



## Learning Environment as a Determinant of Students' Cultural Awareness in Indonesian High Schools

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### ABSTRACT

This study examined the influence of the learning environment on students' cultural awareness in Indonesian senior high schools. A quantitative correlational design was employed. Data were collected from 70 students in Jayapura City using a structured questionnaire measuring perceptions of the learning environment and levels of cultural awareness. Instrument validity and reliability were confirmed before analysis. Data were analysed using simple linear regression with SPSS version 27. The results indicated that the learning environment had a statistically significant effect on students' cultural awareness. Students' perceptions of less inclusive and insufficiently supportive learning environments were associated with lower levels of cultural awareness. These findings suggest that daily learning experiences and school climate play a more direct role in shaping cultural awareness than mere exposure to cultural diversity. The research illustrates the value of intentionally designing inclusive learning environments to foster intercultural understanding in multicultural educational contexts.

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## **INTRODUCTION**

Schools are social institutions that play an important role in shaping the values, attitudes, and character of students. In the context of modern education, the learning environment is not only understood as a physical space where the learning process takes place but also as a social and psychological ecosystem that influences interactions, learning experiences, and the formation of student values (Sesrita et al., 2023). An inclusive and conducive learning environment has the potential to be a strategic vehicle for fostering cultural awareness among students.

Cultural awareness is an essential part of intercultural competence that enables individuals to understand, appreciate, and respond to cultural differences adaptively (Sudiana & Putrayasa, 2024). In a pluralistic society such as Indonesia, strengthening cultural awareness is an urgent need, given the various forms of intolerance and social exclusion still found among students (Azizah, 2024). This condition shows that character and cultural education have not been fully internalized in educational practices in schools.

The learning environment has a significant influence on the formation of students' social and cultural attitudes. Research shows that external factors, including the school climate and social interactions in the learning environment, play an important role in shaping students' motivation, attitudes, and behavior (Djarwo, 2020). A learning environment that is open to differences, encourages dialogue, and values diversity can create learning experiences that are not only academic but also transformative.

In the digital age, the learning environment also includes the use of learning media and technology that shape students' interaction patterns and experiences. A learning environment that makes wise use of interactive media can enrich the learning experience and broaden students' perspectives on diversity (Ali et al., 2024). Conversely, a poorly managed learning environment has the potential to reinforce attitudes of homogeneity and hinder the development of cultural awareness.

Yuliana & Riswanto (2025) emphasize that school culture plays a critical role in shaping inclusive learning environments that support intercultural understanding and multicultural education outcomes. Schools not only function as places for knowledge transfer but also as social spaces that indirectly shape attitudes and cultural awareness through daily interactions, learning practices, and institutional climate. Therefore, consciously designing a learning environment to respect cultural diversity plays a crucial role in enhancing students' cultural awareness.

The multicultural city of Jayapura, with its high ethnic and cultural diversity, provides a relevant context for examining how the learning environment shapes students' cultural awareness. Although diversity is a daily social reality, initial observations show that not all students have a high level of cultural awareness. There is still a tendency for social grouping and a lack of cross-cultural interaction in the school environment. This suggests that the management of a learning environment, which supports the internalization of multicultural values, has not fully accompanied structural diversity.

Based on these conditions, it is important to conduct research on the learning environment as a determinant of cultural awareness among high school students. There is still limited empirical research that specifically examines the influence of the learning environment on students' cultural awareness in Indonesia, especially in regions with complex social dynamics. Therefore, this study aims to analyze the influence of the learning environment on the cultural awareness of high school students in Indonesia. The results of this study are expected to provide an empirical basis for the development of educational policies and practices oriented toward creating an inclusive and multicultural learning environment.

## LITERATURE REVIEW

### *Learning Environment and Cultural Awareness*

The learning environment is widely acknowledged as a key factor influencing students' development; however, its role in shaping cultural awareness remains insufficiently explored. Contemporary perspectives define the learning environment as a multidimensional construct encompassing physical, social, and psychological dimensions that shape students' interactions and learning experiences (Sesrita et al., 2023). While prior studies have demonstrated that supportive learning environments enhance motivation and academic outcomes (Djarwo, 2020), they largely overlook their impact on socio-cultural competencies such as cultural awareness.

Cultural awareness, a core component of intercultural competence, involves the ability to understand, appreciate, and respond effectively to cultural differences (Deardorff, 2006). Nevertheless, existing research suggests that cultural diversity alone does not automatically foster such awareness. Without structured interaction and reflective learning, diversity may coexist with stereotypes and social segmentation (Azizah, 2024), hindering the development of intercultural competence and perpetuating misunderstandings among cultural groups. This indicates that cultural awareness must be intentionally developed through meaningful learning experiences.

From a theoretical perspective, Bronfenbrenner (1979) highlights the role of the school as a microsystem that directly shapes students' social and cultural development. Similarly, Allport's (1954) contact hypothesis emphasises that intercultural interaction can only reduce prejudice under specific conditions, such as equal status and institutional support. These perspectives suggest that the quality of the learning environment, rather than the mere presence of diversity, determines the development of cultural awareness.

Empirical studies further indicate that inclusive school cultures and culturally responsive practices can enhance intercultural understanding (Yuliana & Riswanto, 2025; Khery et al., 2021). However, previous research often examines these aspects separately, resulting in a fragmented understanding of how the learning environment influences cultural awareness, particularly in relation to the effectiveness of inclusive practices and digital learning environments. In addition, the role of digital learning environments

remains underexplored despite their growing importance in shaping students' perspectives (Ali et al., 2024).

Therefore, there is a need for integrative research that examines the learning environment as a comprehensive determinant of cultural awareness, particularly in multicultural contexts such as Indonesia. Based on this gap, this study proposes the following hypothesis:

H1: The learning environment has a significant effect on students' cultural awareness.

## **METHODOLOGY**

This study employed a quantitative approach to examine the extent to which the learning environment influences the cultural awareness of senior high school students. A quantitative design was selected because it allows relationships between variables to be examined objectively through numerical data and statistical analysis, enabling systematic and empirical interpretation of findings (Sugiyono, 2019). The study adopted a correlational research design, focusing on identifying the strength and direction of the relationship between the learning environment and students' cultural awareness.

The data sources consisted of primary and secondary data. Primary data were collected using a closed-ended questionnaire administered to students as research participants. The questionnaire assessed students' perceptions of the learning environment, including physical, social, and psychological aspects, in addition to their cultural awareness. Secondary data were obtained from a review of relevant literature, including peer-reviewed journal articles, educational policy documents, and official reports related to multicultural education and school climate. These secondary sources were used to strengthen the conceptual framework and support the interpretation of empirical findings (Creswell & Creswell, 2018).

The research population comprised senior high school students in Jayapura City. The study focused on students in grades XI and XII, as students at this level are considered to have accumulated sufficient learning experiences and social interactions within the school environment to meaningfully reflect on issues related to cultural diversity (Sugiyono, 2018).

Sampling was conducted using purposive sampling, whereby participants were selected based on predefined criteria aligned with the research objectives (Ghozali & Latan, 2015). The criteria included active enrollment in grade XI or XII at a public or private high school in Jayapura City, participation in school learning activities for at least two semesters, experience in face-to-face or hybrid learning settings, and voluntary consent to participate in the study. Based on these criteria, a total of 70 students were included as respondents.

Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 27. The analysis procedure began with instrument quality testing through validity and reliability analysis to ensure accurate measurement of the research variables. Descriptive statistics were then used to summarize respondent characteristics and variable tendencies. To examine the influence of the learning environment on cultural awareness, simple linear

regression analysis was applied. All analytical procedures followed established statistical guidelines to ensure the reliability and academic rigor of the results (Ghozali, 2018).

## RESULT AND DISCUSSION

### *Respondent Characteristics*

Jayapura City's multicultural educational context provides a relevant setting for examining the role of the learning environment in shaping students' cultural awareness. The respondents represent students from diverse school backgrounds and learning experiences, allowing for a contextualized analysis of environmental influences (see Table 1). The sample reflects variation in students' educational experiences within public and private high schools, despite not emphasizing detailed demographic distributions.

Table 1. Respondent Characteristics

Category	Description
Total Respondents	70 students
Education Level	Senior High School
Learning Mode	Face-to-face / Hybrid
Cultural Background	Multicultural

### *Instrument Quality*

The results of the validity test indicate that all items used to measure the learning environment demonstrate strong item-total correlations, exceeding the acceptable threshold. This confirms that each indicator adequately represents the construct of the learning environment (as presented in Table 2).

Table 2. Validity Test of Learning Environment Instrument

Item	r-value	Status
LE1	0.916	Valid
LE2	0.939	Valid
LE3	0.861	Valid

Reliability testing further shows that both the learning environment and cultural awareness instruments possess high internal consistency. The Cronbach's alpha coefficients exceed the minimum recommended value, indicating that the instruments are stable and reliable for data analysis (see Table 3).

Table 3. Reliability Statistics

Variable	Cronbach Alpha	Cut Off Value	Description
Learning Environment	0.889	0.60	Reliable
Cultural Awareness	0.857	0.60	Reliable

*Influence of the Learning Environment on Cultural Awareness*

Simple regression analysis reveals that the learning environment has a statistically significant effect on students' cultural awareness (Table 4). The regression coefficient shows that there is a strong and negative link between the learning environment variable and cultural awareness. This finding suggests that students' perceptions of a learning environment that is insufficiently inclusive or lacks meaningful cultural interaction may be associated with lower levels of cultural awareness.

Table 4. Regression Results (Learning Environment)

Predictor	B	t	Sig.
Learning Environment	-0.386	-4.220	0.000

Importantly, this negative coefficient does not imply that the learning environment is inherently detrimental. Rather, it reflects students' subjective perceptions of environmental conditions that may not yet optimally support intercultural dialogue, inclusivity, and cultural responsiveness. These results highlight the critical role of the learning environment as a social and psychological space that can either facilitate or constrain the development of cultural awareness among students.

The findings of this study indicate that the learning environment has a significant influence on students' cultural awareness in Indonesian high schools. The negative regression coefficient suggests that students who perceive the learning environment as less supportive, less inclusive, or lacking meaningful intercultural interaction tend to demonstrate lower levels of cultural awareness. This finding confirms that cultural awareness is not an automatic outcome of cultural diversity but is shaped through students' lived experiences within the school environment.

This result strengthens previous studies in the Indonesian context that emphasize the role of the school environment in shaping students' attitudes and values. Studies on school climate and multicultural education indicate that schools function as social spaces where character and multicultural values are implicitly constructed through daily interactions, institutional culture, and communication patterns (Yuliana & Riswanto, 2025). When learning environments fail to encourage openness, dialogue, and mutual respect, students may develop social groupings that limit cross-cultural engagement, even within multicultural settings such as Jayapura.

From a socio-ecological perspective, this finding aligns with Bronfenbrenner's (1979) ecological theory, which positions the school as a microsystem that significantly influences students' social and cultural development. Repeated interactions within the learning environment shape students' perceptions of difference, belonging, and social norms. In this study, the negative association between the learning environment and cultural awareness reflects students' sensitivity to environmental conditions that may not sufficiently support inclusive and reflective learning experiences.

The results can also be interpreted through Allport's (1954) contact hypothesis, which suggests that intergroup contact alone is insufficient to foster

positive intercultural outcomes. Positive effects emerge only when contact is supported by institutional norms, cooperative learning structures, and equal status among participants. In the absence of these conditions, interactions among students from diverse cultural backgrounds may remain superficial, limiting the development of cultural awareness. This interpretation helps explain why cultural diversity in Jayapura does not automatically translate into high levels of cultural awareness among students.

Furthermore, the findings resonate with research on cultural literacy and educational practices in Indonesia. Azizah (2024) emphasizes that limited cultural literacy within school environments may reinforce stereotypes and social distance among students. Similarly, Sesrita et al. (2023) highlight that students' perceptions of cultural values are strongly influenced by how schools integrate cultural understanding into everyday learning activities. These studies support the argument that cultural awareness is cultivated through sustained interaction within a supportive and inclusive learning environment rather than through isolated instructional efforts.

The learning environment in contemporary education also includes the use of instructional media and technology. This study did not directly investigate digital learning variables; however, Ali et al. (2024) assert that learning media can influence students' perspectives and interaction patterns. Without culturally responsive pedagogical guidance, digital learning environments may inadvertently limit students' exposure to diverse cultural perspectives, thereby constraining the development of cultural awareness.

The negative regression coefficient identified in this study should therefore be interpreted as an indicator of environmental shortcomings rather than as evidence that the learning environment undermines cultural awareness. Instead, it reflects students' perceptions of learning environments that have not yet fully facilitated intercultural dialogue and reflection. This interpretation is consistent with OECD (2019), which emphasizes that social and emotional learning outcomes are strongly influenced by the quality of school environments and interpersonal relationships within educational settings.

Overall, this study provides empirical evidence that the learning environment plays a crucial role in determining students' cultural awareness. While previous research in Indonesia has largely focused on academic achievement and motivation (Djarwo, 2020), this investigation emphasizes the value of environmental design in fostering socio-cultural competencies. These findings underscore the need for schools particularly in multicultural regions such as Jayapura to intentionally design learning environments that promote inclusivity, dialogue, and reflective engagement with cultural diversity.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study provides empirical evidence that the learning environment is a key determinant of students' cultural awareness in Indonesian senior high schools. The findings indicate that students' perceptions of a less inclusive and insufficiently supportive learning environment are associated with lower levels of cultural awareness. This substantiates that cultural awareness does not arise

spontaneously from cultural diversity but is cultivated through quotidian interactions, the educational environment, and institutional methodologies.

The results further demonstrate that cultural diversity alone is insufficient to foster intercultural understanding. Without intentional environmental support such as inclusive interaction, dialogue, and reflective learning cultural differences may coexist without meaningful engagement. In this respect, the learning environment functions as an implicit curriculum that significantly influences students' socio-cultural orientations, particularly in multicultural contexts such as Jayapura.

Based on these findings, schools are encouraged to cultivate inclusive learning environments deliberately that promote intercultural interaction and reflective dialogue. Teachers should be supported through professional development focused on culturally responsive pedagogy, while school leaders and policymakers should recognize cultural awareness as an essential educational outcome alongside academic achievement. Overall, strengthening the quality of learning environments through coherent pedagogical practices and institutional policies is essential for preparing students to participate constructively in culturally diverse societies.

#### **FURTHER STUDY**

This study provides an empirical contribution to understanding how the learning environment shapes students' cultural awareness within multicultural educational settings. Future research could extend these findings by employing longitudinal or mixed-methods approaches to capture the dynamic and developmental nature of cultural awareness over time. Such designs would enable researchers to explore how sustained exposure to different types of learning environments influences students' intercultural understanding and social attitudes across various stages of schooling.

Further research is also needed to conceptualize the learning environment as a multidimensional construct that integrates physical, social, psychological, and digital dimensions. Investigating how these dimensions interact with cultural awareness in diverse educational contexts may offer more profound insights into the mechanisms through which inclusive and culturally responsive learning environments can be effectively designed and implemented.

In addition, future studies should consider incorporating mediating and moderating variables such as teaching strategies, cultural literacy, and student interaction patterns to better explain the relationship between the learning environment and cultural awareness. Expanding research across different regions and educational levels would also enhance the generalizability of findings and contribute to the development of more comprehensive and context-sensitive models of multicultural education.

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