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The Application of Multimedia Technology in Chinese Classroom for Lower Grades of Special Education

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Abstract: With the advent of the information age, multimedia technology has been widely applied in education and teaching. In the field of special education, multimedia technology plays an irreplaceable role. It can enrich the content and form of classroom teaching, meet the personalized development needs of special students, help them master key knowledge points effectively, and realize efficient learning. Based on the particularity of Chinese teaching in lower grades of special education, this paper expounds the application advantages of multimedia technology in such classrooms, analyzes the existing problems in the application process, and puts forward targeted optimization strategies. It aims to provide references for improving the quality of Chinese teaching in lower grades of special education and promoting the development of core Chinese literacy of special students.

Keywords: Multimedia Technology, Special Education, Chinese Teaching in Lower Grades, Classroom Application.

1. Introduction

As a comprehensive discipline focusing on the application of language and characters, Chinese is an important tool for special students to understand the world and integrate into society. The lower stage of special education is a critical period for Chinese enlightenment, and the teaching effect at this stage directly affects the subsequent study and development of special students. Due to physical and psychological deficiencies, special students encounter many difficulties in Chinese learning: they struggle to understand abstract character symbols, are easily distracted, and lack learning initiative. The traditional teaching model can hardly take into account their individual differences and learning needs.

With the rapid development of information technology, multimedia technology has entered special education classrooms by virtue of its intuitiveness, visualization and interactivity, becoming an important means to optimize the teaching process and improve teaching quality. [1]Applying multimedia technology to lower-grade Chinese classrooms in special education can transform abstract Chinese knowledge into concrete and vivid audio-visual information, conforming to the cognitive law of special students dominated by intuitive thinking. Meanwhile, diversified teaching forms can stimulate students' learning interest and enhance the pertinence and fun of teaching. Therefore, an in-depth discussion on the application value, existing problems and optimization strategies of multimedia technology in lower-grade Chinese classrooms of special education is of great practical significance for promoting the reform of Chinese teaching in special education and protecting special students' right to education and development.

2. Advantages of Multimedia Technology in Lower-Grade Chinese Classrooms of Special Education

(1) Visualizing Knowledge and Reducing Cognitive Difficulty

The core contents of lower-grade Chinese teaching in special education are basic Chinese characters and simple words, which are abstract in nature, while special students have weak abstract thinking ability. Multimedia technology can convert abstract Chinese knowledge into intuitive images, sounds and animations, helping students establish the connection between concrete cognition and abstract knowledge and reduce learning difficulty.[2] For example, when teaching the Chinese character "mountain", teachers can display real mountain pictures or short videos together with hieroglyphic evolution animation, enabling students to intuitively understand the connection between character form and its meaning.

(2) Stimulating Learning Interest and Enhancing Learning Participation

Multimedia technology possesses rich teaching resources and professional educational software, providing a platform for students to explore knowledge happily.[3] It covers massive digital picture books, educational animation clips, interesting literacy games and situational teaching courseware, which can expand the breadth of classroom teaching resources and break the limitation of single textbook content. Most special students are inherently lacking in learning motivation, with low learning interest and poor sustained attention concentration. The traditional Chinese classroom adopts instillation teaching with single form and boring content, which is difficult to attract students' attention and easy to cause weariness and escape psychology.

With rich expressive power, multimedia technology creates a relaxed and pleasant teaching atmosphere through bright and soft picture colors, interesting vivid role animations and gentle and pleasant background music, fully mobilizing students' multiple senses such as vision, hearing and touch to participate in learning activities. This multi-sensory immersive stimulation can effectively relieve special students' learning tension and anxiety, prolong their effective attention time in class, and greatly improve their sense of classroom participation. In daily literacy and pinyin teaching, teachers can design interactive games such as Chinese character breakthrough, pinyin matching, word filling and story role dubbing. Students can consolidate basic knowledge unconsciously in the process of game experience and

interactive interaction. Through real-time feedback, reward prompts and positive reinforcement in game links, students can continuously gain a sense of accomplishment and satisfaction, fundamentally improve their passive learning state, and enhance their autonomous learning initiative and enthusiasm.

3. Existing Problems of Multimedia Technology Application

(1) Lack of Pertinence in Courseware Design

At present, multimedia technology has been widely used in special education Chinese classrooms, but there are still obvious deficiencies in the professional design and targeted adaptation of teaching courseware. Many special education teachers lack the awareness of independent research and development of personalized courseware. They are accustomed to directly downloading and applying ready-made universal courseware resources from the network without targeted screening, revision and adaptation according to the actual cognitive level, disability types, interest preferences and realistic development needs of lower-grade special students. Most of the general online courseware is compiled for ordinary primary school students, which is not matched with the cognitive acceptance ability and learning characteristics of special students. The content setting is too complicated, the picture conversion is too fast, and the sound effect stimulation is too strong, which cannot effectively help students break through teaching difficulties and master key knowledge points.

In the actual teaching process, many teachers only regard multimedia as a simple electronic blackboard, rigidly playing courseware content according to the established process, lacking flexible adjustment and interactive design links according to students' on-site learning feedback. Such formalized and mechanized application mode not only fails to give full play to the educational advantages of multimedia technology, but also cannot meet the individualized and diversified learning needs of special students, and is difficult to stimulate their lasting learning enthusiasm.[4]

(2) Over-reliance on Multimedia and Insufficient Blackboard Writing

The in-depth integration of multimedia technology and Chinese teaching in special education requires teachers to have solid professional teaching ability, rich special education experience and skilled multimedia operation and courseware editing skills. However, in the actual teaching work, many special education teachers have an excessive dependence on multimedia teaching equipment. They blindly believe that multimedia can replace all traditional teaching links, and gradually ignore the important auxiliary role of classroom blackboard writing. Some teachers even completely cancel blackboard writing design in the whole class, and all knowledge explanation, key point sorting and content summary rely entirely on multimedia courseware playback.

As the most traditional and core auxiliary means of Chinese teaching, blackboard writing has the characteristics of simplicity, intuition, persistence and pertinence. It can help special students sort out clear knowledge framework, highlight core key knowledge points, and deepen long-term memory through synchronous viewing and note-taking. The long-term lack of standardized blackboard writing makes it difficult for special students with weak information screening and induction ability to form complete and logical cognitive knowledge system, resulting in scattered knowledge points, vague understanding of key contents, and seriously affecting the comprehension and consolidation of basic Chinese knowledge. At the same time, excessive reliance on multimedia also leads to the weakening of teachers' classroom language expression and emotional communication with students, reducing the temperature and humanistic care of special education classrooms.

4. Application Strategies of Multimedia Technology

(1) Construct Situational Teaching to Stimulate Learning Interest

As a classic and widely adopted teaching method, situational teaching plays an irreplaceable important role both in general education and special education teaching practice. Multimedia technology provides sufficient resource support and technical carrier for the implementation of situational teaching in special education classrooms. Teachers can make full use of rich network digital resources and multimedia production functions, combine the teaching theme and text content, build vivid and real life situations, natural scene situations and story role situations that are close to the life experience of special students. By creating an immersive learning atmosphere, teachers guide students to take the initiative to integrate into the classroom situation, perceive the connotation of knowledge from emotional experience, and deepen their understanding and internalization of textbook content. .[5] This teaching method can effectively make up for the defects of insufficient perception ability and weak associative thinking of special students, and let them truly feel the fun and charm of Chinese learning.

When learning text articles related to nature, life and social etiquette in lower-grade Chinese textbooks, it is difficult for special students to independently associate scene pictures and perceive the emotional connotation and moral implied in the articles by relying only on text description. In view of this difficulty, teachers can integrate a large number of real scene pictures, dynamic landscape animations and life scenario short videos into multimedia courseware, directly presenting the text description content in front of students in a visual way. Under the intuitive stimulation of vision and hearing, students can quickly integrate into the classroom learning atmosphere, easily grasp the structural context of the article and the emotional attitude of the author, and realize the organic combination of perceptual experience and knowledge learning. This situational teaching mode makes up for the perceptual defects of special students to the greatest extent, optimizes the classroom teaching effect, and effectively improves overall learning efficiency.

(2) Design Personalized Courseware Based on Actual Learning Needs

Courseware design and production is the core link to ensure the effective application of multimedia technology in special education classrooms. Teachers should completely abandon the lazy way of blindly copying and applying online ready-made resources, and take student orientation as the core, carefully design and revise personalized multimedia courseware suitable for lower-grade special students' learning characteristics. Firstly, before classroom teaching, teachers should fully understand and sort out the basic situation of students in the class, including specific disability types, cognitive acceptance level, daily learning habits, interest

hobbies and existing learning difficulties, clarify the key points, difficult points and teaching objectives of Chinese curriculum teaching.

Secondly, on the basis of clarifying teaching demands, select high-quality network teaching resources that are highly consistent with the curriculum theme and teaching objectives, and carry out targeted personalized revision and optimization according to different types of special students' characteristics. For autistic students with sensitive perception and easy emotional fluctuation, simplify the picture elements of courseware, reduce redundant dynamic special effects and harsh sound stimulation, and keep the picture style simple and soft; for intellectual disabled students with slow cognitive response and weak abstract understanding, appropriately increase intuitive real object pictures and slow-playing explanatory animations, reduce text content, and delete complex knowledge modules beyond their cognitive scope. Finally, conduct small-scale trial teaching and internal discussion on the revised courseware, appropriately adjust the playback speed, picture layout and content difficulty according to students' actual acceptance and classroom feedback, so as to make the courseware truly fit the personalized learning needs of special students.

(3) Improve Teachers' Comprehensive Literacy to Promote Integrated Teaching

Schools and educational management departments should attach great importance to the comprehensive ability training of special education teachers, and carry out regular special training activities focusing on multimedia technology application, courseware independent design and editing, and traditional blackboard writing design. The training content not only includes basic multimedia equipment operation, courseware production software skills and digital resource screening methods, but also strengthens the teaching concept training of the integration of information technology and special education curriculum. Through excellent teaching case sharing, on-site demonstration and classroom observation, teachers can clearly understand the complementary value of multimedia teaching and traditional blackboard writing teaching.

Teachers should establish the correct educational concept of "technology assisting teaching rather than replacing teaching", reasonably balance the use proportion and application boundary of multimedia technology and traditional blackboard writing. Multimedia technology is mainly used to display abstract knowledge, dynamic scenes and vivid picture materials to make up for the limitations of traditional teaching; classroom blackboard writing should be carefully designed and arranged, focusing on highlighting core knowledge points, sorting out knowledge context and summarizing key learning rules. Teachers should strengthen real-time emotional interaction and classroom communication with students through blackboard writing explanation, timely supplement difficult knowledge points and record students' typical classroom feedback, so as to realize the organic integration of multimedia technology and traditional teaching methods, and comprehensively improve the quality and effect of lower-grade Chinese teaching in special education.

5. Conclusion

Due to the limitations of physical conditions, intellectual development and cognitive level, special students inevitably face many obstacles and difficulties in the process of Chinese learning. As an advanced modern teaching auxiliary means, multimedia technology has unique advantages in visualizing teaching content, activating classroom atmosphere, stimulating learning interest and adapting to individualized teaching. Its reasonable application in lower-grade Chinese classrooms of special education can effectively make up for the cognitive defects and learning deficiencies of special students, optimize the traditional teaching mode, enrich classroom teaching resources and forms, and significantly improve students' classroom participation and knowledge learning efficiency.

At present, the application of multimedia technology in special education still has prominent problems such as lack of pertinence in courseware design, excessive dependence on multimedia and neglect of blackboard writing. In the future special education teaching practice, teachers should take the learning characteristics and development needs of special students as the starting point, construct immersive situational teaching, design personalized teaching courseware, and continuously improve their own comprehensive teaching literacy. By rationally allocating teaching resources and integrating modern information technology with traditional teaching methods, teachers can give full play to the auxiliary teaching value of multimedia technology, help special students steadily master Chinese basic knowledge and learning skills, continuously improve their language expression ability and social adaptation level, and lay a solid foundation for their future study, life and social integration.

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