



Innovation in Developing Indonesian Language Learning Media Based on Problems to Enhance Critical Thinking Skills of Students in Multi-Ethnic Primary Schools

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ABSTRACT

This research aimed to explore the effectiveness of innovation in developing Indonesian language learning media based on problems to enhance the critical thinking skills of elementary school students in multi-ethnic areas. The research method used was an experiment with a pre-test and post-test design on the same subjects, involving one group of students who use problem-based learning media. This research was conducted in South Jakarta, which has a population of students from diverse ethnic backgrounds. The number of respondents was 27 from various ethnic groups. During the research period, data on critical thinking skills were collected through validated assessment instruments, taking into account the multi-ethnic context. Data analysis indicated that students who used problem-based learning media experienced a significant improvement in their critical thinking skills compared to the control group. This improvement was reflected in students' abilities to analyze information, evaluate arguments, and produce vital and reflective thinking in the context of the diverse Indonesian language.

Keywords:

Problem-based learning, Critical Thinking, Indonesian Language, Elementary School Students

INTRODUCTION

Multi-ethnic areas often have a population of students with diverse ethnic and cultural backgrounds. The diversity can influence effective learning approaches, as students may have different understandings of the subject matter, including Indonesian language. Therefore, it is important to consider the social and cultural context of students in the development of relevant learning media. Indonesia, with its diverse ethnicities, religions, and languages, requires adequate critical thinking skills (CTS) to address these differences. (Zamzani, 2014).

Students from different cultural backgrounds undoubtedly have varying critical thinking abilities. CTS is the crucial indicators in learning (Hidayati et al., 2021). CTS are important skills for pupils to possess in the current information age. With critical thinking, students can develop deeper understanding, evaluate information more effectively, and make more accurate decisions. However, conventional teaching methods often are not effective enough in exploring these CTS.

The appropriate use of instructional media can enhance learning effectiveness, especially in contexts involving students from diverse ethnic backgrounds. Problem-based learning media offer an engaging and challenging approach for students, enabling them to actively engage in solving contextual problems relevant to their daily lives.

Currently, there are numerous learning models used by teachers (Widiyarto, 2023). Learning adoption also varies, but unfortunately, it has not yet taken into





account the cultural diversity possessed by students. Conventional teaching models may not be sensitive to the diversity of students in terms of ethnic and cultural backgrounds. The experiences in developing programs that can consider multi-ethnic contexts and facilitate the effective development of CTS for all students. The lower level or grade of students refers to students. At the elementary school level, students absorb various disciplines (Sakila, 2019). Elementary school students require learning methods that are suitable for their character and take into account the multi-ethnic context.

Taking into account this background issue, research on innovative development of problem-based Indonesian language learning media is expected to make a significant contribution to improving the critical thinking skills of elementary school students in multi-ethnic areas while considering the needs and unique characteristics of each student (Suryadi et al., 2022). Based on the above description, The writers can write the research questions, namely: what is the effectiveness of problem-based Indonesian language learning on the critical thinking skills of elementary school students in multi-ethnic areas? And what is the process of problem-based Indonesian language learning on the critical thinking skills of elementary school students in multi-ethnic region? The research objective is to explore problem-based Indonesian language learning on the CTS of elementary school students in multi-ethnic region and to understand the process of problem-based Indonesian language learning on the CTS of students in multi-ethnic regions.

METHOD

This research utilizes an experimental method, specifically a pretest-posttest design. The pretest-posttest method is a commonly used research method to measure changes or the effects of specific interventions on subject groups in a study. The research subjects are sixth-grade students from X elementary school in South Jakarta. A total of 37 students participated in the experiment. The material used is "how to summarize news".

Students were provided with reading materials about the culture and customs of various regions in Indonesia. This was done to raise awareness among students about their own culture and the cultures of others. Student selection was based on random sampling. Data collection was conducted through tests, interviews, and documentation. Data analysis was performed to examine whether there were significant differences in students' critical thinking skills before and after the intervention. Appropriate statistical analyses such as t-tests can be used to evaluate these differences. The research utilizes SPSS 23 as a data analysis tool. After collecting pretest data, the problem-based learning model innovation is implemented with the students. The picture of design with a one-group pretest-posttest design type.

O1	X	O2
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Information:

X = Treatment (Problem Based method)

O1 = Pre-test (before treatment)

O2 = Post-test (after treatment)



Students are engaged in learning activities designed to introduce them to real-world issues relevant to Indonesian language and encourage them to think critically in solving these problems. By using the pre-test post-test methods, the research can measure the effectiveness of the problem-based learning model innovation in enhancing students' critical thinking abilities in the subject of the Indonesian language at the elementary school level comprehensively. The details of the students' origin areas attending school are as follows:

Table: 1. The Number of Students

No	Ethnic	Number
1	Betawi	6
2	West Java	6
3	Central Java	8
4	East Java	3
5	Riau	2
6	Chinese	2
Total		27

RESULTS AND DISCUSSION

In pretest-posttest experimental research, researchers chose to test the assumptions of normality and homogeneity before applying further statistical analysis. Normality refers to the distribution of data following a normal distribution, while homogeneity refers to the similarity of variability among the compared groups. Here are the results of the tests conducted:

Tabel 2. Normality**Tests of Normality**

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pretes	.158	27	.080	.943	27	.146
postes	.131	27	.200*	.936	27	.099

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The normality test data for pretest and post-test indicate how closely the data distribution resembles a normal distribution. The common value used for the normality test is the p-value, where a higher value indicates a closer resemblance to a normal distribution. In this case, the normality test results show that the Sig. values for the pretest and post-test are 0.146 and 0.099, respectively. Both of these values indicate that both sets of data (pretest and post-test) have relatively high p-values. There is not enough statistical evidence to reject the null hypothesis that the data distribution comes from a normal distribution.

Tabel 3. Homogenitas Varians Levene Test

Levene Statistik	df1	df2	Sig.
0.06	1	29	0.051

This test is used to examine whether the variances between data groups are equal or not. The null hypothesis is that the variances between groups are equal. If the sig value > 0.05, then we cannot reject the null hypothesis and conclude that the variances between groups are homogeneous. After verifying the normality and





homogeneity of the data, further analysis can be conducted. For pretest-posttest experimental research, you might use analyses such as the paired sample t-test.

Table 4 Pair samples test

Paired Samples Test									
		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	pretres - postes	-8.55556	7.22354	1.39017	-11.41309	-5.69802	-6.154	26	.000

In this case, this test is often used to compare the means of two measurements taken from the same subjects before and after an intervention or treatment. The paired t-test results include several statistics, one of which is the p-value. The null hypothesis (no difference between groups) is true. If the Sig. (significance) value of the paired t-test is 0, it means the p-value is 0. In the context of statistical testing, this indicates that the difference between the two groups is highly statistically significant. If the Sig. (significance) value of the paired t-test is 0, it means the p-value is 0. In the context of statistical testing, this indicates that the difference between the two groups is highly statistically significant. In other words, there is a very substantial difference between the pretest and post-test means.

Table 5. Ranks Test

		Ranks		
		N	Mean Rank	Sum of Ranks
postes - pretes	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	27 ^b	14.00	378.00
	Ties	0 ^c		
	Total	27		

a. postes < pretes

b. postes > pretes

c. postes = pretes

In the table above, the positive rank value is 14.00. Table 5 indicates a significant difference between the pretest and post-test. There is a difference of 14 between the pretest and post-test scores. Problem-based methods for elementary school students in Indonesian language lessons have improved. These research findings align with the study by (Soedarnadi & Sulisworo, 2022), which states that problem-based learning can strengthen critical thinking skills; thus, the learning media is then designed to meet its quality.

The concept of developing problem-based learning media has been the focus of many studies in recent years, especially in the context of multicultural education (Arifin et al., 2021). The existence of the Indonesian language in culturally diverse education is a very important topic, especially in countries like Indonesia which have diverse ethnicities, cultures, and regional languages (Widiyanto & Purnomo, 2023). Learning should be designed backgrounds can learn without differences (Hall & Theriot, 2016).

The process of problem-based learning in Indonesian language lessons for elementary school students begins with a question and careful planning, followed by the development of a learning schedule. Then, teachers provide project assignments and assess and evaluate learning. It can be described as follows:

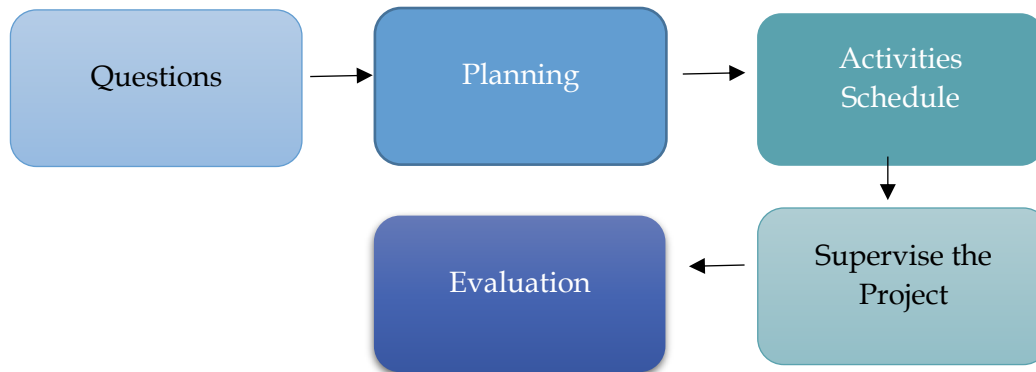


Figure 1. The step of Learning

The posing of questions is necessary when students still need to be made aware of the learning objectives; questions serve to stimulate students' reasoning and critical thinking abilities. The teacher does planning to ensure that all learning sequences proceed smoothly.

Activities also need to be scheduled so that students and teachers have predetermined time limits while the teacher supervises and monitors the progress of the assigned projects. The final step involves the teacher evaluating and assessing the students and reflecting on the activities that have been carried out.



Figure 2. The students of elementary school

The concept of developing problem-based learning media has been the focus of much research in recent years, especially in the context of multicultural education (Arifin et al., 2021). The existence of the Indonesian language in culturally diverse education is a crucial topic, particularly in countries like Indonesia that have diverse ethnicities, cultures, and regional languages. Learning should be designed in such a way that students from multiethnic backgrounds can learn without differences (Supriatin & Nasution, 2017).

In the context of multicultural education, the existence of the Indonesian language plays a key role in promoting tolerance, appreciation of diversity, and intercultural understanding among students (Rosada & Albertus, 2019). Ethnic diversity-based education is important because multicultural education can have positive impacts on the future of Indonesia as a multicultural country (Fatgehipon, 2023). Teaching the Indonesian language can be a means to appreciate and understand the cultural diversity in Indonesia (Munandar & Newton, 2021). Additionally, there is a need for the integration of local culture in Indonesian language learning. Despite Indonesian being the primary language of instruction in schools, a culturally diverse education approach also emphasizes the importance of integrating local



culture into language learning (Rohman & Ningsih, 2018). The learning can be achieved through the use of texts and learning content that reflects the cultural diversity in Indonesia.

Indonesian language learning, besides being a means of communication, also plays a role in shaping national identity and unity. In culturally diverse education, teaching the Indonesian language can be a means to strengthen awareness of national identity while still respecting cultural diversity (Fatmawati, 2021). The authors argue that multiethnic learning should consider several aspects, such as:

- a. Selection of relevant learning materials
- b. Inclusive language and communication
- c. Use of diverse media and learning resources
- d. Collaborative learning and open discussions
- e. Appreciation and understanding of diversity.

By considering these aspects in lesson design, teachers can create an inclusive, supportive, and enriching learning environment for all students, regardless of their cultural and ethnic backgrounds (Nurrahmah, 2022). Not only teachers play a role, but there is also a need for the creation of a conducive environment that embraces ethnic diversity (Nishina et al., 2019).

Nurrahmah and Fatmawati both emphasize the importance of identity awareness; thus, it is necessary to appreciate differences in learning. On the other hand, Rohman and Ningsih argue for the integration of local culture in language learning because students better understand if they use their own language and culture.

CONCLUSION

This research indicates that the development of problem-based learning media is effective in enhancing the critical thinking skills of elementary school students in multiethnic areas. The learning media is capable of stimulating students to think critically, analyze problems, and seek creative solutions. The developed learning media also considers the relevance of content to the cultural context in multiethnic areas. Learning materials are structured in such a way that they can connect with students' life experiences and cultural backgrounds, thus increasing students' interest and engagement in learning. Through problem-based learning media, students can collaborate across cultures, understand different perspectives, and learn from diverse cultural experiences. The implications of this research for teaching practices in elementary schools in multiethnic areas are significant. Teachers can utilize a problem-based approach in developing learning media that aligns with the needs and characteristics of students while also considering cultural diversity in instructional design.

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