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A CULTURALLY INTEGRATED PROBLEM-BASED LEARNING APPROACH: BOOSTING COMMUNICATION SKILLS USING THE GAYO TRIBE'S BERKEBEREN

UMA ABORDAGEM DE APRENDIZAGEM BASEADA EM PROBLEMAS CULTURALMENTE INTEGRADA: AUMENTANDO AS HABILIDADES DE COMUNICAÇÃO USANDO A TRADIÇÃO BERKEBEREN DA TRIBO GAYO

UN ENFOQUE DE APRENDIZAJE BASADO EN PROBLEMAS CULTURALMENTE INTEGRADO: IMPULSO DE LAS HABILIDADES DE COMUNICACIÓN UTILIZANDO LA TRADICIÓN BERKEBEREN DE LA TRIBU GAYO

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ABSTRACT: This study explores the integration of the Gayo Tribe's Berkeberen tradition into a problem-based learning (PBL) framework to improve students' communication skills. It examines how culturally grounded practices can enrich modern educational methods by fostering effective communication and collaborative problem-solving. The Berkeberen tradition, rooted in oral storytelling, communal dialogue, and collective decision-making, was embedded into PBL activities, allowing students to engage in culturally relevant problem-solving. Data were collected through surveys, interviews, and classroom observations, focusing on both quantitative and qualitative measures of communication skill development. Findings reveal that students in the culturally enriched PBL environment demonstrated significant improvement in articulating ideas, active listening, and collaborative dialogue. This suggests that integrating indigenous traditions into contemporary teaching enhances communication and teamwork. The study contributes to research on culturally responsive pedagogy and presents

a model for incorporating indigenous cultural practices into modern education to support student engagement and learning outcomes.

KEYWORDS: Communication Skills. Student Engagement. Cultural Integration. Berkeberen Tradition.

RESUMO: Este estudo analisa a integração da tradição Berkeberen da Tribo Gayo em uma abordagem de aprendizagem baseada em problemas (PBL) para aprimorar as habilidades de comunicação dos alunos. A pesquisa investiga como práticas culturais podem enriquecer métodos educacionais modernos, promovendo comunicação eficaz e resolução colaborativa de problemas. A tradição Berkeberen, fundamentada na contação oral de histórias, no diálogo comunitário e na tomada coletiva de decisões, foi incorporada às atividades do PBL, permitindo que os estudantes participassem de problemas culturalmente relevantes. Os dados foram coletados por meio de questionários, entrevistas e observações em sala de aula, com foco em medidas quantitativas e qualitativas sobre o desenvolvimento das habilidades comunicativas. Os resultados indicaram melhorias significativas na articulação de ideias, na escuta ativa e no diálogo colaborativo. O estudo reforça o potencial de integrar tradições indígenas ao ensino contemporâneo para fortalecer a comunicação, o trabalho em equipe e o engajamento dos alunos.

PALAVRAS-CHAVE: Habilidades de comunicação. Engajamento estudantil. Integração cultural. Tradição Berkeberen.

RESUMEN: Este estudio analiza la integración de la tradición Berkeberen de la tribu Gayo en un enfoque de aprendizaje basado en problemas (ABP) para mejorar las habilidades comunicativas de los estudiantes. Examina cómo las prácticas culturales pueden enriquecer los métodos educativos modernos, fomentando la comunicación efectiva y la resolución colaborativa de problemas. La tradición Berkeberen, basada en la narración oral, el diálogo comunitario y la toma colectiva de decisiones, se incorporó a las actividades del ABP, permitiendo que los estudiantes participaran en la resolución de problemas culturalmente relevantes. Los datos se recopilaron mediante encuestas, entrevistas y observaciones en el aula, con un enfoque en medidas cuantitativas y cualitativas del desarrollo de habilidades comunicativas. Los resultados mostraron mejoras significativas en la articulación de ideas, la escucha activa y el diálogo colaborativo. Este estudio destaca el potencial de integrar tradiciones indígenas en la enseñanza contemporánea para fortalecer la comunicación, el trabajo en equipo y el compromiso estudiantil.

PALABRAS CLAVE: Habilidades de Comunicación. Participación Estudiantil. Integración Cultural. Tradição Berkeberen.

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INTRODUCTION

Practical communication skills are central to academic success, professional growth, and personal development, as they facilitate clear expression, collaborative inquiry, and critical reflection (Ashraf et al., 2022; Kristianto & Gandajaya, 2023). In educational environments, these skills are pivotal for enhancing student engagement and fostering teamwork, which underpin higher-order cognitive processes such as problem-solving. Research on learner engagement highlights that communication encompasses language proficiency and the ability to negotiate meaning, interpret nonverbal cues, and respond empathetically across diverse contexts (Acut, 2022). This growing emphasis on multifaceted communication underscores the importance of developing pedagogical approaches beyond traditional methods.

Problem-based learning (PBL) has been widely adopted as an active learning strategy that fosters critical thinking and collaborative communication skills by resolving real-world problems (Belwal et al., 2020). In PBL settings, students articulate complex ideas, deliberate on solutions, and share decision-making responsibilities in dynamic group environments. Such interactions have been shown to enhance effective verbal communication and support the learning process by allowing students to apply theoretical knowledge in practical situations (Li, 2025). However, while PBL effectively promotes general communication skills, evidence suggests that it is often influenced by Western-centric paradigms, which may not fully accommodate culturally diverse student populations.

Traditional communication training models overlook students' diverse cultural backgrounds, neglecting Indigenous communication practices and culturally specific knowledge (Claramita et al., 2020). Research in multicultural contexts indicates that educational practices that disregard learners' unique sociocultural dynamics can lead to one-sided communication skills transfer, potentially perpetuating hierarchical interactions (Wegener & Little, 2019). Integrating Indigenous practices and culturally responsive teaching methods into PBL frameworks can serve as a corrective measure, incorporating diverse epistemologies and communication styles (Peng, 2021). Fostering intercultural communicative competence is essential for preparing students for increasingly globalized professional environments, where sensitivity and adaptability to cultural differences are crucial for successful collaboration (Wang, 2024). While PBL effectively cultivates critical thinking, problem-solving, and collaborative communication skills, there is a pressing need to embed cultural diversity into these educational models. By integrating Indigenous practices and culturally responsive strategies into PBL, educators can create more inclusive environments that empower students to develop a broader and more effective set of communication competencies. This approach not only bridges gaps in traditional communication training but also enhances student engagement, fosters empathy, and prepares learners for the complexities of global professional and academic interactions.

(Ashraf et al., 2022; Belwal et al., 2020; Claramita et al., 2020; Kristianto & Gandajaya, 2023; Peng, 2021).

Integrating the Gayo Tribe's Berkeberen tradition into a PBL framework represents a transformative approach to enhancing communication skills in diverse educational settings. The Berkeberen tradition, characterized by oral storytelling, collective decision-making, and dialogic exchange, inherently promotes verbal articulation, empathy, and mutual respect, all essential components of effective communication (Rosenblatt & Lindell, 2021). This Indigenous model of knowledge sharing provides a valuable counterbalance to predominantly Western-centric PBL frameworks, which, despite their strengths, often overlook culturally embedded practices (Bonadies et al., 2023).

PBL, as an educational model, is widely recognized for its capacity to enhance critical thinking, problem-solving, and teamwork through active, real-world problem engagement (Khalili, 2021). By merging the participatory and dialogic elements of the Berkeberen tradition with PBL, educators can cultivate an environment in which students solve problems collaboratively and develop the nuanced communication skills required to articulate ideas, engage in deep listening, and negotiate meaning effectively. This integrated approach supports the construction of intercultural communicative competence, as students are exposed to diverse perspectives and Indigenous knowledge systems that enrich their understanding of cultural narratives and collective wisdom (Moulay & Daouia, 2021).

Moreover, cultural integration in communication training addresses a significant gap: traditional methods often neglect students' diverse cultural backgrounds, leading to a one-dimensional transmission of skills (Hingle et al., 2022). Incorporating the Berkeberen tradition within PBL offers a structured yet flexible framework in which the values of Indigenous storytelling and communal exchange foster a more holistic development of interpersonal skills. Students learn to navigate dialogue with empathy and respect, the core communicative virtues emphasized by the Gayo Tribe, thus better preparing them for contemporary academic, professional, and societal challenges (Sesen et al., 2021). The culturally integrated PBL framework that leverages the Berkeberen tradition holds promise for more inclusive and practical communication skills training. It harmonizes the benefits of active, collaborative learning with the depth and richness of Indigenous cultural practices, ultimately enhancing students' ability to express ideas, listen actively, and collaborate meaningfully in diverse settings.

The objectives of this study are threefold: (1) to evaluate how the incorporation of the Berkeberen tradition into PBL can enhance communication skills; (2) to examine the role of cultural integration in problem-solving and collaborative learning; and (3) to provide insights into how Indigenous cultural practices can be integrated into contemporary educational frameworks to support effective communication. The integration of the Gayo Tribe's Berkeberen tradition

into the PBL framework has the potential to enrich communication skills training by incorporating culturally grounded practices into active learning environments. This approach contributes to the broader discourse on culturally responsive teaching by emphasizing the acquisition of generic communication skills and the development of intercultural competence, empathy, and mutual respect, which are essential for academic and professional success (Peng, 2021).

The Berkeberen tradition, which emphasizes oral storytelling, collective decision-making, and dialogic exchange, offers Indigenous pedagogical practices that enhance verbal articulation and active listening. Such practices align with culturally responsive teaching models that recognize the value of diverse cultural heritages in education (Kastoryano, 2018). By embedding Berkeberen elements within the PBL framework, educators can create a learning environment that promotes critical thinking and teamwork while cultivating a deeper understanding of Indigenous epistemologies. This fusion enables students to negotiate meaning collaboratively and appreciate cultural diversity in communication, which equips them with the skills necessary to navigate increasingly multicultural professional contexts (Lunn et al., 2020).

Furthermore, research findings suggest practical recommendations for educators to enrich communication skills through culturally grounded approaches. First, curriculum designers should incorporate Indigenous practices such as the Berkeberen tradition into active learning modules, ensuring that cultural narratives and local knowledge are actively engaged in classroom discussions. Such integration transforms the learning space into an arena for shared meanings and inclusive knowledge construction (Kastoryano, 2018). Second, teacher training programs should emphasize intercultural communicative competence and culturally responsive pedagogy, enabling instructors to facilitate egalitarian dialogues and support students in expressing diverse perspectives (Peng, 2021). Finally, the collaborative nature of Indigenous traditions can be leveraged to create safe, participatory environments where students are encouraged to practice active listening, engage in constructive feedback, and develop empathy—skills vital for academic inquiry and future professional interactions. The melding of the Berkeberen tradition with PBL underscores the value of culturally integrated learning models. This synthesis enriches communication skills training by fostering intercultural competence, deepening student engagement, and promoting an inclusive learning environment. The findings contribute to the evolving discourse on culturally responsive teaching and offer practical, evidence-based recommendations for educators seeking to enhance communication competencies by integrating Indigenous pedagogical practices (Kastoryano, 2018; Peng, 2021).

METHODOLOGY

Research Design

This study adopts a mixed-methods research design, combining quantitative and qualitative approaches to assess the effectiveness of integrating the Gayo Tribe's Berkeberen tradition into a PBL framework for enhancing communication skills. The mixed-methods design allows for a comprehensive analysis of numerical data on communication skills improvement and deeper insights into participants' personal experiences with the intervention.

The study follows a quasi-experimental design with pre- and post-assessments of communication skills, supplemented by qualitative data collected from participant interviews and classroom observations. This design enables an evaluation of changes in communication skills over time and provides an in-depth understanding of the cultural integration process within the PBL framework.

Participants

The participants in this study were 60 students from elementary schools in the Serbajadi sub-district, East Aceh district, Indonesia. The students were purposively selected based on their diverse backgrounds, ensuring various experiences with traditional educational methods and cultural practices. The participants were divided into two groups: an experimental group ($n = 30$) that participated in the culturally integrated PBL approach and a control group ($n = 30$) that followed a conventional PBL model without integrating the Berkeberen tradition.

Participants in the experimental group had prior exposure to the Gayo Tribe's Berkeberen tradition, which was incorporated into the PBL activities. The control group followed a typical problem-solving curriculum focused on general communication skills without cultural elements.

Data Collection Methods

Pre- and Post-assessment of communication skills: Communication skills were measured using a standardized communication assessment tool adapted from the Communication Competence Scale (Barge & Schlueter, 2016). The scale assesses key communication competencies, including active listening, clarity of speech, and group participation.

Assessment Timing: Participants completed the communication skills assessment before the intervention (pre-test) and after completing the PBL activities (post-test).

Scoring: The assessments were scored by trained raters who evaluated participants on a 5-point scale based on their ability to articulate ideas, listen attentively, and engage in group discussions.

Interviews: Ten students from the experimental and control groups were randomly selected for semi-structured interviews. The interviews aimed to gather insights into participants' experiences with the PBL approach, their perceptions of communication skills development, and their views on integrating the Berkeberen tradition. Questions focused on the following areas: (a) their experience with group communication, (b) how the Berkeberen tradition influenced their communication practices, (c) the perceived effectiveness of the PBL approach, and (d) any challenges encountered in integrating cultural elements into communication training.

Classroom Observations: Observations were conducted during group discussions and presentations to assess the dynamics of group communication. During discussions, the researcher used an observation rubric to evaluate key communication behaviors, including participation, listening, idea articulation, and conflict resolution. Observations were conducted for both the experimental and control groups.

Data Analysis

Quantitative data analysis: Paired sample t-tests were used to compare both groups' communication skills scores before and after the intervention. This analysis determined whether the experimental group showed a statistically significant improvement in communication skills compared to the control group. Cohen's d was calculated to assess the magnitude of the effect of the intervention on communication skills.

Qualitative data analysis: Interview transcripts and observational notes were analyzed using thematic analysis. The researcher identified recurring themes related to communication skill development, the role of the Berkeberen tradition, and student perceptions of the PBL approach. Coding was done manually, with emerging themes organized into categories reflecting the study's objectives.

Triangulation: Data from interviews, classroom observations, and the pre- and post-assessments were triangulated to ensure the validity and reliability of the findings.

RESULTS

This study explored the impact of integrating the Gayo Tribe's Berkeberen tradition into a PBL framework on communication skills development. The results are organized into two main categories: quantitative data from pre- and post-assessments of communication skills and qualitative data from interviews and classroom observations.

Pre- and Post-Test Communication Skills Scores

The analysis of the pre- and post-test scores of communication skills revealed a significant improvement in the experimental group (those who participated in the culturally integrated PBL approach) compared to the control group (those who participated in a conventional PBL approach). The communication skills assessment measured active listening, speech clarity, group participation, and conflict resolution. The results of the analysis can be seen in Table 1.

Table 1. Pre- and Post-Test Communication Skills Scores

Group	Pre-test Mean (SD)	Post-test Mean (SD)	Difference	t-Value	p-Value	Size Cohens d
Experimental (Integrated PBL)	3,2 (0,5)	4,4 (0,3)	+1,2	12,5	0,001	1.9
Control (Traditional PBL)	3,3 (0,6)	3,6 (0,5)	+0,3	3,2	0,004	N/A

Pre-Test Scores:

The pre-test scores for both groups were relatively similar, with the experimental group having a mean score of 3.2 and the control group having a slightly higher mean score of 3.3. This suggests that both groups had comparable communication skills at the start of the study.

Post-Test Scores:

After the intervention, the experimental group showed a notable improvement in their communication skills, with a post-test mean score of 4.4, reflecting an average increase of 1.2 points. In contrast, the control group improved to a mean score of 3.6, showing a minor increase of 0.3 points.

Statistical Significance:

For both groups, the improvement in communication skills from pre- to post-test was statistically significant:

- The experimental group showed a highly significant improvement with a t-value of 12.5 ($p < 0.001$), suggesting a substantial increase in communication skills;
- The control group also demonstrated significant improvement with a t-value of 3.2 ($p = 0.004$), but the change magnitude was much smaller than the experimental group.

Effect Size:

- The effect size (Cohen's d) for the experimental group was 1.9, which indicates a significant improvement in communication skills. This effect size suggests that the culturally

integrated PBL approach substantially impacted the participants' ability to communicate effectively;

- The control group's effect size was not calculated here, but the minor change in communication skills suggests a more modest effect, consistent with the statistical analysis.

The results highlight that the culturally integrated PBL approach (used in the experimental group) led to a substantial improvement in communication skills compared to the traditional PBL approach. This improvement was not only statistically significant but also had a large effect size, reinforcing the effectiveness of the integrated approach in enhancing communication skills.

Classroom Observations

Observational data from the experimental and control groups further supported the quantitative findings. In the experimental group, students engaged more actively in group discussions, demonstrating improved listening skills, more precise articulation of ideas, and greater involvement in problem-solving activities. Integrating Berkeberen practices, such as oral storytelling and role-playing, encouraged students to participate more openly and respectfully, enhancing overall group dynamics. In contrast, the control group displayed less engagement in discussions and fewer instances of collaborative dialogue. Below is a detailed interpretation of the observed behaviors and dynamics in both groups:

Experimental Group:

- **Active Engagement in Group Discussions:** Students in the experimental group were observed to be more actively involved in group discussions. This was particularly evident in their frequent use of storytelling techniques, a key practice from the Berkeberen approach. Storytelling served as a method of sharing information and a tool for deepening students' understanding of the topic at hand;
- **Improved Listening and Articulation:** The experimental group significantly improved active listening skills and articulated their ideas more clearly. The practice of reflective listening, where students would paraphrase or summarize what others had said before adding their input, fostered a collaborative learning environment. This made the discussions more inclusive and thoughtful;
- **Greater Respect for Diverse Perspectives:** One of the standout features of the experimental group's discussions was their greater respect for differing viewpoints. This can be attributed to the Berkeberen tradition's emphasis on cultural values such as mutual respect and openness. Students actively sought diverse perspectives, fostering an atmosphere where every participant felt valued and heard;

- **Enhanced Group Dynamics:** The integration of role-playing and other culturally integrated practices played a crucial role in encouraging participation and improving group dynamics. These activities made discussions more engaging and contributed to developing interpersonal skills such as empathy, patience, and conflict resolution. The overall effect was a positive, respectful, and collaborative classroom environment that facilitated effective learning and communication.

Control Group:

- **Task-Focused and Less Collaborative:** Unlike the experimental group, the control group's discussions were more task-oriented. While the students did engage in discussions, these were typically focused on completing the immediate task rather than exploring ideas in depth. There were fewer collaborative dialogues or group reflection moments, suggesting that the traditional PBL approach did not fully encourage open-ended discussions or diverse input;
- **Limited Respect for Diverse Viewpoints:** The lack of emphasis on reflective listening and respect for differing perspectives in the control group led to more surface-level interactions. Students in this group were less inclined to engage with viewpoints different from their own, which hindered the depth and quality of their discussions. They focused more on resolving the task than engaging in meaningful dialogue or considering diverse opinions;
- **Reduced Group Dynamics:** Without culturally integrated practices like storytelling and role-playing, the group dynamics in the control group were less dynamic and interactive. There was less of a sense of community and mutual respect among the students, and the overall engagement in group activities was more limited. While productive in terms of task completion, the conversations lacked the collaborative spirit seen in the experimental group.

The classroom observations aligned with the findings from the pre- and post-test scores, showing that the Berkeberen-integrated PBL approach fostered a more engaged, respectful, and collaborative learning environment. In contrast, the traditional PBL approach focused more on task completion with less emphasis on collaborative exchange and respect for diverse perspectives. The observational data provided valuable insights into how integrating culturally relevant practices such as storytelling and role-playing enhanced students' communication skills and enriched their overall learning experience, emphasizing the importance of cultural context in promoting effective communication.

Qualitative Findings

The qualitative data from interviews and classroom observations provided deeper insights into the participants' experiences and perceptions regarding communication skills development and the integration of the *Berkeberen* tradition.

1. Student Interviews

- **Experimental Group:** Students in the experimental group reported a heightened awareness of their communication practices, particularly regarding listening and respect. One participant explained, "The Berkeberen tradition helped me realize how important it is to listen carefully and understand before speaking. It made a difference in how we worked together as a group."
- Many students mentioned how storytelling, a core element of Berkeberen, facilitated more meaningful discussions and made them feel more connected to their peers. "Storytelling made our conversations feel more personal, and we could share our ideas more openly," said another participant.
- **Control Group:** Students in the control group expressed that while they improved their communication skills through PBL, they did not feel as deeply engaged in the group process as their experimental group counterparts. One participant remarked, "We worked together, but it didn't feel as connected or deep. We focused more on completing the task than listening to each other."

2. Thematic Analysis of Interviews

Thematic analysis revealed several key themes related to the integration of the Berkeberen tradition:

- **Active Listening:** The experimental group emphasized the importance of active listening, a skill reinforced through the Berkeberen tradition. This theme was prevalent across multiple interviewees, suggesting that the tradition provided a valuable framework for improving listening in group settings;
- **Respectful Dialogue:** Participants in the experimental group noted that Berkeberen's emphasis on respectful discourse helped them manage conflicts. Students mentioned feeling more comfortable voicing differing opinions without fear of judgment, which fostered a more inclusive environment;
- **Storytelling and Connection:** Storytelling was highlighted as a powerful tool for enhancing communication by providing personal and relatable context to discussions. This element helped students build stronger connections with one another, facilitating more open and meaningful conversations.

The study results suggest that integrating the Gayo Tribe's Berkeberen tradition into a PBL framework significantly enhances communication skills. Compared to the control group, the experimental group demonstrated substantial improvement in communication abilities, as measured by pre- and post-test assessments. The qualitative findings provided additional insights into how cultural practices, such as storytelling and reflective dialogue, fostered active listening, respect for diverse perspectives, and better collaboration within the PBL setting. These findings support the potential of culturally integrated learning models to improve communication skills in diverse educational contexts.

DISCUSSION

Integrating the Gayo Tribe's Berkeberen tradition within a PBL framework has been shown to enhance communication skills among students, particularly in areas such as active listening, clarity of speech, and group participation. However, the specific literature supporting these claims is limited, and more precise studies on the effects of cultural contexts in PBL need to be explored (Acuña et al., 2025; Khalili, 2021). A significant aspect of this cultural integration was the incorporation of storytelling, a fundamental component of the Berkeberen tradition. Storytelling facilitates personal connections among students and catalyzes more meaningful dialogues, aligning with assertions that narrative techniques can enhance communication skills (Surapaneni, 2024). The emphasis on active listening and mutual respect within the experimental group likely fostered a collaborative learning environment known to improve student outcomes (Pagoto et al., 2021). Studies indicate that integrating cultural elements into educational methodologies can lead to more profound learning experiences and higher levels of student satisfaction, though the evidence remains mixed regarding the extent of impact (Han, 2025; Leitão et al., 2025). The Berkeberen tradition provided a framework that not only engaged students but also allowed for deeper connections through shared cultural narratives and experiences, enhancing community learning aspects (Navarrete-Muñoz et al., 2024; Negro et al., 2025).

Research suggests that culturally grounded pedagogical methods effectively improve communication and collaborative skills, especially among students from diverse backgrounds. These findings emphasize the potential of culturally relevant pedagogies to enhance educational outcomes (Kelly et al., 2021). However, how these methods translate to improved student skills in varied cultural settings still requires further investigation (Farah & Al-Hattami, 2023). While the incorporation of the Gayo Tribe's Berkeberen tradition within a PBL framework displays the potential for improving students' communication skills and demonstrates the

effectiveness of culturally responsive approaches, more robust evidence and nuanced research are needed to validate these claims fully (Barbosa et al., 2020; Sarkadi et al., 2020).

Theoretical Implications

The study's findings indicate that the benefits of integrating the Gayo Tribe's Berkeberen tradition into a PBL framework add a compelling layer to the theoretical understanding of PBL and cultural integration within educational contexts. Traditional PBL has been recognized for fostering critical thinking, collaboration, and communication skills among students (Kristianto & Gandajaya, 2022). However, introducing indigenous cultural elements, as seen with the Berkeberen tradition, expands the applicability and impact of PBL beyond conventional frameworks, thus presenting new pedagogical avenues that prioritize cultural relevance (Belwal et al., 2020).

The Berkeberen tradition emphasizes storytelling, collective dialogue, and community-based decision-making, enhancing PBL by embedding culturally significant practices into the educational process. Such integration supports student engagement and cultivates a learning environment that respects and promotes cultural diversity, aligning with findings that culturally responsive teaching can significantly improve student outcomes (Surapaneni, 2024). Research has shown that enhancing communication skills through culturally relevant practices allows for more effective and meaningful interactions (Pagoto et al., 2021). In this sense, the study substantiates the argument that adopting indigenous communication practices can lead to richer educational experiences and strengthen the quality of learning outcomes in diverse classrooms (Han, 2025; Leitão et al., 2025).

Furthermore, the theoretical implications of this study support the view that cultural norms shape communication. Thus, integrating Indigenous communicative practices into mainstream education can lead to skills that are contextually appropriate and relevant to students' backgrounds (Negro et al., 2025). Such cultural integration enhances inclusivity in educational settings and reinforces the depth and effectiveness of communication skills training (Navarrete-Muñoz et al., 2024). Recent literature emphasizes that effective teaching methodologies must reflect the complexities of modern diverse societies and the necessity of fostering intercultural awareness among students (Kelly et al., 2021). This study's results contribute to the understanding of the effectiveness of PBL and highlight the transformative potential of cultural integration in education. By demonstrating the profound impact of the Berkeberen tradition, the study invites further exploration into how indigenous practices can enrich learning experiences and enhance communication skills in educational systems worldwide.

Practical Implications

The practical implications of this study are significant for educators and curriculum designers looking to enhance student communication skills. The findings suggest that integrating culturally relevant practices, such as the Berkeberen tradition, into PBL can lead to more effective communication outcomes. Educators in diverse classrooms can benefit from incorporating indigenous cultural practices into their teaching methods, as this approach encourages greater student engagement, deeper connections among peers, and more meaningful communication.

For educators, particularly those working with multicultural or Indigenous student populations, the study suggests that culturally integrated approaches to teaching communication can help bridge the gap between students' cultural backgrounds and mainstream educational practices. By adopting practices like storytelling, role-playing, and communal decision-making, teachers can create learning environments that honor students' cultural identities while enhancing their communication skills. Additionally, the findings highlight the importance of creating classroom environments where students feel respected, heard, and valued. The Berkeberen tradition's emphasis on respectful dialogue and active listening fosters a sense of community and trust, essential for effective communication. This aspect of the study is particularly relevant for educators seeking to promote collaboration and team-based problem-solving in their classrooms.

Limitations

While the findings of this study are promising, there are several limitations to consider. First, the sample size was relatively small (60 students), and the study was conducted in a single university in Indonesia. Therefore, the results may not generalize to all educational settings or cultural contexts. Future research with a larger and more diverse sample, including different cultural backgrounds, would help confirm whether the findings hold across different contexts.

Second, the study focused on a single indigenous tradition (the Gayo Tribe's Berkeberen tradition). While this tradition effectively enhanced communication skills, other indigenous practices may yield different results. Further studies could explore the impact of other cultural traditions on communication skills development in PBL environments.

Finally, the study employed a short-term intervention, and the long-term effects of integrating cultural practices into PBL are yet to be explored. Longitudinal research would provide a better understanding of whether the improvements in communication skills persist over time and how these skills transfer to other academic and professional contexts.

Suggestions for Future Research

This study opens several avenues for future research. First, it would be valuable to explore the integration of other indigenous cultural practices into PBL and compare their effects on communication skills. Indigenous traditions from different regions and cultural contexts may offer unique insights into how cultural practices can shape communication in educational settings.

Second, future research could examine the long-term effects of culturally integrated PBL on communication skills and its impact on other abilities, such as critical thinking, teamwork, and conflict resolution. Understanding the broader effects of such interventions will be crucial for determining their applicability in different educational systems.

Lastly, it would be beneficial to explore how culturally responsive teaching practices can be adapted to different educational levels, from primary schools to higher education, and how they can be tailored to address the specific needs of diverse student populations.

FINAL CONSIDERATIONS

This study has highlighted the significant potential of integrating the Gayo Tribe's Berkeberen tradition into a PBL framework to enhance communication skills among students. The results demonstrate that students who participated in the culturally enriched PBL model showed marked improvements in key communication competencies, including active listening, clarity of speech, and group collaboration. In contrast, the control group, which followed a conventional PBL model without cultural integration, showed more modest gains. These findings underscore the value of incorporating indigenous cultural practices into contemporary educational approaches to foster more effective communication.

By integrating the Berkeberen tradition, this study reveals how culturally grounded educational models can create an environment that nurtures deeper engagement, mutual respect, and collaborative problem-solving. The storytelling, communal dialogue, and collective decision-making at the heart of the Berkeberen tradition proved to be powerful tools for enhancing students' communication practices, aligning well with the skills required for effective teamwork and problem-solving in PBL settings.

The study's findings have important practical implications for educators, particularly in multicultural and diverse classroom environments. They suggest that educators can benefit from incorporating indigenous and culturally responsive practices into their teaching methods to support students' academic success and promote inclusivity and respect for cultural diversity.

In addition, the study contributes to the broader discourse on culturally responsive teaching, offering a model for integrating indigenous knowledge into modern pedagogical frameworks. This research contributes to a deeper understanding of how cultural integration in education can support communication skills development. It calls for reimagining traditional pedagogical methods and offers a compelling case for including indigenous practices in contemporary educational settings.

As the world becomes increasingly diverse, integrating cultural elements such as the Berkeberen tradition into education offers a promising avenue for fostering effective communication, empathy, and collaboration in our globalized society. Further research into the long-term impacts of such culturally integrated learning models is essential for advancing educational practices and ensuring all students can develop the communication skills necessary for success in the 21st century.

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