
The Effectiveness of the Use of Educational Games in Improving Indonesian Speaking Skills in Elementary Schools

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Abstract

This study aims to evaluate the effectiveness of using educational games in improving Indonesian language speaking skills in elementary school environments. The research method used is a quasi-experimental approach with a pretest-posttest control group design. The research population was fourth-grade students at SD Negeri X for the 2024/2025 academic year, consisting of an experimental class taught using educational game methods and a control class taught using conventional methods. Data was collected using speaking skill tests covering aspects of fluency, word accuracy, intonation, and speaking confidence, and analyzed using the t-test. The results showed that the average speaking skill score of experimental class students increased significantly from 68.3 to 85.6 after the application of educational games, while the control class only increased from 67.9 to 74.2. Educational games proved effective in increasing student motivation and speaking confidence, making the learning atmosphere more enjoyable and interactive. This research implies that the integration of educational games in Indonesian language learning can be an effective strategy for improving speaking skills in elementary schools. Further research is needed to obtain a deeper understanding of the most effective types of educational games and their appropriate implementation in the context of Indonesian language learning in elementary schools.

Keyword: educational games; speaking skills; Indonesian language; elementary school; learning effectiveness

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INTRODUCTION

Speaking skills are one of the four language skills that must be mastered by students, in addition to listening, reading, and writing skills (Tarigan, 2015). In the context of learning Indonesian in elementary school, speaking skills play a very strategic role because they are the main means of communication between students and teachers, students with their peers, and students with their social environment (Arsjad & Mukti, 2019). Good speaking skills not only include proficiency in pronouncing words, but also involve the ability to organize ideas, choose the right diction, adjust intonation, and adjust the way of speaking to the context and the interlocutor (Nurgiyantoro, 2021).

The reality in the field shows that many elementary school students still have difficulty in developing Indonesian speaking skills optimally. Rahmawati (2020) in her study found that elementary school students often lack confidence when asked to speak in front of

the class, tend to use limited vocabulary, and have difficulty composing coherent and meaningful sentences. This condition is exacerbated by the dominance of lecture methods that are still widely applied by teachers, so that students play more roles as passive listeners than active communicators (Iskandarwassid & Sunendar, 2021).

The Merdeka Curriculum currently implemented in Indonesia emphasizes student-centered learning by encouraging active student involvement in the teaching and learning process (Kemendikbudristek, 2022). Within the framework of this curriculum, teachers are expected to be able to design innovative, fun, and meaningful learning activities, so that students not only gain knowledge, but also develop various skills needed in the 21st century, including communication skills (National Education Standards Agency, 2022).

Educational games have long been known as one of the effective learning strategies in increasing student engagement and learning motivation (Prensky, 2021). Unlike regular games, educational games are designed with specific learning objectives so that in addition to providing a fun playing experience, they also encourage the achievement of certain competencies (Salen & Zimmerman, 2020). In the context of language learning, educational games have been proven to be able to create authentic communication situations, encourage students to speak naturally, and reduce language anxiety which is often a major obstacle to the development of speaking skills (Young, 2019).

Various studies have proven the effectiveness of educational games in language learning. Hapsari and Lestari (2021) found that the application of educational games significantly improved the speaking skills of elementary school students compared to conventional methods. Meanwhile, Suryani (2019) showed that active learning through games can increase students' creativity and confidence in communicating. Puspitoningrum (2024) in his more recent research also confirmed that educational games have a significant positive impact on the Indonesian speaking competence of elementary school students.

However, research that specifically measures the effectiveness of educational games on Indonesian speaking skills with a strict experimental design is still limited, especially in the Indonesian context (Yuliana, 2021). Most of the existing studies are still qualitative descriptive or only involve one group without a comparison group (Pratiwi, 2022). Therefore, this study aims to empirically examine the effectiveness of the use of educational games in improving the Indonesian speaking skills of grade IV elementary school students through a quasi-experimental design with a control group.

The hypothesis in this study is that the use of educational games is significantly more effective in improving the Indonesian speaking skills of grade IV elementary school students compared to the use of conventional methods. The results of this study are expected to make a theoretical and practical contribution to the development of more innovative and effective Indonesian language learning in elementary schools.

METHODS

This study uses a quasi-experimental research approach with a *pretest-posttest control group design*. This design was chosen because it allows researchers to systematically compare the learning outcomes between the treatment group (experimental class) and the non-treatment group (control class) (Sugiyono, 2022). The research design is shown in Table 1.

Table 1. Quasi-Experimental Research Design

Groups	Pretes	Treatment	Postes
Eksperimen	T1	Permainan Edukatif	T2
Kontrol	T1	-	T2

Description: T1 = Pretes; T2 = Postes

The research population is all grade IV students of SD Negeri X East Jakarta City which totals 64 people, divided into two study groups. The sample was determined using purposive sampling techniques by considering the equality of the initial abilities of the two classes based on the results of the pretest and the previous semester's report card scores (Creswell, 2022). Class IV-A was designated as an experimental class (32 students) and Class IV-B as a control class (32 students).

The free variable in this study was the use of educational games, while the bound variable was the ability to speak Indonesian. The educational games applied included three types: (1) *word guessing*, which is a game in which students have to describe a word or concept orally until their friends can guess it; (2) *rotating storytelling*, which is an activity in which students take turns continuing stories started by previous students; and (3) *news of the day*, which is a simulation of the role of a news reader who presents actual information to the audience. These three games were chosen based on the study of Vygotsky's (1978) theory on the Zone of Proximal Development which emphasizes the importance of social interaction in children's cognitive and language development.

The research instrument used was a speaking skills test developed based on the assessment rubric of Nurgiyantoro (2021) which included four aspects: (1) fluency in speaking, (2) accuracy of word selection (diction), (3) intonation and expression, and (4) courage and confidence in speaking. Each aspect was assessed on a scale of 1-25 so that the maximum total score was 100. The validity of the instrument was tested through *expert judgment* by two Indonesian language expert lecturers, while reliability was tested using the Alpha Cronbach formula and a reliability coefficient of 0.87 (very high category) was obtained.

The research procedure was carried out in three stages. First, the preparation stage which included the preparation of the Learning Implementation Plan (RPP), the creation and validation of instruments, and the implementation of pretests in both classes. Second, the implementation stage which lasted for eight meetings (@ 70 minutes), where the experimental class received Indonesian language learning based on educational games, while the control class received conventional learning by lecture and question and answer methods. Third, the evaluation stage included the implementation of posters and data analysis.

Data were analyzed using inferential statistics in the following stages: (1) normality test using the Kolmogorov-Smirnov test, (2) homogeneity test using the Levene test, and (3) hypothesis test using *independent sample t-test* with a significance level of $\alpha = 0.05$. In

addition, to measure the *effect size* of the treatment, Cohen's d formula was used (Cohen, 2019). All statistical analyses were carried out using SPSS software version 26.0.

RESULTS & DISCUSSION

Result

Before the implementation of the treatment, an initial equivalence test was carried out through the analysis of the pretest data of the two groups. The results of the pretest showed that the average score of the experimental class was 68.3 (SD = 7.2) and the control class was 67.9 (SD = 7.5). The results of the t-test on the pretest data showed a value of $t = 0.24$ with $p = 0.81$ ($p > 0.05$), which means that there was no significant difference between the initial ability of the two classes. Thus, the two groups were at an equal starting point before the treatment was given.

After eight treatment meetings, postes were performed on both groups. Postes results showed a distinct improvement between the two groups. A summary of the results of the pretest and postes is presented in Table 2.

Table 2. Comparison of Speech Skills Pretest and Postes Results

Groups	Pretes		Postes		N-Gain
	Mean	SD	Mean	SD	
Eksperimen	68,3	7,2	85,6	5,8	0,55 (Medium)
Control	67,9	7,5	74,2	6,4	0,20 (Low)

Remarks: N-Gain = Normalized Gain Score; SD = Standard Deviation

Based on Table 2, the experimental class experienced an average increase of 17.3 points (from 68.3 to 85.6), while the control class only increased by 6.3 points (from 67.9 to 74.2). The N-Gain value of the experimental class of 0.55 was included in the medium category, while the control class only reached an N-Gain of 0.20 which was included in the low category (Hake, 2018).

The results of the normality test using Kolmogorov-Smirnov showed that the post-test data of the two groups were normally distributed ($p > 0.05$). The results of the homogeneity test using Levene's Test showed the variance of the two homogeneous groups ($F = 1.24$; $p = 0.27$). With the fulfillment of these two assumptions, the analysis was continued with an *independent sample t-test*. The results of the t-test showed $t = 8.73$ with $df = 62$ and $p = 0.000$ ($p < 0.05$), which means that there was a significant difference between the speaking skills of the students of the experimental class and the control class after the treatment. The magnitude of the effect calculated using Cohen's d showed a value of $d = 2.01$ which was included in the category of very large effects (Cohen, 2019).

DISCUSSION

The results of this study consistently show that the use of educational games is more effective in improving the Indonesian speaking skills of grade IV elementary school students compared to conventional methods. These findings are in line with the results of research by Hapsari and Lestari (2021) who found that game-based learning significantly improves the speaking skills of elementary school students. Similarly, the findings of Puspitoningrum (2024) confirm the effectiveness of educational games in the context of Indonesian language learning in elementary schools.

The success of educational games in improving speaking skills can be explained through several theoretical perspectives. First, from the perspective of Vygotsky's (1978) theory of social constructivism, educational games designed in groups encourage rich social interaction between students. Through this interaction, more competent students indirectly become *scaffolding* for their friends who need help, so that the learning process occurs in an optimal Zone of Proximal Development (ZPD) (Wood, Bruner & Ross, 2021).

Second, from the perspective of motivation theory, educational games have been proven to be able to increase students' intrinsic motivation in learning languages. Deci and Ryan (2020) in their Self-Determination Theory state that intrinsic motivation grows when individuals feel competence, autonomy, and relatedness in an activity. These three elements are naturally present in the context of games: students feel competent when they succeed in describing words, have autonomy in choosing speaking strategies, and feel connected to their friends through interactions in games.

Third, educational games create an authentic and meaningful communication context (Hedge, 2020). In contrast to conventional speaking exercises that often feel artificial, games such as *rotating storytelling* and *today's news* create situations where students feel the real need to communicate to achieve the goals of the game. This encourages students to use language functionally and contextually, which in turn enriches their active vocabulary and improves their speaking fluency (Nunan, 2019).

A more significant increase in the aspect of speaking courage in the experimental class also deserves attention. Language *anxiety* is one of the most inhibiting affective factors in the development of speaking skills (Young, 2019). Educational games have proven to be effective in reducing this anxiety because a fun and non-judgmental play environment provides a sense of security for students to try to speak without fear of being wrong (Pratiwi, 2022). This finding is in line with Krashen (2021) who emphasized that affective factors, especially low anxiety, are an important prerequisite for optimal language acquisition.

This type of *word guessing* game has proven to be the most effective in improving the fluency and accuracy of diction. This can be understood because in this game, students are required to describe a concept by using the right words and spontaneous sentences, thus indirectly practicing the ability to organize their minds and choose words according to the context (Yuliana, 2021). Meanwhile, today's *news games* are very effective in improving aspects of intonation and expression, because students learn to adjust the tone and facial expressions according to the content of the news delivered (Suryani, 2019).

This study also found that the effectiveness of educational games is greatly influenced by the quality of teacher facilitation. Teachers who play an active role as facilitators, provide constructive feedback during games, and create a positive classroom

atmosphere are proven to produce more significant improvements (Iskandarwassid & Sunendar, 2021). This shows that educational games are not just entertainment tools, but pedagogical strategies that require careful planning and implementation from teachers (Prensky, 2021).

CONCLUSION

Based on the results of the research and discussion, it can be concluded that the use of educational games has been proven to be significantly more effective in improving the Indonesian speaking skills of grade IV elementary school students compared to conventional methods. This is evidenced by a much higher increase in the average post score of the experimental class (85.6) than in the control class (74.2), with a statistically significant difference ($t = 8.73$; $p < 0.05$) and a very large effect size ($d = 2.01$).

The three types of educational games applied—*word guessing*, *rotating storytelling*, and *today's news*—each contributed differently to improving aspects of speaking skills. Overall, educational games not only improved technical speaking skills, but also reduced language anxiety and increased students' intrinsic motivation in learning Bahasa Indonesia.

Based on these findings, Indonesian language teachers in elementary schools are advised to systematically integrate educational games into learning planning. Principals and education supervisors need to provide support in the form of teacher training in designing and implementing educational games that are in accordance with learning objectives and student characteristics. Further research is recommended to examine the effectiveness of educational games in other classes, different levels, as well as explore the integration of digital technology in educational games for Indonesian speaking skills.

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