Inclusive Education: To What Extent Have Schools Adequately Addressed the Educational Needs of Slow Learners?

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***Abstract*— Slow Learners defined as those with an IQ range of 69-89, a category of special needs children, require inclusive education services tailored to their characteristics and learning needs to help them develop their potential optimally. Existing research on services for slow learners has primarily focused on curriculum design, instructional methodologies, and teacher preparedness, while the provision of learning resources tailored to their characteristics remains unexplored. This research aims to identify the availability of suitable learning resources in inclusive schools for Slow Learners. Using a descriptive qualitative method, data were collected through interviews, Focus Group Discussion, and observations in two primary schools across five cities: Padang, South Tangerang, Bandung, Yogyakarta, and Malang, with sources including school principals, classroom teachers, special education teachers, and the learning resources available in the schools. The findings reveal that: 1) Slow Learners in all schools are not easily identifiable through physical observation; 2) they have characteristics requiring specialized educational services; and 3) appropriate learning resources, such as teaching aids, learning materials, textbooks, learning modules, and ICT devices, are not universally available in all schools. This study recommends enhanced involvement from the government and external parties to improve the provision and utilization of better learning resources to support the development of Slow Learners in schools.**

***Keywords*—**

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I. INTRODUCTION

Inclusive education is an approach that integrates all students into regular learning environments, emphasizing that every child, regardless of background or specific needs, is entitled to equitable and high-quality education tailored to their diverse requirements (Elov et al., 2024; Lalli et al., 2024; Yan et al., 2024). The policy of nine years of compulsory education serves as a foundational framework for developing inclusive education programs in Indonesia, aimed at providing equal educational opportunities for all children, including those with special needs, ensuring access to adequate and equitable learning. This approach integrates children with special needs, including those with learning disabilities, into the mainstream education system, fostering mutual support among students. Ainscow (2020) highlights that inclusion aims to dismantle barriers in traditional educational models by implementing pedagogical practices that facilitate the active participation of all students, supported by appropriate learning resources and curricula.

Among special needs children in inclusive schools are slow learners, defined as those with an IQ range of 69-89, whose intelligence is below that of their peers. Common traits of slow learners include difficulties in understanding abstract concepts, challenges in adapting skills to new situations, cognitive difficulties in organizing new material, and requiring more time to complete tasks. Due to their cognitive limitations, slow learners need guided learning experiences to achieve their optimal potential. They often struggle with teacher instructions and face obstacles in cognitive, language, visual perceptual, motor, and socio-emotional skills, generally below their classmates' levels (Ali et al., 2024; De leon et al., 2024; Díaz-Pereira et al., 2024). Their challenges in concentrating, recalling information, abstract thinking, and socializing contribute to their lower potential compared to peers

While slow learners do not meet the criteria for more severe learning disorders, they still require adapted instructional materials to achieve comparable academic success. Though not classified as intellectually disabled, they frequently struggle with abstract concepts and symbols (Carreño Aguilera et al., 2024; Roffey, 2024a, 2024b). Woodward and Montague (2002) emphasize that slow learners benefit from modified pedagogical strategies and materials tailored to their learning rates, often preferring engaging with tangible materials (Martin, Ruth, and Martin, William, n.d.). Their educational potential can be enhanced when learning experiences are supported by resources aligned with their specific characteristics. Gibson (2013) asserts that slow learners should receive differentiated instructional services in inclusive settings, including adapted learning environments, management strategies, and tiered instructional approaches to enhance academic potential. Effective teaching strategies for these children often incorporate audio-visual aids, as they tend to prefer visual, auditory, and kinesthetic learning methods.

To achieve academic competencies comparable to their peers, slow learners require specific instructional approaches that address cognitive, linguistic, perceptual, visual-motor, and socio-emotional barriers (Hoyle & Hyde, 2024; Lebenhagen, 2024; Masuku et al., 2024). In classrooms that include slow learners, teachers must supplement instruction with educational resources to help them overcome learning obstacles, such as difficulties in comprehending lesson material and needing extended learning time. Other characteristics of slow learners include immaturity in peer interactions, emotional sensitivity, short attention spans, poor concentration, a preference for working at their own pace, difficulty mastering skills, lack of interest in long-term goals, inability to learn independently, losing track of time, and slow work speed (Salomi and Sundaram, A.M., 2 018). Utilizing appropriate instructional materials can significantly enhance their learning experiences.

The significance of adequate learning resources in inclusive education is crucial, as these resources include textbooks, learning modules, teaching aids, and audio-visual media specifically designed to facilitate learning according to students' unique needs. Rose and Meyer (2006) assert that tailored learning resources can enhance student engagement and improve educational outcomes by providing necessary supplementary support, which includes integrating educational technology and assistive tools for students with various special needs. Consequently, schools must

provide resources tailored to the educational needs of slow learners.

Existing research on services for slow learners has primarily focused on curriculum design, instructional methodologies, and teacher preparedness, while the provision of learning resources tailored to their characteristics remains unexplored; thus, this research's novelty lies in the availability of suitable learning resources for Slow Learners in inclusive schools (Kuyini et al., 2024; Morrison et al., 2024; Olawale et al., 2024). This research aims to identify the presence of slow learners within inclusive primary educational settings and evaluate the availability of appropriate learning resources. Identifying slow learners is essential for understanding their specific characteristics within the school environment, while assessing learning resources will focus on textbooks, instructional modules, teaching aids, and ICT tools, investigating their alignment with slow learners' needs. Additionally, the study will evaluate the adequacy of these resources and their effective utilization by slow learners during instruction.

II. METHOD

Research employing a qualitative approach is particularly well-suited for investigations into special education due to its inherent flexibility and ability to explore complex realities. This method provides rich, comprehensive data that enables broader insights and the interpretation of descriptive responses from informants, strongly advocating for qualitative methods in educational research. Despite policies promoting inclusive education, few primary schools are willing to admit Slow Learners. Consequently, this study adopts a qualitative lens to leverage its strengths in obtaining in-depth information from a limited number of data sources (Al-Ketbi et al., 2024; Fovet, 2024; Rajagopal, 2024). Data collection was conducted across five cities—Padang, South Tangerang, Bandung, Yogyakarta, and Malang—due to constraints regarding the availability of inclusive schools and resources, with two selected primary schools designated as the research locus.

Data collection utilized a mixed-methods approach, including interviews with school principals and special guidance teachers, focus group discussions (FGD) with teachers, and observations of educational resources. Special guidance teachers were essential in implementing inclusive education through their specialized skills (Ambili et al., 2024; Chinhara & Kuyayama, 2024; Corral-Granados, 2024). This approach aimed to assess the presence of special guidance teachers and the availability and utilization of educational resources, such as teaching aids, instructional materials, learning modules, and information technology devices, guided by a structured framework for formulating questions.

The data obtained were transcribed from audio to written form for easier analysis and categorized by types of educational resources, their placement, sources of availability, and utilization by Slow Learners. Irrelevant data were minimized to maintain focus on pertinent information while preserving significant meanings related to educational resources. Following this, qualitative data analysis was conducted, employing triangulation to validate the data by integrating sources such as school principals, special guidance teachers, and classroom teachers from interviews, FGD, and observations (Asad et al., 2024; Benharris & Covino, 2024; Kerr et al., 2024). This analysis also interpreted data to clarify the implications of limitations in educational resources for Slow Learners. Conclusions were drawn regarding the alignment of each educational resource's availability with the needs of slow learners, the condition of these resources, and their use in the learning environment.

III. RESULTS AND DISCUSSION

Characteristics of Slow Learners in Inclusive Educational Settings That Necessitate Specialized Learning Services

Slow learners belong to the broader category of children with special needs, requiring educational services tailored to their specific characteristics. These children, typically defined by an IQ ranging from 70 to 90, face challenges in keeping up with classroom lesson, despite their difficulties, slow learners are not classified as mentally retarded, which often results in their educational needs being overlooked. Teachers may struggle to distinguish slow learners from their typically developing peers, as they often exhibit no physical differences in the classroom. Martin and Martin (n.d.) identify several traits common among slow learners, including below-

average IQ, academic performance below grade level—especially in reading, limited vocabulary, poor motor coordination, behavioral issues, disinterest in school, feelings of inferiority, increased sensitivity, confusion, short attention span, difficulty setting long-term goals, limited social skills, and, in some cases, maladaptive behaviors like being noisy or disruptive.

In the context of inclusive education, it is critical to acknowledge that certain children exhibit diverse learning styles and progress at varying paces. Slow learners, while not mentally retarded, present unique challenges that affect their ability to engage with academic content, typically at a pace below grade expectations (Ludwig et al., 2024; Musarurwa & Van Biljon, 2024; Sider et al., 2024). Consequently, these students may experience low motivation and poor academic outcomes, which can lead to disengagement from school. It is not uncommon for older students with a history of poor academic performance to become frustrated with their education, sometimes skipping classes or contemplating withdrawal from the system altogether.

Regarding the presence of slow learners in schools, information from school principals revealed that all ten schools visited included slow learners. In line with the principals' statements, all teachers participating in the FGD from these schools confirmed the presence of slow learners in their classrooms, with varying numbers. On average, each class had around two slow learners, although some classes had as many as nine. Despite their presence, several teachers in the FGD initially did not recognize them, as many slow learners were enrolled in the same manner as other students without undergoing assessment. Special Education Teachers (SET) noted that the physical resemblance of slow learners to their peers often led classroom teachers to overlook their presence. Similarly, during observations conducted in one class per school, all students appeared visually indistinguishable from one another, except in two schools where students with intellectual disabilities were physically distinct from the rest. Tea(Bi et al., 2024; Forsman, 2024; Woodcock & Anderson, 2025) chers only became aware of the slow learners in their classrooms when these students began falling behind in their studies after about two months of instruction. This delayed recognition resulted in the use of instructional methods suited for typically developing students, which were not appropriate for slow learners. In some cases, parents disclosed information about their child’s learning difficulties only after the child had already been enrolled in the targeted school.

Data from the ten schools indicated that all of them had slow learners with diverse characteristics. According to the SET interviewed, slow learners typically exhibit low academic abilities, which manifest as difficulty in understanding reading content, communication barriers, struggles with grasping lesson material, the need for repetitive learning, and low academic achievement. These characteristics are often interconnected; for instance, difficulty understanding reading material, combined with weak memory, causes slow learners to take longer to complete tasks. The SET noted that multiple repetitions of instructional material are often required for these students to achieve comprehension, and instructional methods must be adapted to meet their specific needs.

In line with these observations, Mukhlis, Akhmad et al. (2023) suggested that slow learners face significant challenges with tasks requiring higher-order reasoning. However, with appropriate educational programs and sufficient support, slow learners have the potential to achieve academic success and develop their abilities. It is crucial for both educational environments and families to provide the necessary attention and resources to ensure that slow learners receive education tailored to their specific needs and potential. Slow learners often show a preference for hands-on learning activities, emphasizing the need for manipulable learning tools to enhance motivation in educational settings.

Feedback from the SET was further corroborated by teachers in the FGD, who identified common characteristics of slow learners, including low academic performance, difficulty comprehending lesson material, and a lack of concentration during instruction. Teachers also noted additional challenges, such as struggles with reading, writing, arithmetic, and following instructions, which hinder slow learners' ability to respond to questions or complete assignments accurately. Parents supported these observations, highlighting that slow learners often exhibit poor

focus, slow reception of lessons, difficulty maintaining concentration, challenges in articulating ideas, and struggles with social interaction.

Referring to the characteristics of slow learners who generally face obstacles in their learning processes, it is essential to implement educational services that cater to their specific needs. These services, as highlighted by school principals, SET, and educators in the FGD, involve curriculum modifications, strategic adjustments in instructional methodologies, and the provision of tailored textbooks and teaching modules. Additionally, innovative teaching approaches, such as incorporating card games and educational media like videos and specialized tools, are employed to support slow learners. However, despite these efforts, educators participating in the FGD noted persistent challenges in meeting the educational needs of slow learners. A key issue raised was the inadequacy of essential learning resources, particularly the lack of accessible educational media specifically designed for slow learners.

2. Insufficient Access to Learning Tools Tailored for Slow Learners in Schools

The significance of educational facilities and infrastructure in the context of inclusive education is highlighted in the "Convention on the Rights of Persons with Disabilities," established by the United Nations in 2006. This convention stipulates that states are obligated to eliminate accessibility barriers by providing adequate facilities and infrastructure in inclusive educational settings.

Every educational institution is required to have adequate facilities and infrastructure to support a sustainable learning process, including educational equipment, teaching media, books, and other essential resources to enhance the learning experience. Inclusive educational facilities and infrastructure encompass both hardware and software that facilitate the successful implementation of inclusive education (Balan, 2024; Bosarge, 2024; Navera et al., 2024). While all educational facilities in a given institution can be utilized for inclusive education, optimizing the learning process necessitates incorporating accessibility features to ensure smooth mobility for children with special needs and providing learning media tailored to their specific requirements.

The components of facilities and infrastructure within the inclusive education system are vital, as they must accommodate the diverse needs of children with special needs. This includes specific tools such as dedicated spaces for children with low vision, soundproof rooms for those with hearing impairments, various teaching aids for autistic children, and other assistive learning devices to support effective learning. Nugroho (2017), in her thesis titled "Analysis of the Availability and Utilization of Learning Media in Inclusive Classes at SD Al-Irsyad Al Islamiyyah 2 Purwokerto," asserts that the school provides both learning media and adaptive media, totaling 63 learning media and 11 adaptive media. The selection and utilization of these learning media are critical factors that require careful consideration concerning lesson planning, learning objectives, material appropriateness, and the specific needs of students experiencing learning difficulties.

The survey results indicate that among the ten schools surveyed, five institutions reported the availability of learning tools for slow learners, while the remaining five indicated a lack of such resources. The schools confirming the availability of learning tools for slow learners are Sch-01, Sch-03, Sch-06, Sch-07, and Sch-08, where the overall condition of educational equipment is generally categorized as good. In contrast, the five schools reporting the absence of learning tools for slow learners are Sch-02, Sch-04, Sch-05, Sch-09, and Sch-10.

Table 1 Availability of Learning Tools for Slow Learners

Availability of Learning Tools for slow learners	Padang		South Tangerang			Bandu
	Sch-1	Sch-2	Sch-3	Sch-4	Sch-5	S
Available	v		v			
Unavailable		v		v	v	

Description:
Sch : School

Although learning tools were reported as available, further insights from the FGD revealed that their availability lacked completeness. Only basic educational aids, such as concrete objects, photographs, educational videos, and letter and number cards, were accessible, primarily for teaching mathematics and language. Some schools had resources limited to science, mathematics, language, and natural materials, while others only possessed tools for mathematics, Indonesian

language, and natural sciences. However, one school reported having a complete set of learning tools for all subjects. In terms of their use by slow learners, the tools were employed appropriately according to their intended functions, often with parental guidance. For example, word cards were used for reading, grains and marbles for mathematics, and small, colorful balls for understanding subject-specific concepts.

The interviews revealed that schools obtained learning tools for slow learners from various sources, including school operational funds, school budgets, city/regional/provincial education departments, practicum student teachers, and independent purchases. The absence of specialized learning tools in some schools was attributed to factors such as insufficient teacher knowledge about inclusive education, limited access to specific teaching aids, reliance on standardized learning materials shared with regular classes, and a lack of government support. In the absence of specialized tools, teachers facilitated learning for slow learners by providing additional guidance during difficult tasks. For example, at Sch-04, teachers used repeated explanations, employed the same teaching aids and learning modules as regular students, offered extra time, and made use of available school resources and any tools at hand.

The learning tools available for slow learners in schools include sports equipment, stationery such as crayons, watercolors, brushes, drawing books, musical instruments (e.g., angklung, guitars, keyboards, drum bands), and computers. Specific schools have additional resources: Sch-03 offers stepping boards, grass mats, bath balls, small balls, trampolines, reading cards, and fine motor skill tools; Sch-09 and Sch-10 are equipped with computers, LCDs, and projectors. At Sch-05 in Bandung, learning tools include learning modules, educational videos, and flat and solid shape models for mathematics instruction. These tools are generally used by both slow learners and regular students. Other resources include speed-reading books, building blocks, alphabet puzzles, origami paper, televisions, and counting boards. The condition of these learning tools varies between schools, though most teachers reported them to be functional, in good condition, and suitable for use. While several teachers noted that the tools are sufficiently available, they are often used on a rotational basis, with students accessing them under teacher supervision as needed.

Ongoing research highlights the pivotal role of inclusive education in enabling all students to reach their full potential. To meet the diverse needs of children in inclusive classrooms, collaboration between general and special education teachers is essential. The accessibility of general education classrooms is increasingly important, as over 90% of children with disabilities are enrolled in public schools, where they spend most of their instructional time. Equal educational opportunities for all students, regardless of their physical, intellectual, or emotional challenges, form the foundation of inclusive education (Hernaiz-Agreda et al., 2024; Nurdin et al., 2024; Vazyanau, 2024). To accommodate this diversity, inclusive classrooms are equipped with mobility aids, assistive devices for daily activities, learning and communication tools, and adaptive furniture. These provisions ensure that students with special needs receive necessary adjustments, curriculum modifications, and accommodations while allowing them to engage with non-disabled peers. Specialized classroom furniture, seating arrangements, and recreational equipment address the adaptations required, while assistive technology and augmentative communication devices play a crucial role in supporting learning and development (Diaz et al., 2024; Massiah et al., 2024; Pérez et al., 2024). Examples of specialized seating options include corner chairs, portable seating inserts, T-benches, and folding chairs, all designed to meet specific intellectual, emotional, and physical needs. These tools enhance concentration, attention, and learning, while promoting social and academic engagement through improved eye contact and peer interaction.

3. Learning Materials for Slow Learners Are Still Unavailable in Most Schools

Slow Learners exhibits several characteristics, including challenges or delays in cognitive processes, responsiveness to stimuli, and social adaptation; however, their functioning is significantly better compared to individuals with intellectual disabilities. A slow-learning child typically requires extended time and repeated efforts to complete both academic and non-

academic tasks (Titis Nurjati, 2020). Although Slow Learners demonstrates limited potential for learning across one or more academic subjects, they do not fall within the category of individuals with mental retardation (Annisa, Y., Marmoah, S., Hadiyah 2022).

The educational materials deemed essential for Slow Learners are reportedly unavailable in the majority of the schools involved in this research study. This conclusion is underscored by the fact that, out of ten school principals interviewed, only four indicated that their institutions provided suitable learning materials for Slow Learners. Observations conducted in the field reveal that the educational resources available in the four schools (School 3, School 4, School 6, and School 7) consist of materials prepared by educators tailored to the subjects that Slow Learners have not mastered; these include lesson programs, modules, worksheets, student books, teacher guides, and art supplies. The types of educational materials available differ across schools. For example, School 4, located in Tangerang City, offers educational materials such as textbooks, worksheets, PowerPoint presentations, instructional videos, and audio resources, whereas School 3 provides play materials and tools for training both gross and fine motor skills.

In School 5, the educational materials for Slow Learners comprise modules and video learning resources that align with the general student population's needs, specifically in Mathematics, encompassing both two-dimensional and three-dimensional shapes. The educational provisions for Slow Learners in schools situated in Malang consist of simple modules designed to address the individual requirements of students. In School 10, the resources available include thematic package books and standalone subject textbooks (e.g., Javanese language and mathematics). Only a small proportion of school principals report the presence of educational materials for Slow Learners, specifically Schools 3 and 6. The principal of School 6 elaborated that while some materials for Slow Learners are available, they remain incomplete as they do not encompass all subject areas.

The FGD provided insights into the availability of educational materials for Slow Learners, revealing considerable variability among different schools in terms of material types. The educational materials identified include: textbooks, worksheets, PowerPoint presentations, instructional videos, and audio resources; play materials and tools designed for the development of gross and fine motor skills; modules and video learning resources tailored for the general student population; mathematical manipulatives for two-dimensional and three-dimensional geometric shapes, adapted to align with the curriculum; simple modules created to address individual student needs; and encyclopedias. Among the participants, six school principals from Schools 1, 2, 5, 8, 9, and 10 reported the absence of educational materials specifically for Slow Learners. This lack of resources is attributed to the fact that educators in these institutions have not yet acquired the necessary competencies for developing appropriate materials for Slow Learners. Consequently, the materials provided are standardized to correspond with those used by regular students and conform to the national curriculum.

Educational materials for Slow Learners are defined as systematically organized instructional resources employed by educators and students to achieve designated learning objectives. These materials must be aligned with the specific needs of the students and the intended outcomes of the educational process. Students who experience learning delays will require more time than their average or gifted peers to attain the desired level of competency (Joseph, B., & Abraham, S. 2023).

To enhance the learning experience of Slow Learners within the classroom context, it is imperative to consider Please remember the following text: "the incorporation of"additional learning resources, the implementation of structured methodologies to facilitate concept comprehension, and the provision of remedial instruction ((Joseph, B., & Abraham, S. 2023). This opinion aligns with Nur Annisa Yasinta's view that the management of slow learners can be carried out through guidance provided by both teachers and parents, teaching children using practice exercises, structured assignments, and additional tutoring (Annisa, Y., Marmoah, S., Hadiyah 2022)

Several educational institutions provide instructional materials specifically for Slow Learners, including (1) School 3, (2) School 4, (3) School 6, and (4) School 7. Several schools

provide instructional materials for slow learners, including (1) School 3, (2) School 4, (3) School 6, and (4) School 7. To support the developmental needs of Slow Learners, School 3 supplies tools such as play equipment and resources aimed at enhancing gross and fine motor skills. Gross motor skills are physical activities that require coordination, such as various sports or simple tasks like jumping movements." (Annafi' Nurul 'Ilmi Azizah, 2023).

Meanwhile, fine motor tools are devices or toys specifically designed to stimulate and train fine motor skills in children. The use of fine motor tools can help children develop essential skills that support their cognitive, emotional, and social development. (Aisyah Ramadhani, 2024). School 4 adopts an innovative pedagogical approach in its instructional design, utilizing interactive educational materials. School 6 provides resources that engage Slow Learners through creative learning activities. Meanwhile, School 7 offers educational materials that comply with the national curriculum. The instructional resources at School 4 encompass a diverse range of materials to support Slow Learners. For instance, the textbooks employed are customized to align with the developmental stages of students as well as the relevant curriculum. This institution also employs worksheets that are specifically designed to enhance targeted skills such as mathematics, reading, and writing.

At School 5, the materials for Slow Learners consist of modules and video learning media that correspond to those utilized by the general student population, particularly in mathematics concerning two-dimensional and three-dimensional geometrical concepts. These modules are designed to cater to the diverse needs of students across varying levels of ability, including those classified as Slow Learners. Typically, they comprise various components such as learning activities, assessments, and resources aimed at enhancing the learning experience (Joseph, B., & Abraham, S. 2023). Furthermore, as elucidated by Rashmi, through these modules, educators are equipped to assign tasks to both regular students and Slow Learners. For Slow Learners, the assignments are designed to be more concise and varied, with tasks repeated in different formats and incorporating hands-on activities (Rashmi, Rekha Borah, 2013). Among the ten sample schools included in this research, only four institutions employ specialized educational materials for Slow Learners, while the remaining six generally provide resources equivalent to those utilized for regular students.

4. School Textbooks Used for Instruction Are Uniformly Applied to All Students

The availability of textbooks for Slow Learners in inclusive primary schools represents a critical component in fostering equitable and just educational opportunities. Given that they possess specific learning requirements, the textboos provided for them must be adapted to align with their capabilities and learning velocities. According to Nurfadhillah (2022), a notable characteristic of slow Slow Learner is their capacity to retain only 25% of the content from the textbooks they engage with. When the textbooks utilized by them are identical to those employed by their regular peers, educators must undertake the task of simplifying the material, utilizing clear and concise language. Furthermore, instructors need to present the content with patience and to repeat it with increased frequency (Wanabuliandari et al., 2020). To fulfill educational objectives, Slow Learners necessitate repetitive engagement with the material. Regrettably, findings from the research indicate that a significant proportion of educators participating in the FGD reported that their institutions provide textbooks that are uniformly applicable to all students. This implies that they are utilizing the same educational resources as their regular counterparts in the classroom. While the condition of these textbooks may be considered adequate, the absence of differentiation between slow Slow Learner and regular students underscores that the educational needs of remain inadequately addressed by educational institutions.

The findings of this research also reveal that the categories of textbooks from various schools can be delineated as follows: a) Pre-academic materials (reading exercises, arranging words corresponding to images, connecting dots, drawing lines), among others; b) Thematic and subject-specific learning materials; c) Thematic textbooks, Islamic education books, and English language textbooks; d) Government-issued BSE (Textbooks for Education); e) Textbooks that are exclusively thematic. It is noteworthy that not all schools are sufficiently equipped with textbooks tailored for every Slow Learners. Textbooks for them must be

designed with a lower degree of difficulty and simplified language. Such textbooks necessitate comprehensive explanations, and to enhance the understanding of Slow Learner, there should be an increase in practice exercises accompanied by engaging illustrations that cater to one of the characteristics of Slow Learner: their preference for visually presented materials over oral instruction (Nurfadhillah, S., et al., 2022).

The provision of an adequate quantity of textbooks for each child with special needs is essential, as these textbooks serve as crucial educational resources for both students and educators across all subjects (Ministry of National Education, 2007). In terms of the application of textbooks during the learning process, it is observed that they are still guided by their teachers, and these resources are utilized exclusively during instructional periods. Accordingly they must have supplementary modules to enhance their educational experience in conjunction with the textbooks.

5. Some Schools Are Actively Providing Educational Modules Aligned with the Needs of Slow Learners

Modules represent a structured and systematic component of educational materials, encompassing a comprehensive set of planned learning experiences specifically designed to assist students in achieving targeted learning outcomes (Daryanto, in Nilasari, 2016). These modules are systematically organized and can function as a substitute for the teacher's role in guiding students to master the subject matter at their learning pace. According to Ekayanti (2017), engaging with modules allows students to learn at their own speed. Complex subjects can be elucidated within the modules through straightforward methodologies and sequences that correspond with the cognitive developmental stages of the students, thereby enhancing comprehension. Lestari and Andriani (2019) emphasize that modules are instructional resources formulated to promote independent learning among students. The implementation of such modules can significantly contribute to schools in their pursuit of delivering high-quality education. Furthermore, the application of modules can facilitate well-organized, independent, and thorough learning activities, with clearly defined outcomes. Additionally, modules may enhance student engagement and improve academic performance (Khayati, 2016).

This study indicates that nearly all participating schools reported a lack of modules available for the entire student population. Several educators involved in the FGD highlighted alternative instructional resources available at their institutions, aside from learning modules, which include: (i) instructional materials, textbooks, compilations of teaching materials, summaries, PowerPoint presentations, and worksheets; (ii) Student worksheets; and (iii) textbooks published by the Ministry of Education and Culture specifically for elementary school students.

Promising findings regarding the development of learning modules for slow learners emerged during FGD with teachers. Several schools have already initiated the creation of learning modules specifically designed to address the needs of slow learners. For instance, a special education teacher from a sixth-grade class at an elementary school in Yogyakarta has contributed to the development of modules for slow learners in social studies and civics. Similarly, a special education teacher from an elementary school in Malang has developed modules exclusively for students with intellectual disabilities. These findings underscore the necessity for the systematic development of learning modules aligned with the specific educational needs of slow learners across various schools.

The module development process, as envisioned by the teachers, requires the formation of a dedicated team to conduct a thorough analysis of instructional materials tailored to the specific needs of slow learners. This includes material planning, the creation of assessment instruments, question formulation, and the compilation of material summaries. Typically, the module development team within SPPI comprises the school principal, relevant teachers or special education teachers, classroom teachers, and subject-specific instructors. However, some schools extend the team to include school supervisors, the vice principal for curriculum, development teams, and, in certain cases, the involvement of parents.

The criteria for the modules intended for slow learners, as identified by the teachers, are as follows: (i) The module should incorporate clear

learning objectives, specific learning indicators, structured learning activities, evaluation methods, and reflective components that engage both students and parents; and (ii) the module must be tailored to the individual needs and conditions of each student.

6. Internet Access Exists in All Schools, Yet ICT Devices Are Lacking

The advancement of technology within the educational sector has significantly enhanced the learning process, making it more engaging and less tedious, particularly through the implementation of Information and Communication Technology (ICT) (Chen & Lei, 2018; Yu & Du, 2019, as cited in Tusriyanto, Tusriyanto et al., 2024). According to regulations regarding educational resources, schools are mandated to provide provisions that cater to the characteristics and requirements of students, including those with special needs (Ministry of National Education, 2023). ICT, classified as an educational resource, comprises a set of hardware and software that facilitate access to and management of information and communication to support the learning process (Ministry of National Education, 2007).

The judicious application of information technology in educational settings can facilitate active participation among students with special needs, as these students often experience difficulties engaging with their peers (Lewis, Rena B et al., 2017). The implementation of information technology in schools offers numerous advantages, including enhanced learning experiences, improved comprehension, increased motivation for participation, and an overall enhancement of academic performance (Tusriyanto et al., 2024). According to current statistics, approximately 8.48% of elementary schools in Indonesia, out of a total of 148,975 schools, are equipped with computers (Bps.go.id, 2023). This inquiry into ICT included an assessment of the availability of internet connectivity and computers within schools. Information regarding the availability of ICT learning resources and their applicability for Slow Learners was obtained through interviews with school principals and FGD involving classroom teachers from various educational institutions. Ten school principals provided responses regarding the availability of ICT devices as follows.

Table 2 Availability of ICT Resources for Slow Learners

Availability of ICT Resources for Slow Learners	**Sch-1**	**Sch-2**	**Sch-3**	**Sch-4**	**Sch-5**
ICT Devices Are Not Available	v	v			v
ICT Devices Are in Good Condition			v	v	
ICT Devices Are in Bad Condition					
Internet access is available	v	v	v	v	v

Description: Sch (School)

Out of the ten schools, seven have access to ICT equipment; however, due to damage in two schools, only five possess fully operational ICT devices. The information and communication technology equipment in these seven schools has been either independently procured by the schools or provided by the local government, with computers being the predominant ICT device available. During the FGD, one teacher highlighted the presence of additional ICT tools beyond computers, such as video equipment, projectors, loudspeakers, and sound systems. The availability of video resources is particularly beneficial for teachers in delivering lesson materials, especially for content that is challenging for students to observe directly. Another teacher noted that, apart from computers, the school also has laptops and tablets, albeit in limited quantities. Additionally, a participant in the forum group discussion mentioned that some students with disabilities have parents who, due to their economic capacity, can independently provide smartphones, with some even offering laptops. The only consistently positive aspect of the ICT facilities is the availability of internet access across all target schools, with reports from school principals and teachers involved in the forum indicating that internet connectivity operates smoothly and without interruption.

In terms of ICT utilization for students with slow learning difficulties, among the five schools equipped with computers, only three allow these students to use the devices individually during instruction, while the remaining two require shared use with regular students due to limited availability. Individualized computer use occurs under the supervision of special education teachers, demonstrating differentiated learning approaches

tailored to their needs. In contrast, shared computer use may hinder slow learners' progress, as they typically acquire knowledge at a slower pace than regular students (Lewis, Rena B et al., 2017). Additionally, while teachers have not devised effective methods to incorporate smartphones brought by slow learners into classroom instruction, they generally provide guidance for those using laptops, but only during lessons that specifically require computer use.

The use of ICT devices to stimulate engagement among Slow Learners is exemplified when teachers involve the entire class in watching educational videos, followed by assignments designed specifically for these students at a lower difficulty level than those assigned to their regular peers. This approach has been adopted by special education teachers in two schools, where students are also given opportunities to utilize computers individually during extracurricular ICT activities, necessitating careful scheduling due to the limited number of available devices. Such strategies enhance the motivation of Slow Learners to participate in classroom activities.

Despite the availability of ICT learning resources in most schools, several challenges persist, as reported by school principals in interviews and teachers participating in forum group discussions. These challenges include: 1) a limited number of ICT devices with no budget allocated for additional procurement; 2) poor quality or obsolescence of some ICT equipment; 3) occasional instability of internet connections; 4) insufficient proficiency among teachers in utilizing ICT equipment; 5) difficulty in sourcing appropriate educational materials; and 6) challenges in integrating ICT with the specialized curriculum for Slow Learners. Some of these challenges are being addressed through initiatives aimed at improving teachers' IT competencies via self-directed learning and efforts by schools and special education teachers to identify learning materials that can be integrated into the curriculum to meet the specific needs of Slow Learners.

IV. Conclusions

In general, the learning resources required by Slow Learners to actively participate in the learning process are only available in some schools, while others have not yet met these needs. Moreover, the availability of learning resources in most inclusive schools is not only insufficient but also lacks alignment with the specific learning needs of Slow Learners. The analysis of learning resource availability for Slow Learners in inclusive schools has led to the following conclusions: 1) Slow Learners are present in all target schools, with their numbers varying across institutions; 2) Although they may physically resemble their regular peers, Slow Learners require specialized educational services, including learning resources tailored to their specific needs; 3) Learning resources such as teaching tools, instructional materials, textbooks, learning modules, and ICT devices for Slow Learners are available in only a limited number of inclusive schools, while internet access is universally provided to the entire school community. The development of specialized learning modules for Slow Learners by some schools demonstrates their active efforts to effectively accommodate the unique cognitive needs of these students.

In light of these conclusions, it is recommended that inclusive schools improve both the availability and accessibility of specialized learning resources for Slow Learners, including teaching tools, instructional materials, textbooks, learning modules, and ICT devices that meet their specific needs. Furthermore, the government should take a proactive role in facilitating the procurement of these essential resources to support Slow Learners' educational experiences. The provision of comprehensive and appropriate learning tools, essential for Slow Learners, allows them to feel recognized and supported. Schools should also maximize the use of existing internet infrastructure to implement technology-based learning approaches tailored to the learning profiles of Slow Learners. Collaboration among schools, government agencies, and relevant stakeholders is crucial to ensuring that Slow Learners in inclusive schools receive equitable, high-quality educational services.

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