Cultivation of Reading Ability for Children with Disabilities in Primary School

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Abstract. Good reading ability in primary school not only helps improve students' grades, but also has an important impact on the cultivation of their thinking ability, imagination, creativity, as well as the formation of moral cultivation and values. However, disabled elementary school students face many special challenges in reading. The main purpose of this study is to explore more targeted and effective strategies to cultivate the reading ability of disabled primary school students. During the research process, it found that primary school students with disabilities face many difficulties in reading, such as classroom environment and their own types of disabilities. Second, it analyzed the factors that affected pupils with reading disabilities, such as the class environment in inclusive schools, the lack of emphasis on reading skills in Special education schools, and the family environment, whether parents have special education theory to handicap students' own physiological factors, cognitive factors and learning preferences. Finally, three different methods were proposed to cultivate the reading ability of disabled primary school students, such as drawing mind maps, using touchable picture books, and developing personalized reading plans. The cultivation of reading ability in disabled primary school students is of great significance, as it can improve their cognitive level, enhance their confidence, open the door to knowledge for them, and better integrate into society.

Keywords: Primary school students with disabilities, families, schools, reading difficulties.

1. Introduction

Cultivating the reading ability of primary school students with disabilities has important practical significance and urgency. More research and practice are needed to create better reading and learning conditions for these children to help them overcome difficulties and achieve all-round development.

Scholar Yuxing Lin mainly discusses the relationship between Dyslexia children and their families [1], and Fajardo mainly expounds on linguistic Factors Influencing the comprehension of Dyslexia in Children [2]. It can be seen that there are many factors affecting the reading ability of disabled children, but there is not enough research and systematic review on the strategies for developing the reading ability of disabled children. Almutairi pointed out that teachers have a clearer and more accurate understanding of text comprehension for students with reading disabilities through their reading assessments [3]. This study explored the home-school cooperation to develop a personality reading program for primary school students with disabilities, after-school evaluation by teachers, and reading in person, this is a more targeted strategy for primary school students with reading disabilities.

Cultivating the reading ability of pupils with disabilities will improve the quality of education and promote their all-round development. To further promote theoretical and practical innovation in the field of special education and contribute to the establishment of a more inclusive and equitable education system.

This study discusses the difficulties encountered by primary school students with disabilities in reading, the factors that affect their reading ability, and strategies for cultivating their reading ability from the perspectives of individuals, families, and schools.

2. Reading Difficulties Faced by Primary Students with Disabilities

2.1. Reading Difficulties in Schools

Firstly, pupils with disabilities have some difficulties in understanding. Due to cognitive limitations, students with disabilities may have difficulty understanding complex sentence structures and abstract concepts. For example, regarding the level of literal comprehension, if a single sentence is composed of low-frequency content words that are not in the ID student's vocabulary, it may not be possible to understand the actual meaning of the sentence [2]. So it may lead to their reading speed being much slower than normal, with other students being able to finish a short article and answer the teacher's questions within the designated time in class, while students with disabilities may not have finished halfway through. During class, attention deficit can also frequently interfere with their reading process, and even a slight noise in the class can distract them. Students with reading disabilities may experience problems such as skipping and missing words, resulting in a fragmented understanding of the text and making it difficult for them to experience the pleasure of reading, thus lacking interest and enthusiasm for reading. Poor performance in school reading tasks and tests may bring psychological pressure and anxiety to students with disabilities, further affecting their reading performance. For example, students may feel nervous about being called upon by the teacher to read aloud incorrectly in class.

2.2. The Difficulty of Independent Reading after School

Students with different types of disabilities often face different difficulties in autonomous reading. Students with visual impairments may struggle to keep up with normal reading progress, even with assistive tools, due to their inability to read clearly and lack of intuitive impressions of the text. Students with hearing impairments find it difficult to perceive the rhythm and cadence of language, and their understanding of vocabulary may rely on visual and limited sign language interpretation. They have difficulty understanding the teacher's explanations and classmates' communication, and have insufficient understanding of the background knowledge and content of reading materials. Students with intellectual disabilities may spend a lot of time on word recognition and sentence comprehension, and their attention is easily distracted, making it difficult to grasp the key points of reading. Children with autism may have problems such as lack of concentration, difficulty understanding social situations, difficulty comprehending the logic and emotions of stories, and difficulty resonating with texts. Compared with normal students, students with reading disabilities exhibit slower eye movement speed, narrower scanning range, and lower eye movement frequency [4]. This also leads to relatively slow reading speed for students with reading disabilities when reading text. During the reading process, there is often a phenomenon of finger reading and loud reading. During the reading process, it is not possible to read accurately in the order of left to right and top to bottom like normal students [5].

3. Factors Affecting the Reading Ability of Primary School Students with Disabilities

3.1. School Factors

3.1.1 Inclusive schools

There is a certain connection between teachers' teaching methods and the improvement of students' reading abilities. In inclusive schools, class sizes are large and teachers find it difficult to provide sufficient attention and individual guidance to each student with disabilities. For example, in large-class teaching, teachers may use unified and standardized teaching methods in reading instruction. Teachers may not be able to promptly identify specific problems encountered by students with reading disabilities or may not fully consider their special needs and learning styles, resulting in a lack of personalized support [6]. For example, if the student suffers from Attention Deficit

Hyperactivity Disorder (ADHD), they will have difficulty concentrating, become easily distracted while reading, and cannot sustain their focus on textual content. For example, if students start thinking about something else after reading a few lines, or are attracted by the sounds and movements around them, teachers need to pay special attention to the learning status of such students. Secondly, some teachers may lack professional training in reading instruction for students with disabilities, have insufficient understanding of the reading characteristics and needs of students with different types of disabilities, and lack targeted teaching methods. For example, teachers are not familiar with the common behaviors and intervention methods of students with reading disabilities, and cannot provide accurate guidance. In addition, the collection of books in school libraries may not fully consider the interests and reading levels of students with disabilities, and there is a lack of simple, easy-to-understand, and illustrated reading materials that are suitable for them. For example, for students with intellectual disabilities, more books with a large number of pictures and simple text may be needed. The accessibility level of digital reading resources is insufficient, for example, the speed and tone of audio resources are inappropriate, or the format of electronic text is not convenient for students with disabilities to use auxiliary tools for reading. According to Eren et al. [7], children diagnosed with disabilities are sometimes referred to as special needs children. Given these circumstances, children with special needs often encounter a range of communication problems, including language barriers, speech barriers, voice barriers, rhythm barriers, environmental barriers, perceptual barriers, and cultural abnormalities. This affects whether they will be accepted and supported by peers in school, and the degree of these factors can also affect the reading ability of students with disabilities. Discrimination or exclusion from students with disabilities by other students may affect their reading enthusiasm and confidence. For example, in group reading activities, students with disabilities may be ignored or refused cooperation by their peers.

3.1.2 Special schools

In special schools, there is basically a focus on individual differences among students, such as intellectual disabilities, autism, learning disabilities, etc. However, each student has significant individual differences and unique needs. For example, SLD students may make errors such as misreading, hesitating, repeating, omitting sounds/syllables/words or skipping, replacing sounds/syllables/words, pausing, correcting, and reversing sounds (e.g. confusing p with b, b with d, u with n) while reading [8]. This also leads to certain difficulties for teachers in developing reading skills or related courses. It is also possible that schools have not actively created an environment that encourages reading, lacking reading-related activities and promotion. For example, there are few organized reading-sharing sessions or activities related to reading, which cannot stimulate the reading interest of students with disabilities. There is also a lack of reading communication among classmates, which makes it difficult for students with disabilities to develop reading habits under the influence and guidance of peers.

3.2. Parental Factors

The family reading environment can indirectly affect the accuracy, fluency, and comprehension of reading through reading participation [9]. In families of students with disabilities, a large amount of money may have been spent in the early stages to treat related illnesses, resulting in limited economic conditions for the family. Parents are unable to purchase reading aids, electronic reading devices, or online courses that can help improve their children's reading abilities. So children cannot have their own favorite books and can only borrow limited books from the school library, which to some extent limits their reading choices. In addition, the parenting style of parents is related to reading disorders, and the emotional warmth, tolerance, and protection of parents are protective factors for reading disorders [1]. When parents have a high degree of tolerance, they can face their children's difficulties and mistakes in reading with a calm and understanding attitude. For example, when a child reads incorrectly, slowly, or misunderstood, tolerant parents will not rush to criticize or accuse them, but instead provide patient encouragement and guidance. This positive feedback will make children feel at ease, reduce their fear and anxiety about reading, and thus be more willing to try and

explore reading. On the contrary, if parents have low tolerance, they may show dissatisfaction, impatience, and even anger due to their children's poor reading performance. This can bring enormous psychological pressure to children, making them more nervous, cautious, and afraid of making mistakes when reading, which in turn affects the fluency and comprehension ability of reading. Finally, whether parents have theoretical knowledge of special education also has a significant impact on the reading ability of children with disabilities. If parents have theoretical knowledge of special education, they can better understand the characteristics and causes of their children's reading disorders. For example, they can understand that children's problems such as skipping and missing words in reading are not intentional, but caused by specific obstacles. Parents with relevant theoretical knowledge can also use scientific methods to help their children. For example, they know how to improve children's visual tracking ability, attention, and memory through targeted training, which are essential foundational skills for reading. They may use some fun games, such as finding different things, walking mazes, etc., to exercise their children's visual abilities and improve their reading accuracy. Furthermore, these parents can choose appropriate reading materials based on their children's specific circumstances. They understand that children with reading disabilities should initially choose simple, interesting, and illustrated books to gradually cultivate their interest and confidence in reading. Instead of blindly demanding students with disabilities according to the standards of ordinary children. On the contrary, if parents lack theoretical knowledge of special education, they may feel confused and helpless about their children's reading problems. They may adopt inappropriate educational methods, such as excessively forcing children to read difficult books or turning a blind eye to their reading difficulties, resulting in their problems not being resolved in a timely manner and difficulty improving their reading abilities.

3.3. Physiological Factors

Foremost, there are physiological factors that affect students with visual or hearing impairments, making it difficult for them to access reading materials and understand the content. For example, visually impaired students may experience different tactile sensitivities when reading Braille books, which may affect their reading quality. Physical disabilities may affect the convenience of reading books or operating reading devices. Secondly, there are cognitive factors. For students with disabilities, they may have difficulty understanding abstract concepts and complex sentence structures. For example, when reading articles containing rhetorical devices such as metaphors and personification, it is difficult to accurately understand the author's intention. The third factor is language development. A small amount of reading in the early stages can lead to a lack of vocabulary among students with disabilities. Vocabulary is the foundation of understanding an article. If a child has a limited vocabulary, encountering unfamiliar words can hinder the reading process. For example, if you read an article about a scientific experiment but do not understand vocabulary such as "experimental equipment" and "chemical reactions," you will not be able to comprehend the content of the article. There is also the possibility of learning styles and preferences. For example, students with kinesthetic learning styles, they need to learn through practical operations and physical activities. If there are no hands-on activities during the reading process, such as marking or drawing mind maps, it may reduce their focus and understanding. In addition, students with disabilities may also have thematic preferences when reading. For students who are interested in specific topics such as science, history, literature, etc., if the reading materials do not align with their interests, it will be difficult to stimulate their enthusiasm for reading.

4. Strategies for Cultivating Reading Ability in Primary School Students with Disabilities

4.1. Draw a Mind Map

Mind maps, also known as mind maps, are a way of visualizing thoughts. Chinese text materials are composed of tightly arranged Chinese characters, which belong to dense text with no spaces between words, making them visually more "crowded". Therefore, visual factors play a greater role in Chinese text reading [10]. For students with visual impairments, the main way to obtain textual information is through vision. In class, teachers use mind maps and visual elements such as clear lines and bright colors to help students classify and layer knowledge points, thereby reducing the difficulty of understanding knowledge and making it more in line with the cognitive characteristics of students with disabilities. During class, students can use colored brushes to draw text themes with the help of teachers, and then start from the central content to list branch information in sequence, forming a tree diagram. You can also grasp the key sentences in the text, draw bubble charts or flowcharts, sort out the internal logic and dialectical relationships, and cultivate students' thinking ability [11].

4.2. Use Touchable Picture Books

Touchable picture book means a picture book that allows one to feel text or images through touch. Researchers from different countries and backgrounds use different methods to create touchable picture books, so their names also vary, but they are all named after the meaning of ordinary picture books [12]. Touchable picture books can provide a unique reading experience for children with visual impairments. These children have difficulty obtaining information from picture books through conventional visual means due to their visual problems. However, touchable elements such as protrusions, indentations, textures, etc. in picture books allow them to touch and perceive graphics, text, and story content with their hands, thereby enhancing their perceptual sensitivity and cognitive abilities. For example, in a touchable picture book about animals, by touching the textures of different animal bodies, such as the rough skin of elephants or the soft fur of rabbits, children can more vividly understand and remember the characteristics of these animals. For children with autism or attention deficit hyperactivity disorder, touchable picture books can attract their attention and enhance their focus. Touchable picture books also help develop fine motor skills and perceptual abilities in children with developmental disabilities. During the process of touching picture books, children need to use the strength and flexibility of their fingers to feel various tactile features, which is very beneficial for exercising their hand muscles and coordination abilities. In addition, touchable picture books can bring a new experience to family reading. When parents and children with disabilities read touchable picture books together, children can feel the charm of the story by touching the texture, shape, and other elements in the picture book. This multi-sensory reading method not only increases the fun of parent-child interaction, but also stimulates children's interest in reading. Parents can guide their children to describe their feelings and help them understand the story. In a warm family atmosphere, touchable picture books become a bridge connecting parent-child emotions, allowing children with disabilities to receive more care and support in family reading, opening up their reading journey and promoting their cognitive and emotional development.

4.3. Develop a Personalized Reading Plan

Students with disabilities require personalized teaching services to adapt to each student's unique academic and nonacademic skills. Personalized services that meet students' individual needs can improve their learning engagement and grades [13]. In order to better plan personalized reading plans for children with disabilities, home-school cooperation can be implemented. In terms of schools, teachers should assess the specific situation of children with disabilities and recommend suitable touchable picture books and reading aids. Regularly communicate with parents and share their children's progress in reading at school. According to Almutairi, she believes that evaluating students by teachers is very beneficial in determining their academic performance, monitoring their progress,

and allowing teachers to determine the most appropriate teaching methods for students. In terms of family, parents should create a good reading atmosphere, schedule a fixed reading time every day, read touchable picture books with their children, and encourage them to express their feelings. Family and school work together to develop personalized goals, continuously adjust plans based on children's progress, help disabled children grow in reading, and open the door to their rich and colorful knowledge world. In addition, it is necessary to regularly reassess students' reading progress, adjust reading plans according to changes, and ensure that the plan always meets students' needs and development.

5. Conclusion

The cultivation of reading ability in primary school students with disabilities is a long-term and complex process that requires joint efforts from schools, families, and society. Through literature research and comparative analysis, various methods and strategies are needed to cultivate the reading ability of primary school students with disabilities.

Students with disabilities have difficulty in understanding complex sentences and abstract concepts due to cognitive limitations, which leads to a lack of interest in reading, in addition, students with different types of disabilities face different difficulties in autonomous reading. Teachers' teaching methods are related to the improvement of students' reading ability. In integrated schools, the size of the classes makes it difficult for teachers to give adequate attention and individual guidance to students with disabilities, there is also a shortage of books and digital reading resources in school libraries, and children with special needs often encounter communication problems, these can affect the reading ability of students with disabilities. In special schools, although individual differences of students are concerned, individual differences of students bring difficulties to teachers, and schools may not actively create an environment to encourage reading. Family reading environment and personal physiological factors, cognitive factors, language development, learning styles, and preferences will affect the reading of students with disabilities, the family economic conditions of students with disabilities are limited, which can affect children's reading resources as well as Parenting styles and special education theory knowledge. After the study, it was found that three methods can be used to help students with disabilities develop their reading ability, one is to use mind maps, the other is to use touch-able picture books, to provide a unique reading experience for visually impaired children and to bring new reading experience for families, and thirdly, to develop individualized reading plans to help children with disabilities grow up through home-school cooperation, and regularly re-evaluate and adjust the reading plan.

In the future, here can do an empirical survey. Enter the primary school classroom to record related aspects, and further enrich the study on the development of reading ability of pupils with disabilities.

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