The effect of picture series as a visual learning aid on students' speaking skill

Evi Zurna[1]*
Tuti[2]
Henry Elisa[3]
English language Study Program, STKIP Persada Khatulistiwa, Indonesia[123]
*Email: evizurnas@gmail.com

ABSTRACT

Speaking is one of the most crucial skills in learning English, but many students still find it difficult to master in the classroom. This research was carried because students tend to feel unconfident when speaking, which affects their fluency and pronunciation. Therefore, this study aims to investigate the effect of using picture series as a visual learning aid and to evaluate its effectiveness based on the students' perceptions. The subject of this research is eighth-grade students at MTsN 1 Sintang, specifically class 8D. The researchers employed a quantitative study using a pre-experimental one-group pretest post-test. To collect the data, the researchers used speaking tests to measure students' speaking performance and questionnaires to explore their perceptions toward the use of picture series in speaking activities. The findings showed a significant difference in students' speaking ability, with the mean scores increased from 66.71 in the pre-test to 79.29 in the post-test. The statistical test result showed that significance value of 0.000, was less than 0.05. In addition, the results of the questionnaires showed that students responded positively to the use of picture series. It can be concluded that the use of picture series as a visual learning aid has a statistically significant effect on students' speaking skill and considered an effective aid in the learning process.

INTRODUCTION

Communication is a fundamental aspect of human life as social beings, allowing individuals to exchange ideas, thoughts, and information. Among various languages used globally, English has become a dominant lingua franca that facilitates communication between people of different linguistic backgrounds. As a result, English is widely taught in formal education, from elementary schools to universities, to equip students with essential language skills, particularly in speaking.

Speaking, as a productive skill, plays a significant role in communication. It involves several components, including pronunciation, vocabulary, grammar, and fluency. Despite its importance, many students learning English as a foreign language continue to face challenges in mastering speaking. They often experience difficulties in pronunciation and expressing thoughts fluently due to lack of confidence and limited practice. In many classrooms, students tend to remain silent

when asked to speak, driven by fear of making mistakes or being judged by their peers. In response to this issue, the researchers implement picture series as a visual learning aid that aligns with the students' needs and helps create a more interactive classroom environment. This is chosen because it provides a sequence of visual prompts that guide students in organizing their thoughts and expressing them more clearly. Picture series cans serve as a stimulus for speaking. This visual aid not only support students in improving their fluency and pronunciation but also helps reduce anxiety by shifting focus from the speaker to the visual content. It encourages students to describe, narrate, and engage actively in speaking tasks, helping them overcome hesitation and build confidence.

Speaking, derived from the word "speak", means an activity when we use words to talk. Speaking is basically a procedure of communication with the sound delivered by a human speech device in which messages are sent from one to another. In this process, the speaker, in expressing their message, requires to choose what to say and utilize their phonetic information to build utterances and encode the messages in sounds and sound patterns that can be recognized and caught on by the listener (Renandya & Widodo, 2016). Brown (cited in Zainatuddar, 2015) defines that speaking is being an interactive process of developing meaning which includes creating, accepting, and processing the information. Mastering speaking skills improves overall communication by enabling individuals to convey their thoughts and emotions more clearly, which in turn strengthens interpersonal relationships (Qureshi, 2024). In addition, Brown & Abeywickrama (2019) state that speaking is a result of a creative process in which the speaker selects appropriate vocabulary, sentence structures, and patterns of discourse to convey their message. Based on the previous definitions, it can be concluded that speaking is an interactive process of using words and sounds to convey messages between a speaker and a listener. It involves producing sounds, expressing thoughts and emotions, and understanding information. As a key part of daily communication, speaking allows people to share ideas, solve problems, and build relationships. Therefore, it is a crucial skill that students need to master.

Learning style refers to the way individuals most effectively acquire, process, and retain information. It supported by Allen et al (2011) state that learning style refers to an individuals preferred or habitual ways of processing thoughts and engaging with new information. Furthermore, Brown (2007) states that there are three main learning styles such as, visual learning style, auditory learning style, and kinesthetic learning style. Visual learning is a style of learning which individuals grasp and remember information more effectively when it is delivered through visual means (Ross, 2025). Supporting this, Surapur (2020) explains that visual aids involve the use of black board, charts, flannel board, pictures, and flashcards, which help facilitate understanding in the learning process. One of the types of visual aid is pictures, which refer to visual materials that can be utilized in language learning. A picture is defined as a visual representation or image created through painting, drawing, photography, or otherwise depicting it on a flat surface (Cobuild, cited in Arbain, et al., 2018). There are various types of pictures that teachers can use in the classroom, such as flashcards, large wall pictures, cue cards, photographs, and illustrations (Syaputra, 2023). Picture series is one of the many popular types of pictures. It can be defined as sequence of images that are arranged in a specific order

to tell a story, illustrating a process, or convey a concept. Moreover, picture series consist of multiple images that are connected each other. The picture series can be considered a teaching method that utilizes images arranged in a logical sequence to enhance students' understanding of content. In language learning, pictures contribute to build interest and motivation, provide a sense of language context, and serve as a clear reference or stimulus (Hoa, 2022). Using pictures, students will be more interesting to learn new things. Therefore, Picture series, as a visual learning aid helping teacher in speaking learning and teaching activities in the classroom.

Several previous studies have shown the positive impact of picture series in improving students' speaking ability. Mailani and Farhana (2018) found that the use of picture series significantly enhanced speaking performance among junior high school students. Similarly, Indahsari et al. (2019) and Wandaliza (2022) reported that picture series effectively support fluency and motivation in speaking activities. These findings highlight the potential of picture series as an effective visual aid in language learning. Furthermore, considering the problems identified, and supported by previous studies on the benefits of visual aids in language learning, this research aims to investigate the effect of using picture series as a visual learning aid and to evaluate its effectiveness based on students' perceptions at eighth-grade students of MTsN 1 Sintang. This research is different from previous studies because it used modified picture series that were specifically adapted to the teaching materials, focusing on procedure text. Therefore, the research question is formulated as follow:

To what extent is the use of picture series as a visual learning aid effective from the students' perspectives?

METHOD

Research design refers to the overall strategy or plan that writer used to conduct a study. Research design defined as plans and the procedures for research, where the design spans the decisions from wide assumptions to detailed methods of data collection and analysis (Creswell, 2014). There are three types of research design, one of which is quantitative research. Quantitative research is a method used to test objective theories by analysing the relationships between variables. The research principles that involve the measurement of data through numerical methods are categorized as quantitative research. The quantitative research focuses on collecting and analysing data in the form of numbers. This research applied a quantitative method using a pre-experimental design, specifically the one-group pre-test and post-test. In this type of design, there is no control group for comparison; instead, a single group is observed before and after receiving a treatment. According to Creswell and Creswell (2023), this design involves giving one group an intervention and measuring its effect without comparing it to another group.

The subject of this research is included the population and sample. The population of this research was eighth grade students of MTsN 1 Sintang in academic year 2024/2025. This one class as one group pre-test post-test was selected used purposive sampling technique. The sample was class 8D which consist of 34 students that was taken as one group pre-test and post-test. To sustain the

validity of the research result, the researchers collect data which are derived from several ways such as measurement by using tests as instruments and indirect communication through questionnaires. In addition, the researchers used questionnaires to collect data on students' responses before and after the treatment. The questionnaires consisted of 25 statements measured using a five-point Likert scale. These questionnaires aimed to explore students' perceptions, interest, and motivation toward the use of picture series in learning speaking. The results from both the tests and questionnaires were then analysed to determine the effect and effectiveness of using picture series on students' speaking performance. The procedure of this research involved three main stages. First, a pre-test was administered to assess the students' initial speaking abilities, where they were asked to present a procedure text without using any media or visual aids. After the pre-test, a questionnaire was distributed to gather information about their perceptions and challenges in learning speaking. Then, the treatment was carried out by teaching speaking through the use of picture series, where students practiced describing and narrating the sequence of pictures. Finally, a post-test was conducted to evaluate the improvement in the students' speaking skills. In the post-test, students were asked to present the procedure text using picture series as a visual aid, followed by a questionnaire to collect their feedback regarding the use of picture series in the learning process.

RESULT

The findings are presented based on the results of the data collection process that was done by researchers. The results are about students' scores of Pretest-Posttest and students' responses in questionnaires. Furthermore, the discussion addresses the research questions by analysing how the use of picture series as a visual learning aid affects the students' speaking skills. The discussion also interprets the students' responses to evaluate their perceptions of using picture series in learning speaking.

This research process was done through three meetings. The first meeting, began with a pre-test to measure students' initial speaking performance. The second meeting is a treatment stage, where the writer taught students using picture series as a visual learning aid. Moreover, during the third meeting the post-test was conducted to assess students' improvement in speaking after receiving the treatment. In the pre-test and post-test sessions, students' speaking performance was evaluated using five components: pronunciation, grammar, vocabulary, fluency, and comprehension. In the result of pre-test, most students scored between 52 and 76, with only a few reaching scores above 80. The lowest pre-test score was 52, achieved by two students, while the highest score was 84, achieved by two others. In contrast, the post-test scores showed a notable improvement. The majority of students scored between 72 and 88, with several students reaching the excellent range. The lowest post-test score was 68, and the highest was 88, indicating an overall upward shift in speaking performance. The results of the descriptive statistical analysis, including the mean, standard deviation, minimum, and maximum scores, was calculated using the SPSS. The detailed descriptive statistics are presented in the following table below.

Table 1 Descriptive Statistics of Pre-Test and Post-Test Scores

Group	Mean	Std. Dev	Range	Sum
Pre-test	66.71	8.04	32	2268
Post-test	79.29	5.78	20	2696

Table shown that the mean score of the pre-test was 66.71 with a standard deviation of 8.04 and a score range of 32. Meanwhile, the post-test mean increased to 79.29 with a standard deviation of 5.78 and a range of 20. The total score of the pre-test was 2268, while the total score was 2696. The increase in the average score by 12.58 points indicates a significant improvement after the students were given treatment using picture series in speaking activities.

Table 2. The Normality Test Result

Group	Significance	
	Kolmogorov-Smirnov	Shapiro-Wilk
Pre-test	0.200	0.287
Post-test	0.018	0.041

Based on the table above, the normality test was conducted using two methods, Kolmogrov-Smirnov and Shapiro-Wilk. Since the sample size is 34, which is less than 50, the interpretation refers to the Shapiro-Wilk test, as it is more appropriate for small sample sizes. For the pre-test, the Shapiro-wilk significance value is 0.287, which > 0.05 (α). This indicates that the pre-test scores are normally distributed. On the other hand, the post-test in Shapiro-wilk significance value is 0.041, which < 0.05. This means the post-test scores are not normally distributed. In conclusion, the pre-test data follows a normal distribution, while the post-test data is not normal. Therefore, the researchers chose to use both parametric and non-parametric tests to ensure the accuracy of the analysis. The parametric and non-parametric tests used was calculated using SPSS software:

Table 3. Paired Sample t-Test Result

Mean Difference	t	df	Sig. (2-tailed)
-12.588	-12.576	33	0.000

Based on the table 3, the Sig. (2-tailed) value is 0.000, which is < 0.05. This demonstrates that there is a significant difference between the pre-test and post-test results.

Table 4. Wilcoxon Signed-Rank Test Result

Description	Value
Z-Value	-5.116
Asymp. Sig. (2-tailed)	0.000

Based on the result of the Wilcoxon Signed-Rank Test in table 4.7, the Z-value is -5.116 with a significance value of 0.000.

The hypothesis is formulated as follows:

Ha: There is a significant effect of using picture series on students' speaking skill.

H0: There is no significant effect of using picture series on students' speaking skill. If the significant value (Sig.) or p-value is < 0.05, it means the result is statistically significant. Based on the results of the paired sample t-test, the analysis shows that the t-value is -12.576 with a Sig. (2-tailed) value of 0.000, and the degree of freedom (df) is 33. The significance value is 0.000 < 0.05, it can be concluded that the result is statistically significant. Therefore, H_0 is rejected and H_a is accepted. In addition, the Wilcoxon signed-rank test was also conducted as a non-parametric test. The result shows a Z-value of -5.116 with a Sig. (2-tailed) value of 0.000. This value is also < 0.05, indicating a significant difference between the students' speaking scores before and after the treatment.

Furthermore, the analysis of questionnaires focused on the frequency and percentage of responses to each statement or questions, followed by interpretation to reveal how effective the students perceived the picture series to be in supporting their speaking.
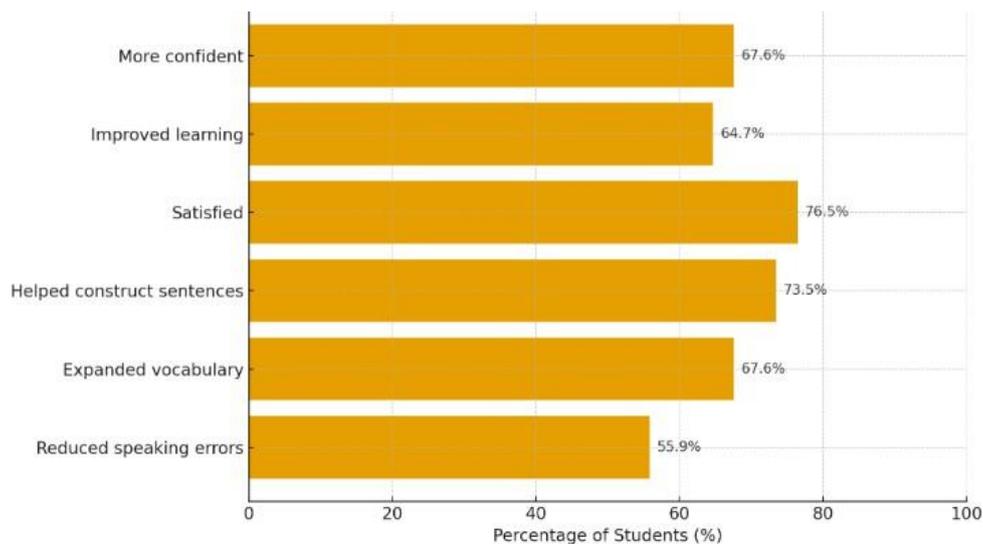
Picture 1. Students' Perceptions of Using Picture Series in Speaking Activities

Based on the Picture 1, students showed more positive perceptions toward the use of picture series in speaking activities. Initially, many students lacked confidence, but after using picture series, 67.6% reported feeling more confident. Students also found speaking activities more effective and enjoyable with the visual aids, as reflected by 64.7% agreeing that it improved their learning and 76.5% expressing satisfaction. Additionally, 73.5% of students stated that picture series helped them construct sentences better, 67.6% believed it expanded their vocabulary, and 55.9% felt it reduced their speaking errors. Overall, the findings indicate that students developed a more favourable attitude toward speaking activities and the use of picture series as a visual learning aid.

DISCUSSION

The findings of this study demonstrated that the use of picture series significantly improved students' speaking skills. The students' mean score increased from 66.71 in the pre-test to 79.29 in the post-test. Both the paired sample t-test and the Wilcoxon Signed-Rank test showed a significance value of 0.000, indicating a substantial improvement after the treatment. These results support Hoa's (2022) theory that pictures can motivate students, provide context, and help organize ideas in speaking activities. Similar findings were reported in previous studies, such as Mailani & Farhana (2018), Indahsari et al. (2019), and Wandaliza (2022), confirming that picture series effectively enhance speaking components like fluency, vocabulary, grammar, pronunciation, and comprehension.

In addition to the test results, students' responses to the questionnaires also reflected the effectiveness of picture series as a visual learning aid. Before the treatment, many students reported difficulties in vocabulary, pronunciation, and confidence. After using picture series, most students felt more motivated, active, and confident in speaking activities. They also acknowledged that the visual aid helped them organize their ideas, recall vocabulary, and express procedural steps more clearly. These findings align with the concept of visual learning, which emphasizes the role of images in facilitating understanding and communication. Therefore, the combination of improved test scores and positive student perceptions indicates that picture series is an effective tool for improving speaking skills.

CONCLUSION

This study investigated the effect and effectiveness of using picture series as a visual learning aid on the speaking skills of eighth-grade students at MTsN 1 Sintang. Using a pre-experimental one-group pre-test and post-test design, data were collected through speaking tests and questionnaires. The results showed a significant improvement in students' speaking performance, with the mean score increasing from 66.71 to 79.29. Statistical analysis using paired sample t-test and Wilcoxon Signed-Rank Test confirmed the significance of this improvement.

In addition, questionnaire responses indicated that students found the picture series helpful, engaging, and motivating. They reported feeling more confident, better able to organize ideas, and more comfortable speaking in class. Overall, the use of picture series not only enhanced students' speaking skills but also contributed positively to their learning experience by supporting comprehension, boosting motivation, and aligning with visual learning preferences. Thus, future researchers are suggested to apply picture series with larger and more varied samples or in different language skills to further validate and extend the findings of this study.

ACKNOWLEDGEMENTS

REFERENCES

Allen, K., Scheve, J., & Nieter, V. (2011). *Understanding learning styles.* Shell Education.

Arbain, M., & et al. (2018). Teaching speaking skill using picture series: Ways, obstacles, and attempts to solve. *Intensive Journal*, *1*(1).

Brown, H, D. (2007). *Principles of language learning and teaching.* (5th ed.). Pearson Education.

Brown, H, D., & Abeywickrama, P. (2019). *Language assessment principles and classroom practices*. (3rd ed.). Pearson Education.

Creswell, J. W. (2014). *Research Design*. (4th ed.). Sage Publications.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches.* (6th ed.). SAGE Publications.

Indahsari, O. N., Harjadijaya, S., & Sofyawati, E. D. (2019). Using picture series in improving students' speaking skill. *English Education and Applied Linguistics (EEAL)*, *2*(3), 194-200.

Hoa, L. H., Ngoc Huy, D. T., & An, N. N. (2022). Using pictures as non-verbal language motivating students with english speaking lessons at vietnam primary schools.

Mailani, P. N. A., & Farhana, R. (2018). Teaching speaking through picture series. *Professional journal of english education*, *1*(5), 645-650.

Qureshi, A. N. (2024). *Mastering communication skills for personal and professional succes.* Literatureslight publishing.

Renandya, W. A., & Widodo, H. P. (2016). *English language teaching today* (Vol. 5). Springer International Publishing. https://doi.org/10.1007/978-3-319-38834-2

Ross, M. (2025). *Visual learning techniques.* Publifye AS.

Surapur, A. B. (2020). *English language teaching.* Laxmi Book Publication.

Syaputra, T., Budiyanto, D., Tridinanti, G., & Ridho, M. R. (2023). Picture series strategy and motivation in eleventh grade speaking achievement: An experimental research design. *Journal of English Education*, *1*(2), 73-84.

Wandaliza, S, F. (2022). *The Use of Picture in Developing Students Speaking Skill*.

Zainatuddar. (2015). Teaching speaking in english by using picture series technique. *English Education Journal*, *6*(4), 443–456.