



CURRICULUM DEVELOPMENT FOR CHILDREN WITH ADHD REVIEWED FROM LEARNING INNOVATION

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral disorder that commonly occurs in children who often have difficulty paying attention, controlling impulses, and having a high level of activity. Curricula designed specifically for children with ADHD aim to maximize their potential, while accommodating the challenges they face in information processing, attention regulation, and self-regulation. The aim of this research is to provide an overview of curriculum developments for children with ADHD in terms of innovations in learning using research methods, namely literature reviews and research results in the form of various curriculum developments for children with ADHD, especially in the form of innovations in inclusive learning in the application of kinesthetic learning styles, application of models. Project Based Learning and CTL learning with the help of Self Instruction and innovative learning aids in the form of playdough, Montessori teaching aids and play equipment with QR codes.

Keywords: development, children. ADHD

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a neurobehavioral disorder that commonly occurs in children (Subandi & Rusana, 2014). Children with ADHD often have difficulty paying attention, controlling impulses, and having a high activity level. There are several types of ADHD, namely the combination type, unfocused type and hyperactive/impulsive type (Safrizal et al., 2022). Symptoms of children diagnosed with ADHD are hyperactivity, impulsivity and attention disorders (Febriyana, 2024). Symptoms of hyperactivity include restlessness,

difficulty sitting still, the need to move constantly and physical restlessness. Symptoms of impulsivity are characterized by individuals who tend to act without thinking about the consequences, have difficulty waiting their turn and often engage in risky behavior. And the final symptom, namely attention disorders, is characterized by difficulty maintaining focus, being easily distracted, difficulty following instructions and often losing or forgetting tasks. This can affect their academic, social, and emotional abilities.

In recent decades, awareness about ADHD has increased significantly. More

children are being diagnosed with ADHD, and educators and other stakeholders increasingly understand the need for appropriate educational approaches to meet the special needs of children with ADHD. Curriculum development has become a primary focus in creating an inclusive and supportive educational environment for children with ADHD. Rosyad & Tarihoran (2022) revealed that a curriculum specifically designed for children with ADHD aims to maximize their potential, while accommodating the challenges they face in information processing, attention regulation, and self-regulation.

Inclusive education is an educational approach that ensures equal access, participation and learning progress for all students, including students with special needs or disabilities (Suryadi, 2023). The main goal of inclusive education is to create a friendly and supportive learning environment, where all students feel welcome, valued, and have equal opportunities to develop socially, emotionally, and academically. The basic principle in inclusive education is firstly accessibility. Inclusive education emphasizes the right of all students to access education without discrimination or physical, social or learning barriers (Nugroho & Mareza, 2016). Second, participation, all students, including students with special needs, must be actively involved in learning activities and participate in school life. The third principle is support which emphasizes the importance of providing appropriate support to meet the individual learning needs of each student. The final principle is collaboration which involves all stakeholders, including students, teachers, parents and educational professionals, to work together to support students and create an inclusive environment.

One of the important developments in the curriculum for children with ADHD is the individualization approach (Nuryati, 2022). In this approach, teachers and educators work together with parents and health professionals to design learning programs tailored to each child's unique needs. This individualized curriculum takes into account the learning preferences, learning styles and interests of children with ADHD, thereby increasing their involvement in the learning process. In addition, interactive and multisensory curriculum approaches have also become an important part in the educational development of children with ADHD. In this approach, teaching involves the use of various learning methods and media that involve the child's senses and movements, such as the use of pictures, manipulatives, games, and physical activities. This approach helps children with ADHD stay focused and engaged in learning, while improving understanding and retention of information.

The use of technology has also played an important role in the development of curricula for children with ADHD. Special apps and software have been developed to help children with ADHD manage time, organize tasks, and improve their cognitive skills. This technology can be used as a supporting tool in the classroom and at home, thereby supporting effective learning and developing children's skills.

In recent years, research on ADHD and education has provided valuable insight into how best to develop effective curricula for children with ADHD. This includes the identification of effective teaching strategies, good classroom management approaches, and the important role that collaboration between teachers, parents, and health professionals plays in supporting the development of children with ADHD.

With appropriate curriculum development, children with ADHD have a better chance of reaching their full potential in education. The application of individualization approaches, interactive and multisensory approaches, the use of technology, and collaboration between all relevant stakeholders can help create an inclusive and supportive learning environment for children with ADHD. Based on the above, the aim of this research is to provide an overview of curriculum development for ADHD children in terms of innovation in learning.

METHOD

This research method is based on a literature review, where researchers look for relevant theoretical sources. Literature studies focus on data or text that can be used as material related to the topic being discussed. A literature review is a summary of articles from journals, and various other documents that explain past and present theories. Thus, library research is research that emphasizes literature review and contains theoretical descriptions of journals and research papers obtained as reference material based on research activities. The data source used in this research is National articles. Researchers carefully and carefully read national articles and then choose words related to the study conducted. In the next step, the researcher edited the article paragraphs according to the literature preparation instructions. The researcher then draws conclusions from the planned literature survey. The author then revises and redefines the completed literature review so that the final result is easy to read and understand.

RESULTS AND DISCUSSION

From several articles that have been studied, it is found that there are several

learning innovations implemented by educators to deal with students who have ADHD tendencies, including research by Fathoni & Bakhtiar (2023) which reveals that the application of the kinesthetic learning style helps ADHD students who have difficulty concentrating and are more active. compared to regular students. The kinesthetic learning style, which emphasizes activeness through movement, working and touching, can facilitate children with more active movement and increase their enthusiasm for learning. ADHD children who engage in kinesthetic activities show increased participation and engagement in learning. The application of learning styles to students is an important aspect for achieving learning goals in an educational unit. As an educator, you must have a comprehensive understanding of handling children with special needs, especially children with ADHD. Students with special needs ADHD tend to prefer the kinesthetic learning style because students prefer the learning process to be carried out with direct practice and doing activities outside the classroom. Applying the right learning style will influence the development of students' academic achievements.

Apart from the emphasis on the kinesthetic learning style, there are also learning innovations in the form of material remodeling. The remodeling process involves changing learning methods to better suit the needs of ADHD children, including the use of praise to motivate these children and make them feel valued (Ismah & Anshori, 2024). One method that can be used in the learning process of children with ADHD is project based learning. Projects that can be given to children with ADHD can take advantage of the child's characteristics or preferences. For example, if the child likes pictures, they can be given

a mind mapping project accompanied by pictures that symbolize the target material. The project will get ADHD children actively involved in learning. After an ADHD child completes his assignment, the teacher must give praise to the child. This praise is useful for motivating and making the ADHD child feel appreciated for his hard work in sitting quietly and doing assignments during learning.

A form of learning innovation for ADHD children is also in the form of innovation in existing learning models. Like the research of Sholikhah *et al.* (2023) where the results of research applied the CTL model with the help of methods Self Instruction in handling hyperactive students in class 1 of SD Negeri 07 Tahunan has produced significant and valuable findings in the educational context. The learning process carried out has proven effective in creating a conducive and meaningful learning environment for students. Observations of a well-conditioned classroom environment during the learning process show that this approach has a positive impact in achieving the set learning objectives. These findings have positive implications for inclusive education that focuses on the individual needs of students, as well as stimulating the development of more adaptive learning strategies in facing diverse challenges in the classroom.

Apart from innovations in learning models, there are also learning techniques which show that play therapy, especially using Playdough media, has a significant effect in increasing the concentration of children with ADHD. This was stated by Noenta *et al.* (2022) in their research, namely that Playdough play therapy has a very good effect and is very helpful in improving children's concentration, especially children with ADHD. Play therapy is a therapeutic method that can be

carried out using various game tools and in situations that have been prepared beforehand and can help children express their feelings, be it happy expressions, sad expressions, angry expressions, depressed expressions or other emotional expressions. This therapy can also improve the concentration of ADHD children, where ADHD children can concentrate more when doing something.

Apart from play therapy using Playdough media, there are other innovations, namely using Montessori teaching aids such as research by Susiaty *et al.* (2021) where the props developed are positive and negative boards based on the Montessori method for students with ADHD. The integration of the Montessori method in this teaching aid is an innovation to help ADHD students understand mathematics, especially whole number operations. This has the potential to increase the effectiveness of learning for students with special needs and this teaching aid was developed in accordance with the current curriculum, making it relevant and applicable in the context of formal education in Indonesia.

Application of the game method with QR codes to increase the focus of attention of students with ADHD in learning Physics in inclusive classes. The research results show that applying the game method with QR codes can improve student learning outcomes, both in cognitive, affective and psychomotor aspects. This research was carried out in the inclusive class

From the articles above, it can be seen that curriculum developments that have occurred, especially in learning innovation, have taken various forms, such as the application of a kinesthetic learning style which is very suitable for the characteristics of students who experience ADHD, another innovation, namely the application of the

Project Based Learning learning model, where the projects given are adapted. with hobbies and enjoyment, students can also apply the CTL model assisted by Self Instruction. Furthermore, the existing forms of innovation are also in the form of teaching aids used in learning such as playdough games, Montessori props and play equipment with QR codes.

CONCLUSION

Based on the studies that have been carried out, it can be concluded that curriculum development for children with ADHD, especially in the form of innovation in inclusive learning, is in the application of kinesthetic learning styles because students with ADHD tend to have a kinesthetic learning style as well as the application of Project Based Learning and CTL learning models. with the help of Self Instruction and innovative learning aids in the form of playdough, Montessori teaching aids and play equipment with QR codes. All of these innovations can be input to educators or accompanying teachers or special accompanying teachers for ADHD children as one of the innovations in the ongoing learning process.

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