



Exploring The Experiences of Grade 7 Teachers in Utilizing Mathematics Resources for Learners with Autism

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Abstract

This study examined the experiences of Grade 7 teachers in utilizing mathematics resources for learners with Autism Spectrum Disorder (ASD) Level 1. Using a qualitative case study design, data were collected through semi-structured interviews to explore teachers' instructional practices, strategies, and challenges. Findings revealed that teachers commonly used visual learning materials, customized resources to meet individual learner needs, and simplified mathematical tasks to improve understanding and engagement. However, challenges such as limited availability of appropriate resources, difficulty in aligning materials with learners' needs, and time constraints in preparation were identified. Despite these issues, support from teaching resources, autism-specific training, and school leadership contributed positively to instructional effectiveness. Effective mathematics instruction for learners with ASD Level 1 requires both adaptive teaching strategies and institutional support. It is recommended that schools provide sufficient resources and continuous professional development to enhance inclusive teaching practices.

Keywords

autism spectrum disorder (ASD), Grade 7 teachers, mathematics resources, inclusive education, instructional strategies

1. Introduction

Global education systems continue to place a high premium on inclusive education. Supporting students with diverse requirements, including those with Autism Spectrum Disorder (ASD) Level 1, is an increasingly critical responsibility for educators. Because of its abstract and symbolic nature, mathematics is frequently regarded as a challenging subject for students with ASD. Research demonstrates that students with autism learn mathematics more effectively when they receive structured instruction and visual aids. Knight et al. (2020) found that structured and visual interventions improve comprehension and engagement among students with ASD Level 1. Teachers play a crucial role in selecting and implementing appropriate mathematics tools for these learners.

The learners identified in this study were formally diagnosed with ASD Level 1 based on school records and medical or psychological assessments submitted to the school. Classification was verified through



existing documentation provided by parents or guardians and recognized by the school administration or Special Education (SPED) coordinator.

Research from across the globe demonstrates the effectiveness of evidence-based teaching methods in mathematics instruction for students with autism. Technology-based interventions, including virtual manipulatives, significantly enhance the mathematics performance of students with ASD Level 1 (Bouck et al., 2021). Smith and Okolo (2022) emphasized that systematic and structured instruction improves mathematical conceptual understanding. Instructors who employ these strategies report increased student participation and engagement. However, many teachers lack adequate training in autism-specific teaching strategies. A meta-analysis by Wong et al. (2023) revealed that classroom implementation of multi-component interventions remains inconsistent despite their demonstrated effectiveness.

Studies also highlight the importance of teacher adaptation in utilizing mathematics resources for learners with ASD Level 1. Knight et al. (2020) noted that teachers frequently modify instructional materials, such as worksheets and manipulatives, to support learners' understanding. Bouck et al. (2021) further explained that visual and concrete materials improve mathematical reasoning among students with autism. Structured teaching approaches, such as TEACCH, have also been widely recognized as effective for supporting learners with ASD (Mesibov et al., 2020). These approaches emphasize visual organization, task structure, and predictable routines. However, the effectiveness of these strategies depends largely on implementation quality; Smith and Okolo (2022) noted that teacher decision-making significantly affects student outcomes in mathematics.

In the Philippine context, inclusive education policies encourage access to quality education for students with disabilities. The Department of Education (DepEd, 2022) mandates that all public schools adopt inclusive practices. Nonetheless, Filipino educators continue to face challenges in teaching students with autism within regular classrooms. Bernardo and Mendoza (2021) reported that many educators lack sufficient training on working with students who have special needs. Due to limited resources, teachers frequently rely on teacher-made instructional materials (Garcia & Reyes, 2023), including hands-on manipulatives, customized worksheets, and visual aids.

Recent studies show that teachers' experiences significantly influence instructional effectiveness in inclusive mathematics education. Smith and Okolo (2022) found that teachers' beliefs and confidence affect the use of instructional resources, while Wong et al. (2023) reported that teachers often struggle with implementing autism-specific strategies in inclusive classrooms. Bouck et al. (2021) noted that time constraints and curriculum demand affect instructional adaptation, leading teachers to rely on improvisation. However, the effectiveness of improvised materials varies widely depending on design and implementation. Knight et al. (2020) emphasized that professional support is essential for improving instructional quality.

Locally, there remains limited qualitative research on Grade 7 teachers' use of mathematics resources for learners with autism. Most studies focus on general inclusive education rather than subject-specific instruction. This creates a gap in understanding how teachers actually utilize instructional materials in real classroom settings. Grade 7 represents a critical stage where mathematical concepts become more abstract and complex, making it particularly important to examine instructional resource utilization at this level.

1.1. Theoretical Framework

Universal Design for Learning (UDL) emphasizes providing multiple means of representation, engagement, and expression to accommodate diverse learners (CAST, 2018). This framework is highly relevant to inclusive education and supports the use of varied mathematics resources such as visual aids,



manipulatives, and technology-based tools (Rose & Meyer, 2002). For learners with ASD Level 1, UDL promotes flexibility in teaching strategies, allowing teachers to adapt materials according to learners' needs, thereby enhancing participation and comprehension in mathematics.

1.2. Policy Context

To facilitate effective teaching, educational institutions emphasize the provision of sufficient instructional materials. In the Philippine context, the Department of Education prioritizes the provision and utilization of contextualized and inclusive learning resources. DepEd Order No. 21, s. 2019 highlights the importance of developing and using quality learning resources responsive to learners' needs. Additionally, DepEd Order No. 18, s. 2022 emphasizes that learning materials should be inclusive, accessible, and adaptable to support diverse learners, including those with special educational needs. These policies guide teachers in selecting, developing, and modifying instructional materials to ensure equitable learning opportunities.

In mathematics education specifically, material resources refer to both concrete and digital tools used to facilitate understanding of mathematical concepts. These include manipulatives, visual aids (charts, diagrams, graphic organizers), and technology-based resources (interactive apps, virtual manipulatives, multimedia presentations). For learners with ASD Level 1, these materials are particularly important because they provide visual structure, reduce cognitive load, and support step-by-step learning. Teachers adapt these resources by simplifying instructions, employing color coding, and organizing tasks into manageable parts. In many Philippine classrooms, due to limited resources, teachers also create improvised materials such as localized manipulatives and customized worksheets to meet learners' needs.

2. Methodology

2.1. Research Design

This study employed a qualitative case study design based on Merriam's (1998) approach to qualitative research. It focused on understanding the experiences of Grade 7 teachers in utilizing mathematics resources for learners with ASD Level 1 within natural classroom settings. The case study design allowed for in-depth exploration of participants' perspectives and teaching practices, emphasizing rich descriptions and contextual analysis of classroom experiences and instructional processes. The researcher served as the primary instrument in data collection and interpretation.

2.2. Research Setting

The study used a semi-structured interview guide to explore Grade 7 teachers' experiences in utilizing mathematics resources for learners with ASD Level 1. Interview questions were designed to gather detailed information on teachers' instructional strategies and learner engagement during mathematics instruction. In qualitative research, the researcher acts as the primary instrument, with interview guides serving as supporting tools for data collection. The interview guide underwent content validation by experts in Special Education and Educational Research to ensure clarity, relevance, and appropriateness of questions. Revisions were incorporated based on expert feedback prior to data collection.

2.3. Participants and Sampling Strategy



Participants were exclusively Grade 7 teachers handling learners with ASD Level 1 in inclusive classrooms. No learners or minors participated directly in the interview process; learners with ASD served only as the context of teachers' instructional experiences. The study involved six Grade 7 teachers currently handling learners with autism in inclusive classrooms. Participants were purposively selected based on direct teaching experience with ASD Level 1 learners, a minimum of three years of teaching experience, and willingness to participate in in-depth semi-structured interviews. To ensure confidentiality, each participant was assigned a code (RP1 to RP6).

CODE	GENDER	Years Experience	of	CONTEXT
RP1	Male	8		Teaching learners with ASD in inclusive settings
RP2	Female	4		Teaching Grade 7 learners with ASD in inclusive settings
RP3	Female	6		Handling ASD Level 2 learners in Grade 7
RP4	Female	7		Handling Grade 7 ASD Level 1 learners
RP5	Female	4		Handling learners with mild autism
RP6	Male	6		Handling learners with autism

2.4. Data Analysis

Thematic analysis was employed following the methodology of Merriam and Tisdell (2016). Interview transcripts and observation notes were systematically examined and reread to ensure familiarity with the data. Initial codes were generated from meaningful information units, which were subsequently organized into broader categories. These categories were continuously compared and refined to identify emergent themes and sub-themes reflecting teachers' experiences. The study also employed constant comparison of participant responses to identify patterns, parallels, and divergences.

2.5. Trustworthiness and Ethical Considerations

Informed consent was obtained from all teacher-participants prior to data collection. Participation was voluntary, and confidentiality and anonymity were strictly maintained throughout the study. Since no learners participated directly in the interviews, parental consent for students was not required.

3. Results and Discussion

This study explored three principal categories: (a) utilization of mathematics instructional resources for learners with ASD Level 1, (b) challenges encountered in using mathematics resources, and (c) supports available to Grade 7 teachers in teaching ASD Level 1 learners. These categories provide a comprehensive understanding of how teachers implement instructional resources, the difficulties they face, and the forms of support that assist them in delivering effective mathematics instruction.



3.1. Utilizing Mathematics Instructional Resources for Learners with ASD Level 1

The purposeful selection, adaptation, and use of teaching materials and strategies in mathematics supports learners diagnosed with ASD Level 1, who typically require minimal support but still experience challenges in communication, social interaction, and flexible thinking (Siregar et al., 2020; Cox & Jimenez, 2020). Analysis of participants' responses revealed three sub-categories: use of visual learning materials, customizing learning resources for individual needs, and simplifying mathematical tasks.

3.1.1. Use of Visual Learning Materials

Visual learning materials include charts, pictures, diagrams, number lines, flashcards, and graphic organizers employed to support mathematics learning among learners with autism. These materials translate abstract mathematical concepts into concrete and understandable forms, making it easier for learners to process and retain information. In inclusive classrooms, visual supports are particularly effective because they enhance attention, reduce cognitive load, and provide clear step-by-step guidance (Mayer, 2009; Tomlinson, 2014; UNESCO, 2017).

"Mo gamit kog number charts ug flashcards aron mas masabtan sa mga bata ang basic math."

[I use number charts and flashcards so that the children can better understand basic math.]

RP1

"Dali masabtan sa mga bata ang leksyon kung naay pictures ug visual aids kaysa puro istorya lang."

[Children easily understand the lesson when there are pictures and visual aids rather than just explanations.]

RP2

"Akoa e presenta ang lesson pinaagi sa step-by-step nga visual guide para masundan nila ang proseso."

[I present the lesson using a step-by-step visual guide so they can follow the process.]

RP3

"Akoa e andam daan ang mga materyales sama sa colorful diagrams ug illustrations para ma-engganyo ug makafocus ang mga learners."

[I prepare materials in advance such as colorful diagrams and illustrations to engage and help learners focus.]

RP4

"Makatabang ang ge buhat nako nga visual aids labi na sa pagpasabot sa mga lisod nga math concepts."

[The visual aids I make are helpful, especially in explaining difficult math concepts.]



RP5

"I combine words and pictures in worksheets so that they can easily understand the instructions."

RP6

Interviews revealed that Grade 7 teachers commonly utilize visual learning materials as an effective strategy in teaching mathematics to learners with autism. Participants emphasized the use of number charts, flashcards, pictures, diagrams, and step-by-step visual guides to enhance lesson engagement. They highlighted that combining text with images in worksheets simplifies instructions and improves learner comprehension.

3.1.2. Customizing Learning Resources for Individual Needs

Customization involves modifying or adjusting mathematics instructional materials to match specific abilities, learning pace, and needs of learners with autism. Teachers design or adapt worksheets, activities, and teaching aids by simplifying instructions, incorporating visual supports, and breaking down tasks into manageable steps. This ensures that instruction is learner-centered and responsive, allowing students with autism to participate effectively in mathematics learning (Tomlinson, 2014; UNESCO, 2017; Friend & Bursuck, 2019; Ryndak et al., 2014).

"E adjust nako ang worksheets depende sa kapasidad sa learner aron easier ang pagsabot sa lesson."

[I adjust the worksheets depending on the learner's capacity so that understanding the lesson becomes easier.]

RP1

"E simplify nako ang instructions ug putol-putulon ang tasks into small steps para mas makasunod sila."

[I simplify the instructions and break tasks into small steps so they can follow better.]

RP2

"I make learning materials nga naa'y visual aids para mas angay sa ilang learning needs."

[I make learning materials with visual aids so they better fit their learning needs.]

RP3

"Depende sa bata, usahay e change nako ang level sa mga activities para dili sila ma-overwhelm."

[Depending on the child, I sometimes change the level of activities so they will not be overwhelmed.]

RP4

"E personalize nako ang materials kay lahi-lahi man gyud ug learning ability ang mga learners with autism."

[I personalize the materials because learners with autism really have different learning abilities.]

RP5

"Mag prepare ko ug worksheets base sa ilang comfort level ug unsay kaya nila buhaton."

[I prepare worksheets based on their comfort level and what they are capable of doing.]

RP6

Teachers reported adjusting worksheets based on learners' capacity, simplifying instructions, and breaking down tasks into smaller, manageable steps to ensure better understanding. They incorporate visual aids and modify activity levels depending on each learner's ability to prevent overwhelming them. Teachers emphasized the importance of personalizing instructional materials according to learners' comfort level and capabilities.

3.1.3. Simplifying Mathematical Tasks

Simplifying mathematical tasks involves breaking down complex problems into smaller, clearer, and more manageable steps. This approach reduces cognitive load through simple language, step-by-step procedures, and elimination of unnecessary information. Teachers highlight key operations, provide guided examples, and use structured formats to help learners focus on one concept at a time, thereby reducing learner anxiety and promoting better understanding (Tomlinson, 2014; UNESCO, 2017; Mayer, 2009).

"Ginapasimple gayod nako ang instructions para mas dali masabtan sa batang ASD."

[I really simplify the instructions so that the ASD learners can understand them more easily.]

RP1

"Gibabahin nako o steps by steps ang akong ipabuhay sa math aron dili sila malibog."

[I break down or give step-by-step math activities so they will not get confused.]

RP2

"Gagamit ko ug klaro nga sugo sa bata aron ila kining masabtan o dali masabtan sa klase."

[I use clear instructions for the learners so they can understand them easily in class.]

RP3

"Gisiguro nako nga sunod-sunod ug sayon ra ang akong tudlo para dili sila malibog."

[I make sure my teaching is sequential and simple so they will not get confused.]

RP4



"Para dali makasabot ang bata akong isugo nila kana gayod klaro para ilaha kining matuman."

[So that the child can easily understand, I give them clear instructions so they can follow them.]

RP5

"I further simplify the instructions so that the children can understand them better."

RP6

Teachers emphasized the importance of breaking down complex math problems into step-by-step procedures, using clear and simple instructions, and ensuring that teaching sequences are organized and easy to follow. Simplifying instructions helps reduce learner confusion and supports better task completion in class.

3.2. Challenges Encountered in Using Mathematics Resources

Challenges encountered by Grade 7 teachers in using mathematics resources for learners with autism include limited availability of appropriate materials, difficulty in adapting resources to diverse learning needs, and insufficient training in specialized instructional strategies. Teachers also experience time constraints in preparing individualized materials and managing classroom behavior while implementing resource-based instruction (King et al., 2016; UNESCO, 2017). Analysis of responses revealed three sub-categories.

3.2.1. Limited Availability of Appropriate Resources

This sub-category refers to the lack of sufficient, suitable, and specialized mathematics instructional materials designed for learners with autism. Teachers experience difficulty accessing resources that match learners' developmental level, learning style, and individual needs.

"Kulangan gyud mi ug mga learning materials nga para magamit sa batang ASD."

[We really lack learning materials that can be used for ASD learners.]

RP1

"Usahay wala mi available nga resources nga sakto para sa ilang level."

[Sometimes there are no available resources that are appropriate for their level.]

RP2

"Lisod kaayo mangita ug appropriate nga math materials para sa among klase."

[It is very difficult to find appropriate math materials for our class.]

RP3



"Gina-reuse na lang namo ang daan nga materials kay kulang ang mga bag-ong resources."

[We just reuse old materials because new resources are lacking.]

RP4

"I enhance and reuse math materials so that I have resources to use."

RP5

"It is difficult when we don't have enough materials because it also makes teaching harder for me."

RP6

Teachers reported lacking sufficient learning materials specifically designed for ASD learners, with some noting that no resources are available matching learners' developmental levels. They expressed difficulty finding suitable mathematics materials and resort to reusing and enhancing old materials.

3.2.2. Struggles in Aligning Mathematics Materials with Learners' Needs

This sub-category refers to the difficulties teachers experience in ensuring that available mathematics resources match the diverse learning abilities, preferences, and developmental levels of their students. Materials may be too complex, too abstract, or unsuited to learners with specific needs such as ASD Level 1.

"Lisod kaayo i-adjust o e align ang materials para sa lain-lain nga panginahanglanon estudyante nga ASD."

[It is very difficult to adjust the materials for the different needs of ASD students.]

RP1

"Usahay dili jud mo-fit ang mga prepared materials sa ilang level sa pagkat-on nila sa leksyon."

[Sometimes the prepared materials do not really fit their level of learning in the lesson.]

RP2

"Ginausab nako ang mga activities pero lisod gihapon para suited sa tanan."

[I modify the activities, but it is still difficult to make them suitable for everyone.]

RP3

"Naglisod ko ug unsaon pag-adapt o pag align sa materyales kay lahi-lahi man gud ilang abilidad."



[I find it difficult how to adapt the materials because their abilities are really different.]

RP4

"Because they have different learning styles, I find it challenging."

RP5

"The materials are sometimes very difficult to create because they have different learning styles."

RP6

Teachers experience significant difficulty adapting mathematics materials to the diverse needs of learners with autism. Even when activities are modified, making them suitable for all learners remains challenging due to varying abilities and learning styles.

3.2.3. Time Constraints in Resource Preparation

Time constraints refer to the difficulty teachers experience in allocating sufficient time to design, create, and adapt mathematics resources. Due to heavy teaching loads, multiple responsibilities, and classroom demands, teachers often have limited time to prepare individualized or teacher-made materials (Leong & Chick, 2011).

"Kulangan gayud ang akong oras para magbuhat ug mga learning materials tungod sa ka daghang trabaho."

[I really lack time to make learning materials because of too much workload.]

RP1

"Usahay dili nako mahuman ang pagprepara sa mga resources tungod sa klase."

[Sometimes I cannot finish preparing the resources because of my classes.]

RP2

"Lisod i-manage ang time para sa paghimo ug teacher-made materials."

[It is difficult to manage time in making teacher-made materials.]

RP3

"Ginauna nako ang lesson delivery mao nga kulang akong oras for preparing the resources."

[I prioritize lesson delivery, so I have little time for preparing the resources.]

RP4



"Usahay lisod nako ang pagbuhat tungod sa kakulangan sa oras kay conflict pud sa oras sa pamilya."

[Sometimes it is difficult for me to do it because of lack of time, as it also conflicts with family time.]

RP5

"Ang pagbuhat ug materials kay it takes time, ug maglisod ko piro ginapangitaan nako ug paagi."

[It takes time to make materials, and I also find it difficult, but I always try to find ways.]

RP6

Teachers reported lacking time to create learning materials due to heavy workloads and multiple responsibilities. They are unable to finish preparing resources because of class schedules, and they prioritize lesson delivery, which further limits time available for resource preparation.

3.3 Supports Available to Grade 7 Teachers

The supports available to Grade 7 teachers in teaching learners with ASD Level 1 include access to instructional materials, professional development training, collaboration with special education teachers, and administrative support. Schools provide visual aids, structured lesson plans, and assistive technologies to help teachers deliver mathematics instruction effectively. Peer collaboration and guidance from specialists enable teachers to adapt strategies suited to learners' needs (Lindsay et al., 2013). Analysis of participants' responses revealed three sub-categories.

3.3.1. Teaching Resources Support

Teaching resources support refers to the provision and availability of instructional materials that assist Grade 7 teachers in effectively teaching learners with ASD Level 1. These resources include visual aids, manipulatives, worksheets, charts, number lines, and teacher-made materials (Bouck et al., 2021; Moyer-Packenham & Westenskow, 2013; Wong et al., 2015).

"Naa mi mga visual aids ug modules nga nadawat gikan sa division ug nakatabang kini sa pagtudlo namo sa mga ASD na mga bata."

[We have visual aids and modules received from the division, and these help us in teaching ASD learners.]

RP1

"Maghatag ko ug akong binuhat na mga materials ug worksheets para sa among klase."

[I provide my own teacher-made materials and worksheets for our class.]

RP2

"Naa mi access sa mga manipulative materials sama sa blocks ug charts nga gamiton sa math."

[We have access to manipulative materials such as blocks and charts to be used in math.]



RP3

"Ginahatagan mi ug learning resources gikan sa school para mas easier ang pag teach nako sa mga learners."

[We are provided with learning resources from the school, making it easier for me to teach the learners.]

RP4

"Magbuhat kog mga learning materials para maaply nako sa mga learners."

[I create learning materials so that I can apply them to the learners.]

RP5

"Makadawat ko learning materials gikan sa school ug mao pud akong gigamit."

[I receive learning materials from the school, and I also use them.]

RP6

Teachers reported having access to visual aids and modules provided by the division, creating their own materials and worksheets, and having access to manipulative materials such as blocks and charts for mathematics instruction. Schools also provide learning resources that facilitate instructional delivery.

3.3.2. Training on Autism-Specific Teaching Strategies

This sub-category refers to training opportunities, seminars, workshops, and capacity-building activities provided to Grade 7 teachers to enhance their knowledge and skills in teaching learners with ASD Level 1. Such support equips teachers with effective instructional strategies, classroom management techniques, and appropriate approaches for utilizing mathematics resources (Loiacono & Valenti, 2010; Simpson, 2004; Wong et al., 2015).

"Nakatambong ko ug mga seminar ug trainings nga related sa pag handle sa ASD learners."

[I have attended seminars and trainings related to handling ASD learners.]

RP1

"Ginatabangan mi sa district nga maka-attend ug workshops nga makahatag sa akoo ug bag-ong strategies sa pagtudlo."

[The district helps us attend workshops that provide me with new teaching strategies.]

RP2

"Naa mi mga training nga gihatag sa division para mas motaas among kahibalo sa pagtudlo sa ASD learners."



[We have trainings provided by the division to enhance our knowledge in teaching ASD learners.]

RP3

"Dako kaayo ug tabang ang mga professional development activities kay nadugangan sa akong kahibalo sa pagtudlo."

[Professional development activities are very helpful because they increase my knowledge in teaching.]

RP4

"Naay trainings nga gi conduct sa division nga naghatag ug dugang nga kahibalo sa akoo."

[There are trainings conducted by the division that give additional knowledge to me.]

RP5

"I attend trainings or seminars conducted by the district because they are a great help to me in teaching."

RP6

Teachers reported attending seminars and trainings related to handling ASD learners, with district support for participating in workshops that provide new instructional strategies. Division-level trainings help increase their knowledge in teaching ASD learners, and professional development activities are considered highly beneficial.

3.3.3. Collaborative Professional Learning and School Leadership Support

Collaborative professional learning refers to the process where Grade 7 teachers work together with fellow educators to share knowledge, teaching strategies, and experiences in handling learners with ASD Level 1. This form of support occurs through informal discussions, peer mentoring, team planning, and structured activities such as Learning Action Cell (LAC) sessions. School leadership support further enhances teachers' confidence, instructional decision-making, and consistent implementation of inclusive strategies.

"Ginatabangan mi sa among school principal pinaagi sa paghatag ug suporta sa among mga panginahanglan sa klase."

[Our school principal helps us by providing support for our classroom needs.]

RP1

"Ang school head naga-encourage sa amo nga maghimo ug strategies para sa ASD learners."

[The school head encourages us to develop strategies for ASD learners.]

RP2



"Gina-approve sa admin ang among requests para sa learning materials ug resources."

[The administration approves our requests for learning materials and resources.]

RP3

"Naa mi support gikan sa school leadership nga makatabang sa pagimprove sa among pagtudlo."

[We receive support from the school leadership that helps improve our teaching.]

RP4

"My school head supports me, especially in terms of new ideas or ways of handling Level 1 autism."

RP5

"I am supported by my colleagues and especially by my school head so that my teaching can improve."

RP6

Teachers receive various forms of institutional support, including provision of classroom resources by school principals, encouragement from school heads to develop autism-specific strategies, administrative approval of requests for learning materials, and collaborative support from colleagues that contributes to instructional improvement.

4. Conclusion

Grade 7 teachers support students with Autism Spectrum Disorder (ASD) Level 1 in mathematics by strategically utilizing visual learning materials, tailoring resources to individual learner needs, and simplifying mathematical tasks for better understanding. Despite these efforts, teachers encounter challenges including limited access to appropriate resources, difficulties in aligning mathematics materials with learners' specific needs, and time constraints in preparing instructional materials. Support systems, including the provision of teaching resources, training in autism-specific teaching strategies, and school leadership, play a crucial role in improving instructional practices and promoting effective learning experiences for students with ASD Level 1.

Recommendation

Based on the findings of this study, the following recommendations are proposed to strengthen inclusive education:

1. Schools should improve the availability and suitability of mathematics teaching resources specifically designed for learners with ASD Level 1.
2. Education agencies should provide targeted training on adapting instructional resources, as well as ongoing professional development for Grade 7 teachers handling inclusive classrooms.
3. School administrators should ensure robust support by providing adequate time, resources, and guidance for inclusive teaching practices.



4. Collaboration among educators, parents, and special education specialists should be actively promoted to enhance mathematics instruction for learners with autism.

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