The Impact of Orff Music Teaching Method on the Attention of Students with Autism in Inclusive Education Settings

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Abstract:

This study aims to investigate the changes in attention of children with autism who are integrated into regular classes under the "inclusion" system, specifically examining the influence of the Orff music teaching method to better assist music teachers in their frontline teaching. This research employs a case study approach, focusing on a student enrolled in an "inclusive class". By observing the student's behavior in classes without the application of the Orff method and comparing it with their behavior in classes where the Orff method is applied, the study investigates the impact of the Orff teaching method on the attention of students with autism in "inclusive classes".

Keywords: Children with Autism, Attention, Orff, Inclusive Education, Inclusion in Regular Classes

1. Introduction

Since the concept of "inclusive education" began to be promoted in China, the "inclusion in regular classes" model, which allows children with special needs to attend regular primary schools for compulsory education, has provided many children with autism with better opportunities for development. However, in frontline teaching, it has been observed that many children with autism, after entering regular schools, often struggle to focus on classroom academic tasks, thereby affecting the teaching order of the entire class. In contrast, most regular teachers in China currently lack effective strategies for educating and managing children with autism.

Numerous studies have found that music teaching, especially the Orff music teaching method, has a positive effect on the social skills, emotions, and attention of children with autism. Therefore, this study

aims to explore the impact of the Orff music teaching method on the attention of students with autism in "inclusive classes".

2. Review of Literature

2.1 Attention Issues in Children with Autism

In a study by Brady in 2017, standardized tests such as the Stroop Color Word Test, the Flanker Task, the Simon Task, and Conners' Continuous Performance Task were used to find that individuals with autism had relatively weaker attention abilities. [1]

A study published by Yi-Ling Chien in the journal Research in Autism Spectrum Disorders in 2014 found that adolescents with autism spectrum disorder and Asperger's disorder had impairments in sustained attention, focused attention, and vigilance compared to typically developing peers. These cognitive impairments can affect their social interactions and learning abilities in daily life. Various psychological tests and behavioral measurement methods were used to assess these functions, and the results showed that these adolescents performed poorly on tasks requiring continuous monitoring and responding to rare events. [2] Similarly, in Wang Shanshan's research, attention deficits in individuals with autism were discovered through the use of electroencephalography and brain imaging techniques. [3]

2.2 The Impact of Music on the Attention of Children with Autism

Eric Lawrence Clauss conducted an experiment with 5 male adolescents with autism, who were asked to complete a 5-minute attention task under conditions with slow (\downarrow =60) and fast (\downarrow =120) versions of Bach's "Prelude in C Major (BWV 846)" as well as a no-music condition. The experiment demonstrated that background music can improve the attention abilities of most individuals with autism, confirming that passive reception of music aids in enhancing the attention of children with autism.[4]

A Blythe La Gass's experiment on "The Impact of Instrument Playing on the Attention Abilities of Children with Autism" confirmed that instrument playing has a positive effect on improving the attention test scores related to directed attention in children with autism, confirming that active participation in music teaching significantly improves the attention of children with autism. [5]

Similarly, in Seyyed's clinical study, which employed a pretest/posttest/follow-up control group design, it was found that music therapy is an effective method with profound and consistent effects on improving the social skills of children with autism.[6]

2.3 Positive Impact of the Orff Teaching Method on Children with Autism

The Orff teaching method is a music education system created by Carl Orff. Orff believed that expressing emotions and thoughts through language, music, dance, and other forms is an innate human ability, and thus, continuously inspiring this instinctive expressiveness is the primary task of music education. In the Orff teaching system, teachers are encouraged to guide students to move, think, and participate in music with their whole body and mind. In Orff classes, teachers often introduce activities through games, leading students to complete a series of activities, and then explain the knowledge points to achieve the teaching objectives.

As a music teaching method that emphasizes student par-

ticipation, a substantial amount of research has proven the positive effects of the Orff teaching method on children with autism. In Cheng Hongyu's study, it was found that after receiving the influence of Orff music education, children with autism showed an increase in proactive language, improved attention, better emotional control, and more frequent smiling. [7] Similarly, in Hou Jie's study, it was also found that children with autism who received the influence of Orff music education experienced improvements in social interaction skills, language abilities, and emotional control. [8]

2.4 The Role of the Orff Teaching Method in Improving Attention in Children with Autism

In an article titled "Can Music Therapy Improve the Attention Abilities of Individuals with Autism?" published in the core journal "Chinese Music," it is mentioned that "attention ability is the cornerstone of these social and behavioral functions to function normally; only when attention ability is enhanced can the symptoms of patients be fundamentally improved."[9]

The Orff teaching method is primarily an active participation-based teaching method. In Meng-xin Jiang's "The Efficacy of Orff Music Therapy on Social Interaction, Emotion, and Attention in Children with Autism Spectrum Disorder," a case study of a 4-year-old child with autism found that Orff music therapy can enhance the attention abilities of children with mild autism.[10]

3. Research Methodology

3.1 Participants

The selection criteria for participants in this study are: 1. Children diagnosed with autism by professional medical institutions, or using the Children Autism Rating Scale (CARS); 2. Forming a class with regular children through the "inclusion in regular classes" policy; 3. Exhibiting significant attention deficits; 4. No other disabilities or impairments.

Based on the above criteria, one participant was selected for the study:

Student A is a 4th-grade student at a primary school in Beijing and is part of an "inclusive class" with regular children through the "inclusion in regular classes" policy. Diagnosed with autism by a hospital, currently without other disabilities or impairments. Observations of their daily classroom performance and class life reveal that Student A struggles to focus in class, and their academic performance has been unable to keep up with the overall progress of the class since the second semester of the 3rd

ISSN 2959-6149

grade. In life, they rarely make eye contact with others and have poor social skills. Occasionally, they exhibit stereotypical behaviors such as playing with their fingers and self-harming by hitting their head. During school hours, Student A has a teaching assistant to look after them.

3.2 Recording Tools

The "Attention Level Observation Record Form" is used to record the participant's attention.

Attention-Distracting Behaviors	Attention-Focusing Behaviors
1 Daydreaming ×	
2 Playing with clothes ×	1 Reading teaching materials √
3 Hitting head in self-harm ×	2 Following the teacher's arrangement to perform movements √
4 Laughing for no reason ×	3 Singing along with the accompaniment√
5 Clapping in disorder ×	

Figure 1 Attention Level Observation Record Form The researcher records the behaviors exhibited by the participant and determines whether they belong to atten-

participant and determines whether they belong to attention-scattering behaviors, marking them with " \times " after such behaviors, and marking " \sqrt " after focused attention behaviors such as following actions and reading course-related materials.

3.3 Performance in Regular Classes

In classes without the application of the Orff teaching method, Student A rarely makes eye contact with teachers or classmates and does not communicate with others. When the teacher leads the students in singing, Student A does not participate in the singing with the other students. During the 40-minute observation, they were seen frequently engaging in behaviors such as playing with their clothing corners, clapping their hands, and laughing for no reason, and exhibited two instances of self-harming by hitting their head, which were immediately stopped by their teaching assistant. During the lesson, there was one instance of abnormal excitement and laughter that disturbed nearby classmates and was stopped by the teaching assistant.

3.4 Orff Course Intervention

Student A's class consists of 36 students, and the music classroom space is relatively small, which cannot accommodate some classic activity segments of the Orff teaching method. In light of this situation, the teaching activities were designed with smaller movements, such as clapping hands, chest, and legs.

The music class at Student A's school uses the "Compulsory Education Textbook · Music Grade 4, Second Semester" (staff notation 2015) published by People's Music Publishing House as the textbook. This textbook is aimed at regular students, and its curriculum does not include designs for teaching children with autism. There are also no teaching guidance documents related to children with autism or "inclusive education." After considering the

music level and teaching progress of Student A's class and the characteristics of Student A, a course using elements of the Orff teaching method, "Spring Concert," was designed.

3.5 Performance in Orff Classes

In the course that utilized elements of the Orff teaching method, Student A increased the frequency and duration of eye contact with the teacher, changing from the inattention and lack of eye contact with teachers and classmates in courses without Orff elements, to being able to focus on the teacher's movements and make eye contact. During the activities, attention was significantly improved, attention-scattering actions were noticeably reduced, and there were no instances of sudden emotional excitement or self-harming behavior, nor any behavior that disturbed other students or affected the progress of the class. During the teaching process, although Student A sometimes could not keep up with the movements, they showed a willingness to participate and were more focused.

3.6 Conclusion

Through the above comparative observations, it was found that Student A exhibited a higher level of attention in courses using the Orff teaching method.

4. Discussion

From the results of this study, the Orff teaching method has a positive effect on improving the attention of children with autism in "inclusive classes." The philosophy of the Orff teaching method believes that students are innately capable of participating in and appreciating musical art. The concept of "elementary music" is mentioned multiple times in Orff's educational philosophy, which is a combination of music, dance, movement, and language; it is a form of music that people must participate in themselves. It is pre-intellectual, something that can be learned and experienced by everyone, and is suitable for children's

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modes of expression. [11] Therefore, the Orff teaching method is suitable for improving the attention issues of children with autism. In Cheng Hongyu's "Case Analysis of Orff Music Therapy Applied to Children with Severe Autism," the subject showed improvements in autism symptoms after 4 months of Orff music therapy. Combined with the results of this study, the application of the Orff teaching method in "inclusive classes" has a positive impact and feasibility for students with autism.

Through the observation of Student A and the review of related literature, it was found that there are still issues with "inclusive education" and music teaching, such as 1. Low recognition and acceptance of the concept of "inclusive education" in schools and society; 2. Inadequate teacher training; 3. Lack of specific theoretical guidance; 4. Lack of hardware conditions for organizing Orff teaching methods

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