Teacher Strategies for Providing Access to Learning for Students with Special Needs in Elementary Schools

Hermanto Hermanto iD
Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Bayu Pamungkas* iD
Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Abstract. The presence of children with special needs in society automatically requires service education that suits their needs so that they can develop their full potential. The teacher plays an important role in the learning component, as the teacher's role is not only limited to teaching. The teacher is also a guide, developer, and manager of the learning activities and can thus facilitate student learning activities for the purpose of achieving the goals set. The purpose of this study was to investigate teacher strategies used as part of providing access to learning for students with special needs in 25 elementary schools that provide inclusive education in Yogyakarta, Indonesia. Qualitative research methods were used in this study, including observations, interviews, and documentation as data collection techniques. The informants in this study were 100 elementary school teachers providing inclusive education selected using purposive random sampling. The collected data were analyzed through data condensation, data presentation, and drawing conclusions. The results of this study show that there are various teacher strategies for providing access for students with special needs in inclusive elementary schools, including providing physical and non-physical access to learning based on the special needs of the students. Training in the context of increasing teacher competence and increasing the role of the parents means that experts from various related disciplines are expected to be able to support the implementation of inclusive education.

Keywords: inclusive education; special needs students; teacher strategy

1. Introduction

The acceptance of new students is part of the process of acquiring students in schools, both at the kindergarten and high school levels. Since 2017, the process of accepting students in Indonesia has implemented a zoning system, as

strengthened in Regulation of the Minister of National Education and Culture of the Republic of Indonesia number 17 of 2017 (Republic of Indonesia, 2017). Since 2017, the selection of new students for admission in Indonesian schools has emphasized being objective, accountable, transparent, and non-discriminatory, which encourages increased access to educational services. Moreover, schools managed by local government are required to accept prospective students who live in the closest radius zone to the school, with at least 90% of the total number of students being accepted.

The zoning-based new student acceptance policy in Indonesia is still in effect today, although only a percentage of this zoning policy has been strengthened by the Minister of Education and Culture just before the acceptance of new students based on zoning started taking place. The acceptance of new students in 2019 based on zoning is still valid, as can be seen from the basis of the laws that regulate it. Regulation of the Minister of National Education and Culture of the Republic of Indonesia number 20 of 2019 concerning Amendments to Minister of Education and Culture Regulation number 51 of 2018 which concerns the acceptance of new students in kindergartens, elementary schools, junior high schools, high schools, and vocational high schools continues to strengthen the acceptance of new students based on zoning (Republic of Indonesia, 2019). However, here, the percentage has changed to 80%. There is increasing emphasis on the opportunities and rights of the residents to obtain education in the nearby schools. The acceptance of new students considering the criteria of priority according to capacity is based on the provisions of the student group, considering the distance from the residence to the school in accordance with the zoning provisions.

The aim of zoning-based acceptance of new students is to strengthen the implementation of inclusive education in regular schools on a large scale. This supports the government policies as stated in the Regulation of the Minister of National Education of the Republic of Indonesia number 70 of 2009 concerning inclusive education for students with disabilities and potential intelligence and/or special talents (Republic of Indonesia, 2009). The enrolment of children with special needs in regular schools, referred to as inclusive schools with a zoning system, is unavoidable. Jannah and Hermanto (2022) explained that the presence of children with special needs in society automatically requires service education that suits their needs so that they can develop to their full potential. However, developing the potential of children with special needs to the fullest is not an easy task. Therefore, the government has also issued Government Regulation number 13 of 2020 concerning adequate accommodation for students with disabilities (Republic of Indonesia, 2020). To prepare the system, there is an emphasis on providing inclusive education courses for prospective teacher education programs. Schools must be prepared for diversity, and inclusive education is a mandatory program and policy that must be properly prepared, including on the part of the teachers.

Inclusive education is a service model for children with special needs. Inclusive means that children with special needs can follow the learning and participate in regular schools in the nearest environment. Children with special needs can

participate as much as possible in the regular learning curriculum and other activities with their classmates who do not have special needs. All components must contribute to providing optimal results due to the learning services for children with mild intellectual disabilities so that they are in accordance with the vision of inclusive education itself, where schools adjust in terms of the curriculum, educational facilities, and infrastructure. The learning systems are adapted to the individual needs of the students (Asep et al., 2020).

Inclusive education certainly does not only involve the learning process and the potential of children with special needs. It also relates to the diversity of students in the classroom and at school. Based on the diverse abilities of students, differentiated learning is needed. Differentiated learning is a learning practice in which the teacher conveys learning with adjustments to meet the students' abilities, as well as the students' readiness, interests, and learning styles. Teachers can modify their teaching strategies based on the content, processes, and learning products. Evertson and Weinstein (2011) discussed four aspects of inclusive education. First, the implementation of inclusive education guarantees presence, as every student can be present simultaneously in every activity carried out by the school/teacher. Second, acceptance (acknowledgment) is where every student has the right to be accepted without discrimination. Third, participation is where every student can participate in every activity carried out in the class or school. Lastly, achievement relates to each student achieving according to their abilities.

The teacher plays an important role in the learning component, their role not being limited to teaching only. They are also a guide, developer, and manager of learning activities to facilitate student learning activities as part of achieving the goals set. Teachers must be prepared for various challenges and demands as well as being at the forefront. The teacher must continue to innovate to develop the potential of diverse students. The current diversity of students started with the new student acceptance process which facilitated the diversity of students, including the presence of children with special needs in regular schools. There is a demand for teachers to have the ability to plan and implement a quality learning process. By understanding the various demands and challenges faced by teachers today, and the presence of diversity of students as required in Regulation of the Minister of National Education of the Republic of Indonesia number 16 of 2007, this has now become a reality (Republic of Indonesia, 2007).

This research will answer questions on how teachers employ strategies to fulfill access to learning for students with special needs in elementary schools. To answer this question, we employed a descriptive research design to describe the teacher strategies used when providing access to learning involving 100 teachers from 25 elementary schools that provide inclusive education in the city of Yogyakarta, Indonesia. A qualitative approach was used with a descriptive research design to comprehensively describe teacher strategies in each school providing access to learning for students with special needs in their class. It is hoped that the results of this study can provide an overview of the strategies that can be implemented by teachers in inclusive schools who have been confused

about providing access to learning for students with special needs in the classroom.

2. Literature Review
2.1 Inclusive Education
Inclusive education has the goal of providing equal opportunities for all children to learn and develop in an inclusive environment. However, several challenges and obstacles must be faced in its implementation. According to de Beco (2017), the problem is that even though the right to create inclusive education is fully given, there are limitations when it comes to taking the steps needed to create an inclusive education system. In short, there is a gap between the concept and practice of inclusive education. On the other hand, there is still uncertainty about whether inclusive education should be the standard in every situation. The United Nations (2006) in the Convention on the Rights of Persons with Disabilities recognized that if the general school system fails to meet the needs of all individuals with disabilities, special education may be an option, but there should be a focus on preparing students for education within the general school system. Although special education is linked to the goals of inclusive education, there are still opportunities for temporary exclusion from the general environment.

UNESCO (2017a) listed and discussed the challenges and obstacles encountered in inclusive education. The first is limited resources: Inclusive education requires adequate resources to support all students, including students who need special attention. However, not all schools or education systems have sufficient resources to support these programs. Second, there is lack of training and knowledge: Many teachers and education staff have not received adequate training or knowledge about inclusive education and how to support students with special needs. This can be a barrier to supporting students who need special support. The third challenge is stigma and discrimination: Students with special needs often experience discrimination and stigma from society and even from their peers at school. This can make them feel unappreciated and neglected and interfere with their ability to learn and develop. The fourth is lack of parental support: Parents of students with special needs often feel that they are not heard or understood by education staff and the public. This can discourage them from engaging in inclusive programs and a lack of support from parents can hinder the students' progress. Fifth, there is lack of supportive policies and regulations: Lack of support from the government and a lack of oversight can make inclusive programs ineffective. To overcome these challenges and obstacles, it is necessary to carry out sustainable efforts. These include increasing the support and availability of resources, increasing the training and knowledge of education staff, promoting equality, reducing stigma and discrimination, and developing policies and regulations that support inclusive programs.

2.2 Duties and Roles of Teachers in Inclusive Education
Teachers in inclusive schools have complex tasks and roles because they have the responsibility to provide teaching and support to all students, including those with special needs. UNESCO (2017b) stated that teachers in inclusive schools must create a friendly environment for all students, assess and monitor student

progress regularly, and identify students who need additional support. The duties and roles of teachers in inclusive schools by UNESCO (2017b) are further elaborated as follows. First, teachers in inclusive schools must provide differential teaching so that all students can access the curriculum and learn in a way that suits their needs. Second, teachers must form collaborations between students and encourage students to support and learn from each other. Finally, teachers must also build positive relationships with the parents of their students and involve them in their children's education. Therefore, teachers in inclusive schools have a very important role to play in creating an inclusive learning environment and providing support to all students.

When designing service delivery models for students in inclusive schools, teachers need to apply the principles of effective learning. Anaby et al. (2018) mentioned that one of the strategies that is often used is training and information exchange. This helps when implementing the principle of support among the teachers and school staff. Using this strategy is expected to increase the capacity and competence of school-based personnel through strengthening concepts and fostering knowledge. This also helps to empower and increase the competence of the school personnel, including when handling students with special needs in schools providing inclusive education.

2.3 Types of Access to Learning for Special Needs Students

Each student with special needs has different characteristics and needs an individual education strategy. Some students may have physical barriers, whereas others may have different sensory or developmental barriers. It is important to design individual strategies that focus on the needs and potential of each student. The right approach when designing an inclusive education strategy for students with special needs is a needs-based approach. The focus of this approach is to understand the unique needs of each student and to create appropriate educational strategies to enable them to achieve their maximum potential.

Individuals with visual impairments may require different levels of assistance with their vision, ranging from those requiring only glasses to those who are completely blind. Children with visual impairments may also have problems in relation to cognition, mobility orientation, and social interactions. According to Handoyo (2022), the limitations of blind children are not the result of their low intellectual ability but a lack of exposure to cognitive experiences. These experiences can be fostered during the learning process by combining tactile activities and involving the sense of touch to facilitate the acquisition of knowledge.

Students with physical disabilities usually do not face significant problems in terms of their cognitive abilities, so in the educational process, general methods can be used with more accessible environmental conditioning. The teacher needs to provide emotional assistance and support. Psychosocial motivation and support can help these students become more confident to have positive social contact and feel supported by their surroundings. This can improve the

psychological condition of students with physical disabilities to enable them to be more positive than before (Fajar, 2020).

According to Rokhman (2020), students with Asperger's syndrome exhibit unique traits, such as a tendency to focus intently on specific topics and performing activities in a consistent manner. Individuals with Asperger's syndrome also commonly exhibit poor social skills, a preference for routine, and an aversion to change. These characteristics can be utilized to guide these individuals towards specific activities that match their abilities and interests.

Children with hearing impairments have the same adaptive abilities as children who can hear, as long as the communication modalities they use at home and school are appropriate (Fisher et al., 2021). These capable cognitive abilities help children with hearing impairments to undergo the education process with some modifications, such as the simplification of language and the use of sign language in the communication system.

3. Methodology
A qualitative approach with a descriptive research design was used in this research to describe strategies teachers use in providing access to learning in elementary schools that provide inclusive education. This method was chosen so that the data obtained in this study could fully and comprehensively explain how access to learning is provided for children with special needs as the research focus.

The stages carried out in this study included determining the research informants, collecting the data, and analyzing the data collected. The informants in this study consisted of 100 teachers from 25 elementary schools with students with special needs who were selected through purposive random sampling from a total pool of 625 teachers. The data collection in this study was carried out using participatory observation techniques and semi-structured interviews, as well as a documentation search related to providing access to learning for children with special needs across the 25 elementary schools.

The successfully collected data were then tested to determine its credibility using a member check. Sugiyono (2013) explained that member checks are used to determine the credibility of the data provided by the research informants. To analyze the data collected, we used analytical induction techniques, namely reducing the data, displaying the data, and drawing conclusions and verifying the data (Creswell, 2008). For data analysis in this study, we used techniques from Miles et al. (2014), which consisted of four activity flows for analyzing the data, namely data collection, data compaction, data presentation, and drawing conclusions.

In the early stages, we conducted interviews to obtain data on the provision of physical and non-physical accessibility. After that, we conducted observations to analyze the teachers' strategies for each type of specificity related to the students with special needs. In the final stage of the data collection, we conducted a documentation study related to the learning tools that support the two previously

collected data sets. All the data from the interviews, observations, and documentation obtained were analyzed to determine if there were patterns of similarities and differences in the strategies for fulfilling learning access for students with special needs. We eliminated any residual data pieces that appeared as though it was not related to the research focus. Furthermore, the data from the analysis were presented to describe the various teacher strategies used for providing access to learning for students with special needs.

4. Results

Analysis of the research data shows that there are various teacher strategies for providing access to learning for students with special needs in elementary schools that provide inclusive education, which is the focus of this study. Table 1 presents a description of teacher strategies categorized according to the provision of access to physical and non-physical learning in schools.

Table 1: Provision of access to learning in inclusive schools

Physical accessibility	Non-physical accessibility
1. Fulfillment of accessible facilities and infrastructure in schools 2. Provision of media and learning resources according to student learning needs	1. Implementation of a suitable assessment program 2. Management of differentiated learning 3. Provision of special services as needed 4. Implementation of individual learning programs 5. Establishment of collaboration with parents and related agencies 6. Planting character values in the students at school

The data in this study also show that various teacher efforts are made when providing access to learning according to the students' learning needs. Table 2 contains a description of the teacher assistance efforts based on the type of specificity and the constraints of the students with special needs when learning.

Table 2: Teacher strategy per type of student special needs

Type of special needs	Teacher strategy
Intellectual barriers	1. Modify the learning objectives 2. Provide individual programs to the students 3. Check the students' intellectual abilities with the nearest psychologist 4. Emphasize functional academic learning 5. Apply the drill method to several skill materials
Emotional and behavioral barriers	1. Modify behavior according to problematic behavior, one method of which is using the token economy 2. Give students who have anxiety when doing assignments more time to complete assignments 3. Give enrichment assignments to students with above

	average abilities but who experience hyperactivity 4. Let students with learning motivation disorders intensely establish communication with their parents 5. Pay more intensive attention to the students with a personal approach 6. Give students space with the other students when the students have tantrums
Hearing impairment, language, and speech impairment	1. Give exercises in the form of short reading activities 2. Pay attention to each phrase that will be given to the students 3. Visualize the teaching materials 4. Try to communicate more often
Visual impairment	1. Optimize the child's sense of hearing in learning by providing recordings 2. Modify the learning evaluation technique from a written test to an oral test
Specific learning difficulties	1. Adjust the learning objectives to the students' abilities 2. Provide an explanation of the learning material by first repeating the previous material 3. Conduct individual teaching on aspects where the students experience difficulties 4. Utilize various learning media

Based on the data in Tables 1 and 2, teachers who provide access to learning for students in elementary schools providing inclusive education employ various strategies for providing physical and non-physical access tailored to the special needs of students.

In providing various strategies for fulfilling learning access for students with special needs, the teacher must go through many stages that require time and energy to work. By involving many parties, including the school principal who supervises through to experts in other disciplines who become referrals when they need a more complete analysis, informants admitted that they feel very helped and that they are not struggling alone when providing these services. According to informants, the implementation of these strategies has shown significant results, although in practice some of the aspects of service delivery still need to be improved. These include clinical diagnostic services that teachers cannot obtain free of charge, up to the fulfillment of physical accessibility developments that must wait for funding from the government through the Education Office.

5. Discussion
The results of the study show that the management of physical and non-physical accessibility is an important factor in the successful implementation of inclusive education. In terms of managing physical accessibility, the provision of infrastructure and media as well as various other accessible learning resources is very much needed. According to the United Nations (2006) in the Convention on

the Rights of Persons with Disabilities, it is argued that all persons with disabilities should have the same access as other people to the physical environment, transportation, information, and communication, as well as other public services and facilities. An accessible environment is one that enables everyone, including those with disabilities, to access public places and services in the same way as people without disabilities (World Health Organization, 2011).

Although there are various definitions, interpretations, and terms, inclusive education basically aims to remove various intentional and unintentional obstacles by modifying the facilities and infrastructure to increase the learning opportunities and social interactions for all students, including those with disabilities (Ackah & Danso, 2018). The physical space of the school, the place where the learning and social interactions take place, is very important for the success of inclusive education. The environment plays a critical role not only functionally but also in relation to the social, psychological, cultural, and ethical aspects. It is very important to ensure that the rooms in the educational facilities are fully accessible to persons with disabilities. Heylighen et al. (2017) suggested that designing a building space is not a responsibility reserved only for architects but that it is the duty of all individuals involved in making design decisions that affect others, including paying attention to the presence of persons with disabilities.

The provision of media and learning resources that are in accordance with the abilities and needs of the students is one of the teacher's strategies to fulfill physical accessibility in the implementation of inclusive education in schools, especially in the learning process. Students with disabilities need media differentiation and learning resources to facilitate more effective and efficient learning. Media and learning resources are two different concepts in education (Ertmer & Newby, 2013). Learning media include the various technologies and physical objects used to help the students learn the material, such as textbooks, audio, video, and the internet. Learning resources include all the information that the students use to study the material, including textbooks, journals, and other sources. The differentiation of media and learning resources in education is related to the level of readiness and the abilities, interests, and learning styles of the students. These conditions affect their approach to learning activities. Some students excel in terms of their visual, auditory, or mixed skills. To adjust for these differences, educators must expand their delivery methods and allow students to access material using their preferred method. Various learning strategies, such as learning centers, graphic organizing, graded reading and writing, and graded assignments, can be implemented to achieve this goal (Mahoney & Hall, 2017).

Differentiated learning, which is also a teacher-made effort when managing inclusive education, cannot be separated from the efforts to differentiate the media, and learning resources. The differentiation of media and learning resources also needs to be followed by differentiated instruction. Collinson and Keith (2012) explained that differentiated instruction is a modern approach in developing and delivering learning that meets the unique needs of each student. Differentiated instruction involves rearranging the way that the learning is

delivered in class and using various learning strategies to provide different information access options to students (Siam & Al-Natour, 2016). The goal is to provide students with different choices to help them understand the content, process ideas, understand meaning, and achieve the learning outcomes. In other words, this student-centered teaching approach takes the differences between students into account.

Analysis of the research data collected show that in general, there are three aspects of learning that are adjustable, namely learning objectives, material adjustments, and evaluation as an implementation of differentiated learning that is carried out. Tomlinson and Imbeau (2023) explained that in differentiated learning, the aspects that are adjusted are the content, process, and product components. The efforts made by the teacher reflect the application of the teacher's pedagogic competence in managing the inclusive classroom. Rudiyati et al. (2021) explained that the efforts to meet the needs of students, especially those with special needs in inclusive schools, can be carried out by teachers as a form of implementing their pedagogical competencies. This includes the mastery of student characteristics for identification and assessment, mastery of the theories about learning methods, and the strategies for determining the learning methods and approaches used in the learning process.

The findings of this study also show that teachers are trying to provide special services according to the conditions of students with special needs through differentiated learning. This has previously been explained through the implementation of an assessment program. Assessments are the main key for teachers as part of providing appropriate educational service programs for students with special needs. The information obtained from the assessment is used to determine the educational services needed by students with special needs. This is so that the scope of the assessment does not only include the student's constraints but also the modalities (potential) that the student has and what is needed by these students in the future (Nurfadhilah et al., 2022). In terms of carrying out student assessments, the role of experts from other disciplines, including psychologists, also has a significant influence when it comes to obtaining complete and in-depth assessment data. Teachers and school psychologists need to assess and help the students assess their potential using an alternative/dynamic approach. A thorough psychological evaluation can provide information about the different educational plans that provide appropriate support for a student's area of competence, with additional support or accommodation for areas of weakness (Al-Hroub & Whitebread, 2019; Maddocks, 2020).

The results of the assessment of students with special needs will determine the teacher's next strategy. Hanks (2011) explained that the strategy for fulfilling student learning access in schools providing inclusive education is based on two key assumptions. The first is that the ability of students in schools is the result of the interactions between the students and their learning environment. Second, teachers can properly accommodate students in the classroom by analyzing the factors that become their learning needs and the specific demands of the

classroom environment. Friend and Bursuck (2018) explained that the results of the assessment can help teachers implement the INCLUDE strategy. That is: identify (identify the classroom demands), note (note the advantages and learning needs of students), check (check areas for potential student success), look (look for areas of potential problems), use (utilize information to find ideas for learning diversity), differentiate (good practices of differentiating learning), and evaluate (evaluate the student learning progress).

Inclusive education in elementary schools needs to receive more attention considering how elementary school students still need intensive attention from educators coupled with the presence of students with special needs. Of course, this is not easy to achieve in relation to the learning goals (Mardiana & Khoiri, 2021; Nurwan, 2019). The various services provided by teachers in inclusive classes as determined by the results of this study indicate that special services can be provided for students with special needs in inclusive classes, while still paying attention to the existence and needs of students who do not have special needs. Yunita et al. (2019) explained that inclusive education programs have been implemented that are service-oriented to children, so that the needs of every child are met. Nurhaqy (2022) explained that inclusion practices are based on sharing the responsibility for service delivery in various settings. With this principle in mind, educators should regard special education as a service, not as a place. Thus, the role of the special educator can be conceptualized as an individualized education program (IEP) coordinator, not as a single service provider. This is because the IEP serves as a tool for planning and implementing services in a variety of settings. It is important for all stakeholders to play a meaningful role in their development.

Inclusive education programs are not only implemented for students who have special needs but for all students, because every student has different characteristics. For students with intellectual disabilities, it was found that the teacher often lowers the depth level of the material. The complexity of the material for students with intellectual disabilities is simplified and emphasized through more functional material if possible. Yunaini (2021) explained that the learning materials for students with special needs are not found in the academic field only. Teachers also need to provide functional knowledge. Anjarsari (2018) explained that the material, curriculum, and legal learning media must be modified. This is done with the aim that students with special needs can follow along with the existing material according to their abilities and characteristics.

Managerial implications that must be anticipated when schools are determined to be inclusive institutions include maintaining warm class communication and respecting diversity, applying heterogeneity in curricula, interactive teacher preparation for teaching, consultation and collaboration between teams, and parent/family involvement in program planning (Efendi, 2018). Other special services for students with special needs can still be provided in inclusive classes according to their specificities. These include behavior modification for students with emotional and behavioral barriers, the application of the principles of visualization, the plotting of front seats for students with hearing impairments, as

well as personal approaches for students who have low learning motivation. The implementation of inclusive learning in each school has its own provisions depending on the determined needs (Hartadi et al., 2019).

In this regard, the findings of this study indicate that character education is also an urgent matter in the implementation of inclusive education policies. Pamungkas (2016) explained that the success of the education process for students with special needs in inclusive schools cannot be separated from the acceptance of other students who do not have special needs. Through character education, general students who attend inclusive schools are expected to have high tolerance and concern so that they can accept their friends who have special needs and can assist the teachers in providing optimal educational services.

Character education, such as respecting diversity and empathy, can help reduce discrimination and strengthen diversity in an inclusive school environment. This is in line with UNESCO (2015), who compiled the educational concept of "learning to live together". This is an approach that focuses on developing individual abilities to help people live together with others in culturally, ethnically, and religiously diverse societies. This concept prioritizes the values of unity, harmony, and cooperation between individuals and groups. Education "learning to live together" was developed by UNESCO as a response to world developments that are increasingly complex and global. This approach to education aims to develop a better understanding of cultural diversity, respect for human rights, and promotion of social justice. UNESCO (2016) explained the concept of education in the 2030 Agenda for Sustainable Development, saying that education is seen as an important human right and the key to achieving sustainable development goals. The concept emphasizes the importance of inclusive and just education as well as education that promotes peace, gender equality, and tolerance. Education is considered to improve the quality of life of individuals and communities, as well as helping to tackle global problems such as poverty, inequality, and climate change.

The results of this study also show that collaboration between teachers and the parents of students with special needs is an important factor. Hermanto and Pamungkas (2023) explained that collaboration between teachers and parents to meet the special needs of students can start from the learning planning stage through to the evaluation stage at the end of the learning process. Besides that, coordination and communication with various related parties also need to be carried out. Qomarudin et al. (2019) explained that schools that run inclusive education programs must be able to involve both parents and the community throughout the planning, implementation, and evaluation stages. Building collaboration between schools and the community is a challenge for inclusive school managers. Kurniawan and Aiman (2020) explained that collaborative relationships between the government, schools, parents, and the community are the main capital for the formation of a professional inclusive education paradigm so that students with special needs can participate in realizing the national education goals in Indonesia.

Collaboration between parents and teachers, as well as related agencies, is very important as part of facilitating the learning process of students with special needs in inclusive schools. This collaboration can help to identify individual student needs, develop effective learning strategies, and strengthen the social and emotional support for students in inclusive schools. Goodall (2017) proposed the concept of a parent-teacher partnership that is actively involved in supporting the student's learning processes, with both parties appreciating the knowledge they have and engaging in authentic discussions. This partnership involves a mutually supportive collaboration between parents and teachers where both respect each other's roles and contributions in the child's education. This vision describes a collaborative relationship that aims to create a supportive learning environment for children. In much of the research on making learning environments more welcoming and accepting of diversity, district leaders, principals, teachers, parents, and close friends worked together (Ryndak et al., 2007) to improve the systems in place and to create more inclusive learning environments. They seek to create plans to accommodate each condition, remove special classes, discuss the roles of teachers and assistant teachers, appoint special teachers to teaching teams, create schedules for collaboration, acquire additional resources, change the way that the assessment is done, and continually improve their plans over time (Billingsley & Banks, 2019).

6. Conclusion

As part of the teacher's strategy in providing access to learning in the implementation of inclusive education in elementary schools and at other levels, differentiated learning by adjusting the content, process, and product components has become integral. The differentiation made must be based on the results of previous student identification and assessments. While still paying attention to the needs of other students who do not have special needs, special services and individualized learning programs need to be implemented as curriculum modifications and adjustments to other learning components. The role and involvement of parents and related disciplines can optimize the implementation of ideal inclusive education. Equally important is the inculcation of character values in the students to accept diversity in school, including the special needs of other students. The provision of access to learning will be complete if it is supported by an environment with accessible facilities and infrastructure as well as appropriate media and learning resources. The involvement of related parties is highly expected in the implementation of inclusive education programs. Training in the context of increasing teacher competence is an important facet to carry out to equip the teachers in schools that provide inclusive education. In addition to the role of parents, experts from various related disciplines are expected to be able to support the implementation of inclusive education starting from the assessment stage through to the fulfillment of services related to the special needs of students, including fulfilling the accessibility of physical supports. The Education Office is expected to be able to facilitate teacher competency improvement training in inclusive schools, including the provision of assistance for the parents of children with special needs in inclusive schools. This research is limited to describing teacher strategies when providing learning access for students with special needs in inclusive schools. It is hoped that further

research can be initiated, and efforts made to optimize each strategy described in this study.

7. References

Ackah-Jnr, F. R., & Danso, J. B. (2018). Examining the physical environment of Ghanaian inclusive schools: How accessible, suitable, and appropriate is such environment for inclusive education? *International Journal of Inclusive Education, 23*(2), 188–208. https://doi.org/10.1080/13603116.2018.1427808

Al-Hroub, A., & Whitebread, D. (2019). Dynamic assessment for identification of twice exceptional learners exhibiting mathematical giftedness and specific learning disabilities. *Roeper Review, 41*(2), 129–142. https://doi.org/10.1080/02783193.2019.1585396

Anaby, D. R., Campbell, W. N., Missiuna, C., Shaw, S. R., Bennett, S., Khan, S., Tremblay, S., Kalubi-Lukusa, J., & Camden, C. (2018). Recommended practices to organize and deliver school-based services for children with disabilities: A scoping review. *Child: Care, Health, and Development, 45*(1), 15–27. https://doi.org/10.1111/cch.12621

Anjarsari, A. D. (2018). Penyelenggaraan pendidikan inklusi pada jenjang sd, smp, dan sma di Kabupaten Sidoarjo [Implementation of inclusive education at elementary, middle and high school levels in Sidoarjo Regency]. *Jurnal Pendidikan Inklusi, 1*(2), 91. https://doi.org/10.26740/inklusi.v1n2.p91-104

Asep, S., Uswatun, H., & Ahmad, J. (2020). Inclusive education services for children with mild intellectual disabilities in pandemic period: The dilemma of general elementary schools in Indonesia. *Jurnal Penelitian dan Pengembarngan Pendidikan Luar Blasa, 7*(2), 22–30. http://journal2.um.ac.id/index.php/jppplb/article/view/16747/pdf

Billingsley, B., & Banks, A. (2019). Leadership for inclusive schools 1995–2015. In J. Crockett, B. Billingsley, & M. Boscardin. (Eds.), *Handbook of leadership and administration for special education* (2nd ed.; pp. 196–220). Routledge.

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (3rd ed.). Pearson Education.

de Beco, G. (2017). The right to inclusive education: Why is there so much opposition to its implementation? *International Journal of Law in Context, 14*(3), 396–415. https://doi.org/10.1017/s1744552317000532

Efendi, M. (2018). The implementation of inclusive education in Indonesia for children with special needs: Expectation and reality. *Journal of ICSAR, 2*(2), 142–147. https://doi.org/10.17977/um005v2i22018p142

Ertmer, P. A., & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly, 26*(2), 43–71. https://doi.org/10.1002/piq.21143

Evertson, C. M., & Weinstein, C. S. (2011). *Handbook of classroom management, research, practice, and contemporary issues*. Routledge.

Fajar, M. (2020). Peran dukungan sosial dan harga diri terhadap kesejahteraan subjektif penyandang disabilitas fisik [The role of social support and self-esteem on the subjective welfare of persons with physical disabilities]. *E Print UMS.* http://eprints.ums.ac.id/id/eprint/85583

Fisher, E. L., Thibodaux, L. K., Previ, D., & Reesman, J. (2021). Impact of communication modality on caregiver ratings for deaf and hard of hearing children. *Applied Neuropsychology: Child, 11*(4), 598–609. https://doi.org/10.1080/21622965.2021.1916495

Friend, M., & Bursuck, W. D. (2018). *Including students with special needs, a practical guide for classroom teachers*. Pearson

Goodall, J. (2017). Learning-centred parental engagement: Freire reimagined. *Educational Review, 7*(5), 603–621. https://doi.org/10.1080/00131911.2017.1358697

Handoyo, R. R. (2022). Analisis teori belajar dalam metode pembelajaran membaca braille pada anak tunanetra [Analysis of learning theory in braille reading learning methods for blind children]. *Jurnal Studi Guru dan Pembelajaran*, *5*(1), 60–70. https://doi.org/10.30605/jsgp.5.1.2022.1616

Hanks, R. (2011). *Common sense for the inclusive classroom: How teachers can maximize existing skills to support special educational needs*. Jessica Kingsley Publishers.

Hartadi, D. R., Dewantoro, D. A., & Junaidi, A. R. (2019). Kesiapan sekolah dalam melaksanakan pendidikan inklusif untuk anak berkebutuhan khusus di sekolah dasar [School readiness in implementing inclusive education for children with special needs in elementary schools]. *Jurnal Ortopedagogia*, *5*(2), 90. https://doi.org/10.17977/um031v5i22019p90-95

Hermanto, H., & Pamungkas, B. (2023). School and parents collaboration in home learning service for students with sensory impairments. *Jurnal Prima Edukasia*, *11*(1). http://dx.doi.org/10.21831/jpe.v11i1.51614

Heylighen, A., van der Linden, V., & van Steenwinkel, I. (2017). Ten questions concerning inclusive design of the built environment. *Building and Environment, 114*, 507–517. https://doi.org/10.1016/j.buildenv.2016.12.008

Jannah, I., & Hermanto, H. (2022). Implementation of inclusive education at elementary schools during the Covid-19 pandemic. *Jurnal Prima Edukasia*, *10*(2), 171–179. https://doi.org/10.21831/jpe.v10i2.48884

Kurniawan, N. A., & Aiman, U. (2020). Paradigma pendidikan inklusi era society 5.0 [The paradigm of inclusive education in the era of society 5.0]. *Jurnal Pendidikan Dasar*, 1–6. https://journal.unj.ac.id/unj/index.php/psdpd/article/view/17736

Maddocks, D. L. S. (2020). Cognitive and achievement characteristics of students from a national sample identified as potentially twice-exceptional (gifted with a learning disability). *Gifted Child Quarterly*, *64*(1), 3–18. https://doi.org/10.1177/0016986219886668

Mahoney, J., & Hall, C. (2017). Using technology to differentiate and accommodate students with disabilities. *E-Learning and Digital Media, 14*(5), 291–303. https://doi.org/10.1177/2042753017751517

Mardiana, & Khoiri, A. K. (2021). Pendidikan inklusi bagi anak berkebutuhan khusus di sekolah dasar [Inclusive education for children with special needs in elementary schools]. *Jurnal Inovasi Pendidikan Dasar*, *5*(1), 1–5. https://doi.org/10.36928/jipd.v5i1.651

Miles, M. B, Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (T. R. Rohidi, Trans; 3rd ed.). Sage.

Nurfadhilah, S., Salsabila, A., & Firdaus, C. C. (2022). Analisis assessment dalam pendidikan inklusi di Sdit Dauroh [Assessment analysis in inclusive education at Sdit Dauroh). *Jurnal Penelitian dan Pengabdian Masyarakat*, *2*(07), 1116–1124. https://doi.org/10.36418/comserva.v2i07.437

Nurhaqy, A. A. (2022). Keterampilan kolaborasi guru sekolah dasar untuk keberhasilan pendidikan inklusif [Elementary school teacher collaboration skills for successful inclusive education]. *Warta Pengabdian*, *16*(2), 75–88. https://doi.org/10.19184/wrtp.v16i2.23395

Nurwan, T. W. (2019). Implementasi kebijakan pendidikan inklusif di sekolah dasar [Implementation of inclusive education policy in elementary schools]. *Journal of Education on Social Science*, *3*(2), 201. https://doi.org/10.24036/jess/vol3-iss2/176

Nurwan, T. W. (2019). Implementasi kebijakan pendidikan inklusif di sekolah dasar [Implementation of inclusive education policy in elementary schools]. *Journal of Education on Social Science*, *3*(2), 201. https://doi.org/10.24036/jess/vol3-iss2/176

Pamungkas, B. (2016). *Urgensi pendidikan karakter untuk mengoptimalkan layanan pendidikan bagi siswa berkebutuhan khusus di sekolah inklusif* [The urgency of character education to optimize education services for students with special needs in inclusive schools] [Conference or workshop item]. Seminar Nasional PGSD Universitas PGRI Yogyakarta. http://repository.upy.ac.id/id/eprint/1273

Qomarudin, M., Basir, M. A., & Indah, D. (2019). Model kolaborasi identifikasi dini anak berkebutuhan khusus untuk menunjang pelaksanaan pendidikan inklusi [Collaborative model for early identification of children with special needs to support the implementation of inclusive education]. *Seminar UAD, 3*, 91–100.

Republic of Indonesia. (2007). *Peraturan Menteri Pendidikan Nasional /Permendiknas nomor 16 tahun 2007 tentang standar kualifikasi akademik dan kompetensi guru* [Regulation of the Minister of National Education of the Republic of Indonesia number 16 of 2007 on academic qualification standards and teacher competency]. Republic of Indonesia.

Republic of Indonesia. (2009). *Peraturan Menteri Pendidikan Nasional / Permendiknas nomor 70 tahun 2009 tentang pendidikan inklusi bagi peserta didik yang memiliki kelainan dan memiliki potensi kecerdasan dan/atau bakat istimewa* [Regulation of the Minister of National Education of the Republic of Indonesia number 70 of 2009 concerning inclusive education for students with disabilities and potential intelligence and/or special talents]. Republic of Indonesia.

Republic of Indonesia. (2017). *Peraturan Menteri Pendidikan dan Kebudayaan / Permendikbud nomor 17 tahun 2017 tentang penerimaan peserta didik baru pada taman kanak-kanak, sekolah dasar, sekolah menengah pertama, sekolah menengah atas, sekolah menengah kejuruan atau bentuk lain yang sederajat* [Regulation of the Minister of National Education and Culture of the Republic of Indonesia number 17 of 2017 concerning acceptance of new students in kindergartens, elementary school, high school, vocational high school, or other equivalent forms]. Republic of Indonesia.

Republic of Indonesia. (2019). *Peraturan Menteri Pendidikan dan Kebudayaan / Permendikbud nomor 20 tahun 2019, perubahan atas peraturan menteri pendidikan dan kebudayaan nomor 51 tahun 2018 tentang penerimaan peserta didik baru pada taman kanak-kanak, sekolah dasar, sekolah menengah pertama, sekolah menengah atas, sekolah menengah kejuruan* [Regulation of the Minister of National Education and Culture of the Republic of Indonesia number 20 of 2019: Changes to the regulation of the Minister of Education and Culture number 51 of 2018 concerning acceptance of new students in kindergartens, elementary school, high school, vocational high school]. Republic of Indonesia.

Republic of Indonesia. (2020). *Peraturan Pemerintah / pp nomor 13 tahun 2020 tentang akomodasi yang layak untuk peserta didik penyandang disabilitas* [Government Regulation number 13 of 2020 concerning adequate accommodation for students with disabilities]. Republic of Indonesia.

Rokhman, A. N. (2020). Pendekatan floor time untuk meningkatkan efektivitas pembelajaran pai bagi pengidap sindrom Asperger [The floor time approach to increase the effectiveness of pie learning for people with Asperger's syndrome]. *Andragogi: Jurnal Pendidikan Islam dan Manajemen Pendidikan Islam, 2*(1), 66–81. https://doi.org/10.36671/andragogi.v2i1.75

Rudiyati, S., Pamungkas, B., & Phytanza, D. T. P. (2021). Enhancing the pedagogical competence of inclusive school teachers in handling children with special needs. *KnE Social Sciences, 6*(2), 680–688. https://doi.org/10.18502/kss.v6i2.10025

Ryndak, D. L., Reardon, R., Benner, S. R., & Ward, T. (2007). Transitioning to and sustaining district-wide inclusive services: A 7-year study of a district's ongoing journey and its accompanying complexities. *Research and Practice for Persons with Severe Disabilities, 32*(4), 228–246). https://doi.org/10.2511/rpsd.32.4.228

Siam, K., & Al-Natour, M. (2016). Teacher's differentiated instruction practices and implementation challenges for learning disabilities in Jordan. *International Education Studies, 9*(12), 167. https://doi.org/10.5539/ies.v9n12p167

Sugiyono, S. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif, dan R&D* [Educational research methods: Quantitative, qualitative, and R&D approaches]. Alfabeta.

Tomlinson, C. A., & Imbeau, M. B. (2023). *Leading and managing a differentiated classroom*. ASCD.

Topping, K., & Maloney, S. (2005). *The RoutledgeFalmer reader in inclusive education*. RoutledgeFalmer.

UNESCO. (2015). *Learning to live together: Education for intercultural and interfaith understanding*. UNESCO Publishing.

UNESCO. (2016). *Education 2030: Incheon Declaration Framework for Action for the implementation of Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*. https://unesdoc.unesco.org/ark:/48223/pf0000245656

UNESCO. (2017a). *Guidelines for inclusion: Ensuring access to education for all*. https://unesdoc.unesco.org/ark:/48223/pf0000140224

UNESCO. (2017b). *A guide for ensuring inclusion and equity in education*. https://unesdoc.unesco.org/ark:/48223/pf0000248254

United Nations. (2006). *Convention on the Rights of Persons with Disabilities*. https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities

World Health Organization. (2011). *World report on disability*. World Health Organization.

Yunaini, N. (2021). Model pembelajaran anak berkebutuhan khusus dalam setting pendidikan inklusi [Learning models for children with special needs in inclusive education settings]. *Journal of Elementary School Education*, *1*(1), 18–25. https://doi.org/10.52657/jouese.v1i1.1326

Yunita, E. I., Suneki, S., & Wakhyudin, H. (2019). Manajemen pendidikan inklusi dalam proses pembelajaran dan penanganan guru terhadap anak berkebutuhan khusus [Management of inclusive education in the learning process and teacher handling of children with special needs]. *International Journal of Elementary Education, 3*(3), 267. https://doi.org/10.23887/ijee.v3i3.19407