

## Implementing Number Card Media to Teach Natural Number Symbols for Students with Mild Intellectual Disabilities: A Case Study in Special Schools

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### Abstract

*This study explores the implementation of number card media in teaching natural number symbols to students with mild intellectual disabilities in two special schools in Indonesia. Using a qualitative descriptive case study design, data were collected through interviews, classroom observations, and document analysis, and analyzed with the Miles–Huberman–Saldaña interactive model. The findings show that the use of number card media was integrated into three key stages of instruction. In the planning stage, teachers prepared lesson objectives, learning activities, and concrete number cards tailored to students' cognitive characteristics. During classroom implementation, number cards were used in demonstrations, guided practice, and independent activities, which significantly enhanced student engagement, motivation, and comprehension, despite occasional challenges in sustaining attention. Evaluation was conducted continuously and authentically through oral questioning, performance tasks, and observation, although documentation remained relatively simple and unsystematic. The study concludes that number card media are effective in bridging abstract mathematical concepts with the limited cognitive abilities of students with mild intellectual disabilities, but their optimal use requires structured planning, systematic evaluation, and institutional support.*

**Keywords:** Number Card Media, Natural Number Symbols, Intellectual Disabilities, Qualitative Case Study, Special Education

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## INTRODUCTION

Education is a conscious effort to optimally develop students' potential so that they are able to face challenges from both within themselves and their environment in an adaptive and constructive manner. It is a fundamental human need that guarantees a more dignified life, as mandated in Article 31 of the 1945 Indonesian Constitution and further reinforced in Law No. 20 of 2003 on the National Education System, which guarantees every citizen equal rights to quality education. This legal foundation provides a strong basis for ensuring that children with special needs, including those with intellectual disabilities, have the same opportunities to access education as their peers without disabilities.

Students with mild intellectual disabilities often experience significant difficulties in processing abstract information. According to Yusuf (2010), they have IQ levels slightly below average, but are generally capable of completing elementary education and living semi-independently, albeit with limitations in abstract reasoning and problem-solving. These challenges affect their academic performance, particularly in mathematics, which relies heavily on symbolic and abstract concepts. Consequently, teaching students with mild intellectual disabilities requires adapted methods and the use of concrete and visual learning media to facilitate understanding.

One of the basic competencies taught in elementary-level mathematics is the ability to recognize natural number symbols. Natural numbers, beginning from one onwards, serve as the foundation for broader mathematical learning. Introducing students with intellectual disabilities to number symbols is a critical step after they acquire the concept of counting, as this recognition supports their ability to engage with more advanced mathematics and apply number knowledge in daily life. Without mastery of number symbols, students risk facing long-term difficulties in both academic learning and everyday problem-solving.

Rahmat (2014) describes numbers as mathematical concepts used for counting and measuring, while the symbols used to represent numbers are referred to as digits or number symbols. To bridge the gap between the abstract concept of numbers and the students' limited cognitive capacity, number cards offer a promising solution. Tarjono (2003) highlights that number card media function as a crucial learning aid to strengthen recognition of numbers, train pronunciation, and enhance familiarity with numerical symbols through repetitive, visual, and engaging activities.

Previous studies have demonstrated the effectiveness of number card media in supporting children with intellectual disabilities. Indriani (2013) found that number cards significantly improved the ability of students with mild intellectual disabilities to recognize the numbers 1–5. Similarly, Rahmanita and Samaw (2010) reported improvements in mathematical learning among special school students through the use of number card media. Other studies, such as those by Wartaniah (2014) and Misyanti (2013), also emphasized that number cards enhance not only recognition of number symbols but also students' interest and motivation in learning mathematics.

Despite this evidence, preliminary observations conducted at SKh Hikmatul Huda and SKh Pelita Al-Karomah revealed that teachers still tend to deliver lessons on natural number symbols using conventional, whole-class instruction, with limited use of adapted media. Teachers often rely on available materials without tailoring them to students' needs, which results in disengagement and limited comprehension among students with mild intellectual disabilities (Bouck, 2015; Moyer-Packenham & Westenskow, 2013). This indicates a gap between the potential effectiveness of number card media and their actual use in classroom practice.

The urgency of this study lies in addressing these challenges by systematically exploring how number card media can be implemented to support learning of natural number symbols among students with mild intellectual disabilities. Previous research has shown that concrete and visual manipulatives such as number cards can enhance symbol recognition, strengthen conceptual understanding, and improve attention in mathematics learning for students with intellectual disabilities (Agustina & Rachmawati, 2020; O'Rourke & Houghton, 2008; Xin & Jitendra, 1999). Unlike studies that focused primarily on measuring effectiveness, this study investigates the practical aspects of how teachers plan, implement, and evaluate instruction using number card media, offering pedagogical insights for teachers in special education settings.

Therefore, this study seeks to describe the implementation of learning natural number symbols through number card media in Grade IV students with mild intellectual disabilities at SKh Hikmatul Huda and SKh Pelita Al-Karomah. The novelty of this research lies in its emphasis on classroom practices, highlighting how teachers adapt lesson planning, instructional delivery, and evaluation strategies to meet students' needs through concrete and visually supportive learning tools (Spooner et al., 2010; Shurr et al., 2014).

## RESEARCH METHODS

This study employed a qualitative descriptive approach with a case study design, aiming to describe in depth the implementation of number card media in teaching natural number symbols to students with mild intellectual disabilities. The qualitative approach was chosen because it allows researchers to capture the complexity of teaching and learning processes in their natural settings and to interpret the meanings of participants' experiences (Creswell & Clark, 2017). The case study design was considered appropriate as it facilitates an intensive exploration of a bounded system in this case, the use of number card media in two special schools (Yin, 2017).

The research was conducted at SKh Hikmatul Huda and SKh Pelita Al-Karomah, both of which provide educational services for students with special needs. These schools were selected

purposely because they serve students with mild intellectual disabilities and have teachers who already incorporate, albeit informally, learning media in mathematics instruction. The subjects of the study were class IV students with mild intellectual disabilities who were in the process of learning natural number symbols, as well as their teachers who acted as instructional implementers.

Data were collected using methodological triangulation, consisting of in-depth interviews, participant observation, and document analysis. In-depth interviews were conducted with teachers to explore their planning, strategies, and perceptions regarding the use of number card media. Participant observations enabled the researchers to directly observe classroom practices, focusing on how number cards were used during instruction and how students responded to them. Document analysis included lesson plans, instructional materials, and evaluation records related to mathematics learning with number card media.

In this study, the researcher served as the primary instrument, playing an active role in data collection and interpretation (Lincoln & Guba, 1985). To support systematic data gathering, secondary instruments were developed, such as interview guides, observation checklists, and documentation formats, ensuring that the data obtained were reliable and well-structured.

The trustworthiness of the data was ensured through four criteria as proposed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Credibility was strengthened through triangulation of data sources and member checking with teachers. Transferability was ensured by providing thick descriptions of the school and classroom context. Dependability and confirmability were reinforced through the use of audit trails and systematic documentation throughout the research process.

Data were analyzed using the interactive model of Miles, Huberman, and Saldaña (2014), which includes three concurrent steps: data reduction, data display, and conclusion drawing/verification. Data reduction was conducted by coding and categorizing information from interviews and field notes; data display was presented in descriptive narratives and simple matrices; and conclusion drawing was performed iteratively to ensure the accuracy and consistency of findings.

The research was carried out between September and November 2024, covering stages of preparation, data collection, and analysis. Through this methodological design, the study sought to provide an empirically grounded and contextually rich description of how number card media are planned, implemented, and evaluated in teaching natural number symbols to students with mild intellectual disabilities.

## **RESULT AND DISCUSSION**

### **Learning Planning with Number Card Media**

The first finding concerns the way teachers planned mathematics instruction using number card media to support students with mild intellectual disabilities in recognizing natural number symbols. At both SKh Hikmatul Huda and SKh Pelita Al-Karomah, lesson planning was adapted to the needs of students, emphasizing concrete, repetitive, and visually engaging strategies. Teachers developed lesson plans that integrated number card activities into daily mathematics lessons, ensuring that objectives were specific and attainable.

Teachers began the planning process by identifying the basic competencies to be achieved, namely recognition of natural number symbols from 1 to 10. Lesson objectives were articulated in simple, observable terms, such as “students are able to match number symbols with quantities using number cards” or “students are able to arrange number cards sequentially from 1 to 5.” This reflects an emphasis on functional and measurable outcomes tailored to the cognitive capacity of students with mild intellectual disabilities.

In preparing the number card media, teachers designed and produced cards themselves, often using cardboard or laminated paper with bold, colorful digits. The planning also included determining how the cards would be presented, whether individually to each student, in pairs for group activities, or collectively for class demonstrations. This preparation was seen as an essential component of planning, as the media had to be durable and reusable for frequent practice.

One teacher explained the importance of preparing such media in advance:

*"Without number cards, the children find it very difficult to understand numbers. So before teaching, I have to prepare the cards, usually making them myself with large, brightly colored numbers so they are easy to see."*

Teachers also integrated considerations of time allocation and repetition into their planning. Recognizing that students with mild intellectual disabilities often need extended practice, lesson plans included short but frequent drills using number cards. Each activity was carefully sequenced, starting from recognizing single digits, then progressing to matching digits with objects, and finally arranging numbers in order. This sequential planning reflects a scaffolding approach designed to build student competence gradually.

Another important aspect of planning was the anticipation of potential difficulties students might face. Teachers reported that they planned for flexibility in their instruction, preparing alternative strategies such as using pictorial aids alongside number cards or incorporating movement activities to maintain student engagement. By anticipating these needs, teachers demonstrated adaptive planning practices aligned with inclusive pedagogical principles. However, the findings also indicate that lesson planning was often conducted in a relatively simple format. Teachers did not always prepare detailed lesson plans with formal structures; instead, they created outlines focusing on the immediate needs of their students. While this flexible approach allowed them to respond to students' conditions, it sometimes resulted in a lack of systematic documentation of learning goals and strategies.

Overall, the planning stage shows that teachers recognized the critical role of number card media in facilitating the recognition of number symbols. Their efforts to integrate these media into lesson objectives, prepare suitable materials, and anticipate student difficulties demonstrate a practical and context-sensitive approach. At the same time, the simplicity of lesson planning suggests the need for more structured guidance and professional support to strengthen systematic instructional design in special education contexts.

### **Implementation of Number Card Media in the Classroom**

The second finding describes the implementation of number card media in classroom instruction for students with mild intellectual disabilities. Observations at SKh Hikmatul Huda and SKh Pelita Al-Karomah revealed that teachers integrated number cards directly into mathematics lessons, using them as the central medium to introduce, reinforce, and practice the recognition of natural number symbols. The learning process typically followed a structured sequence: demonstration by the teacher, guided practice with students, and independent practice using number cards.

In the initial phase, teachers introduced the number cards by showing them one by one to the students while clearly pronouncing the digits. This visual-verbal pairing was intended to strengthen recognition and recall. Students were then asked to repeat the pronunciation while pointing to the correct card, a strategy that engaged both auditory and visual learning channels. Teachers reported that this simple yet systematic process was effective in helping students remember the symbols.

Guided practice involved interactive activities, such as matching number cards with objects (e.g., sticks, buttons, or beads) or arranging cards sequentially on the board. These activities emphasized concrete-to-symbol connections, allowing students to see the relationship between quantities and numerical symbols. Teachers frequently used repetition and positive

reinforcement, praising students each time they succeeded in identifying or arranging the cards correctly.

One teacher highlighted the effectiveness of this approach, explaining:

*"When using number cards, students grasp the concept faster. They can see the number, hear how it is pronounced, and then practice it themselves. Compared to just writing on the board, they are more motivated when cards are used."*

Independent practice was also incorporated, where each student received a set of number cards and was asked to perform tasks such as identifying numbers called out by the teacher or arranging the cards in the correct order. This stage allowed teachers to observe individual progress and provide targeted assistance when necessary. For students who struggled, teachers offered additional prompts or paired them with peers for collaborative practice.

Classroom observations also revealed the enthusiasm of students when number cards were used. Students were more attentive, actively participated in the activities, and showed visible excitement during the learning process. Teachers noted that compared to conventional instruction, the use of number cards created a more engaging atmosphere that reduced boredom and improved concentration.

However, challenges were also noted. Some students lost focus quickly or became distracted by the cards themselves, using them as toys rather than learning tools. To address this, teachers implemented strategies such as limiting the number of cards distributed at one time or incorporating movement-based activities (e.g., a "number hunt" game using cards placed around the classroom) to maintain attention.

Overall, the implementation of number card media in the classroom proved to be an effective and engaging approach for teaching natural number symbols to students with mild intellectual disabilities. Teachers' use of structured demonstrations, guided practice, and independent tasks, supported by repetition and reinforcement, helped bridge the gap between abstract symbols and concrete understanding. Despite some challenges in maintaining focus, the consistent application of number card media fostered greater student participation and comprehension.

### **Evaluation of Learning Outcomes Using Number Card Media**

The third finding relates to the evaluation of student learning outcomes following the implementation of number card media in mathematics instruction. At SKh Hikmatul Huda and SKh Pelita Al-Karomah, evaluation was carried out continuously and adaptively, integrated into classroom activities rather than administered through standardized written tests. This approach reflects teachers' understanding of the cognitive characteristics of students with mild intellectual disabilities, who often struggle with abstract assessments but can demonstrate competence through practical and observable actions.

Teachers primarily used performance-based evaluation, asking students to demonstrate their ability to recognize, match, and arrange number cards. For example, students were asked to identify specific digits when called out, pair cards with corresponding quantities of objects, or sequence cards in order from one to ten. These tasks allowed teachers to directly observe student mastery in real time, with results recorded in simple checklists or personal notes.

Oral questioning also played a significant role in evaluation. Teachers would point to a number card and ask students to pronounce the digit or answer questions like "What number comes after 3?" While simple, this method provided quick feedback about students' recall abilities and supported the development of verbal expression alongside recognition of symbols.

One teacher explained the rationale behind this flexible assessment approach:

*"The children struggle if given only written tests. It is better to observe directly, for example, I point to the number 5 and see if they can say it correctly. Or I give shuffled cards and ask them to arrange them. From that, I can see whether they understand or not."*

In addition to formal lesson evaluations, teachers conducted informal monitoring during daily activities, such as counting snacks, arranging objects, or identifying numbers in the classroom environment. These incidental assessments provided teachers with insights into whether students could transfer their knowledge from structured tasks to everyday contexts an important indicator of functional learning.

Documentation of evaluation results, however, remained relatively simple. Teachers often recorded whether students had “achieved” or “not achieved” specific objectives, without detailed qualitative notes. While this ensured basic monitoring of progress, it limited opportunities to analyze learning difficulties more deeply or design targeted interventions for each student.

The findings also revealed that evaluations were not only aimed at measuring mastery but also at fostering student motivation and confidence. Teachers frequently used immediate verbal praise and encouragement to reinforce correct responses, helping students associate positive feelings with learning success. This motivational dimension was considered just as important as the cognitive outcomes, given the students’ limited attention spans and vulnerability to frustration.

In summary, evaluation of learning outcomes using number card media was conducted in a continuous, performance-based, and flexible manner. Teachers adapted their assessments to the students’ abilities, focusing on direct demonstration of skills rather than abstract written tests. While the evaluations successfully captured basic mastery and motivated students, the simplicity of documentation and lack of structured rubrics limited their potential for in-depth analysis and long-term tracking. Nonetheless, these practices reflect an adaptive and empathetic approach to assessing students with mild intellectual disabilities in inclusive learning contexts.

## **Discussion**

The findings of this study demonstrate that the use of number card media in mathematics instruction for students with mild intellectual disabilities involves three interrelated stages: planning, classroom implementation, and evaluation of learning outcomes. Together, these stages highlight teachers’ adaptive strategies as well as the limitations of current practices in ensuring systematic and effective instruction.

The planning stage shows that teachers recognize the importance of concrete and visual media in facilitating number symbol recognition. By preparing colorful, large-sized number cards, teachers attempt to bridge the gap between abstract concepts and students’ limited cognitive capacities. This is consistent with Vygotsky’s (1978) theory of the Zone of Proximal Development, which emphasizes that instruction should provide scaffolds to help learners move from what they can do independently to what they can achieve with guidance. Number cards serve as such scaffolds, allowing students to gradually internalize numerical concepts through repeated exposure and visual reinforcement.

Teachers’ efforts to sequence objectives from recognizing individual digits to arranging them in order reflect a form of task analysis, which breaks down complex skills into smaller, manageable steps. This approach resonates with Browder et al. (2008), who argue that breaking learning objectives into incremental steps is particularly effective for students with intellectual disabilities. The emphasis on functional and observable goals also aligns with best practices in individualized instruction, which stress the importance of measurable, behavior-based objectives. During classroom implementation, the findings reveal that number card media increase student engagement and motivation. Students responded enthusiastically to activities involving visual, tactile, and verbal interaction, which confirms Gardner’s (1983) theory of multiple intelligences, particularly the roles of visual-spatial and bodily-kinesthetic modalities in learning. Teachers’ creative adaptations, such as matching cards with objects or organizing number hunts, demonstrate how multisensory strategies can sustain attention and reduce boredom, a challenge often noted in teaching students with mild intellectual disabilities.

However, the findings also point to challenges in maintaining student focus. Some students treated the cards as toys rather than instructional tools. This reflects a common difficulty in special education contexts, where concrete media must be carefully structured to balance engagement with instructional intent. Florian and Black-Hawkins (2011) highlight that inclusive pedagogy requires not only creativity but also consistency in framing learning activities so that students remain oriented toward educational goals.

The implementation phase also underscores the centrality of teacher mediation. Teachers served as facilitators, guiding students step by step, offering prompts, and reinforcing successes with praise. This aligns with Mercer and Mercer's (2005) assertion that effective instruction for students with learning difficulties depends on continuous teacher scaffolding, immediate feedback, and repetitive practice. Without such structured guidance, even effective media like number cards may fail to produce meaningful learning outcomes.

Evaluation practices in this study reveal both strengths and limitations. On the one hand, teachers used authentic, performance-based assessments such as asking students to identify or arrange number cards that were developmentally appropriate for students with intellectual disabilities. This reflects the principles of formative assessment (Black & Wiliam, 2009), which emphasize assessment for learning rather than of learning. On the other hand, the lack of structured rubrics or detailed documentation limited the ability to monitor progress systematically over time.

The reliance on oral questioning and observational checklists highlights teachers' intuitive approaches to evaluation. While effective for immediate feedback, such informal assessments risk being subjective and inconsistent across classrooms. Rochyadi and Alimin (2005) note that without standardized tools, teachers often rely on personal judgment, which undermines the reliability of assessment outcomes. This limitation suggests the need for professional development in assessment literacy for special education teachers.

Another critical issue is that evaluation in these schools tended to focus on basic mastery of number recognition, with less attention to higher-order or functional applications of number knowledge. This finding echoes research by Amka (2020), who observed that mathematics instruction for students with intellectual disabilities often stops at recognition and recall, without advancing to applied problem-solving. To enhance educational relevance, assessments must also capture whether students can transfer number recognition skills into everyday contexts, such as counting money or managing personal belongings.

The findings also reveal that teachers' motivation and resourcefulness are important driving forces behind the success of number card implementation. Despite limited formal training and institutional support, teachers displayed creativity in preparing and adapting the media. This aligns with the view of Tomlinson (2014), who argues that differentiated instruction in inclusive classrooms depends largely on teacher initiative and flexibility. Nevertheless, greater institutional support is needed to ensure consistency and sustainability of such practices. From a broader perspective, the study reinforces the idea that learning media play a central role in inclusive education. By using number cards, teachers were able to make abstract content accessible and engaging for students with intellectual disabilities. This supports Fuchs et al. (2008), who found that concrete visual aids significantly improve mathematical outcomes for students with learning difficulties. It also highlights the role of media as both instructional tools and motivational aids, bridging the cognitive and affective domains of learning.

The cultural and institutional contexts of these schools must also be considered. Teachers' planning and evaluation practices were often simplified, reflecting not only the students' needs but also systemic constraints such as limited resources and lack of training. UNESCO (2017) emphasizes that inclusive education requires systemic support, including training, policy frameworks, and material provision. Without these, inclusive practices risk being fragmented and overly dependent on individual teacher initiative.

The implications of this study are twofold. Theoretically, it contributes to understanding how concrete media such as number cards function as scaffolding tools for students with mild intellectual disabilities. Practically, it highlights the need for professional development, structured planning, and standardized evaluation frameworks to strengthen mathematics instruction in special schools. By addressing these needs, schools can move beyond isolated practices toward a more systematic, sustainable, and equitable model of inclusive education.

In conclusion, the discussion underscores that while number card media have proven effective in supporting students with mild intellectual disabilities in recognizing number symbols, their impact is mediated by how teachers plan, implement, and evaluate instruction. Strengthening these processes through professional support and institutional backing is essential to maximize the benefits of number card media and ensure that students not only recognize numbers but also use them meaningfully in daily life.

## CONCLUSION

This study concludes that the use of number card media plays a significant role in supporting students with mild intellectual disabilities in recognizing natural number symbols. The findings show that teachers integrated number cards into three interrelated stages: planning, classroom implementation, and evaluation. Lesson planning emphasized simple, functional, and measurable objectives supported by the preparation of concrete and visual media. Implementation in the classroom demonstrated that number cards increased student engagement, motivation, and comprehension through multisensory and interactive strategies, despite challenges in maintaining focus. Evaluation was carried out continuously and authentically, relying on performance-based and oral assessments, although documentation remained relatively simple and unsystematic. These results highlight that while number card media are effective in bridging abstract mathematical concepts and students' limited cognitive capacity, their impact depends heavily on teacher creativity, structured planning, and systematic evaluation. Therefore, institutional support and professional development are needed to ensure sustainable and equitable use of learning media in inclusive education contexts.

## REFERENCES

- Amka. (2020). Pembelajaran matematika bagi anak tunagrahita ringan di sekolah inklusi. *Jurnal Pendidikan Khusus*, 16(2), 78–88.
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5–31. <https://doi.org/10.1007/s11092-008-9068-5>
- Browder, D. M., Spooner, F., Ahlgrim-Delzell, L., Harris, A. A., & Wakeman, S. Y. (2008). A meta-analysis on teaching mathematics to students with significant cognitive disabilities. *Exceptional Children*, 74(4), 407–432. <https://doi.org/10.1177/001440290807400403>
- Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.
- Fuchs, L. S., Fuchs, D., Hamlet, C. L., Powell, S. R., Capizzi, A. M., & Seethaler, P. M. (2008). The effects of small-group tutoring with and without validated classroom instruction on at-risk students' math problem solving: Are two tiers better than one? *Journal of Educational Psychology*, 100(3), 491–509. <https://doi.org/10.1037/0022-0663.100.3.491>
- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational*

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. Basic Books.

Hallahan, D. P., Kauffman, J. M., & Pullen, P. C. (2015). *Exceptional learners: An introduction to special education* (13th ed.). Pearson Education.

Indriani, S. (2013). Penggunaan kartu angka untuk meningkatkan kemampuan mengenal lambang bilangan bagi anak tunagrahita ringan. *Jurnal Pendidikan Luar Biasa*, 9(2), 45–53.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.

Mercer, C. D., & Mercer, A. R. (2005). *Teaching students with learning problems* (7th ed.). Pearson Merrill Prentice Hall.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Misyanti, E. (2013). Media kartu angka untuk meningkatkan penguasaan bilangan pada anak tunagrahita ringan. *Jurnal Ilmiah Pendidikan Khusus*, 2(1), 55–62.

Rahmanita, L., & Samaw, A. (2010). Penggunaan media kartu angka dalam pembelajaran matematika untuk anak berkebutuhan khusus. *Jurnal Pendidikan Khusus*, 6(2), 88–97.

Rahmat, A. (2014). Konsep bilangan dalam pembelajaran matematika dasar. *Jurnal Matematika dan Pendidikan Matematika*, 5(1), 33–42.

Rochyadi, E., & Alimin, A. (2005). *Pengembangan instrumen asesmen anak berkebutuhan khusus*. Direktorat Pendidikan Luar Biasa.

Santrock, J. W. (2018). *Educational psychology* (6th ed.). McGraw-Hill Education.

Tarjono. (2003). Pemanfaatan media kartu angka dalam pembelajaran matematika di sekolah dasar. *Jurnal Pendidikan Dasar*, 4(2), 101–108.

Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD.

UNESCO. (2017). *A guide for ensuring inclusion and equity in education*. UNESCO Publishing.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wartaniah, R. (2014). Efektivitas media kartu angka dalam meningkatkan penguasaan konsep bilangan pada siswa SLB. *Jurnal Penelitian Pendidikan Khusus*, 3(1), 72–80.

Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.