

Article

Optimizing inclusive education: Global and local perspectives on educational service solutions for children with special needs

Connie^{1,*}, Muhammad Kristiawan¹, Muhammad Mujtaba Asad², Ika Maryani³, Mezi Herdiansyah¹, Elsa Viona¹

¹ Universitas Bengkulu, Bengkulu 38122, Indonesia

² Sukkur IBA University, Sukkur 65200, Pakistan

³ Universitas Ahmad Dahlan, Yogyakarta 55164, Indonesia

* Corresponding author: Connie, conniemeizul@yahoo.co.id

CITATION

Connie, Kristiawan M, Asad MM, et al. (2025). Optimizing inclusive education: Global and local perspectives on educational service solutions for children with special needs. *Journal of Infrastructure, Policy and Development*. 9(3): 11064.
<https://doi.org/10.24294/jipd11064>

ARTICLE INFO

Received: 24 December 2024

Accepted: 17 January 2025

Available online: 4 June 2025

COPYRIGHT



Copyright © 2025 by author(s).

Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license.

<https://creativecommons.org/licenses/by/4.0/>

Abstract: This study explores approaches to optimizing inclusive education through international and local perspectives. It examines the role of educators in inclusive settings, highlights strategies for early detection of children's developmental needs, and evaluates inclusive school management practices. Using qualitative case study methods, the research includes comprehensive observations and interviews at Fatma Kenanga Islamic Character School. Findings emphasize the importance of individualized learning plans, shadow teacher involvement, and collaborative stakeholder engagement. Integrating global insights, this study contributes to advancing inclusive education practices in Indonesia and beyond.

Keywords: educational strategies; global perspectives; inclusive education; special needs

1. Introduction

The implementation of inclusive education is not only a national commitment but also aligns with global goals like the Sustainable Development Goals (SDG 4), which emphasize inclusive and equitable quality education for all. This study investigates the optimization of inclusive education as a solution to educational services for children with special needs. Why should we research inclusive education? Because inclusive education is a revolutionary approach in the world of education that places diversity and justice at the core of every learning process (Yuliastut, 2019). Every student, regardless of background, skill level, or needs, is fully accepted and given equal opportunity to study and develop in an inclusive environment (Rusmono, 2020).

In inclusive schools, each child is seen as a unique individual, with different learning potentials and needs (Asiyah, 2018; Azis et al., 2021). Teachers and other staff members collaborate to create a welcoming atmosphere for all students, whether it is through the creation of a curriculum that is adaptable and takes into account the requirements of each individual student or via the construction of physically diverse facilities (Holmqvist and Lelinge, 2021). This research highlights the strategic importance of inclusive education in addressing the unique challenges faced by children with special needs in the Indonesian educational context.

Inclusive education is not just about providing physical access to the classroom, but also about creating an atmosphere that encourages cooperation, respect for differences, and acceptance of each individual (Yuliyanti et al., 2024). In an inclusive classroom, students learn to support and respect each other and to see the value in diversity (Rahmawati and Fatmawati, 2016). Teachers in inclusive education act as

sensitive and responsive facilitators of learning. They use a variety of teaching strategies to meet the diverse needs of students in the classroom and work with special education specialists and other supports to provide additional assistance to students who need it (Yuliastut, 2019). Not only in the classroom, inclusive education also involves close collaboration between schools, parents, and the community. All parties work together to create an inclusive learning environment where all students feel accepted and supported (York-Barr et al., 2005).

Inclusive education is not just a concept, but a commitment to ensuring that every individual has a fair and equal opportunity to access meaningful and relevant education (Yohana Citra, 2023). This is an important step in building an inclusive and just society for all. Good implementation of inclusive education must ensure that all students receive equal, quality and inclusive education (Yohana Citra, 2023). The implementation of inclusive education begins with the development of policies that support inclusion in the education system (Tanjung et al., 2022). The policy should emphasize the importance of accessibility, acceptance, and participation of all students, and provide guidance on the supports needed to achieve inclusion effectively. Careful planning is also essential to identify student needs, allocate resources wisely, and set clear goals for improving inclusion in schools.

In implementing inclusive education, ongoing professional development is required for educators and school staff (Astawa, 2021). Quality and relevant training is needed to enhance their understanding of inclusive education, appropriate teaching strategies, and how to support the diverse needs of students (Bombardelli, 2020; Tristani and Bassett-Gunter, 2020). This also includes training in inclusive classroom management and the use of educational technology to support learning. It is vital to furnish pupils, educators, and school personnel with sufficient resources and all-encompassing support. This includes offering buildings and equipment to accommodate kids' physical and academic requirements, as well as support services like counsellors, therapists, and special education professionals. Furthermore, inclusive education encompasses the provision of various easily accessible learning resources and flexible instructional technology (Darma and Rusyidi, 2015).

In the implementation of inclusive education, close collaboration and partnerships must be encouraged between all stakeholders, including teachers, school staff, parents, students, and local communities (Kivirand et al., 2022). This collaboration is important to support holistic and integrated learning, as well as to create an inclusive and supportive learning environment in schools. In addition, it is important to involve ongoing monitoring and evaluation of the implementation of inclusive education in schools. This entails gathering information on the involvement, scholastic achievement, and general well-being of students and using it to adjust inclusive programs as needed to increase their efficacy. It is hoped that inclusive education will not only be a concept, but a reality that can be felt by all individuals in the education community (Tyas Pratiwi et al., 2022).

This study was conducted at Fatma Kenanga Islamic Character School. Why did we choose this school? Because according to our observation through the URL <https://www.fatmakenanga.sch.id/tentang-inklusi>, Fatma Kenanga School facilitates inclusive education for children with special needs. With this program in the school, it is expected that students' self-confidence will develop, they will feel proud of

themselves for the achievements they have achieved. Students can understand and appreciate themselves, they learn independently, by trying to understand and apply the lessons they get at school in everyday life. They are also able to interact actively with their friends, teachers, schools and the community and can learn to accept differences, and are able to adapt in overcoming these differences.

Research on inclusive education has been widely conducted by previous researchers who stated that inclusive education is the latest development in the education model for children with disabilities which formally allows all children to learn together without regard to any difficulties or differences they may have (Irawati and Winario, 2020). Then, in the name of equal rights, status, dignity, and status as Indonesian citizens and even as world citizens, education for all as declared in Bangkok in 1991, must continue to be implemented whenever and wherever without marginalizing children with special needs in their participation in education programs. To accommodate the needs as mentioned, the implementation of inclusive schools becomes very relevant (Darma et al., 2015). However, educational services and implementation of inclusive education in Indonesia are still lacking in quality. This is because schools are not yet ready to implement inclusive education (Jannah et al., 2021).

The reality of implementing inclusive schools in Indonesia is still far from the vision and implementation guidelines, both in terms of students, teacher qualifications, facilities and infrastructure, and support from parents and the community. The success of implementing inclusive education will depend on the cooperation of the state, teachers and parents (Alfikri et al., 2022). Teachers are the main determinants in inclusive learning because teachers are school staff who directly interact with students and provide teaching to students in class. So, it is important for teachers to be able to realize inclusive learning in the classroom. In addition to the school situation, parents can also make the community environment in their place of residence aware that children with special needs also need support by teaching participation in their home environment (Rusmono, 2020).

This study contributes to inclusive education managers in Indonesia so that they can implement what has been done by Fatma Kenanga Islamic Character School. Currently, Fatma Kenanga Islamic Character School has achieved many achievements, including 1) winning the 6th National Robot Contest held at UIN Syarif Hidayatullah Jakarta, Sunday (10/20). This school won a gold medal for the creative open robot category, beating other participants from all over Indonesia; 2) 3rd place in the archery competition in the framework of the Bengkulu Province Anniversary with the National Standard 10 M competition category for elementary school grades 1 to 4; and 3) 5th place in the Rafflesia Bike Challenge event with a distance of 649.78 KM in the children's category. We obtained data on the achievements of Fatma Kenanga School from the URL: <https://www.fatmakenanga.sch.id/prestasi-fatma-kenanga#>.

This study was conducted to answer 1) how to be a welcoming teacher in an inclusive school? 2) how can teachers conduct early detection of the growth and development of their students? 3) how can teachers design learning according to the needs of children with special needs? 4) how is the realization of school management that facilitates what is needed for inclusive education? (Butler and Shevlin, 2001).

Inclusive education, as aligned with SDG 4, ensures equitable quality education for all, including children with special needs. Despite its global importance, the application of inclusive education often varies across regions. This study bridges the gap by examining practices in Indonesia within the broader international context. Drawing from global frameworks, such as UNESCO guidelines, the study situates local practices within broader discussions on equity and inclusivity.

The Indonesian context highlights unique challenges limited resources, infrastructure gaps, and inconsistent policy enforcement while also showcasing innovative solutions such as individualized curriculum adaptations and shadow teacher integration. This dual approach enriches the dialogue on inclusive education, offering valuable lessons for both global and local stakeholders.

2. Methods

This qualitative study employs a case study design to explore inclusive education practices at Fatma Kenanga Islamic Character School (Fraenkel and Wallen, 1990). This study explores data related to how to be a welcoming teacher in an inclusive school (Butler and Shevlin, 2001); how teachers can conduct early detection of the growth and development of their students; how teachers can design learning according to the needs of children with special needs (Butler and Shevlin, 2001; Espina-Romero et al., 2021; Gale et al., 2022); and how school management is realized to facilitate what is needed for inclusive education (Ainscow, 2020; Dessel, 2010). This study was conducted until comprehensive data were obtained related to the optimization of inclusive education: solutions for educational services for children with special needs (Braun et al., 2021; Fatimah and Adli, 2019; Hoepfl, 1997). This study was conducted at Fatma Kenanga Islamic Character School, Bengkulu City. The time used in this study was 7 (seven) months starting from March to September 2024. The respondents in this study were determined purposively because of the uniqueness of the object in Bengkulu, Indonesia. The seven-month duration provided time to capture variations in teaching strategies and school management practices across different semesters. In this study, the respondents were teachers, principals, and students of Fatma Kenanga Islamic Character School. Data were collected through semi-structured interviews with teachers, school leaders, and parents, along with extensive observations. Data collection techniques were observation sheets and interview guidelines. Respondents were selected purposively to ensure representation of key stakeholders directly involved in inclusive education, including teachers, principals, and students. The data in this study were analyzed comprehensively by looking at the validity of the data through re-examination of interview and observation data (Hallinger et al., 2017; Konecki, 2019). Data validity was ensured through triangulation, involving cross-verification between interviews, observations, and existing documentation. Triangulation methods ensured data validity by cross-referencing interview data, observational insights, and school documentation. Ethical clearance was obtained through Universitas Bengkulu's Institutional Review Board. Participant consent, including for minors with special needs, was secured following standard protocols. Global sources were incorporated into the theoretical framework, ensuring a balanced view of international best practices and localized adaptations.

3. Results and discussion

3.1. Result

3.1.1. Becoming a welcoming teacher in an inclusive school

The results of the interview with Respondent 1 (R1) stated that the teacher was initially confused, but then felt happy to receive the mandate to teach at Fatma Kenanga Islamic Character School. They assume that this mandate is a field of reward, because they can work in an inclusive school where there are not only normal students but also some students with special needs. They are in a school where initially these students were marginalized and tended to be shunned by the environment, but finally they can live side by side with normal students in this school. According to R1, this is a special opportunity to be in a school with unique students.

R1 also mentioned that the main task as an educator is to accompany children, run individual programs with psychologists, and always discuss with parents of students. In school, a teacher serves as a buddy. The teacher's attitude towards children with special needs depends on the condition of the student (Avramidis and Norwich, 2002). The way to teach children with special needs also varies, according to the child's needs, sensory motor skills, and their verbal disorders (Hendricks, 2011). The strategies used for inclusive education learning run well and differ based on the child's health; for those who can sit quietly, they can study with others; however, if they are hyperactive, individual learning is carried out; frequently, the strategy is to converse with students (Frankel, 2004). Special guidance teachers are needed in inclusive education, in this school they are called Shadow Teachers (Yuwono et al., 2018). Shadow teachers are tasked with guiding and accompanying each student with special needs, one child with special needs one shadow teacher. Each class from kindergarten to junior high school has normal teachers as well as shadow teachers based on each student's particular requirements. If in one class there are students who are blind and also autistic, there are two shadow teachers, a shadow teacher for the blind and a shadow teacher for the autistic.

What R1 conveyed is in accordance with what we obtained through observation. Research data obtained through observation can be seen on the page <https://shorturl.at/YyElZ>.

3.1.2. The process of teachers carrying out early detection of their students' growth and development

The results of the interview with R1 contained information that the way teachers find out each student's development in learning is by observing for three to five days first. Then interview parents from pregnancy to birth, schedule school assessments, eye contact, trial entry into class, they can or can't be in a large class. Then we assess whether it matches what the parents mentioned, and a companion teacher and psychologist are prepared. After being identified, the teacher develops a semester program, which includes stages of activities for kids who enjoy talking to themselves, singing, or reciting the Koran. This is done based on the needs of each individual student.

According to R2, systematic daily observation is the first step in early detection. Teachers should pay attention to the child's behavior, social interactions, academic

abilities, and motor skills in detail. Teachers need to recognize common symptoms related to the type of special needs such as difficulty in concentration and attention that may point to disorders such as ADHD. Delays in speech or language comprehension that may indicate autism spectrum disorders or dyslexia. Physical limitations such as difficulty moving that may be related to cerebral palsy or other motor disorders. Different behaviors socially-emotionally, such as withdrawing, being unresponsive, or having problems managing emotions. Communication with parents is important to get a more comprehensive picture. Teachers must collaborate with special teams at school, such as shadow teachers and school psychologists. Every child with special needs has a unique development, so the methods applied must be continuously evaluated and adjusted as needed (Johnson et al., 2007).

3.1.3. Teachers design learning according to the needs of special needs

According to the results of the interview with R1, the teachers here are like in a normal school, preparing lesson plans, but there are differences related to individual curriculum. Learning here is done classically as in general. Here, for each class, its special needs are different, so everything is done based on the special needs of each student.

The initial step according to R1 and R2 is to recognize the special needs of each child. This can be done through assessment, either formal assessment such as psychological tests or informal assessment through observation by teachers and parents (Quinn et al., 2015). The needs of children with special needs can vary greatly, for example children with visual impairments, hearing impairments, autism, or ADHD will require a different approach. According to R2, children with special needs at Fatma Kenanga Islamic Character School have their own world, to take notes in. Without being asked by their shadow, they immediately take notes, but everything on the board is recorded, even dividing lines or scribbles, they record everything. Sometimes there are also those who play with their fingers because of trauma from practicing letters with their fingers in the past, which is still carried over to this day. The curriculum must then be adjusted to the child's level of proficiency. The intention is for students with special needs to have meaningful education, albeit maybe with slightly different learning goals than their peers. Activity-based learning that is relevant to everyday life can be applied, such as life skills for children with special needs.

Next, the methods used must be flexible and inclusive. For example, for children with hearing impairments, use visual aids or sign language. Children with concentration difficulties may need more interactive learning methods or multisensory approaches to maintain focus. Next, create a comfortable and conducive learning environment. For children with autism, avoid sensory distractions such as loud noises or excessive light. Classroom layout should consider accessibility, especially for children who use assistive devices such as wheelchairs. Technology can be an effective tool to help children with special needs learn. For example, children with visual impairments can use screen readers, while children with reading difficulties can use audio-enabled learning applications.

Special guidance teachers (shadow teachers), parents, and medical personnel or psychologists must be involved in designing and evaluating learning (Webster-

Stratton et al., 2004). Collaboration between classroom teachers and shadow teachers is essential to ensure that children with special needs receive appropriate support at school. Regular evaluations are important to assess the effectiveness of the learning provided. Regular evaluations not only track student progress but also provide actionable insights for refining teaching strategies and fostering an adaptive learning environment. Based on the evaluation results, teachers can readjust teaching methods or materials to remain in line with the child's development. The presence of shadow teachers significantly enhances the individual attention and tailored learning experiences for children with special needs, thereby fostering better academic and social outcomes. Children with special needs often need extra encouragement to increase their self-confidence and motivation to learn. Teachers must be sensitive to their emotional needs and provide appropriate support.

3.1.4. Realization of school management that facilitates what inclusive education needs

Based on the results of the interview with R1 conducted by the school to implement inclusive education effectively, it was by limiting the number of children with special needs. Then the teacher's focus is not only for one group, and one student with special needs is given one accompanying teacher from kindergarten as well as junior high school. To measure the success of implementing inclusive education in an education system, a school self-evaluation is carried out. From the beginning, students are not given a guarantee of graduation like in normal schools, but they, the children with special needs, can take care of themselves very well or graduate, they can understand all the rules well, and are able to communicate well. The child with special needs can answer what the other person asks, can make eye contact well, that is very encouraging. They are able to convey if there is something uncomfortable, then being able to control their emotions to be stable is extraordinary. From the beginning, parents send their children here, the school interviews and tries to get parents to accept their child's condition if, in fact, their child is not the same as children in general. Schools must be able to collaborate with parents of students. Because if they do not collaborate, then the situation will be difficult, there are parents who have not accepted the existence of their children. Parents are often not happy, assuming "my child is actually normal". This statement makes it difficult for schools to provide learning for their students.

The implications of implementing inclusive education on the school managerial system at Fatma Kenanga Islamic Character School are carried out with class programs, individual programs, monthly reports. Every three months a parent report is made, there is also a six-month report. Learning in this school is controlled by the monthly reports made. The target of the learning evaluation here according to R1 is that parents can see their children become independent, and can communicate well, that is enough. Fatma Kenanga Islamic Character School manages inclusive education by collaborating with psychologists. Interview instruments are the main tools used for learning assessment. Children with special needs at Fatma Kenanga Islamic Character School have various conditions, one of which is a sixteen-year-old student whose mentality is equivalent to six-year-old. This condition is sought for the cause, after being traced with a psychologist, it turns out that some have social problems such as

victims of bullying (often locked up by their friends when in normal schools). There are also those who have the wrong parenting patterns. That is why, in learning of inclusive education, especially at Fatma Kenanga Islamic Character School, shadow teachers are needed. Parents who cannot accept their child's condition, such as asking why my child can't talk or why my child is so quiet, need a parent interview to accept their child's condition.

The results of this study related to the optimization of inclusive education: solutions for special needs children's education services at Fatma Kenanga Islamic Character School concluded that schools do many things to achieve effective inclusive education management (Sakiz, 2018). School leaders also need a better understanding of the relevant terms, laws, and ideas related to inclusion; coteaching models; transformational leadership theory and characteristics; roles and duties of school leaders in inclusive education programs; and doable tactics to apply in order to enhance existing inclusive education practices (Romanuck Murphy, 2018). Solutions for special needs children's education services are carried out through different teaching methods, according to the child's needs, sensory motor skills, and verbal disorders. The strategies used so that inclusive education learning runs well also vary depending on the child's condition. Teachers conduct systematic daily observations as the first step in early detection. Teachers must pay attention to the child's behavior, social interactions, academic abilities, and motor skills in detail. To optimize inclusive education at Fatma Kenanga Islamic Character School, special guidance teachers (shadow teachers), parents, and medical personnel or psychologists must be involved in designing and evaluating learning.

The results of this study ensure that all students, including students with special needs, have equal access to quality education. This means that students with various special needs, such as physical, intellectual, or learning disabilities, are invited to learn in the same environment as other students, rather than being placed separately (Amahoru and Ahyani, 2023; Alfikri et al., 2022). Inclusive education recognizes that each student has their own uniqueness and potential, and that the educational environment should be responsive to individual needs and abilities (Salassa et al., 2023). Thus, inclusive education involves the development of curricula, teaching strategies, and evaluation approaches that are accessible to all students, thereby enabling them to achieve academic and social success (Wahid and Khoulita, 2023). The main goal of inclusive education is to promote equity, participation, and diversity in education. This approach encourages collaboration between teachers, students, and families to create a learning environment that supports all students. Active collaboration between schools and parents is instrumental in creating a consistent support system for children with special needs, both in academic settings and at home. It also eliminates stigma and discrimination against students with special needs, creating opportunities for them to develop fully in all aspects of life (Ariastuti and Herawati, 2016).

In this study, various children with special needs and all received the same service education (Sunarya et al., 2018). Children's special needs can vary, from physical, mental, emotional, to learning. Children with special needs may need a different educational approach, extra attention, or additional support to be able to develop optimally (Purnawanto, 2023). Children with special needs can have a variety of

characteristics that cover several areas, such as physical, mental, emotional, and learning. Here are some common characteristics of children with special needs (Setiawati and Nai'mah, 2020):

- 1) Delayed physical development, namely the child may experience delays in physical development, such as difficulty in walking, moving certain body parts, or having motor disorders;
- 2) Intellectual limitations, namely children may have intellectual limitations that cause them to have difficulty understanding information, solving problems, or following instructions;
- 3) Developmental disorders, this includes various disorders such as autism, language development disorders, dyslexia, and ADHD (Attention Deficit Hyperactivity Disorder);
- 4) Social and communication skills, namely children may have difficulty in social interaction, understanding body language, expressing themselves verbally, or understanding verbal communication from others;
- 5) Sensory limitations, namely children may have limitations in one or more of their senses, such as hearing, sight, or touch;
- 6) Chronic health conditions, namely the child may have chronic health conditions such as cerebral palsy, epilepsy, or other health disorders that require special care and support;
- 7) Special educational needs, namely children may require a different learning approach or additional support in the educational setting to meet their needs; and
- 8) Certain behavioral tendencies: Some children may exhibit certain behaviors such as hyperactivity, impulsiveness, or a tendency to isolate themselves.

3.2. Discussion

It is important to remember that each child with special needs is a unique individual, and their characteristics can vary. Proper diagnosis and planning will help in providing appropriate support and care for each child. Inclusive education is an approach where children with special needs are taught together with other children in the same educational environment (Yuliyanti et al., 2024). The goal of inclusive education is to create an environment that supports the success and development of all children, without discriminating based on their needs (Asiyah, 2018; Yuliyanti et al., 2024). The development of children with special needs can be supported in a variety of ways, including tailored educational approaches, therapy, support from teachers, therapists and other professionals, and support from family and community. It is important for all of us to understand the needs and potential of each child, and to work together to create an inclusive and supportive environment for them.

Some research findings that are relevant to optimizing inclusive education: solutions for educational services for children with special needs include: (Koutsouris et al., 2020) young people's experiences with inclusion and individual choice in ordinary social interactions, with a focus on the intersections of disability, race, gender, and socioeconomic class. Understanding inclusion in terms of social interaction has significant consequences for inclusive education. As students' differences produce varied requirements, it is our ethical responsibility to meet these requirements. Social

involvement of children with special educational needs is an important topic in the inclusion debate (Bossaert et al., 2013).

Furthermore, to facilitate inclusion (acceptance by peers, cross-group friendships), educators and school administrators need to be aware of group and interpersonal dynamics; they must also comprehend how some common school practices highlight differences and segregate students in ways that further promote divisions and reinforce negative stereotypes (Juvonen et al., 2019). Local cultural expressions and understandings about inclusion must be accessed and respected to promote inclusion values, including creative use of the local culture to deconstruct the textbook, ensuring lessons reflect local priorities and have cultural relevance (Gale et al., 2022). To foster inclusive ideals, acceptance of individual and cultural diversity should be included in all curriculum, not only special education. The future of truly inclusive education depends on a culture transformation that encourages and nourishes differences, and perceives achievement through a lens centered on variety rather than standardization (Braunsteiner and Mariano-lapidus, 2014).

Teachers at Fatma Kenanga School emphasized empathy and adaptability in working with children with special needs. Shadow teachers play a pivotal role, addressing individualized needs through differentiated strategies. These practices resonate with international models, such as those outlined by Ainscow (2020), where teacher collaboration fosters inclusivity. Systematic observation and collaboration with psychologists enable teachers to identify and address developmental challenges early. However, a comparative review of international methods, such as the use of AI-assisted tools in early detection, suggests opportunities for innovation. The study highlights the need for flexible curricula tailored to diverse needs. While local practices emphasize manual adjustments, integrating digital tools and international frameworks could enhance scalability and precision. Despite its success, the school faces challenges, including resource constraints and societal stigma. Comparative insights from other countries reveal effective policies, such as government subsidies and community engagement programs, to address these barriers.

4. Conclusions

The main task as an educator in Fatma Kenanga Islamic Character School is to accompany children; the teacher serves as a buddy. The teacher's attitude towards children with special needs depends on the condition of the student. The way to teach children with special needs also varies, according to the child's needs, sensory motor skills, and their verbal disorders. The way teachers find out each student's development in learning is by observing for three to five days first. Then interview parents from pregnancy to birth, schedule school assessments, make eye contact, try entry into class; they can or can't be in a large class. Then we assess whether it matches what the parents mentioned, and a companion teacher and psychologist are prepared. After being identified, the teacher develops a semester program. The teachers here are like in a normal school, preparing lesson plans, but there are differences related to individual curriculum. Learning here is done classically, as in general. Here, for each class, its special needs are different, so everything is done based on the special needs of each student. The school to implement inclusive education effectively, was by

limiting the number of children with special needs. To measure the success of implementing inclusive education in an education system, a school self-evaluation is carried out. From the beginning, students are not given a guarantee of graduation like in normal schools, but they, the children with special needs, can take care of themselves very well or graduate; they can understand all the rules well, and are able to communicate well. The results of this study concluded that special needs education services are carried out through different teaching methods, according to the child's needs, sensory motor skills, and verbal disorders. The strategies used to ensure that inclusive education learning runs well also vary depending on the child's condition. Teachers must pay attention to the child's behavior, social interactions, academic abilities, and motor skills in detail. To optimize inclusive education, special guidance teachers (shadow teachers), parents, and medical personnel or psychologists must be involved in designing and evaluating learning.

This study underscores the potential of integrating global insights into local practices to optimize inclusive education. Recommendations include adopting advanced detection tools, enhancing teacher training, and fostering community partnerships. Policymakers are encouraged to draw from international best practices while respecting local cultural and institutional contexts.

Author contributions: Conceptualization, C and MK; methodology, IM; software, MK; validation, MMA, MH and IM; formal analysis, EV; investigation, MH; resources, MK; data curation, C; writing—original draft preparation, C; writing—review and editing, MMA; visualization, EV; supervision, IM; project administration, MH; funding acquisition, C. All authors have read and agreed to the published version of the manuscript.

Acknowledgments: We acknowledge to the Dean of Education Faculty, Universitas Bengkulu who has given us the opportunity for the research project with the Number SK 3828/UN30.7/PP/2024, and all parties who have supported us in this valuable project.

Institutional review board statement: Not applicable.

Informed consent statement: Not applicable.

Conflict of interest: The authors declare no conflict of interest.

References

- Ainscow, M. (2020). Inclusion and equity in education: Making sense of global challenges. *Prospects*, 49(3–4), 123–134. <https://doi.org/10.1007/s11125-020-09506-w>
- Alfikri, F., Khodijah, N., Suryana, E. (2022). Inclusive Education Policy Analysis (Indonesian). *Syntax Literate: Jurnal Ilmiah Indonesia*, 7(6), 7954–7966. <https://doi.org/10.36418/syntax-literate.v7i6.7545>
- Amahoru, A., & Ahyani, E. (2023). Psikologi Pendidikan Inklusif: Menciptakan Lingkungan Belajar yang Ramah Bagi Semua Siswa. *Indo-MathEdu Intellectuals Journal*, 4(3), 2368–2377. <https://doi.org/10.54373/imeij.v4i3.522>
- Ariastuti, R., & Herawati, V. D. (2016). Optimizing the Role of Inclusive Schools (Indonesian). *Jurnal Pengabdian Pada Masyarakat*.
- Asiyah, D. (2018). The Impact of Inclusive School Learning Patterns on Children with Special Needs (Indonesian). *Prophetic : Professional, Empathy and Islamic Counseling Journal*, 1(01), 69–82. <https://doi.org/10.24235/prophetic.v1i01.3480>

- Astawa, I. N. T. (2021). Inclusive Education in Advancing National Education (Indonesian). *Guna Widya: Jurnal Pendidikan Hindu*.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: A review of the literature. *European Journal of Special Needs Education*, 17(2), 129–147. <https://doi.org/10.1080/08856250210129056>
- Azis, F., Mukramin, S., & Risfaisal, R. (2021). Social Interaction of Autistic Children in Inclusive Schools (Sociological Study of Inclusive Schools in Makassar City) (Indonesian). *Equilibrium: Jurnal Pendidikan*, 9(1), 77–85. <https://doi.org/10.26618/equilibrium.v9i1.4365>
- Bombardelli, O. (2020). Inclusive education and its implementation: International practices. *Education and Self Development*, 15(3), 37–46. <https://doi.org/10.26907/esd15.3.03>
- Bossaert, G., Colpin, H., Pijl, S. J., & Petry, K. (2013). Truly included? A literature study focusing on the social dimension of inclusion in education. *International Journal of Inclusive Education*, 17(1), 60–79. <https://doi.org/10.1080/13603116.2011.580464>
- Braun, V., Clarke, V., Boulton, E., et al. (2021). The online survey as a qualitative research tool. *International Journal of Social Research Methodology*, 24(6), 641–654. <https://doi.org/10.1080/13645579.2020.1805550>
- Braunsteiner, M., & Mariano-lapidus, S. (2014). A Perspective of Inclusion: Challenges for the Future. *Global Education Review*, 1(1), 32–43.
- Butler, S., & Shevlin, M. (2001). Creating an inclusive school: The influence of teacher attitudes. *Irish Educational Studies*, 20(1), 125–138. <https://doi.org/10.1080/0332331010200112>
- Darma, I. P., & Rusyidi, B. (2015). Implementation of Inclusive Schools in Indonesia (Indonesian). *Prosiding Penelitian Dan Pengabdian Kepada Masyarakat*, 2(2), 223–227. <https://doi.org/10.24198/jppm.v2i2.13530>
- Darma, I. P., Rusyidi, B., Abd.Kadir, et al. (2015). Implementation of Inclusive Schools in Indonesia (Indonesian). *Pengabdian Pada Masyarakat*, 03(2), 223–227.
- Dessel, A. (2010). Prejudice in schools: Promotion of an inclusive culture and climate. *Education and Urban Society*, 42(4), 407–429.
- Espina-Romero, L. C., Guerrero-Alcedo, J. M., Montoya-Asprilla, J., & Rhenals-Turriago, J. (2021). Good practices in Inclusive Education: Review of the role of the teacher during the decade 2010–2020. *Turkish Journal of Computer and Mathematics Education*, 12(13), 3071–3081.
- Fatimah, S., Adli, A. (2019). Implementation of Strengthening Values of Nationalism in Character Education Through History Learning in Public Senior High School 1 Sungai Penuh. *International Journal of Educational Dynamics*, 1(2), 116–124.
- Fraenkel, J. R., & Wallen, N. E. (1990). *How To Design and Evaluate Research in Education* (8th ed.). New York: Mc Graw Hill.
- Frankel, E. B. (2004). Supporting Inclusive Care and Education for Young Children with Special Needs and Their Families an International Perspective. *Childhood Education*, 80(6), 310–316. <https://doi.org/10.1080/00094056.2004.10521277>
- Gale, L., Bhushan, P., Eidnani, S., et al. (2022). Overcoming barriers to inclusion in education in India: A scoping review. *Social Sciences and Humanities Open*, 5(1), 100237. <https://doi.org/10.1016/j.ssaho.2021.100237>
- Hallinger, P., Walker, A., Nguyen, D. T. H., et al. (2017). Perspectives on principal instructional leadership in Vietnam: a preliminary model. *Journal of Educational Administration*, 55(2), 222–239. <https://doi.org/10.1108/JEA-11-2015-0106>
- Hendricks, D. (2011). Special education teachers serving students with autism: A descriptive study of the characteristics and self-reported knowledge and practices employed. *Journal of Vocational Rehabilitation*, 35(1), 37–50. <https://doi.org/10.3233/JVR-2011-0552>
- Hoepfl, M. C. (1997). Choosing Qualitative Research: A Primer for Technology Education Researchers. *Journal of Technology Education*, 9(1), 47–63. <https://doi.org/10.1177/014107689709000431>
- Holmqvist, M., & Lelinge, B. (2021). Teachers' collaborative professional development for inclusive education. *European Journal of Special Needs Education*, 36(5), 819–833. <https://doi.org/10.1080/08856257.2020.1842974>
- Irawati, I., & Winario, M. (2020). The Urgency of Multicultural Education, Segregation Education and Inclusive Education in Indonesia (Indonesian). *Instructional Development Journal*, 3(3), 177. <https://doi.org/10.24014/idx.v3i3.11776>
- Jannah, A. M., Setiyowati, A., Lathif, K. H., et al. (2021). Inclusive Education Service Model in Indonesia (Indonesian). *Anwarul*, 1(1), 121–136. <https://doi.org/10.58578/anwarul.v1i1.51>
- Johnson, C. P., Myers, S. M., Lipkin, P. H., et al. (2007). Identification and evaluation of children with autism spectrum disorders. *Pediatrics*, 120(5), 1183–1215. <https://doi.org/10.1542/peds.2007-2361>

- Juvonen, J., Lessard, L. M., Rastogi, R., et al. (2019). Promoting Social Inclusion in Educational Settings: Challenges and Opportunities. *Educational Psychologist*, 54(4), 250–270. <https://doi.org/10.1080/00461520.2019.1655645>
- Kivirand, T., Leijen, Ä., & Lepp, L. (2022). Enhancing Schools' Development Activities on Inclusive Education Through In-service Training Course for School Teams: A Case Study. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2022.824620>
- Konecki, K. T. (2019). Creative Thinking in Qualitative Research and Analysis. *Qualitative Sociology Review*, 15(3), 6–25. <https://doi.org/10.18778/1733-8077.15.3.01>
- Koutsouris, G., Anglin-Jaffe, H., & Stentiford, L. (2020). How Well Do We Understand Social Inclusion in Education?. *British Journal of Educational Studies*, 68(2), 179–196. <https://doi.org/10.1080/00071005.2019.1658861>
- Purnawanto, A. T. (2023). Differentiated Learning (Indonesian). *Jurnal Ilmiah Pedagogy*.
- Quinn, B. L., Seibold, E., & Hayman, L. (2015). Pain assessment in children with special needs: A review of the literature. *Exceptional Children*, 82(1), 44–57. <https://doi.org/10.1177/0014402915585480>
- Rahmawati, K., & Fatmawati, L. (2016). Instilling tolerance character in inclusive elementary schools through multicultural-based learning (Indonesian). *Prosiding Seminar Nasional Inovasi Pendidikan*, 293–302.
- Romanuck Murphy, C. (2018). Transforming Inclusive Education: Nine Tips to Enhance School Leaders' Ability to Effectively Lead Inclusive Special Education Programs. *Journal of Educational Research and Practice*, 8(1), 87–100. <https://doi.org/10.5590/jerap.2018.08.1.07>
- Rusmono, D. O. (2020). Optimizing Inclusive Education in Schools: Literature Review (Indonesian). *Kelola: Jurnal Manjaemen Pendidikan*, 7(2), 209–217.
- Sakiz, H. (2018). Students with learning disabilities within the context of inclusive education: issues of identification and school management. *International Journal of Inclusive Education*, 22(3), 285–305. <https://doi.org/10.1080/13603116.2017.1363302>
- Salassa, A., Rombe, R., & Fani Parinding, J. (2023). Pembelajaran Berdiferensiasi Dalam Kurikulum Merdeka Belajar Menurut Ki Hajar Dewantara Pada Mata Pelajaran Pendidikan Agama Kristen. *Jurnal Pendidikan Dan Keguruan*, 1(6), 541–554.
- Setiawati, F. A., & Nai'mah. (2020). Getting to know the concepts of children with special needs in Paud (Indonesian). *Program Studi PGRA*, 6(2), 193–208.
- Sunarya, P. B., Irvan, M., & Dewi, D. P. (2018). Study of Handling of Children with Special Needs (Indonesian). *Jurnal Abadimas Adi Buana*, 2(1), 11–19. <https://doi.org/10.36456/abadimas.v2.i1.a1617>
- Tanjung, R., Supriani, Y., Arifudin, O., & Ulfah, U. (2022). Management of Inclusive Education Implementation in Islamic Educational Institutions (Indonesian). *JiIP-Jurnal Ilmiah Ilmu Pendidikan*, 5(1), 339–348. <https://doi.org/10.54371/jiip.v5i1.419>
- Tristani, L., & Bassett-Gunter, R. (2020). Making the grade: teacher training for inclusive education: A systematic review. *Journal of Research in Special Educational Needs*, 20(3), 246–264. <https://doi.org/10.1111/1471-3802.12483>
- Tyas Pratiwi, L., Nur Maghfiroh, M., Septa Andika, D., et al. (2022). Problems Faced in the Implementation of Inclusive Schools in Indonesia (Indonesian). *Jurnal Pendidikan Dasar Flobamorata*, 3(2), 314–318. <https://doi.org/10.51494/jpdf.v3i2.704>
- Wahid, A., & Khoulita, I. (2023). Inclusive Education (Realizing Justice, Equality in a Multicultural Environment) (Indonesian). *ILJ: Islamic Learning Journal (Jurnal Pendidikan Islam)*, 1(3), 12–16.
- Webster-Stratton, C., Reid, M. J., & Hammond, M. (2004). Treating Children With Early-Onset Conduct Problems: Intervention Outcomes for Parent, Child, and Teacher Training. *Journal of Clinical Child and Adolescent Psychology*, 33(1), 105–124. https://doi.org/10.1207/S15374424JCCP3301_11
- Yohana Citra, P. (2023). Implementation of Inclusive Education in Increasing Equal Rights to Obtain Education for All Indonesian People (Indonesian). *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora*.
- York-Barr, J., Sommerness, J., Duke, K., & Ghere, G. (2005). Special educators in inclusive education programmes: Reframing their work as teacher leadership. *International Journal of Inclusive Education*, 9(2), 193–215. <https://doi.org/10.1080/1360311042000339374>
- Yuliastut, P. R. (2019). Teacher Competence in Implementing Inclusive Education Values in Inclusive Schools at Elementary School Level (Indonesian). In: *Proceedings of the National Seminar "Character Strengthening Based on Tamansiswa Teachings Literacy in Facing the Industrial Revolution 4.0; 2019*.
- Yuliyanti, M., Agustin, A., Utami, S. D., et al. (2024). Developing an Inclusive Education Approach for Children with Special Needs in Elementary Schools: Learning Design and Implementation Strategies. *Jurnal Inovasi Pendidikan*. 6(1), 634–649. <https://journalpedia.com/1/index.php/jip/article/view/771/856>

Yuwono, I., Utomo, M., & Pratomo Andi Widodo, A. (2018). Shadow Teacher Social Interaction Problem in SDN of Gadang 2 Banjarmasin. *Advances in Social Science, Education and Humanities Research*. <https://doi.org/10.2991/icsse-17.2018.34>