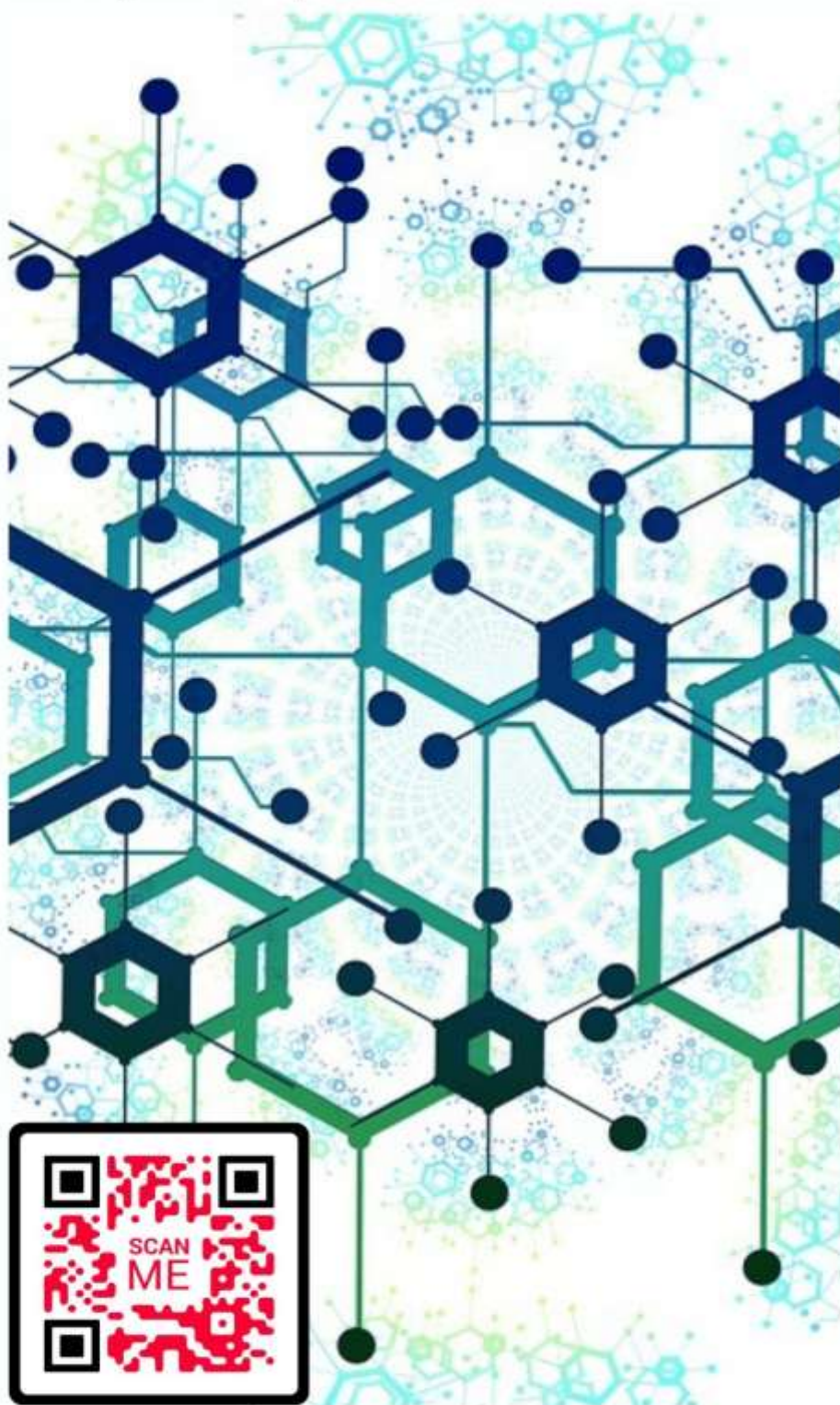


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Multisensory Phonics Method Innovation to Improve Beginning Reading Ability in Intellectually Impaired Students.

Inovasi Metode Fonik Multisensori untuk Meningkatkan Kemampuan Membaca Permulaan pada Siswa Tunagrahita.

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Abstract

General Background Early reading establishes a critical literacy foundation necessary for future academic achievement and broad knowledge acquisition. **Specific Background** Students with intellectual disabilities frequently encounter persistent difficulties in letter recognition, phonological decoding, and syllable blending due to slower cognitive processing and working memory limitations. **Knowledge Gap** Traditional verbal and visual reading instructions often fail to accommodate the concrete, repetitive, and varied sensory needs required to establish stable grapheme-phoneme correspondences in these learners. **Aims** This study investigates the application of a multisensory phonics approach to build the beginning reading competence of third-grade students with intellectual disabilities in an inclusive setting. **Results** Following a two-cycle classroom action research methodology, the participants' reading mastery scores progressed significantly from a pre-intervention maximum of 58% to post-intervention achievements of 81%, 94%, and 88%. Furthermore, classroom observations demonstrated notable increases in student attention, learning independence, and confidence during phonological decoding tasks. **Novelty** This intervention uniquely combines tactile, kinesthetic, visual, and auditory stimuli—such as modeling clay and finger tracing—to specifically bypass single-modality cognitive deficits during early decoding. **Implications** Integrating structured, multiple-sensory pathways offers inclusive educators a proven pedagogical strategy to accommodate diverse learning profiles and foster foundational literacy in special education environments.

Highlights

- ♦ The multisensory phonological intervention raised participant reading scores from a 58% maximum to up to 94% across two action cycles.
- ♦ Integrating tactile and kinesthetic activities successfully bypassed single-modality cognitive limitations in students with intellectual disabilities.
- ♦ Participants demonstrated significant behavioral transitions toward independent decoding, higher attention spans, and increased oral reading confidence.

Keywords

Beginning Reading; Multisensory Phonics; Intellectual Disabilities; Inclusive Education; Action Research

INTRODUCTION

The ability to begin reading is a critical literacy skill upon which a student's success throughout elementary education depends. Early reading gives students the skills to identify letters, decode words and construct meaning from what is written, giving them access to knowledge in other subjects. This basic skill is particularly important in the early school years as it affects the preparedness of students to learn more advanced reading comprehension and literacy skills. Thus, effective beginning reading instruction should be responsive to the varied learning characteristics of all students, including students with intellectual disabilities. Reading is a complex cognitive skill that requires the simultaneous recognition of visual symbols and the construction of meaning. According to Fahyuni (2016), reading is not only about recognizing written symbols, but also understanding and interpreting the meaning expressed in a text verbally or mentally. This perspective emphasizes that successful reading is not simply a matter of correct pronunciation or decoding. It is about learners actively building meaning from written language. Hence, reading instruction should be designed to develop decoding and meaningful comprehension in parallel.

The development of reading in elementary school can be described as passing through two successive stages: initial reading and fluent reading. According to Sukirno (2009), the basis of literacy development is the initial reading, which is a series of recognizing letters, producing phonemes, decoding syllables, identifying words, and reading simple sentences. After acquiring these foundational competencies, students progress to more sophisticated reading processes, including comprehension, critical analysis, and interpretation of texts. Thus, difficulties in early reading may have serious consequences for later reading skills and general academic achievement. Learning beginning reading skills is often very difficult for students with intellectual disabilities. These students often have difficulty in discriminating between vowels and consonants, associating graphemes and phonemes, combining sounds to form syllables and words, and in producing meaningful sentences. They also show difficulties in processing auditory information and in converting spoken language into written symbols. These features are typical of children with special educational needs and tend to hinder their literacy development (Abdurrahman, 2009). Instructional approaches that are responsive to these learning characteristics are therefore critical for improving reading outcomes.

Students with sufficient reading skills tend to have a greater ability to make sense of written information, to learn and to participate successfully in classroom learning. Reading is the process of recognizing and interpreting the written language in order to understand the message (Harianto, 2020). Therefore, reading should not only be seen as a language skill but also as an important means to acquire academic knowledge and to promote lifelong learning. Strong early reading skills are one of the best predictors of student success in all academic areas. From preliminary observation and classroom assessment in Grade III of SDN 001 Sandaran, it was found that there were three out of thirty-one students with intellectual disabilities who had difficulties in starting to read. These students exhibited consistent problems with identification and pronunciation of vowels and consonants, linking visual letter forms to their phonemes, differentiating between similar visual letter forms, and combining letters into meaningful syllables. Consequently, they were unable to fluently decode simple words. This led to poor beginning reading performance and poor reading comprehension. These findings suggest that instructional interventions aimed at the learning needs of students with intellectual disabilities need to be implemented.

One instructional approach that has been considered appropriate for these challenges is the multisensory approach to phonics. This approach combines a variety of sensory experiences—visual, auditory, tactile, and kinesthetic—to help students understand letter-sound relationships. Learners are expected to become more accurate in recognizing letters, more effective in retaining phonological information, and more skilled in decoding through simultaneous sensory stimulation. In addition, multisensory instruction provides concrete, hands-on learning experiences that are particularly beneficial for students with intellectual disabilities, whose learning is often based on direct, structured, and repetitive experiences. Earlier research has supported the effectiveness of multisensory phonics instruction. Birsh and Carreker (2018) observed that systematic phonics instruction with multisensory techniques is an effective way to improve early literacy skills, as it enhances the connection between spoken language and written symbols through the coordinated use of visual, auditory, tactile, and kinesthetic activities. Similarly, Taufik Muh et al. (2022) exhibited that phonics-based instruction has been able to improve the beginning reading skills of elementary school students while increasing the students' vocabulary acquisition through systematic phonological learning experiences.

This study is based on the theoretical study, previous research and the problems found in SDN 001 Sandaran to investigate the implementation of the multisensory phonics method in improving the beginning reading skills of students with intellectual disabilities. The study is anticipated to provide empirical evidence on the effectiveness of multisensory phonics instruction in improving students' letter recognition, phonological decoding, syllable blending, and beginning reading performance. Furthermore, the results are expected to contribute to the development of evidence-based instructional practices in the field of inclusive and special education, especially in terms of supporting literacy instruction for students with intellectual disabilities.

METHOD

This research is Classroom Action Research (CAR) with the model of reflection from Kemmis and McTaggart (2003) which is a cycle of planning, action, observation and reflection. The CAR design was chosen as it offers a systematic framework for improving classroom practices by continuously evaluating and refining instructional interventions. The study was done in two cycles of action and revision was done after the first cycle when the pre-determined criteria for success were not yet achieved. The research was carried out in the second semester of the academic year 2025/2026 at SDN 001 Sandaran, Kutai Timur Regency, Indonesia. The participants are three students with intellectual disabilities in Grade III who showed

persistent difficulties in beginning reading. These students were intentionally selected based on classroom assessments that indicated their reading abilities were below the expected grade level standards. The participants exhibited typical features of intellectual disabilities such as slow processing of information, difficulty in recalling the correspondence between letters and sounds, which requires repeated practice and a tendency to guess words instead of systematically decoding them.

The intervention involved the use of the multisensory phonics approach, which combines visual, auditory, tactile, and kinesthetic learning experiences to improve letter recognition and phonological awareness. In the first cycle students were engaged in the activities such as: letter sound introduction, random letter identification, syllable blending, reading simple words and guided practice with colored letter cards, modeling clay, worksheets and digital learning games. Based on the result of the reflection in Cycle I, the instructional procedures were improved in Cycle II as follows: giving more concrete learning materials, giving more opportunity for repetitive practice, strengthening positive reinforcement, and focusing on letters and syllables that are still difficult for students. Data were collected using several instruments: classroom observations, teacher interviews, beginning reading tests and field documentation. The reading test consisted of students' ability to identify vowels and consonants, read consonant-vowel (CV) and consonant-vowel-consonant (CVC) syllables, and decode simple words. Observation checklists were used to monitor the intervention in terms of teacher implementation and student engagement, and interviews with the classroom teacher provided complementary information regarding students' reading development and instructional challenges. Descriptive quantitative and qualitative techniques were used to analyze the data collected. Quantitative analysis consisted of determining individual reading achievement scores and mastery percentages for the pre-intervention condition, Cycle I, and Cycle II to identify gains in beginning reading performance. Qualitative analysis was conducted by analyzing the observation records, interview results, and field notes to describe the changes in students' learning behaviors and the implementation of the instructional intervention during the research process. The students were defined as successful in the intervention if they met at least 80% of the predetermined performance criteria, which was equivalent to the good category of beginning reading achievement.

RESULT AND DISCUSSION

Pre-Intervention Results

Before starting the intervention, a pre-test and an initial observation were carried out to determine the initial reading skills of the participants with intellectual disabilities. The subjects of the study were three Grade III students with intellectual disability who were having difficulty in beginning reading. Pre-intervention testing was completed on 27 April 2026 and consisted of two tasks, naming the letters of the alphabet (A–Z) and reading ten simple words. The assessment was administered prior to the implementation of the multisensory phonics approach to obtain baseline reading achievement. The baseline assessment indicated that the participants were generally weak in beginning reading skills. The students had trouble recognizing vowel and consonant letters, identifying letter sounds, combining phonemes into syllables, and accurately reading simple words. These limitations also affected their confidence and engagement in reading activities. The results of pre-test are shown in Table 1.

Participant	Maximum Score	Obtained Score	Percentage	Category
HO	40	18	45%	Poor
DAW	40	20	50%	Poor
SR	40	23	58%	Poor

Table 1. *Pre-Intervention Beginning Reading Performance*

As seen in Table 1, all participants scored below the established mastery criterion of 80%. HO had a score of 18, 45%, DAW had a score of 20, 50% and SR scored 23, 58% which was the highest score. All three were in the poor performance category. These results show that the learners are still unable to decode the basic reading skills that Grade III learners should have. Qualitatively, there were also individual characteristics for each participant. HO could identify some letter sounds but had trouble recognizing the sounds for letters such as p, q, and t and was easily distracted by events in the classroom. DAW recognized many letter sounds, but took longer to process visually similar letters. While SR made fewer errors in letter-sound identification than the other participants, like HO and DAW the student was unable to blend vowels and consonants into meaningful syllables. In general, none of the participants had acquired the basic skills needed to begin reading, suggesting that an instructional intervention specifically designed to meet their learning needs is needed. Thus the intervention to enhance their beginning reading skills was the multi-sensory phonics method.

Cycle I

Cycle I was composed of two instructional sessions and a post-test given at the end of the second session. The intervention used the multisensory phonics method, with structured learning activities that included visual, auditory, tactile and kinesthetic experiences. At the planning stage, lesson plans, instructional materials, phonics media (letter cards, picture cards), observation sheets, beginning reading assessment instruments were prepared for the implementation of the intervention. The first session was an introduction to letter–sound correspondence using phonics cards. The teacher introduced the letters of vowels and consonants one by one and linked the letters to familiar objects (e.g. a for api and b for bola). Students repeatedly practiced letter sounds after the teacher, and then identified letters shown in random order. To reinforce letter recognition through tactile and kinesthetic experiences, students created letters out of modeling clay, especially letters that were often confused such as p–q, b–d, and m–n. After this, the lesson moved on to blending phonemes into simple syllables (e.g., ba, bi, bu, be, bo) and then students practiced reading simple words and worked on worksheet activities independently.

In the second meeting, the instructional sequence was continued with more chances for practice and reinforcement. Students practiced letter sounds; identified random letters; traced letter shapes with their fingers to develop tactile memory; combined phonemes into syllables; and read simple words. At the conclusion of the lesson students completed worksheets where they were asked to complete missing syllables in familiar words. Students were more engaged and responsive during the phonics activities than they were in the first meeting, but many still required intensive teacher guidance to decode syllables and words. Classroom observations showed that students' engagement increased during the intervention. The multisensory learning activities fostered greater attention, active participation and willingness to interact with instructional materials. Students found letter card activities, modeling clay and tracing activities particularly engaging and these helped students to make connections between letter symbols and their sounds. Nevertheless, some students still struggled to read independently with confidence, often needing the teacher to give verbal prompts and corrective feedback. Ongoing difficulties in blending phonemes into full words, especially for students with lower baseline reading abilities.

To assess the efficacy of the intervention, a post-test comprising syllable-reading and simple-word-reading tasks was administered at the end of Cycle I. Table 2 illustrates the comparison of the pre-intervention assessment and the Cycle I post-test.

Participant	Pre-intervention	Cycle I	Improvement	Category
HO	45%	60%	15%	Poor
DAW	50%	68%	18%	Poor
SR	58 %	69%	11%	Poor

Table 2. Comparison of Beginning Reading Achievement Before the Intervention and After Cycle I

Table 2 shows that all participants experienced an improvement in beginning reading achievement after the implementation of the intervention in Cycle I. Participant HO demonstrated an increase from 45% to 60% (15%), DAW improved from 50% to 68% (18%), and SR increased from 58% to 69% (11%). Although all participants showed positive progress compared to the pre-intervention condition, their achievement remained within the poor category because none had yet reached the predetermined mastery criterion. These findings indicate that the intervention began to facilitate the development of beginning reading skills; however, further instructional refinement and continued intervention were required to achieve the expected level of reading proficiency in the subsequent cycle.

Reflection on Cycle I revealed several issues that were constraining student progress. Most of the participants still had difficulty in blending the syllables into whole words. They hesitated when reading independently, and often relied on teacher help. Students were still adapting to the newly introduced instructional media resulting to less efficient use of instructional time. These findings led to several suggestions for Cycle II, such as more frequent practice in repetitive reading, individualized direction, more positive reinforcement, and increased use of concrete multisensory materials to enhance students' decoding skills and confidence in reading.

Cycle II

The limitations of the reflection stage of Cycle I were addressed through the implementation of Cycle II. In order to improve the effectiveness of the multisensory phonics instruction, some modifications were made. These included the use of additional instructional media such as syllable cards, simple reading games and collaborative reading activities. These modifications were intended to improve students' decoding accuracy, reading fluency, confidence, and independent participation during classroom instruction. The intervention consisted of two instructional meetings and a post-test at the end of the second meeting. Students met for the first time and reviewed letter-sound correspondences using phonics cards, then practiced identifying vowel and consonant sounds randomly. Instructional activities were increased compared to Cycle I by adding syllable cards so that students could systematically practice blending consonants and vowels into CV syllables (e.g., ba, bi, bu, be, bo; ca, ci, cu, ce, co; da, di, du, de, and do). After learning individual syllables, students went on to reading meaningful CV-CV words such as sapu, satu, saku, bola, batu, baju, kaki, mata, tiga, and topi. The lesson was then expanded to more complex CVCVC words such as pasar and sikap. After that, students practiced reading simple sentences related to familiar daily contexts. At the end of the lesson students completed worksheet activities where they had to fill in the missing words and match pictures to the correct vocabulary.

The second meeting was devoted to the reinforcement of the skills acquired in the previous lesson and the increase of opportunities for independent reading. Students reviewed phonics cards and syllable combinations again. Students practiced reading CV-CV and CVCVC words with less teacher assistance. There was more emphasis on reading whole sentences fluently and accurately. During the evaluation, the students were provided with worksheets and pictures and were asked to fill in the missing syllables to form meaningful words. Also, the teacher used positive reinforcement in the form of verbal praise throughout the lesson when students were able to decode words or complete reading tasks correctly. When reading aloud students were observed to have better concentration, more participation and noticeably higher self-confidence compared to Cycle I. Based on classroom observations the students' engagement in Cycle II was improved significantly. Students were attentive when the teacher explained things, were active in phonics activities, liked the instructional media, and were more independent in reading activities. They also had higher levels of confidence in reading aloud and were more persistent in the face of unfamiliar words. The behavioral improvements indicate that the revised multisensory instructional strategies created a more supportive and motivating learning environment for students with intellectual disabilities. Following the instructional activities, students completed a post-test that contained syllable-reading and simple word-reading tasks. Table 3 shows a comparison of reading achievement scores for Cycle I and Cycle II.

Participant	Cycle I	Cycle II	Improvement
HO	60%	81%	21%

DAW	68%	94%	26%
SR	69%	88%	19%

Table 3. Comparison of Beginning Reading Achievement Between Cycle I and Cycle II

As can be seen in Table 3, post-instruction gains in beginning reading performance were significant for all participants following the instructional refinements introduced in Cycle II. HO improved reading achievement from 60% to 81%. 21% The participant was able to identify letters, distinguish phonemes, decode syllables and read simple words with significantly less help from the teacher, showing improved accuracy. In addition, HO showed more confidence and greater fluency in oral reading tasks. DAW was the best performer of the participants, with an increase from 68% in Cycle I to 94% in Cycle II (26% increase). This participant showed consistent mastery of letter-sound correspondence and could accurately and fluently decode syllables and simple words. This repeated practice of multisensory phonics seemed to increase DAW's automatic recognition of grapheme-phoneme relations, leading to markedly improved reading performance.

Similarly, SR's reading achievement improved from 69% to 88%, a 19% increase. While the magnitude of improvement was a little less than for DAW, SR made clear progress in letter recognition, syllable blending and simple word reading. The participant also showed improvement in reading fluency and significantly fewer teacher prompts during instructional activities. The combination of structured repetition, concrete instructional materials and individualized support had a positive effect on SR's overall reading development.

Cycle II The results of Cycle II overall indicate that the revised implementation of the multisensory phonics method was successfully able to address the limitations identified in Cycle I. All three participants met the predetermined mastery criterion of 80% indicating that the intervention was effective in improving beginning reading skills for students with intellectual disabilities. The frequent practice of phonics, reading texts in sequence of increasing difficulty, positive feedback and individualised instruction played a significant part in improving students' ability to identify letters, decode phonologically, recognise words accurately, read fluently and in their self-efficacy in reading tasks. Thus, the research objectives were achieved and the classroom action research was closed after completing Cycle II.

Discussions

The results of this classroom action research show that the implementation of the multisensory phonics method was successful in improving the beginning reading skills of Grade III students with intellectual disabilities at SDN 001 Sandaran. The improvement was not only in the students' ability to recognize letters, distinguish letter sounds, blend phonemes into syllables and read simple words, but also in their attention, confidence, motivation and active participation in the learning process. These findings suggest that the initiation of reading instruction is more efficient when it is systematically adapted to the cognitive and learning characteristics of students with intellectual disabilities. All three participants scored low on beginning reading performance at the preintervention phase. HO got 45%, DAW got 50%, SR got 58%. These scores indicated that none of the participants had met the pre-determined mastery criterion of 80%. Students had trouble recognizing vowel and consonant letters, remembering letter sounds, differentiating between letters that look alike or sound alike, and blending single sounds together to form syllables and words that have meaning. These initial results indicate that students' need for concrete, repetitive, structured, and multisensory learning experiences has not been adequately met by traditional instructional practices.

At baseline the students' difficulties were consistent with the general learning characteristics of people with intellectual disabilities. Students of this type often need additional time to process information, to remember newly learned ideas and to access information from memory. These limitations in initial reading may disrupt the establishment of stable grapheme-phoneme correspondences. This means students may be able to identify a letter in one activity but not recall the sound that letter makes in a different context. They may also guess a lot, rather than use decoding strategies systematically. Instruction based primarily on verbal explanation or visual presentation, therefore, may not be adequate for developing beginning reading skills in these learners. Cycle I multisensory phonics has resulted in measurable progress for all participants. HO increased from 45% to 60%, DAW from 50% to 68% and SR from 58% to 69%. These improvements meant that the combination of visual, auditory, tactile and kinesthetic activities were starting to increase the students' awareness of letters and sounds. The students received the same information through multiple sensory channels: letter cards in color, picture cards, modeling clay, finger tracing, oral repetition, and guided blending exercises. This approach allowed for repeated opportunities to see, hear, say, touch and handle letter forms.

Findings from Cycle I also showed that the use of multi-sensory instruction helped to increase student engagement during reading activities. Concrete media (which were attractive) were used to reduce the abstractness of letter-sound instruction. The students were not only listening to explanations but actively participated in forming letters, pronouncing sounds out loud, identifying letters with the help of cards and combining phonemes into syllables. Such activities were useful to keep their attention and have a hands-on approach to learning. However, the Cycle I results were still below the success criterion as students still hesitated when reading independently, needed repeated prompts, and struggled to combine syllables into complete words. The reflection after Cycle I was an important step for the teacher to identify the specific learning barriers and improve the teaching strategy. The problems were not the same for all participants. Some students continued to confuse certain letters, while others understood sounds of letters but had difficulty blending and reading words. The instructional time was also not yet optimally utilized since the students were still adapting to the new learning media. The intervention in cycle II was modified by incorporating structured repetition, syllable cards and simple reading games, increasing individualized assistance, using more concrete materials and strengthening positive reinforcement.

The changes in Cycle II produced significantly higher achievement in reading. HO increased from 60% to 81%, DAW from 68% to 94%, SR from 69% to 88%. All participants surpassed the set success criterion of 80%. HO increased by 36

percentage points from the beginning stage to the end of Cycle II, DAW by 44 percentage points and SR by 30 percentage points. The results support the effectiveness of repeated, progressive, and structured multisensory phonics instruction in improving participants' beginning reading skills. Despite initial difficulties in maintaining attention and recalling particular letter sounds, HO demonstrated meaningful progress. At the start, HO was easily distracted and needed teacher directions many times. The student also needed more time to connect written symbols with sounds to be produced. After the intervention, HO gradually improved her attending to letter-card activities, increased the number of times she repeated letter sounds, and increased her engagement in forming letters with modeling clay. By Cycle II, HO improved his ability to follow directions independently, stay focused for longer periods of time, and read simple syllables and words with more confidence.

The development of the HO indicates that the multisensory activities helped to support the processing of information and the regulation of attention. The student learned letter shapes through visual exposure to letter cards, reinforced sound patterns with auditory repetition, strengthened memory with tactile activities, and supported physical encoding of letter shapes through kinesthetic movements. These activities offered various means of accessing the same information. Thus, if one sensory route was not sufficient, another could assist the student in identifying and remembering letters and sounds. All three participants showed the biggest improvement with DAW. In the pre-intervention stage the student's score was 50% and in Cycle I it was 68% and in Cycle II it was 94%. The multisensory activities were quickly responded to by DAW and high interest was shown in the visual and kinesthetic instructional media. The student was progressively able to match written letters with their sounds, blend sounds into syllables, and accurately read simple words. As the intervention continued, DAW also became more independent in completing reading tasks and needed less assistance from the teacher. The good performance shown by DAW might suggest that the concurrent use of multiple sensory modalities was particularly suited to the learner's profile. Repeated integration of seeing, hearing, pronouncing, touching, and moving helped to develop the phonological representations needed for decoding. The improvement in DAW also indicates that students with intellectual disabilities may have a capacity for learning that is not fully utilized when instruction is presented through a single modality. When instruction is adapted to their needs, they may learn to read more rapidly and independently.

There was also a significant increase in SR from 58% in the pre-intervention phase to 69% in Cycle I and 88% in Cycle II. At baseline, SR showed better attention than HO, and fewer errors in letter recognition. However, the student still struggled with blending sounds into syllables and distinguishing phonologically similar sounds. Repeated practice of letter and syllable cards, finger tracing, oral pronunciation and concrete word reading activities gradually strengthened the association between the written symbols and the spoken sounds in SR. Beyond improvements in reading performance, SR was associated with positive changes in learning behavior. The student showed more persistence in completing tasks, more willingness to try reading without teacher help, and more confidence in reading aloud. These findings suggest that the intervention affected both the cognitive and affective components of learning. The repeated tactile and kinesthetic activities may have strengthened the memory traces that enabled SR to remember the letter forms and sounds more accurately and reduced hesitation during the reading activities. The varying rates of improvement for HO, DAW and SR suggest that students with intellectual disabilities are not a homogeneous group. Each participant showed a different pattern of strengths, limitations and responses to the intervention. DAW gained the most overall, HO needed more intensive attention support, and SR needed reinforcement for sound discrimination and blending. But everyone participated did benefit from the intervention. This finding suggests that a combination of systematic teaching procedures and individual guidance is important.

The principles of multisensory learning may explain the effectiveness of the intervention. Multisensory instruction is based on the idea that information is better understood and remembered when it is processed through more than one sensory channel. In this study, students saw letter symbols visually, heard letter sounds auditorily, pronounced sounds orally, manipulated or traced letters with touch, and moved their hands kinesthetically in forming letter shapes. The simultaneous use of these modalities helped to establish the concrete and accessible nature of abstract literacy concepts. Such type of instruction is particularly suitable for students with intellectual disability because they often have deficiencies in their working memory, abstract reasoning, and processing of information. The cognitive load for learning is reduced, and students can associate symbols with direct sensory experiences with concrete activities. Repeated stimulation over multiple sensory channels also increases the chances of encoding and retrieval. Multisensory phonics instruction is not merely a set of classroom activities; it is a systematic approach to support the cognitive processes that are essential for early decoding. The results also support the theory on which phonics instruction is based. Students need to understand the relationship between graphemes and phonemes in order to successfully decode whole words. The instruction in this study began with identifying single letters and sounds and progressed to blending sounds to form syllables, reading simple words and reading short sentences. This sequence allowed students to acquire basic reading skills systematically rather than through memorization or guesswork.

The step-by-step progression from simple to more complex reading tasks was especially important. Students practiced isolated vowel and consonant sounds during the early intervention. They then merged these sounds into simple consonant-vowel syllables such as ba, bi, bu, be, and bo. As they became more familiar with the syllable patterns, they moved on to reading words like sapu, bola, batu, baju, kaki, and mata. This gradual sequence lowered the difficulty of the tasks and enabled the students to succeed at each instructional stage. The comparison of Cycle I and Cycle II further illustrates the significance of repetition and instructional refinement. The students were introduced to multisensory phonics activities in Cycle I and initial improvements were seen. But the students still needed a lot of help, and they were not yet experts. In Cycle II the teacher was more directly concerned with letters and syllables that remained difficult, increased the frequency of practice, used more concrete learning materials, and provided individualized support. These changes improved students' reading accuracy, fluency and independence. Positive reinforcement also added to the success of the intervention. Praise, encouragement, and recognition of small successes seemed to increase students' willingness to participate and attempt difficult reading tasks. Repeated academic failure can easily demoralize students with intellectual disabilities. Hence, a supportive learning environment is needed to sustain their motivation. By recognizing their progress, the teacher reduced anxiety and encouraged the students to keep practicing even when they made mistakes.

The intervention also led to improvements in affective and behavioral outcomes. In the two cycles, the participants became more attentive, active, confident and persistent. They showed a greater interest in the instructional media, a more consistent response to teacher directions, and a greater willingness to participate in oral reading. These changes are important because reading achievement is affected not only by cognitive skills but also by motivation, confidence, and engagement. Students who feel safe and supported are more likely to take risks in reading, accept feedback that corrects them, and persist when they come across unfamiliar words. The results are in line with Mumpuniarti's (2017) opinion that students with intellectual disabilities learn better when the material is delivered gradually, concretely, repeatedly, and directly. In this study, the students were not just passive observers of letters. They interacted with letters by seeing, hearing, saying, touching, drawing, constructing and assembling them. The direct experiences were consistent with their characteristics of learning and made the process of reading acquisition more meaningful. The results also show that the success of the intervention was not only found in the final reading scores, but also in the quality of the learning process. The students showed more attention, more motivation, more participation in class and more independence. These process-related improvements are important because they suggest that the intervention had created conditions that were conducive to sustainable learning. The students were trained not just to answer test items but also to become more active and confident readers gradually. Multisensory Phonics: A Practical Alternative for Teaching Beginning Reading in Inclusive Elementary Classrooms The materials used in the intervention including letter cards, picture cards, syllable cards, modeling clay, worksheets and simple reading games are relatively accessible and can be adapted to different classroom conditions. Teachers can adjust the difficulty level, the frequency of repetition and the amount of support according to the needs of the individual students.

However, the findings should be seen in the context of this classroom action research. The study involved three participants in one elementary school and the intervention was conducted in two cycles. As such, the findings mainly describe the trajectory of these specific participants, and should not be applied broadly without caution. Future research could involve larger sample sizes, longer interventions, control groups and follow-up assessments to ascertain whether the improvements are sustained. However, the consistent gains made by all three participants provide compelling classroom evidence for multisensory phonics instruction to support beginning reading development for students with intellectual disabilities. The intervention successfully integrated systematic phonics instruction with concrete, repetitive, and engaging learning experiences. The combination enhanced letter recognition, phonological awareness, syllable blending, word decoding, reading confidence and active participation. The results generally support the claim that the multisensory phonics approach was successful in improving the beginning reading skills of students with intellectual disabilities as evidenced by two cycles of classroom action research. The increase in reading scores from the pre-intervention stage to Cycle I and Cycle II and the positive changes in students' learning behavior showed the improvements. The method provided multiple sensory avenues for learning and made possible systematic, gradual and individualised instruction. Therefore, multisensory phonics can be recommended as an adaptive instructional strategy to improve beginning reading skills and reinforce inclusive education practices at the elementary school level.

CONCLUSION

The implementation of the multisensory phonics method was successful in improving the quality of beginning reading instruction and the reading performance of Grade III students with intellectual disabilities at SDN 001 Sandaran. The intervention, which included visual, auditory, kinesthetic and tactile activities such as illustrated letter cards, letter formation with modeling clay, letter-sound pronunciation exercises, and structured syllable and simple-word reading tasks, resulted in increased attention, motivation, confidence, active participation and learning independence of students. This improvement was seen in the Cycle II achievement scores where HO scored 81%, DAW 94%, and SR 88%, increases of 21%, 26%, and 19% respectively from Cycle I. Therefore, all participants met or surpassed the pre-set success criteria of 80%. The findings suggest that multisensory phonics benefits cognitive growth in the areas of letter recognition, phoneme discrimination, grapheme-phoneme correspondence, syllable blending, and reading of simple words and also contributes to positive affective and behavioral changes throughout the learning process. Therefore, it is recommended that teachers implement systematic, concrete, repetitive and multisensory reading activities to adapt to the individual learning needs; schools should support the provision of appropriate instructional media and professional development for adaptive and inclusive teaching; parents should promote reading practice at home with letter-sound activities, word cards, regular guidance and positive reinforcement; and future researchers should explore the effectiveness of this method in different levels of education, characteristics of the participants, instructional media, larger samples and longer periods of intervention to expand the evidence of its application in inclusive and special education settings.

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