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The Impact of Cultural Values and Poster Comments on Self-Efficacy: Evidence from Indonesian Higher Education Students

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Research Article

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Abstract

Background/purpose. This study aims to investigate how a culturally integrated cooperative learning model, combining Poster Comment with Longko's cultural values, affects students' self-efficacy.

Materials/methods. There were an experimental group and a control group in a quasi-experimental 2x2 factorial design to examine how two independent factors affect a single dependent variable and how the two independent variables interact. Researchers used self-efficacy surveys in questionnaires, observation, and documentation to gather data. The results of this study were from Structural Equation Modeling-Partial Least Squares (SEM-PLS).

Results. The SEM-PLS analysis results showed that the poster comment model had a large effect on students' self-efficacy, both directly ($\beta = 0.305$, $p = 0.028$) and indirectly through Longko's cultural values (indirect effect = 0.393, $p = 0.001$). Local cultural values had a big effect on self-efficacy ($\beta = 0.523$, $p = 0.000$) and were also affected by the poster comment technique ($\beta = 0.752$, $p = 0.000$). The model explained 60.6% of the variance in self-efficacy, underscoring the importance of learning together and in ways that are culturally grounded. Adding indigenous values to cooperative learning can help students become more involved and build self-confidence.

Conclusion. Using Longko's cultural values in a poster-based cooperative learning approach enhances students' self-efficacy, making them feel more capable, motivated, and involved in character education by making it culturally relevant, encouraging peer collaboration, and fostering a strong sense of participation.

Limitations and implications. The study only evaluated one cultural context and a short-term intervention; thus, future research should expand to include local cultural values in cooperative learning to increase students' confidence, involvement, and cultural identity.

1. Introduction

A greater number of individuals are recognizing the importance of culturally responsive education in serving the needs of all learners (Brown, 2017; Ferguson-Patrick, 2020). Teachers are advised to stop using the same teaching methods for everyone as classrooms become increasingly diverse in terms of language and culture. They should instead create learning places that honor and reflect their students' cultural identities. To get students more involved, motivate them, and help them do better in school, using their cultural backgrounds is a great idea (Cruz et al., 2020).

Culturally sensitive education connects what students learn to their own culture, which makes it more meaningful and important. It also thinks about what they have been through before (Siwatu, 2011). These thoughts will lead to better education as they help individuals concentrate, accept others, and care for those around them (Sriwahyuni et al., 2022; Haedar, 2022). Utilize what you understand about the neighborhood, the people who live there, and what they think in your lessons. The students will assume that someone is paying attention to and hearing them. Making students feel like they belong can boost their confidence in themselves and their abilities (Smith et al., 2017). If teachers are aware of different cultures, students will do better in school and learn useful mental and social skills that they can use after school. Let students take charge of their learning and work together in meaningful ways to pique their interest in cooperative learning, a student-centered approach to teaching (Syawal, Wahid, & Setiawan, 2025). Teachers set up group tasks that help students learn new things and get better at talking to each other, making friends, and thinking critically (Maclellan, 2014).

Without this method, students can simply passively absorb information. They can instead learn in places where they can help one another and feel responsible for each other. Joint learning helps students learn to work independently, be kind to others, and keep the school a safe place for everyone. Cooperative learning improves both students' academic and social lives by getting them to work together to reach shared goals (Ferguson-Patrick, 2020). It gives students more control over their education by shifting the teacher's role from expert to one of helping students learn. Students can talk to each other, agree on what things mean, and help each other because this method is collaborative (Kyriazopoulou et al., 2025).

Some previous studies reported that students' science identity and self-efficacy in science communication increased significantly, and we identified both advantages and drawbacks to research presentations (Leone & French, 2024). The poster session offered an engaged, engaging, and informal learning atmosphere that fostered student participation (Filipova, 2016). These sources inspire researchers to utilize social media efficiently and regularly for knowledge dissemination by leveraging self-efficacy (Alshahrani & Pennington, 2018).

In Indonesian schools, there is a growing need for study. Growing numbers of people are looking for ways to learn that are open and sensitive to different cultures. Culturally sensitive education makes students more interested, motivates them, and improves their academic success. People in Indonesia often do not teach important traditional values like gotong royong, musyawarah, and longko' in school, even though these values could help students learn how to get along with others. This study's main goal is to find ways to use these native values in group learning that will help students perform better in school and improve their self-esteem, especially their sense of self-efficacy. Students must feel safe and in charge of their education in order to do well in school over time. This topic is worthwhile and current. A great deal of research has examined how culturally appropriate teaching methods and group learning can help students stay interested in school and perform better.

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Therefore, this study aims to fill this gap by examining the effect of integrating Longko's cultural values into a poster comment-based cooperative learning model on students' self-efficacy in higher education. Specifically, it addresses the following research questions:

1. How does the poster comment on the learning model affect students' self-efficacy?
2. How do Longko's cultural values influence students' self-efficacy?
3. Does the integration of Longko's cultural values mediate the effect of poster comment learning on students' self-efficacy?

2. Literature Review

2.1. Poster Comment Learning Model

The poster comment learning model is a new way for students to work together and engage in critical conversation, building on the ideas of cooperative learning (Newsom et al., 2021). In this technique, students create and examine visual posters that present important ideas, arguments, or observations. Then, they provide each other feedback by commenting on each other's work (MacIntosh-Murray, 2007). This method not only helps students learn the material better, but it also helps them develop their evaluative thinking and social skills (Prichard & Ferreira, 2014). The poster comment technique takes cooperative learning beyond group work into a more structured yet flexible arena where people work together on purpose, reflect on what they're doing, and remain academically oriented (Leone & French, 2024). Poster provided a novel approach to foster profound participation and learning among peers and facilitators (Ross et al., 2019).

The poster notes that the learning model is a great way to improve both academic and social outcomes when used in a student-centered, culturally sensitive way. This idea is grounded in cooperative learning and encourages students to become involved, work together in meaningful ways, and take charge of their learning (Dale & Kline, 2017). The teacher's job evolves from being the only one who knows what is going on to assisting students learn. This implies that students can learn by forming plans, discussing ideas, and helping each other out. The poster's words encourage students to talk to one another, think critically, and work together. This makes the classroom more friendly, fun, and student-led. Also, this form of learning becomes more useful and meaningful when it is linked to the cultural values of the area, as in the Longko' tradition of Toraja. Longko' is a collectivist culture that values respect for others, shared responsibility, and achievement as a group. This fits well with the way poster comments are set up. By applying these ideals in the classroom, students can draw on their cultural identity to feel more connected, motivated, and empowered. This cultural fit makes students more interested in studying and enables them to see it as a valuable, community-building experience (Arruzza & Chau, 2021). However, these strategies have seldom been assessed in non-Western or collectivist cultures, where feedback and collaboration are influenced by communal standards rather than individual competitiveness.

2.2. Self-Efficacy

Bandura (2015) says that self-efficacy is the confidence a person has in their ability to plan and carry out the steps needed to achieve a goal. High-self-efficacy students are likely to feel confident they can finish their tasks, handle school stress, be brave when faced with challenges, participate in class discussions, and make decisions on their own (Jan, 2015). They are more likely to take on hard jobs, keep trying when things get tough, and get back up after failing if they believe in their abilities. Self-efficacy is a way to gauge how confident students are in their abilities and how likely they are to do well in school. Liu et al. (2025) say that these two factors affect how well they do in school and how well they will do in the future.

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Self-efficacy affects how students deal with problems, plan tasks, and control their emotions, all of which are important for their learning (Bresó et al., 2011). They are more likely to be strong, active, and do well in school if you believe in yourself. People who do not believe in their abilities, on the other hand, might avoid things, feel bad, and not do as well. Many essential things affect self-efficacy (Power et al., 2024). Some of these are mastery experiences, where students feel good about their abilities by completing tasks, vicarious learning, where students believe in their abilities after seeing peers or role models succeed, and social persuasion, which includes teachers, peers, or mentors giving positive feedback and encouraging words. and physiological and mental states, where reducing stress and encouraging good feelings help students believe in their ability to learn (Gomes, 2014). Teachers are very important for creating learning environments that support students. They do this by giving students achievable challenges, encouraging peer modeling, providing consistent support, and making lessons relevant to their culture. These things help students believe in their abilities and help them grow academically and personally (Tesfaye et al., 2025). These differences show that cultural context affects how self-efficacy grows, which makes it even more important to look into culturally responsive frameworks like Longko'.

2.3 Longko's Local Culture

Smith et al. (2017) argue that culturally relevant learning experiences can significantly increase a student's sense of self-efficacy. Students feel good about their cultural identity and can see how what they are learning applies to their own lives at these kinds of learning-related events. Kids are more likely to believe in their learning when they can see and hear about other cultures in the school (Gottlieb et al., 2022). Seeing and hearing about other cultures in the classroom makes students more confident in their ability to learn. People in the same class always give helpful feedback, like when they leave comments on boards. Thanks for the input. It shows them how far they have come and what they need to work on. Cruz et al. (2020) say that students can feel better about themselves and learn new things when they receive feedback from their friends and learn in ways that take their culture into account. Indonesia has strong community traditions that value peace and shared duty. For example, the values of gotong royong (working together) and musyawarah (deliberation and reaching an agreement), and the longko' system of leadership in Toraja, show this. In everyday life, these ideas are very important. In the past, they have helped people decide what to do, settle arguments, and build groups.

They can use these ideas to help students work together, be respectful of one another, and own up to their mistakes in school. Formal education rarely uses these natural principles, but they have a lot of promise. Instead, it tends to favour both standard and unique ways. That means many students do not get to learn in ways that are important to them (Ferguson-Patrick, 2020). Aside from making the lessons more relevant to students' cultures, using local knowledge in the classroom also helps them feel they belong and gives them a better sense of who they are. This list of group-work and peer-review ideas can help teachers make their classes more engaging and useful for all their students (Leone & French, 2024). Teachers can make classrooms that are more welcoming and helpful for all students by using these ideas in group work and peer review. Students will do better in school and grow as people if they are in these places. Each approach emphasises mutual respect, conversation, and accountability—principles that align with Indonesia's Longko philosophy. Despite these global similarities, there is a lack of systematic Indonesian studies examining how indigenous ethics, such as Longko', which prioritise dignity, mutual respect, and communal responsibility, may be implemented within structured cooperative learning.

However, there has not been much research on how these two things work together in Indonesian schools. Few real-world studies examine how culturally responsive cooperative learning and the poster comment learning model work together to help students feel more confident in themselves. There is not much research that links these findings to cultural responsiveness and

cooperative learning, even though some studies have shown how poster presentations can help with science identity and communication skills (Leone & French, 2024); (Filipova, 2016). And how self-efficacy can help people share knowledge on social media (Alshahrani & Pennington, 2018). This study fills this gap by examining how local cultural values and peer feedback systems might work together to help students believe in their own academic abilities in ways that are more culturally relevant and student-focused.

Furthermore, this study aims to investigate how a culturally integrated cooperative learning model, combining Poster Comment with Longko's cultural values, affects students' self-efficacy.

3. Methodology

3.1. Research Design

This study used a 2x2 factorial experimental design, a quantitative technique. Researchers chose this design to examine how two independent factors affect a single dependent variable and how the two independent variables interact (Sumaraw et al., 2025). The 2x2 factorial design allows the researcher to examine both the main effects of each treatment and the interaction effects that occur when the treatments are combined (Üztemur, 2020). This method provides a comprehensive picture of how each intervention and its combinations affect students' self-efficacy. The two independent variables in this study are the poster comment approach (peer feedback) and the integration of Longko's cultural values. There are two treatment levels for each independent variable: (1) instruction with and without the integration of Longko's cultural values, and (2) instruction with and without the poster comment technique. Students' academic self-efficacy is the dependent variable. This is how much they believe they can do well on schoolwork. The study's goal is to determine how much local cultural integration and active peer participation through poster feedback help students feel more confident in their ability to learn, using this experimental design.

3.2. Population and Sample

Students from the Christian Religious Education Study Program at IAKN Toraja are taking the Character Education course for the 2025/2026 school year in this study. There are 264 students at IAKN Toraja. Because there are many students, it makes more sense to use classrooms as the sample unit. As the teacher for the Character Education class, the researcher used a cooperative learning strategy that combined Longko's cultural values with Christian higher education. The study focuses primarily on Character Education, but the strategy and method can also be applied in other relevant classes, especially those that emphasize working together.

Cluster random sampling is the method used to select samples; it means picking entire classes at random as the units of analysis. We randomly assigned two classes: one to the experimental group, which learned through cooperative learning based on poster comment tactics, and the other to the control group, which learned through traditional direct instruction. The researcher chose the PAK Study Program because they were teaching the course and because the content was relevant to character development. The closeness in students' baseline academic achievement and self-efficacy regarding character education was also taken into account when choosing classes. To stay objective, another certified teacher, not the researcher, taught during the intervention. The sample size was based on what was needed to perform an independent-samples t-test, a type of inferential statistics. Cohen says that to get a medium effect size (d = 0.5) with a significance level of 0.05 and a power of 0.80, you need 100 participants (50 per group). But this study changed the sample size based on the number of students available: two classes of 25 students each. This number is less than ideal, but it is fine for a quasi-experimental design as long as the assumptions of normality and homogeneity are met. The study included 100 students from four academic programs.

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Although the sample size meets the essential criteria for inferential analysis (Cohen, 1988), its limited scale and singular institutional focus may limit the applicability of the findings to settings beyond comparable higher education settings. Subsequent research should thus contemplate multi-institutional replication or expanded sample sizes to enhance external validity and contextual representativeness.

3.3. Variables in Research

There are three primary variables in this study, namely Poster Comment-Based Cooperative Learning (PC), Local Cultural Values (NL), and Self-Efficacy (ED). Each of these plays a different role in the design of the experiment and the analysis of the data. The variables are put into these groups. PC: Poster Comment-Based Cooperative Learning. This is a way for teachers to help students learn by having them work together on poster-based learning projects and by giving and receiving feedback. It refers to the teaching method used with the experimental group. NL: Values of the Local Culture. These are the ideals that are part of the native Torajan culture (Longko') and are used in the learning process. They are a cultural part of the intervention. Dependent Variable: Self-Efficacy (ED). This is the main outcome variable, indicating how much students believe they can perform the character education tasks and learn from them. After the intervention, it is measured.

The 2x2 factorial design allows researchers to examine both the main effects of PC and NL and how they interact to affect Self-Efficacy (ED). This interaction effect examines whether using poster comment-based cooperative learning and local cultural values together has a different effect than using them separately. We turned each variable into observable indicators: PC has six indicators, such as peer assessment, collaborative discourse, and poster design engagement. There are four signs in NL, such as internalizing Longko's principles, respecting elders, and taking care of the community. ED has four signs, including how confident you are in tasks related to your character, how well you set goals, and how persistent you are. SmartPLS was used to assess the validity and reliability of these indicators through outer loadings, composite reliability, and AVE.

A structured questionnaire was used in this study to examine three important variables: Poster Comment-Based Cooperative Learning (PC), Local Cultural Values (NL), and Self-Efficacy (SE). We used a 5-point Likert scale to quantify each characteristic, with 1 = "Strongly Disagree" and 5 = "Strongly Agree." We examined the PC variable using six items that assessed students' active participation in peer critique, working together, and thinking critically during poster activities. The NL variable was measured by four items that showed how well people understood Longko'-based cultural norms, such as moral leadership, mutual respect, and collective responsibility. Researchers used four questions to measure self-efficacy (SE) that asked students how confident they were in doing homework, solving challenges, and accomplishing their learning goals.

Researchers employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to ensure the tool was both valid and reliable. The outer loading values for all items exceeded the recommended limit of 0.70, indicating that the indicators were reliable. The results for Cronbach's Alpha and Composite Reliability (CR) for each variable were above 0.90, indicating that they were quite similar. These results suggest that the technique is both accurate and reliable for determining how poster comment methods and cultural fit affect students' confidence in their academic abilities.

3.4. Data Collection Technique

The study used four ways to get information, including surveys, observation, and documentation. We chose these procedures to make sure the results were useful and correct. Researchers consistently provided students with the measurements and observed how well the cooperative learning model based on poster comments and Longko cultural values worked; the same tool was used for all testing. The Christian Religious Education Study Program (PAK) students completed a

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questionnaire that asked about their beliefs in their academic abilities, their capacity to work with others, their ability to communicate effectively, and their ability to handle academic challenges. It was built on Bandura's (2015) idea of self-efficacy and adapted to the collaborative learning setting. Also, during the intervention, observations were made to see how Longko's cultural values were used in group interactions. Teamwork, shared responsibility, respect for each other, and working together to finish a task were among the things considered. The documentation method included gathering evidence from group discussion outcomes, individual assignments, student reflective journals, and lecturer feedback. These documents were used as triangulation data to support the study of how self-efficacy changed throughout the intervention, providing deeper, more contextual knowledge of the learning process and its outcomes.

3.5. Data Analysis Technique

Structural Equation Modeling using Partial Least Squares (SEM-PLS) is the method used in this study to analyze the data. SEM-PLS is a method for testing relationships among hidden variables that combines factor analysis and path analysis. This strategy works well for research that uses complex models and exploratory goals, especially when the data don't meet the assumptions of multivariate normality or when the sample size is small. SEM-PLS was used in this study to look at how the poster comment-based cooperative learning approach and the inclusion of Longko cultural values affected students' academic self-efficacy. There were two primary steps in the analysis: the measuring model (outer model) and the structural model (inner model). The measurement model used outer loadings, Average Variance Extracted (AVE), and composite reliability to assess the validity and reliability of the indicators. Using path coefficients, t-statistics, and p-values, the structural model examined the strength and importance of the links between constructs. Also, the R-squared value was used to assess how well the model predicted future outcomes. We used bootstrapping with 100 samples to assess whether the direct and indirect effects in the model were significant.

4. Results

This study aims to investigate how a cooperative learning model that uses poster comments and Longko cultural values affects students' self-efficacy in character education. The study's main goal is to determine how the poster comment method and local cultural values affect students' self-efficacy in doing well, working with others, and solving problems. The study's goal is to use this culturally responsive teaching method to determine how incorporating indigenous values can enhance the effectiveness of cooperative learning in higher education settings.

4.1. The description of respondents based on gender and age

Table 1. Respondent characteristics based on gender and age

Gender	Number of Respondents	Percentage
Male	38	38%
Female	62	62%
Total	100	100%
Age		
17-18	5	5%
19-20	91	92%
21-22	4	4%
Total	100	100

More women than men answered this study. Most of the people who answered were middle-aged. Only a few were in the youngest or oldest age groups. The data suggest that the majority of participants were women, generally in their late teens to early twenties.

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4.2. Data analysis

4.2.1. Inner model design

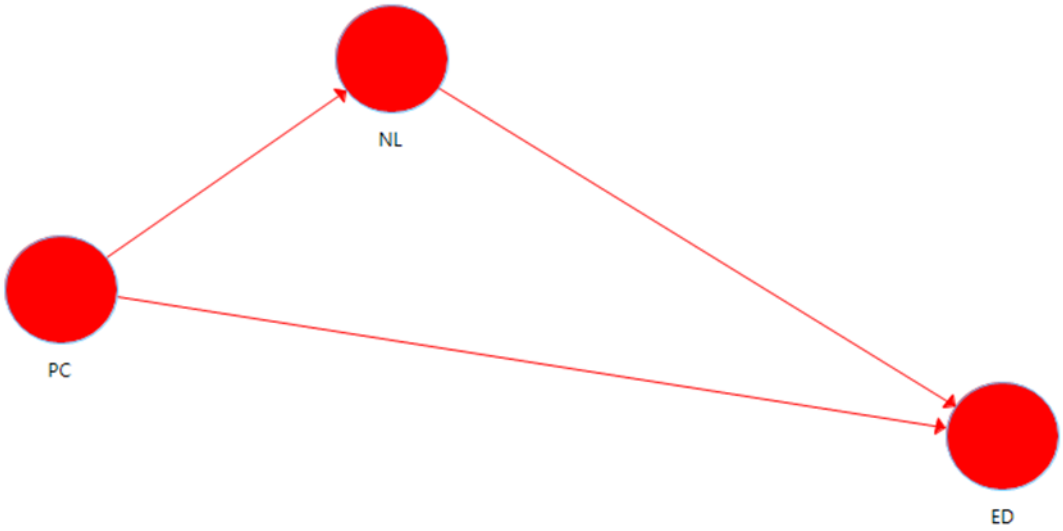

Figure 1. Inner model design

Figure 1 illustrates the impact of LCV and PCS on students' academic self-efficacy and their collaborative effect. In PLS-SEM, bootstrapping is used to assess the significance of each path and determine whether these teaching methods have a substantial impact on self-efficacy development.

4.2.2. Outer model design

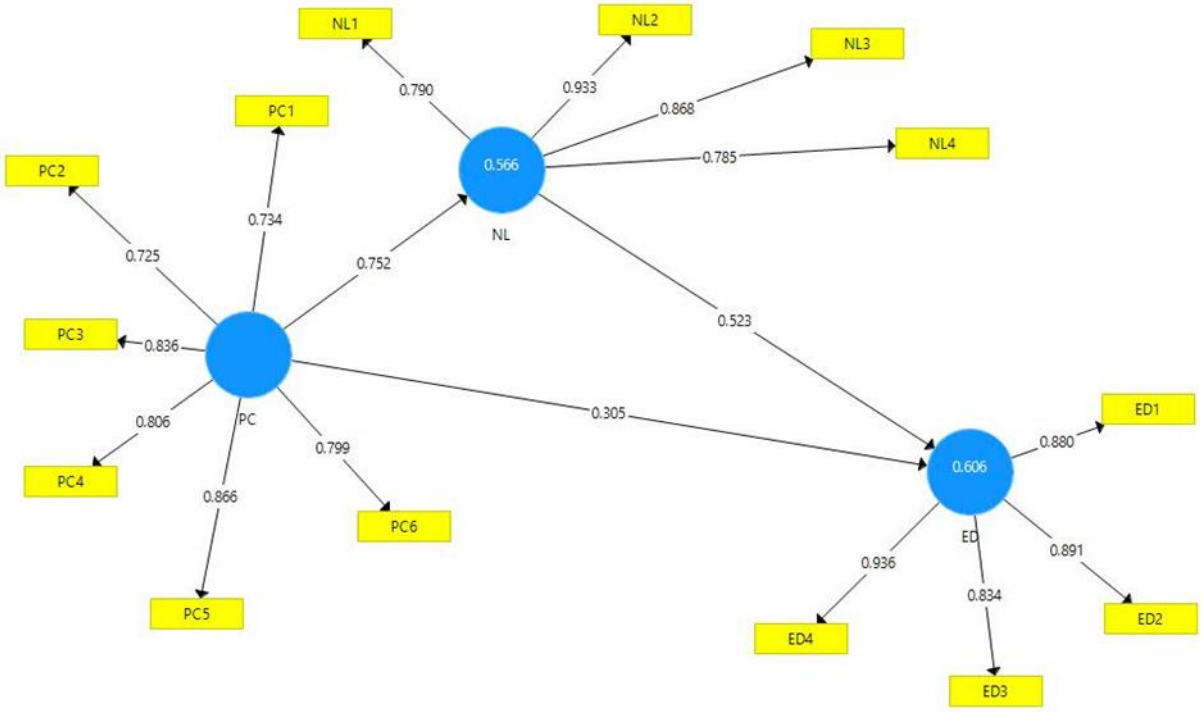

Figure 2. Outer model design

This outer model is important for ensuring that the measurement tools are reliable and valid (for example, by using outer loadings, AVEs, and CRs). This model precedes the structural (inner) model in PLS-SEM and ensures that each latent construct is well represented by its indicators.

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4.3. Structural model evaluation

4.3.1. Loading Factor

Table 2. The output of outer loading

	ED	NL	PC
ED1	0.880		
ED2	0.891		
ED3	0.834		
ED4	0.936		
NL1	0.880		
		0.790	
NL2		0.933	
NL3		0.868	
NL4		0.785	
PC1			0.734
PC2			0.725
PC3			0.836
PC4			0.806
PC5			0.866
PC6			0.799

All of the outer loadings are higher than the usual cutoff of 0.70, which means that each indicator is a reliable measure of its latent construct. The insulin resistance (ED) factor shows substantial item loadings, ranging from 0.834 to 0.936. With loadings ranging from 0.785 to 0.933, NL (Longko's Cultural Values) shows strong convergent validity. The load on the PC (Poster Comment Strategy) indicators is between 0.725 and 0.866, indicating they are likewise reliable.

4.3.2. Discriminant validity

The square root of the Average Variance Extracted for each construct can be compared with the correlation between the construct and other constructs (latent-variable correlations) to assess discriminant validity. When the average variance extracted (AVE) root value for each construct is greater than the correlation value of the hidden variable, the model is said to have acceptable discriminant validity. The Fornell-Larcker Criterion table illustrates the connection between the correlation of latent variables as established by the PLS (Partial Least Squares) Algorithm and the root of AVE (Average Variance Extracted) in the table below:

Table 3. The Output of the Fornell-Larcker Criterion

Construct	ED	NL	PC
ED	0.886		
NL	0.752	0.846	
PC	0.698	0.752	0.796

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The findings of the discriminant validity test using the Fornell-Larcker criterion demonstrate that all three constructs—Academic Self-Efficacy (ED), Longko's Cultural Values (NL), and Poster Comment Strategy (PC)—are valid. There is a big difference between the constructs because the square root of the AVE for each one (ED = 0.886, NL = 0.846, PC = 0.796) is higher than the correlations between the constructs. These data indicate that the measurement model has good discriminant validity and that the constructs do not overlap, supporting the integrity of the structural model.

Table 4. The Output of Cronbach's alpha and Composite reliability

Construct	Cronbach's Alpha	Composite Reliability
ED	0.908	0.936
NL	0.866	0.909
PC	0.883	0.912

The dependability results in Table 4 indicate that all constructs are highly consistent with each other. The Cronbach's alpha values for Academic Self-Efficacy (ED = 0.908), Longko's Cultural Values (NL = 0.866), and Poster Comment Strategy (PC = 0.883) are all above the acceptable level of 0.70, indicating that these tests may be highly reliable. All three of the tests—ED (0.936), NL (0.909), and PC (0.912)—have Composite Reliability scores above 0.70. This means that the tools used to measure are also accurate and consistent.

Table 5. R-square

Construct	R Square
ED	0.606
NL	0.566

The R Square values show how much of the variation in each endogenous variable the model can explain. The Academic Self-Efficacy (ED) construct has an R-square of 0.606, indicating that the model's predictors —Longko's Cultural Values and Poster Comment Strategy —explain 60.6% of the variation in students' self-efficacy. The Longko' Cultural Values (NL) construct has an R-square of 0.566, indicating that its indicators or influencing variables explain 56.6% of its variation. These numbers show that the structural model can explain things to a moderate to strong degree.

Table 6. Path coefficients (Mean, STDEV, T-Values)

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Local Culture Value in Longko' -> Self-Efficacy	0.523	0.513	0.139	3.755	0.000
Poster Comment -> Self-Efficacy	0.305	0.335	0.138	2.205	0.028
Poster Comment -> Local Culture Value in Longko'	0.752	0.763	0.062	12.134	0.000

The structural model shows that students' community cultural values in Longko have a significant effect on their confidence in their academic abilities. When students engage in activities rooted in their culture, they feel more confident in their academics. The poster comment technique, in which students leave comments for each other, also helps students feel more confident in their abilities by prompting them to reflect on what they're doing, ask for help, and learn alongside other students.

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This strategy is also highly useful for helping pupils learn about and value other cultures. In general, combining culturally responsive methods with peer interaction makes learning better and helps students believe in their academic ability.

Table 7. Specific Indirect Effect

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Poster Comment -> Local Culture Value in Longko' -> Self-Efficacy	0.393	0.391	0.114	3.441	0.001

The mediation study demonstrates that Local Cultural Values are a link between Poster comments and Self-Efficacy. This means that the peer feedback method helps students understand and accept cultural values, which makes them feel better about their academic ability. This roundabout route to getting there shows how crucial it is to blend peer contact with culturally relevant learning strategies to boost students' confidence in their academic abilities.

This study offers educational insights into the potential of culturally responsive cooperative learning to enhance academic confidence and involvement beyond mere statistical validation.

First, poster comments help students learn by prompting them to reflect on what they have learnt. By creating and commenting on posters, students demonstrate that they understand what they are doing, receive feedback from their peers, and become more aware of their own learning. This method promotes self-directed learning and helps students internalize mastery experiences, a principal source of self-efficacy (Bandura, 2015). Longko's cultural beliefs make working together in the classroom a social activity that is rooted in culture. Respect for each other, shared responsibility, and dignity in participation make the classroom a moral and social place. Learning becomes intellectually exciting and culturally pertinent, reinforcing students' identity and sense of belonging. Third, the link between poster feedback and cultural values suggests that using learners' cultures to shape teaching approaches works best. The 60.6% explanatory power of this study indicates that educational styles and cultural relevance enhance self-efficacy. Furthermore, teachers should use culture as a tool for teaching rather than merely as background. Peer criticism, along with cooperative learning frameworks and local values such as respect and collective progress, can create learning environments that are welcoming, strong, and long-lasting for diverse groups of students.

5. Discussion

The research demonstrates that peer-feedback methodologies grounded in cultural values can markedly improve self-efficacy. The poster comment technique enabled students to negotiate meaning through culturally grounded discussion, in contrast to generic cooperative learning models, and it aligns with Bandura's concept of verbal persuasion and social modelling. The Longko culture, which values mutual respect and shared responsibility, made the classroom a safe place for children to study and express their cultural identities, thereby increasing their likelihood of participating and staying engaged. The strong, statistically significant connection between Longko's cultural values and students' self-efficacy indicates that when learning aligns with cultural identity and community-based values, students feel more confident in their academic skills (Gottlieb et al., 2022). The Longko culture, which is based on Torajan culture, is a great way to build learning environments focused on students' collaborative and visual creativity.

The Longko's cultural values help students become more independent and creative in character education. Students' ability to make responsible choices, plan their learning, and take the lead

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without relying on the teacher shows their independence. Longko's ideals stress shared responsibility and appreciation for individual effort. They want students to be able to do things on their own and figure things out. The idea of innovation stems from a cultural focus on working together, generating new ideas, and solving problems in innovative ways. Students were able to generate new ideas, share them verbally and visually, and suggest new ways to address character-related problems using the poster comment learning paradigm. When students use cooperative learning methodologies that incorporate local cultural values, they not only learn good character traits but also develop new ideas relevant to their culture (Cruz et al., 2020).

Longko's cultural values have a direct effect on self-efficacy. This means that the ways that people learn and do things that are part of their culture make them stronger. Students who believe that their cultural identity is valued in the classroom are more likely to have a good self-image and work harder to do well in school. This makes the case that culturally responsive teaching is not only welcoming but also effective, even stronger. The poster comment technique, which lets students give and receive feedback from one another through written and visual responses, has a significant direct effect on students' self-efficacy and cultural values (Leone & French, 2024). This result is in line with past studies showing that peer feedback is crucial for learning, gaining confidence, and learning to control oneself. Students can get helpful feedback from their peers, clear up any confusion, and think about how well they did with the poster comments (MacIntosh-Murray, 2007). When used alongside traditional cultural norms, this approach works even better to help students feel they have control over their lives and academic identities.

Longko culture emphasizes traits such as self-discipline, taking charge, and being responsible to oneself, which foster independence. Character-building-wise, this cultural trait teaches students to learn independently, make their own choices, and complete their schoolwork without needing too much help from the teacher. Some people feel better about themselves and take more responsibility when they do it. This helps them do better in school and life. Longko people like to be creative because they enjoy working together and coming up with new ways to solve problems. They are told to share their thoughts, have in-depth chats, and look for new ways to learn that fit who they are. This combination of traditional values and open-mindedness enables culturally grounded educational innovation, helping students connect their past to useful, future-focused ways of learning. It could be easier to retain an open mind about the local culture than to fully accept it (Saylag, 2014).

The study also found a substantial and crucial link between poster comments and the internalization of cultural values (longko' culture). This means that talking to others is a good way to remember what you learned in your area. When students provide and receive input from their peers in ways that respect diverse cultures and build community, they are more inclined to embrace the ideas being pushed. The indirect effect—from poster comments to cultural values to self-efficacy—shows a mediated link in which peer contact makes students more aware of different cultures, which, in turn, makes them believe in their skills. Students learn about other cultures and how to be competent in them while also boosting their belief in their abilities (De Diego-Lázaro et al., 2020).

This approach shows that the learning environment does not work on its own; it is shaped by changing interactions between teaching methods and cultural backgrounds. These results confirm Bandura's (2015) theory of self-efficacy, particularly the effects of social modeling and verbal persuasion. Cultural values provide students with a way to model conduct they can relate to, while poster comments offer positive feedback that can change how they see their talents (Cruz et al., 2020). The school's context facilitated efficacy-enhancing experiences, especially 'mastery' experiences, while constructivist components of mentoring fostered the development of practical knowledge (Wyatt, 2013).

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Indonesian education should adopt a more integrated approach to teaching, combining local cultural content with active learning methods such as providing feedback on posters. Teachers are told to make assignments that help students learn academically and also help them develop their cultural identity and community values. This study shows that peer feedback systems that take culture into account have a significant effect on students' confidence in their academic abilities (Maclellan, 2014). The poster session offered an engaged, engaging, and conducive learning atmosphere that instilled confidence in student participation (Filipova, 2016). By incorporating Longko's cultural values and working together, teachers can create learning spaces that are more engaging, welcoming, and empowering. This integrated model can be used as a guide for future teaching ideas that work well in any setting.

This study builds on Bandura's theory of self-efficacy by examining how local cultural values, specifically Longko's, affect educational psychology. It stresses that cultural identity and community values have a big impact on self-efficacy, not just how people think and interact with each other. The results show that culturally sensitive teaching, especially methods based on shared responsibility and collaborative learning, boosts students' confidence in their academic abilities. The study also shows that combining social learning theory with culturally mediated feedback mechanisms is a good idea. For example, it shows that peer interactions rooted in culture, such as the poster comment technique, are very important for helping students build confidence and learn good character traits.

This study offers a culturally rich way to learn by combining local knowledge (Longko's culture) with cooperative learning methods, such as the poster comment approach. It offers teachers important ideas for creating courses that enable students to be independent, creative, and proud of their own culture, especially in multicultural and indigenous settings. The study supports teaching techniques that respect and incorporate local values. These strategies not only make school more fun for students but also give them more control over their education. Teachers should provide students with assignments that take into account other cultures and involve peer criticism, visual art, and deep conversation. This will make the classroom both intellectually challenging and supportive of many cultures. You may use this approach in many types of schools to teach students about character, creativity, and self-belief.

This study makes a unique contribution by using the poster comment technique to combine Longko cultural values from the indigenous Torajan community with a cooperative learning model to help students feel more confident in their character education. This study is new because it examines how local cultural knowledge might help students believe in their academic ability. Previous research has looked at self-efficacy in educational settings. Culturally responsive teaching that is both contextually grounded and pedagogically innovative includes cultural identification, peer collaborative critique, and new ways of expressing ideas visually and verbally (e.g., via posters). The results support Bandura's theory of self-efficacy by showing how important cultural modelling and community-based values are for building academic confidence and learner independence. This is something that is not often studied in mainstream self-efficacy research, especially when it comes to Indonesian character education.

The study had limitations, even though it made useful contributions. First, it only looked at students who were inspired by Longko's values in a certain cultural and geographical location. This may mean the results do not apply to other ethnic groups. Second, the intervention lasted only briefly, so it is unlikely to affect students' long-term confidence. Third, the only outcome variable the study looked at was self-efficacy. It did not consider how well the students performed or other emotional factors such as resilience or engagement. Last, there were no qualitative findings that would have helped us learn more about how the students dealt with cultural norms and peer pressure.

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6. Conclusion

Integrating Longko cultural values with poster comment-based cooperative learning cultivates a culturally responsive educational setting that enhances students' confidence and involvement. This study enhances the self-efficacy framework by incorporating cultural identity as a mediator variable in cooperative learning outcomes. Students who learn together do better in school, the students feel better about themselves, and come up with fresh ideas. They also learn about things like how everyone in a group depends on each other, how to share responsibilities, and how to show respect for others. These cultural ideas provide students with a better sense of purpose. This helps students learn in ways that make them feel good about themselves and connect with others. The culturally based learning tools, such as poster comments that include Longko's views, create a friendly, helpful environment for studying. These kinds of programs teach students to be responsible and help each other while giving them control over their learning. These studies incorporate cultural mediation into Bandura's self-efficacy framework as a significant avenue for developing self-confidence. Research indicates that culturally grounded cooperative learning enhances cognitive achievement and socio-emotional resilience.

7. Suggestion

Teachers should integrate local cultural values into class planning, especially when pupils are working together or in groups, based on these results. This kind of integration makes learning more relevant, interesting, and useful for students. Future studies may examine the use of this culturally based cooperative paradigm in other fields or cultural settings to determine whether it works and can be adapted. The results affect teacher training and education policy. Educational policymakers ought to regard local cultural values as strategic resources for fostering inclusive and equitable learning environments. To keep education relevant and bring people together, national curriculum standards, testing techniques, and professional development frameworks should all be sensitive to different cultures.

Declarations

Author Contributions. Erwin Bunga Sapan: Literature review and conceptualization. Abdullah Pandang: methodology, data analysis. Andi Makkasau: review-editing and writing; Syamsuddin: original manuscript preparation. All authors have read and approved the published version of the article.

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