted of 20 students. After the pretest, learning continued using the Group Investigation method. Students were asked to study the material provided by the teacher and then present it. The experimental class presented their learning outcomes using AI Talking Photo, while the control class presented using conventional methods. The results showed no significant difference between the experimental and control classes in the pretest. However, in the posttest, the quality of the experimental class' presentations was significantly better than that of the control class. This indicates an improvement in the quality of student presentations with the help of AI Talking Photo.

Keywords: AI Talking Photo, Presentation Quality

INTRODUCTION

The development of artificial intelligence (AI) technology in recent years has brought significant changes to various areas of life, including education. AI technology is not only being used for job automation and information processing, but is also beginning to be used as an innovation to support the learning process. The use of AI in education provides opportunities to create more interactive, personalized, and engaging learning experiences for students. Through various AI-based applications, teachers and students can receive support in developing creativity, communication, and 21st-century skills.

Despite the rapid development of AI technology, its use in elementary school learning remains suboptimal. Most elementary school learning processes still use a conventional, teacher-centered approach, resulting in the integration of digital technology, particularly AI-based technology, as a learning medium. This is despite the characteristics of elementary school students, who are at the concrete development stage, requiring engaging, visual learning experiences that enable them to actively participate in the learning process.

One important competency that needs to be developed in elementary school students is communication skills, particularly presentation skills. Presentation skills

are part of communication skills that play an important role in building self-confidence, conveying ideas systematically, and developing critical and creative thinking skills.

In learning practice, various obstacles remain related to students' presentation skills. Some students struggle to convey ideas coherently, use appropriate language, demonstrate expressiveness when speaking, and maintain confidence when speaking in front of the class. This situation is also a problem raised by teachers in elementary school learning.

Presentation skills are crucial for students to possess. According to Goeyardi (2022), strong presentation skills indicate strong speaking skills. These strong speaking skills provide students with greater security for their future as they become members of society and industry. Presentation skills play a strategic role in supporting students' future success. Jadmiko and Wahyuningsih (2023) state that presentation skills impact speaking skills, which are crucial for students to possess. Similarly, Sulianta (2024) views presentation techniques as being closely linked to interpersonal skills. Good presentation techniques also contribute to improved interpersonal skills.

One alternative solution to address these issues is the use of artificial intelligence-based learning media, one of which is AI Talking Photo technology. AI Talking Photo is a technology that can transform static images into digital characters that can speak through the integration of artificial intelligence. This technology enables students to convey information through more engaging visual representations, providing a different learning experience than conventional presentation methods. The use of AI Talking Photo has the potential to help students practice conveying ideas, increase engagement in learning, and build confidence in presentations.

Several previous studies have shown that the use of digital technology in learning can increase student motivation, creativity, and engagement, for example, by Mustika et al. (2026); Nur'aeni, Fitriani, and Rahayu (2026); and Pratiwi, Ibrahim, and Siregar (2026). However, research specifically examining the use of AI Talking Photo technology as a medium to improve elementary school students' presentation skills is still relatively limited. Therefore, further research is needed to determine the effectiveness of AI Talking Photo in supporting the development of students' communication skills, particularly presentation skills.

Based on these issues, this study aims to analyze the use of AI Talking Photo in improving elementary school students' presentation skills. The results of this study are expected to contribute to the development of artificial intelligence-based learning innovations and provide alternative learning media that teachers can use to develop students' communication skills.

RESEARCH METHODS

This research is an experimental study using a pretest-posttest control group design. In this design, two classes served as the subjects of the trial: an experimental class and a control class. The two classes are grades 5A and 5B at a public elementary school in Wonosobo, Central Java. Each class consists of 20 students.

	Pretest		Posttest
Kelas Experimen	O1	X	O3
Kelas Kontrol	O2		O4

Prior to the experiment, both classes underwent a pretest. Pretest data was collected through a student presentation test and assessed by the teacher. The instrument used was an observation guide consisting of five items on a scale of 1-5. The pretest data for the experimental class was O1, and for the control class, O2. After the pretest, learning continued using the Group Investigation method. Students were asked to study the material provided by the teacher and then present it. The experimental class presented their learning outcomes using the AI Talking Photo, while the control class presented conventionally. After the lesson, the teacher assessed the quality of the students' presentations using observation methods. The results of this assessment became the students' posttest scores, using the same instrument as the pretest.

Pretest and posttest data were then analyzed using an independent sample t-test. In the pretest stage, the pretest data for the experimental class (O1) was compared with the pretest data for the control class (O2). The assumption used in this initial comparison stage was that there was no significant difference between the pretest scores for the experimental and control classes. Next, the posttest data for the experimental class (O3) was compared with the posttest data for the control class (O4). If the data for both classes are not significantly different, the experiment is declared a failure. The experiment is declared a success if there is a significant difference between the experimental and control classes, where the posttest score for the experimental class is higher than the posttest score for the control class.

Possibility	Pretest	Posttest	Summary
1	Similar	Similar	Fail
2	Similar	Experiment > Controll	Pass

The difference test calculation was performed at a 0.05 error level. To facilitate calculations, this study relied on SPSS software.

RESEARCH RESULTS AND DISCUSSION

AI Talking Photo is an application that can be used to assist students with presentations. In this application, students need to upload their photos as material for the application to create a video presentation. Next, students need to write a presentation script in the column provided by the application. The script should include everything to be conveyed from the beginning to the end of the presentation (opening, body, and closing). After students have completed the script, they can immediately upload the script to the application.

Using the student's photo and the uploaded script, the application will automatically create a video presentation. In the resulting video, the student's photo appears to come to life and speaks according to the uploaded presentation script. This video serves as a virtual presentation, replacing traditional presentations.

Based on the experiments conducted, one of the key points in presentations using AI Virtual Photo is the effort to transform traditional presentations into digital ones. In the control class, students still presented conventionally by coming to the front of the class to deliver their presentation. This differs from the experimental class, where students did not come to the front of the class to present but instead showed their video presentations developed using AI Talking Photo.

Multimodal conditioning (RGB, mask, attribute) can also be used to support talking photo editing, making the process more flexible (Para & Eldesokey, 2024). Furthermore, Zhang et al. (2023) also demonstrated that combining image-text diffusion and GAN to generate highly stylized talking photos increased visual diversity and quality.

Before the lesson began, both classes underwent a pretest. As in the study design, pretest data was collected through observations of student presentations. Five

instrument indicators were measured on a scale of 1-5, with 5 being the lowest and 25 being the highest. On this scale, the experimental class achieved an average score of 16.95, while the control class achieved an average score of 17.15.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error
Pair 1 Pre1	16.9500	20	1.76143	.39387
Pre2	17.1500	20	1.49649	.33462

It appears that the average difference between the two classes is 0.2. Next, the significance of this difference needs to be tested using a paired sample t-test. Based on the test results, the t-value obtained is -1.165, which is significant at 0.258. The significance appears to be greater than 0.05, which means the difference is not significant (too small), or in other words, the pretest scores of both classes are the same.

Paired Samples Test

			Paired Differences				t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference			
						Lower	Upper		
Pair 1	Pre1 - Pre2		-.20000	.76777	.17168	-.55933	.15933	-1.165	.258

After the experiment was conducted, both classes underwent a posttest. This posttest was conducted in the same manner as the pretest. The posttest results showed that the average score for the experimental class was 20.4, while the average score for the control class was 17.45.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error
Pair 1 Post1	20.4000	20	1.87504	.41927
Post2	17.4500	20	1.31689	.29447

Thus, there is a difference in test scores of 2.95. Next, the difference needs to be tested for significance using a paired sample t-test. Based on the test results, the t-value obtained is 5.229 which is significant at 0.000. The significance appears to be less than 0.05, which means the difference is significant, or in other words, the posttest scores of the two classes are not the same, where the posttest score of the experimental class is higher than the control class.

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Post1 - Post2	2.95000	2.52305	.56417	1.76918	4.13082	5.229	19	.000

Two things emerged from this research. First, the quality of students' virtual presentations was better than their conventional presentations. This makes the use of AI Talking Photo effective in improving student presentation quality. This is evident in the significant difference between the experimental and control classes.

Second, this research revealed an unintended improvement in their ability: script writing. Although this ability was outside the research design, and there was

no formal mechanism to measure the improvement, observations and discussions with teachers indicated that students' script writing skills had improved.

The results of this study are related to various previous studies. This instant lifestyle can be viewed both negatively and positively. Negatively, research by Nasution et al. (2025) shows that the presence of AI actually makes students lazy. Some of the laziness referred to includes laziness in effort, laziness in reading books, and a desire for instant things. This occurs due to the various conveniences offered by AI to assist human work.

Furthermore, various previous studies also view AI from a negative perspective if used wisely. Some of these studies include those by Aulia, Sholiha, and Setyawan (2025), Hadi and Ali (2025), and Amalia, Majid, and Sahrah (2024). Based on the findings of these studies, it appears that the presence of AI actually has a more positive impact, namely making students more productive.

These research findings also refute the concerns of DeCremer and Kasparov (2021) that AI will replace humans. The results of interviews conducted in this study also appear to contradict these concerns. The use of AI actually makes students' work easier and even improves their abilities.

Positively, the results of this study align with various previous studies. Experts have predicted that the use of AI will have a positive impact, for example, Shimizu et al. (2024), Shi (2025), and Wang et al. (2024). Therefore, this study appears to complement the list of positive benefits of using AI, particularly AI Talking Photos.

CONCLUSIONS AND RECOMMENDATIONS

Based on the research conducted, it is concluded that the use of AI Talking Photos is effective in improving the quality and presentation skills of elementary school students. Furthermore, an unintended finding was an increase in script-writing or prompting skills among elementary school students.

Based on these conclusions, it is recommended that teachers replace conventional presentations with digital ones. Teachers can use various AI Talking Photo applications to implement this presentation conversion. This is expected to improve the quality of students' presentations and their script-writing skills.

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