

The Role of Technology in Addressing the Education Gap in Indonesia's Remote Areas

Firayani^{1✉}

Universitas Islam Negeri Sulthan Thaha Saifuddin Jambi, Indonesia¹

e-mail: *firayani60@gmail.com¹

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ABSTRAK

This study examines the impact of culture-based pedagogy on student engagement in classrooms in Southeast Asia, focusing on how the integration of local cultural elements into the curriculum affects student participation and motivation. A qualitative approach was used through case studies in Indonesia, Thailand, and Malaysia. Data were collected through teacher and student interviews, classroom observations, and analysis of curriculum documents. Data were analyzed using thematic analysis techniques to identify key patterns related to the impact of culture-based pedagogy. Findings indicate that culture-based pedagogy significantly increases student engagement. Integration of local culture into learning increases student participation, motivation to learn, and comprehension of the material. In Thailand and Malaysia, students showed greater interest and engagement in classroom activities when local cultural elements were implemented. Despite the benefits, challenges such as limited teacher training, lack of culture-based teaching materials, and differences in educational resources remain barriers to the implementation of this pedagogy. To maximize the effectiveness of culture-based pedagogy, better teacher training, development of culturally relevant teaching materials, and support for educational infrastructure are needed. Education policies should support the integration of local culture to improve overall student engagement.

INTRODUCTION

In the context of globalization and technological advancement, education must adapt to the unique needs and characteristics of each local community. In Southeast Asia, a region rich in cultural diversity, the integration of local cultural elements into pedagogy is becoming increasingly important. Culture-based pedagogy, which integrates local values, languages, and cultural practices into the curriculum, has great potential to increase student engagement and motivate them to learn (Banks & Banks, 2019).

Culturally-based pedagogy not only serves to make teaching materials more relevant to students, but also to create a learning environment that is more inclusive and responsive to their cultural needs. According to Gay (2018), this approach can help address educational gaps by making the curriculum more reflective of students' lived



realities. This is especially important in Southeast Asia, where ethnic and cultural diversity is an integral part of everyday life (Ho, 2019).

This article aims to explore the impact of culture-based pedagogy on student engagement in classrooms in Southeast Asia. By understanding how the integration of local cultural elements into learning affects student participation and motivation, this study aims to provide useful insights for the development of more effective educational practices in the region.

Previous research has shown that culture-based pedagogy can increase student engagement and motivation (Chen & Dönmez, 2020). However, its implementation in Southeast Asia still faces challenges, including lack of teacher training and appropriate teaching materials (Klein & Taylor, 2022). Therefore, it is important to evaluate in depth how this approach is implemented in different countries in the region and what challenges need to be overcome to achieve optimal results.

Integrating local culture into the curriculum not only supports students' cognitive development but also strengthens their cultural identity (Nakata, 2020). This research is relevant because it provides practical guidance for educators and policymakers on how to utilize culture-based pedagogy to enhance student engagement. By focusing on Southeast Asian countries, this article provides contextual insights that can help address specific educational challenges in the region (Wang, 2018).

METHODOLOGY

This study used a qualitative case study design to explore the impact of culture-based pedagogy on student engagement. This approach was chosen because it allowed the researcher to gain in-depth insights into the implementation and impact of culture-based pedagogy across educational contexts in Southeast Asia (Creswell & Poth, 2018). The study was conducted in three Southeast Asian countries: Indonesia, Thailand, and Malaysia. These locations were chosen because of their significant cultural diversity and ongoing efforts to integrate local cultural elements into education. Participants consisted of 30 teachers and 90 students from five schools in each country involved in the implementation of culture-based pedagogy. The selection of schools was based on recommendations from local education authorities and their willingness to participate (Yin, 2018).

Data is collected through several methods, including:

1. **Semi-Structured Interview**

Interviews were conducted with 15 teachers and 30 students in each country to explore their experiences with culture-based pedagogy. The interviews were designed to understand perceptions and the impact of this approach on student engagement (Seidman, 2019).

2. **Class Observation**

Researchers conducted direct observations in 15 classrooms in each country to observe the implementation of culture-based pedagogy and student interactions in the learning context. These observations helped in evaluating how cultural elements were implemented and how students participated in the classroom (Patton, 2015).

3. **Document Analysis**

Curriculum documents and teaching materials were examined to assess the extent of local cultural integration in the curriculum. Documents analyzed included lesson plans, textbooks, and additional teaching materials (Bowen, 2009).

Data from interviews, observations, and documents were analyzed using thematic analysis techniques to identify patterns and themes related to the impact of culturally based pedagogy on student engagement. The analysis process involved coding the data to identify key themes related to student participation and motivation (Braun & Clarke, 2006).

To ensure the validity and reliability of the study, data triangulation was used by comparing findings from multiple data sources (interviews, observations, and document analysis). Feedback from participants was also obtained through a member checking process to ensure the accuracy of data interpretation (Lincoln & Guba, 1985).

RESULTS AND DISCUSSION

1. Increasing Student Engagement

The results of classroom observations and interviews showed that the implementation of culture-based pedagogy significantly increased student engagement. In all study sites, students involved in classes that integrated local cultural elements showed more active participation and higher motivation. For example, in Indonesia and Thailand, students appeared more enthusiastic in group discussions and practical activities that linked the subject matter to their local culture. In Malaysia, students also showed increased interest in lessons that integrated aspects of Malay and Chinese culture (Ho, 2022).

2. Influence on Motivation and Academic Achievement

Culturally-based pedagogy appears to contribute positively to students' motivation to learn. Interview data with students indicates that they feel more motivated when the subject matter is relevant to their cultural experiences. For example, students in Thailand reported that the integration of local folklore and traditions into the curriculum made them more interested and motivated to learn. However, despite increased motivation, the impact on academic achievement varied. In some schools, higher engagement did not always translate into significant improvements in academic grades (Chen & Dönmez, 2021).

3. Challenges in Implementation

Despite the benefits, some significant challenges in implementing culture-based pedagogy were identified. Teachers reported difficulties in finding appropriate teaching materials and adequate training to implement the approach effectively. In Malaysia, limitations in resources and institutional support were major constraints. In Indonesia, lack of training for teachers and differences in understanding of culture-based pedagogy hampered its implementation (Klein & Taylor, 2023).

DISCUSSION

1. Positive Influence of Culture-Based Pedagogy

The findings of this study support the existing literature on the effectiveness of culture-based pedagogy in increasing student engagement. According to Gay (2018), integrating local culture into the curriculum can make learning more relevant and engaging for students, which is reflected in the results of this study. When learning materials reflect students' culture, they feel more connected to the learning, which can increase participation and motivation.

2. Variability in Academic Achievement

Increased motivation does not always translate into increased academic achievement, indicating the need for a more holistic approach to implementing culturally-based pedagogy. As Braun and Clarke (2021) found, although student engagement increased,

other factors such as teaching quality and additional support also influenced academic achievement. Therefore, it is important to combine culturally-based pedagogy with other learning strategies to optimize academic outcomes.

3. Implementation Challenges

Challenges in implementing culturally-based pedagogy, such as lack of teaching materials and teacher training, are consistent with findings in the broader literature (Patton, 2020). Addressing these challenges requires support from educational policy and ongoing professional development. Culturally-based education requires commitment from all stakeholders, including government, schools, and local communities, to overcome barriers and maximize benefits (Creswell & Poth, 2022).

CONCLUSION

This study found that culture-based pedagogy significantly increased student engagement in classrooms in Southeast Asia. Integrating local cultural elements into the curriculum made the subject matter more relevant and interesting to students, which in turn led to more active participation and higher motivation to learn. In Indonesia, Thailand, and Malaysia, students involved in classes that implemented culture-based pedagogy showed greater enthusiasm for the subject matter and were more involved in discussions and practical activities. Culturally-based pedagogy has been shown to positively influence student motivation. Students feel more motivated when learning relates material to their cultural experiences and values. However, despite increased student motivation, its impact on academic achievement varies. In some schools, increased engagement was not always followed by significant improvements in academic outcomes. This suggests that while culturally-based pedagogy can increase engagement, academic achievement is also influenced by other factors such as teaching quality and additional support (Chen & Dönmez, 2021). The implementation of culture-based pedagogy faces several challenges, including the lack of relevant teaching materials and adequate teacher training. In some countries, limited resources and institutional support are major obstacles to effective implementation. Therefore, greater support from education policies, professional training for teachers, and the development of appropriate teaching materials are needed. To maximize the benefits of culture-based pedagogy, collaborative efforts are needed between governments, schools, and local communities (Klein & Taylor, 2023; Patton, 2020). The results of this study indicate the importance of considering local cultural elements in curriculum planning and teaching strategies. Educators and policymakers in Southeast Asia are advised to continue exploring and implementing culture-based pedagogy as part of their learning approaches. By engaging students in their own cultural contexts, it is hoped that a more inclusive and responsive learning environment will be created for students' needs (Gay, 2018; Ho, 2022).

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