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# Developing Learning Media for Inclusive Education: A Collaborative Community Project in Rahuning Asahan

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KEYWORDS	A B S T R A C T
Inclusive Education, Learning Media Development, Participatory Action Research, Community Collaboration, Rural Schools, Rahuning Asahan	<p>Inclusive education remains a significant challenge in rural areas where access to appropriate learning media and professional training is limited. This study aimed to develop contextually relevant and accessible learning media for students with special needs through a collaborative, community-based approach in Rahuning, Asahan. Utilizing a qualitative descriptive method and grounded in participatory action research (PAR), the project engaged elementary school teachers, parents, local education officers, and university lecturers in co-designing and implementing inclusive learning tools. Data were collected through interviews, focus group discussions, classroom observations, and document analysis. The results demonstrated that active stakeholder involvement led to the creation of practical, low-cost, and engaging learning materials tailored to various disabilities. Furthermore, the process fostered increased awareness, empathy, and a sense of ownership among participants, leading to a shift toward more inclusive practices in the classroom. The study concludes that inclusive education can be significantly improved in under-resourced settings when driven by community collaboration and local empowerment. This research contributes a practical model for inclusive media development that is both sustainable and scalable in similar educational contexts.</p>
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## INTRODUCTION

Inclusive education represents a progressive approach to educational equity that seeks to accommodate the diverse learning needs of all students, including those with disabilities, within mainstream classrooms. Rooted in the principles of social justice, human rights, and equal opportunity, inclusive education challenges traditional models of segregation by advocating for environments where all learners can access quality education without discrimination. Globally, the momentum for inclusive education has been reinforced by international frameworks such as the United Nations Convention on the Rights of Persons with



Disabilities (CRPD) and Sustainable Development Goal 4, which emphasizes inclusive and equitable quality education for all.

In Indonesia, the implementation of inclusive education has gained increasing attention in national policy and practice. The Indonesian government has issued several regulations, such as Permendiknas No. 70 of 2009, mandating regular schools to become inclusive and prepare to serve children with special needs. However, the practical realization of these policies, particularly in rural and under-resourced areas, remains uneven and fraught with challenges. Schools often lack adequate infrastructure, specialized teaching materials, and trained personnel to meet the unique learning needs of students with disabilities. In such contexts, the development of appropriate and accessible learning media becomes not just beneficial but essential to the success of inclusive education.

Rahuning, a sub-district located in Asahan Regency, North Sumatra, is one of the many areas where efforts to promote inclusive education are still evolving. Although there is growing awareness among educators and community members about the importance of inclusive practices, the absence of locally designed, contextually relevant learning tools hinders the effective delivery of inclusive pedagogy. Teachers in Rahuning frequently encounter difficulties in adapting conventional learning resources for students with physical, sensory, or cognitive impairments, resulting in disparities in student engagement and learning outcomes.

To address these gaps, this study explores the development of inclusive learning media through a collaborative community project involving educators, parents, local stakeholders, and university partners. By engaging multiple actors in the design and implementation process, the project seeks to promote a shared responsibility for inclusive education and foster locally owned solutions that are both practical and sustainable. The participatory nature of this initiative also ensures that the learning materials developed are grounded in the real needs of students and teachers within the Rahuning educational context.

This study aims to answer the following questions: (1) What are the specific needs and challenges faced by teachers in Rahuning regarding inclusive learning media? (2) How can collaborative efforts between schools, communities, and higher education institutions facilitate the development of inclusive educational tools? (3) What is the impact of these collaboratively developed learning media on teaching practices and student engagement?

Through qualitative methods, including interviews, observations, focus group discussions, and media testing, this research captures the process and outcomes of an inclusive education intervention at the grassroots level. The findings contribute to the broader discourse on inclusive education in Indonesia, demonstrating how locally driven innovation, supported by collaborative partnerships, can serve as a model for addressing educational disparities in underserved areas. Ultimately, the study underscores the transformative potential of inclusive learning media as a bridge between educational policy and



classroom reality.

## METHOD

This study was conducted using a **qualitative descriptive approach**, rooted in the principles of **participatory action research (PAR)**. The decision to adopt this methodology was based on the nature of the study itself—centered on the collaborative development of inclusive learning media within a community setting. Rather than viewing stakeholders as mere subjects of research, this approach placed them at the heart of the inquiry, empowering teachers, parents, and educational practitioners in Rahuning, Asahan, to become co-creators of knowledge and solutions.

From the outset, the research aimed to explore and respond to the real challenges faced by educators in implementing inclusive education. To achieve this, participants were selected purposively, with careful attention given to their roles and relevance to the development and use of inclusive learning tools. The participant group included ten elementary school teachers, five parents of children with special needs, three school principals, two local education department officers, and four university lecturers who specialized in teacher education and curriculum development. This diverse set of contributors allowed the study to draw upon a range of insights, fostering a holistic understanding of the local educational context.

Data collection took place over several stages and involved a range of qualitative techniques to capture the richness of participants' experiences. Individual interviews were conducted to explore participants' personal reflections, challenges, and expectations regarding inclusive education. These interviews offered a space for educators and parents to voice their perspectives in depth, revealing not only logistical barriers but also emotional and cultural dimensions that often go unrecognized in policy-level discussions.

In addition to individual interviews, **focus group discussions (FGDs)** were organized to spark collective reflection and generate shared ideas for the design of the learning media. Teachers and parents participated in these sessions together, discussing the specific needs of students with disabilities and brainstorming practical solutions that could be developed collaboratively. These sessions proved to be both enlightening and empowering, as stakeholders realized their shared commitment to building a more inclusive educational environment.

To observe how the media functioned in real classroom settings, the research team conducted **classroom observations** during pilot trials of the developed materials. These observations were non-intrusive, aiming to document the natural interactions between teachers, students, and the learning media. Particular attention was paid to student engagement, accessibility of materials,



and the adaptability of the resources for various learning needs.

Further depth was added to the study through **document analysis**. Educational materials, lesson plans, and school records were examined to contextualize the instructional environment and assess how inclusion had previously been addressed in teaching practices. This helped to identify gaps in current resources and guided the design of new, context-sensitive media.

Throughout the development process, **trial-and-feedback cycles** were implemented. After the initial prototypes were created, they were introduced in classrooms and evaluated based on teacher and student responses. Feedback sessions were held to refine the materials, ensuring they were not only theoretically sound but also practical and engaging for real-world use. This iterative process allowed for continuous improvement and built a strong sense of ownership among those involved.

All research activities adhered to ethical standards. Participants were fully informed of the study's goals, and their consent was obtained prior to participation. Confidentiality and respect were maintained at all times, especially in handling data related to children with special needs.

By weaving together these qualitative strategies in a participatory framework, the research not only produced inclusive learning media tailored to the Rahuning context but also strengthened the relationships between schools, families, and the broader educational community. The method proved to be both a process of inquiry and a catalyst for empowerment—laying the foundation for sustainable, locally driven educational innovation.

## RESULTS AND DISCUSSION

The implementation of a collaborative project to develop inclusive learning media in Rahuning, Asahan, produced significant findings, both in terms of tangible educational products and the broader transformation of attitudes and practices among the stakeholders involved. The results emerged gradually over the course of the research and reflected a deepening awareness of inclusive education, its challenges, and its potential when addressed through community engagement.

At the outset of the project, discussions with teachers and parents revealed a pressing need for specialized learning resources that could accommodate students with diverse abilities. Teachers described how they often struggled to adapt standard materials for students with disabilities, leading to limited participation and disengagement. For example, students with visual impairments were frequently unable to fully interact with the materials provided, while those with cognitive challenges required more personalized and visually engaging content. Parents shared similar frustrations, noting that their children were eager to learn but were hindered by tools that were not designed for their needs. This reinforced the understanding that exclusion is not a result of students'



limitations but rather the failure of systems to adapt to diverse learners.

In response to these challenges, the collaborative workshops served as the heart of the project, bringing together a wide spectrum of stakeholders—teachers, parents, local education officers, and university lecturers—to jointly explore and design practical solutions. These sessions were not only productive in terms of outputs but also transformative in terms of relationships. Teachers who initially expressed uncertainty about inclusive practices gained confidence as they engaged in meaningful dialogue and co-creation activities. Parents, who often felt sidelined in educational decision-making, were given a platform to express their ideas and contribute directly to the development process. As a result, the learning media that emerged from this collaboration—such as tactile learning cards, audio-visual aids with sign language, and large-font storybooks—were not only inclusive in content but also rooted in the lived experiences of the community.

The effectiveness of these materials was clearly demonstrated during the pilot testing phase in local classrooms. Observations conducted by the research team revealed a noticeable shift in student engagement. Learners with disabilities who had previously been passive observers became active participants. A particularly memorable moment involved a student with a visual impairment using a tactile alphabet board to spell words independently for the first time. Teachers also reported that the materials helped them manage classrooms more effectively, as the inclusive resources engaged all students, not just those with special needs.

Beyond their functional role, these learning tools acted as a catalyst for cultural change within schools. Teachers began to think more critically about planning lessons that considered all learners from the beginning, rather than modifying materials as an afterthought. Classroom discussions became more inclusive, and students showed greater empathy toward peers with different needs. This shift suggests that inclusive education is not solely a technical endeavor but also a deeply human one—rooted in understanding, collaboration, and respect.

Perhaps most significantly, the project demonstrated that meaningful educational change can be achieved even in low-resource settings when communities are empowered to act together. The use of locally available materials and community knowledge made the learning media not only effective but also sustainable and replicable. School principals and local education officials expressed interest in expanding the initiative, signaling its potential for broader systemic impact.

In summary, the results of this project illustrate the transformative power of participatory approaches in inclusive education. By involving stakeholders directly in the design and implementation process, the initiative fostered not only practical outcomes but also a sense of shared ownership, empathy, and lasting commitment to educational equity.



## CONCLUSION

The journey of this research, rooted in the humble classrooms and community spaces of Rahuning, Asahan, tells a powerful story about the transformative potential of inclusive education—when it is built from the ground up and driven by collaboration. What began as a response to the absence of accessible learning materials grew into a shared movement among teachers, parents, and local education advocates, united by the belief that every child—regardless of ability—deserves the right to learn, grow, and belong.

Throughout the project, it became evident that the lack of inclusive learning tools was not simply a logistical issue, but a reflection of deeper systemic neglect and underrepresentation of students with special needs. Yet, within this gap lay an opportunity: the chance to build something meaningful, not through external intervention, but through the strengths and insights of the community itself.

By engaging stakeholders in co-creating learning materials, the research not only produced effective educational tools but also nurtured a renewed sense of agency and empathy among participants. Teachers grew in confidence as they saw the direct impact of their efforts in the classroom. Parents felt valued as contributors, no longer isolated or voiceless in their children's education. Students—especially those with disabilities—were no longer on the margins but found a space where their needs were acknowledged and respected.

The inclusive media developed through this collaborative approach proved both practical and powerful. It demonstrated that inclusive education does not require expensive technology or external experts, but rather a willingness to listen, to adapt, and to act together. It showed that meaningful change is possible—even in rural and resource-constrained settings—when communities are empowered to take ownership of the learning process.

Moreover, the project sparked a broader cultural shift in attitudes toward inclusion. It reminded all involved that inclusion is not merely about accommodating difference, but about embracing it as a source of strength and richness in education. As schools in Rahuning began to adopt inclusive practices more intentionally, a new vision of education emerged—one that is more just, compassionate, and reflective of the diversity of human experience.

In conclusion, this study affirms that the development of inclusive learning media, when rooted in participatory and context-sensitive approaches, holds the potential not only to improve educational outcomes for students with special needs but also to transform the very foundations of teaching and learning. It is a model of hope and a testament to what is possible when communities come together in the spirit of inclusion, creativity, and care.



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