



Teachers' Adaptive Learning Strategies for Children with ADHD Symptoms

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Abstract

Early childhood with Attention Deficit Hyperactivity Disorder (ADHD) symptoms requires a tailored learning approach because they have difficulty maintaining attention, controlling impulses, and following instructions consistently. This condition requires teachers to implement adaptive learning strategies that can accommodate the children's individual needs. This study aims to analyze the adaptive learning strategies used by teachers to recognize distraction patterns and manage the behavior of children with ADHD symptoms at ABA 01 Batu Kindergarten. The study used a qualitative approach with a case study method. Data were collected through in-depth interviews with teachers and the principal, observations of classroom interactions, and supporting documentation. The analysis was conducted using thematic analysis through a coding process to identify strategic patterns that emerged in learning practices. The results of the study showed that teachers implemented adaptive strategies in several forms: (1) short, clear, and repeated instructions to help children understand directions; (2) positive reinforcement in the form of praise and rewards as motivation and behavioral regulation; (3) adjusting the rhythm and structure of activities, such as providing breaks, motor activities, and dividing tasks into small steps so that children do not become distracted quickly; (4) an empathetic emotional approach, where teachers build a sense of security through patience, closeness, and sensitive responses to changes in children's emotions; (5) arranging a learning environment with minimal distractions; and (6) collaboration with parents to align parenting patterns, behavioral regulation, and reinforcement at home. However, the implementation of the strategy still faces obstacles in the form of limited expert staff, parental consistency, and the less than optimal use of supporting visual media. In conclusion, adaptive learning strategies that are responsive, flexible, and based on empathy are key to supporting the learning engagement of children with ADHD. This approach allows teachers to more effectively direct children's behavior and foster optimal development.

Keywords:

ADHD; Adaptive Learning; Teacher Strategies; Early Childhood; Distraction.

A. INTRODUCTION

Early childhood children who exhibit symptoms of Attention Deficit Hyperactivity Disorder (ADHD) often face challenges in maintaining attention, controlling impulses, and adjusting to the rhythm of classroom learning. This condition makes them easily distracted and makes it difficult to consistently complete tasks. ADHD in early life is not simply active behavior or difficulty sitting still, but is related to underdeveloped executive functions, particularly in attention control and behavioral regulation, as explained by the study Dekkers et al., (2017) and Deodhar & Bertenthal (2023). At this stage, biologically, the child's attention is still vulnerable to being shifted by

environmental stimuli (Karakas, 2024), so teachers need to apply a responsive approach and adapt learning to the child's abilities.

Various previous studies have described the behavioral characteristics of children with ADHD symptoms and treatment approaches. Several studies have shown that children often experience difficulty focusing, hyperactive tendencies, and impulsive behavior that impacts the learning process (Anjani, 2013; Fitriyani et al., 2023). Other studies highlight forms of classroom intervention through brief instruction, the use of concrete media, and positive reinforcement such as charts or simple rewards (Gaastra et al., 2016; Rahmawati et al., 2024). There is also research showing how gradual support or scaffolding can help children regulate their behavior more independently (Dessy Meteorina, 2023; Kusuma et al., 2022). In fact, multisensory interventions and structured play have been reported to improve executive function in children with ADHD symptoms (Gibb et al., 2021).

While these studies provide important insights into behavioral patterns and potential interventions, several limitations remain. Many studies emphasize instructional strategies without explaining how teachers identify distraction patterns as a basis for instructional adjustments. Furthermore, most research has been conducted at the elementary school level or in specialized institutions, so the dynamics that occur in regular classrooms, playgroups, or kindergartens are not adequately represented. The relationship between identifying distraction patterns and implementing adaptive strategies in the context of everyday practice is also rarely discussed, particularly in early childhood Islamic educational institutions.

Based on this gap, this study offers a new perspective by exploring how teachers observe and interpret children's distraction patterns, and how these findings translate into adaptive learning strategies used directly in the classroom. This study aims to examine in-depth the application of teachers' adaptive learning strategies in recognizing and responding to distraction patterns in children with ADHD symptoms at ABA 01 Batu Kindergarten.

B. METHODS

This research used a qualitative approach with a case study design. This approach was chosen because of the need to understand in-depth how teachers can adapt learning for children with ADHD symptoms. Creswell (2018) explains that case studies allow researchers to follow the flow of events directly and capture how actors interpret the situations they face. This approach is in line with the research objectives that focus on the actual practices of teachers.

The research was conducted at ABA 01 Kindergarten in Batu. This school environment was chosen because its teachers are accustomed to adapting learning to meet the diverse needs of children. The research informants consisted of two grade B teachers, the principal, and two children exhibiting ADHD symptoms. Informants were selected purposively to ensure that the data obtained truly came from those with direct understanding of the situation. This aligns with the perspective of (Khairiah & Kurinci, 2022) about the importance of selecting participants who have experience relevant to the research focus.

In this study, the researcher served as the primary instrument. She collected and interpreted data through semi-structured interviews, classroom observations, and documentation in the form of lesson notes. Interviews were used to explore teachers' experiences in implementing adaptive strategies, while observations helped the researcher understand how these strategies occurred in daily learning activities. Documentation such as lesson plans and teacher notes supported the data to ensure that the information provided was consistent with practice in the field. According to Juwindi Aritonang dan Dorlan Naibaho (2024) reinforces that the combination of interviews and observations provides greater opportunities to understand the meaning behind teachers' actions.

Table 1. Interview Instrument Grid

Indicator	Question Items
Teachers' general strategies for dealing with children with ADHD symptoms	1. What strategies do teachers use to deal with children with ADHD? 2. How do they manage children with ADHD?

Indicator	Question Items
Adaptive Instruction and Learning	1. What forms of adaptive instruction do you provide in class? 2. What about rewards? 3. What results were seen after the learning rules were changed?
Environmental Support as Part of an Adaptive Strategy	1. How do schools manage the nutritional intake of children with ADHD? 2. How do schools facilitate therapy for children with ADHD?
Collaboration as a Support for Adaptive Strategy	1. How does the school involve parents? 2. How do parents respond to children with ADHD symptoms?

Source: Instrument development by researchers based on adaptive learning theory (Dessy Meteorina, 2023; Hidayat et al., n.d.).

The analysis was performed using an interactive model developed by Miles dan Huberman (2014). Researchers first reread all the data, then coded key sections, grouped the codes into categories, and then organized them into findings that illustrate the teachers' strategies. This model allows researchers to identify recurring patterns and understand the context of teachers' actions. Deodhar dan Bertenthal (2023) also emphasizes that this kind of analysis helps to reveal patterns of educational practice that are not always visible.

To ensure the validity of the findings, the researchers used triangulation methods through interviews, observation, and documentation. Some information was also reconfirmed with the teachers to ensure the researchers' understanding did not deviate from the informants' intentions. With these steps, a more comprehensive overview of the adaptive learning strategies implemented by the teachers can be presented, reflecting the conditions at ABA 01 Batu Kindergarten.

C. RESULT & DISCUSSION

This discussion is designed to reveal findings from the field and describe the adaptive learning strategies implemented by teachers in assisting two children with behaviors indicating ADHD, as well as analyzing the factors that support and hinder their implementation. The research findings indicate that teachers use various forms of learning adjustments that are direct, flexible, and situational. The forms of these adaptive strategies were obtained through coding analysis from interviews and observations of Ath (6 years old) and Alw (5 years old), two children who exhibit attention deficits, difficulty following instructions, and impulsive tendencies as recorded in the observation instrument.

The research results show that teachers implement various forms of adaptive learning strategies that support the needs of children with ADHD symptoms. The teacher explained that the initial step was in-depth observation for approximately three months to understand the children's character, behavior patterns, and focus abilities. These findings indicate that the teacher has implemented learning adaptations tailored to the children's needs (S-1).

The next adaptive strategy implemented is classroom management. Schools provide classrooms with fewer students so teachers can focus on providing more optimal support. Furthermore, parents are asked to accompany their children on certain activities, such as class outings, to increase their sense of security and reduce distractions (S-2). This approach aligns with the principles of environmental planning, which emphasize the importance of a structured learning space for children with attention difficulties.

In the instructional aspect, the teacher conveys that she has given instructions briefly and clearly, using firm intonation, and most importantly, repeating the instructions. If the child does not appear to be responding as expected, the teacher adds a direct example to make it easier for the child to understand the expected action (S-3). This approach is in line with scaffolding theory, which emphasizes the importance of gradual assistance from the teacher to strengthen the child's learning abilities and independence (Dessy Meteorina, 2023).

When it comes to rewards, teachers typically provide praise and applause as a form of reinforcement for positive behavior. Teachers recognize that this can help children feel appreciated and more motivated to follow instructions (S-4). This finding aligns with behavioral

reinforcement theory, which states that positive responses can increase the likelihood of desired behaviors reoccurring (Gaastra et al., 2016).

Based on the teacher's adjustments to instructions for children with ADHD, it appears to have had a positive impact. The children appeared more focused and began to respond to the teacher's directions. However, the children still needed to repeat instructions two to three times before responding (S-5). This situation indicates that the strategies implemented were not entirely optimal. Study Gualtieri dan Johnson (2005) emphasized that children with ADHD symptoms need a combination of instructions such as being given pictures or symbols so that their understanding can develop.

Providing support from the surrounding environment is also part of implementing adaptive strategies. Teachers reported that the school limits the consumption of sweet and starchy foods to help reduce symptoms of hyperactivity (S-6). This aligns with the theory that children with ADHD are more sensitive to simple sugars, which can exacerbate symptoms of hyperactivity and distractibility (Fitriyani et al., 2023). In fact, studies have shown that a high-sugar diet is linked to increased ADHD symptoms, while a healthy, low-sugar diet actually helps suppress hyperactive behavior (Ni Luh Ayu Putu Indah Yulantari & I Gusti Putu Martha Kusuma, 2023). However, field observations revealed a discrepancy: one of the children with ADHD, ALW, was still given a sugary Slai O'lai lunch, and the teacher allowed him to consume it without intervention. This fact demonstrates a disconnect between the teacher's theoretical approach and practical practice.

Further school support includes providing specific time for children with ADHD symptoms to participate in therapy outside of school. In this case, teachers adjust learning to the therapy schedule so that treatment at school and in the therapy institution can be carried out conductively (S-7).

Teachers collaborate with parents to foster intensive communication by holding parenting activities and involving parents in certain school activities. Some parents appeared enthusiastic about this collaboration (S-8 and S-9). However, many also expressed resistance or uncertainty regarding their child's condition. This situation can impact the consistency of strategies between families and schools in adapting communication approaches.

Overall, the adaptive learning strategies implemented by teachers, including instruction adjustments, classroom management, behavioral reinforcement, and collaboration between parents and the school, have been effective. Several of these strategies align with the theory of reinforcement through instruction, which allows children to develop optimally (Dekkers et al., 2017).

Tabel 2. Reduction and Coding Results

Question	Short Answers (Based on Interviews & Observations)	Data Reduction	Code
How do teachers take the first steps in adaptive learning for ADHD children?	Teachers conduct intensive observations for approximately three months to understand the child's character, behavior patterns, and ability to focus.	Identify children's needs through initial observation.	S-1
How is classroom management for children with ADHD?	Children are placed in small-group classes, receive intensive support, and parents accompany them in certain activities.	Small class arrangements and special mentoring.	S-2
How do teachers provide adaptive instruction to children with ADHD?	Teachers use short, clear, firm, repeated commands and provide direct examples to make it easier for children to understand the directions.	Simple, consistent, and repeatable instructions.	S-3
What form of reward does the teacher give in adaptive learning?	Teachers give rewards in the form of praise and applause to reinforce positive behavior.	Positive reinforcement through verbal and gestural rewards.	S-4

Question	Short Answers (Based on Interviews & Observations)	Data Reduction	Code
What were the results or responses of the child after the instruction adjustments were made?	Children appear more focused and able to follow directions, but still need to repeat instructions 2–3 times.	The effectiveness of the strategy has increased but is not yet optimal.	S-5
How is environmental support (e.g. diet) implemented?	The school limits sugar and flour to reduce hyperactivity, but found the practice to be inconsistent when one child still brought in sweets.	Dietary support as an adaptive strategy, but not yet consistent.	S-6
How do schools facilitate out-of-school therapy?	Teachers adjust the learning schedule to the child's therapy schedule so that the intervention runs consistently.	Integration of school interventions and outside therapy.	S-7
What form does collaboration between teachers and parents take?	Teachers carry out routine parenting, intensive communication, and involve parents in certain activities at school.	Active collaboration with parents.	S-8
How do parents respond to the school's adaptive strategies?	Some parents support it, others refuse or have not yet accepted their child's condition so the strategy is not yet consistent at home.	Variations in parental responses that influence the success of the strategy.	S-9

Source: Researcher Interview Results, 2025

D. CONCLUSION

This study describes how teachers at ABA 01 Batu Kindergarten adapt their learning when assisting two children with ADHD symptoms. Based on observations and interviews, it appears that the teachers' adaptive efforts are not isolated but emerge from the needs that arise in the classroom over time. Teachers simplify instructions, provide positive reinforcement, and use a more empathetic approach when addressing impulsive or repetitive behavior. Adjusting learning activities is also part of their daily strategy, especially when children appear to lose focus or have difficulty following the flow of activities. Communication with parents complements this process, as teachers need additional information about their children's habits at home to ensure consistent management patterns.

The findings of this study demonstrate that the adaptive learning strategies implemented by teachers have been effective, but their effectiveness is greatly influenced by the consistency of practice at school and at home. Inconsistencies, such as the lack of effective sugar restrictions, indicate that the strategies have not been fully integrated into the school culture. This confirms that adaptive strategies depend not only on the techniques used by teachers but also on the alignment of implementation by all parties involved.

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