

Examining the impact of cultural literacy on students' attitudes of tolerance towards diversity

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Abstract: This study aims to identify the influence of cultural literacy on students' understanding of attitudes of tolerance towards diversity. This quasi-experimental study was conducted using a post-test-only control group design. This study was conducted in an elementary school in Bali involving groups of fourth-grade students, who were students from two different classes and selected using statistical matching techniques. One group became the experimental group, and the other became the control group. The research data were collected using an understanding test of attitudes of tolerance towards diversity. The post-test was given to the two groups after the experimental group had been taught cultural literacy, and the control class was taught using conventional materials commonly used by teachers for eight meetings. The results of the post-test were analyzed quantitatively using descriptive statistics, independent t-test, and Cohen's d. From the results of the descriptive statistical analysis, it was found that students in the control class had better average scores in terms of understanding attitudes of tolerance towards diversity than the control group. The results of the independent t-test showed that the difference in the average value was proven to be significant. Furthermore, the results of the effect size test also showed that cultural literacy has a large and significant influence on students' understanding of attitudes of tolerance towards diversity. Thus, from these results, it can be concluded that cultural literacy is effective in improving students' understanding of attitudes of tolerance towards diversity.

Keywords: Intercultural literacy, Intolerance, Religious schools, Tolerance.

1. Introduction

Indonesia is known as a country with diverse cultures, ethnicities, religions, and languages. This diversity, although it is the strength and identity of the nation, is also a challenge in maintaining social harmony (Harahap, 2024). Unfortunately, data shows that intolerance is still a fairly serious problem in Indonesia (Jamal & Yanis, 2025; Sulastris et al., 2024). For example, a survey conducted by the Setara Institute (2023) showed that incidents of intolerance among students are increasing, especially in the school environment, which should be a place to learn the values of diversity. Therefore, it is important to find effective solutions to instill an attitude of tolerance from an early age. One approach that is believed to be able to foster tolerance towards diversity is through cultural literacy. Cultural literacy refers to an individual's ability to understand, respect, and interact effectively with different cultures (Johnson, 2014; Marmoah et al., 2022). In the context of education, cultural literacy functions as a medium to introduce students to multicultural values and build mutual respect. According to Shakila and Dahalan (2024), integrating cultural literacy into the curriculum can improve students' understanding of pluralism and reduce prejudice against other groups.

Several previous studies have highlighted the importance of cultural literacy in education (Azzahra, 2024; Yasin, 2023). Gay (2010) explained that a culture-based learning approach can improve students' social skills and strengthen inclusive attitudes. However, most of these studies focus on the context of multicultural education in Western countries (see Kobakhidze & Jakavonytė-Staškuvienė, 2023; Kusá et

al., 2014; Mohammadzadeh, 2009), while research on the application of cultural literacy in Indonesian schools is still limited. In addition, many previous studies used qualitative methods without quantitatively evaluating the effectiveness of cultural literacy on students' tolerance attitudes.

The gap in this research lies in the lack of empirical evidence regarding the influence of cultural literacy on student tolerance in Indonesia, especially at the elementary school level. By using a quasi-experimental design, this study offers a quantitative approach to evaluate the effectiveness of cultural literacy in improving students' understanding of attitudes of tolerance towards diversity. This is a novelty of the study because this study not only measures the influence of cultural literacy statistically but also compares the results with conventional learning approaches commonly used in elementary schools in Bali. Thus, this study is expected to contribute to the development of more inclusive education policies and support the formation of attitudes of tolerance among students. Furthermore, the results of this study can be a basis for educators to design learning strategies that can strengthen the values of diversity in the school environment.

2. Method

This study used a quasi-experimental design with a post-test-only control group design to evaluate the effect of cultural literacy on students' tolerance and attitudes toward diversity. This design was chosen because it allows researchers to compare learning outcomes between the experimental group given cultural literacy treatment and the control group taught using conventional methods (Creswell & Creswell, 2018).

2.1. Research Sample

The research sample consisted of 50 fourth-grade students from an elementary school in Bali, divided into two groups: 25 students in the experimental group and 25 students in the control group. Sample selection was carried out using the statistical matching technique, namely statistical analysis, to ensure that both groups had comparable initial characteristics (Gay et al., 2012).

2.2. Research Instruments

The instrument used in this study is a test of understanding attitudes of tolerance towards diversity. This test consists of a number of questions that have been tested for validity and reliability to ensure that the instrument can accurately measure the intended variables (Fraenkel et al., 2014). The questions are designed to measure students' understanding of the values of tolerance, such as mutual respect, cooperation, and recognition of differences.

2.3. Research Procedures

The experimental group used cultural literacy-based materials for eight meetings, while the control group was taught using conventional materials commonly used by teachers. After the intervention, both groups were given a post-test to measure their understanding of tolerance towards diversity.

2.4. Data Analysis

The data obtained were analyzed using descriptive statistics to describe the mean scores and data distribution. In addition, an independent t-test was used to test for significant differences between the experimental and control groups. The effect size was calculated using Cohen's d (Pallant, 2011) to determine how much cultural literacy influences students' understanding of tolerance.

3. Result

3.1. Descriptive Statistical Analysis Results

The descriptive analysis results show differences in the post-test results of the experimental group and the control group. The experimental group's post-test results are better than the control group's. This can be seen from the experimental group's mean score, which is greater than the mean score of the control group, as seen in Table 1.

Table 1.
Descriptive statistics results.

Kelompok	Mean	SD	Median	Mode	Min.	Max.	Range
Experimental Group	85.4	4.3	85	86	78	92	14
Control Group	78.2	5.1	78	79	70	87	17

The data in Table 1 above show that students in the experimental group have a better understanding of the attitude of tolerance towards diversity than the control group. However, to determine whether the difference in the values of the control class and the experimental class is significant, the analysis is continued using inferential statistical analysis using the independent sample t-test.

3.2. Results of Normality and Homogeneity Tests

Before conducting the independent t-test, data normality and homogeneity tests were conducted to ensure that the data met the required assumptions. The normality test results using Kolmogorov-Smirnov showed that the significance value for the experimental group ($p = 0.200$) and the control group ($p = 0.145$) was greater than 0.05, so the data from both groups were normally distributed. Furthermore, the results of the homogeneity test using Levene's test showed a value of $F(1,48) = 0.712$ with $p = 0.403$, which is greater than 0.05. Thus, it can be concluded that the variance of the two groups is homogeneous.

3.3. Independent t-test Analysis Results

After the data was declared normally distributed and homogeneous, the researcher conducted an independent t-test. The results of the analysis showed a value of $t(48) = 5.24$ with a p-value < 0.001 . Because the p-value is smaller than 0.05, it can be concluded that there is a significant difference between the experimental group and the control group in students' understanding of attitudes of tolerance towards diversity.

3.4. Effect Size (Cohen's d)

The effect size was calculated using Cohen's d to measure the extent to which cultural literacy treatment affected student learning outcomes. Cohen's d value was calculated using the effect size calculator and obtained a value of $d = 1.53$, which indicates that cultural literacy has a large effect on students' understanding of attitudes of tolerance towards diversity, following Cohen's (1998) interpretation criteria, where a d value above 0.8 is considered a large effect.

4. Discussion

The results of this study indicate that cultural literacy effectively improves students' understanding of tolerance toward diversity. The experimental group that received cultural literacy-based learning had significantly higher post-test scores than the control group. The large effect indicated by Cohen's d value confirms that integrating cultural literacy in learning substantially impacts students' understanding.

This finding supports previous studies that emphasize the importance of cultural literacy in education, such as research conducted by Fauziah and Aliyah (2023) and Lähdesmäki et al. (2021), who found that the implementation of cultural literacy can increase student tolerance. Knowledge about various cultures makes students appreciate their own culture more and see the cultural differences of other communities as wealth (Ismail et al., 2020; Lestari & Ramadan, 2023; Rizal et al., 2024). Thus, the results of this study provide strong empirical evidence that cultural literacy can be used as an effective learning strategy to instill values of tolerance among elementary school students in Indonesia.

The findings of this study have several important implications for teachers and education policy. Teachers can integrate cultural literacy into the curriculum to teach the values of tolerance by presenting materials that reflect local and national cultural diversity. Integration of cultural literacy can

also be done through stories, group discussions, and collaborative projects that encourage students to understand and appreciate differences.

For policymakers, these results emphasize the importance of teacher training in implementing cultural literacy in the classroom. The government can support this program by providing relevant training modules and culturally-based learning resources accessible to all schools. These steps will improve the quality of education and prepare a more tolerant and inclusive young generation.

The results of this study indicate that cultural literacy is effective in improving students' understanding of attitudes of tolerance towards diversity. The experimental group that received cultural literacy-based learning had significantly higher post-test scores than the control group. The large effect indicated by Cohen's *d* value confirms that integrating cultural literacy in learning substantially impacts students' understanding.

5. Conclusion

From the results obtained in this study, it can be concluded that learning using cultural literacy has proven effective in influencing elementary school students' knowledge of tolerant attitudes towards differences. Thus, cultural literacy is worthy of being used as an alternative to improve students' understanding of tolerant attitudes in schools that experience problems of tolerance towards differences. However, since this study was conducted using a limited number of samples, experimental research involving a larger number of samples needs to be conducted to strengthen the study results. In addition, research that involves other variables that can influence tolerant attitudes is also important because many factors can influence a person's tolerant attitude. For this reason, further and deeper exploration is needed.

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