

TEACHER STRATEGIES IN THE IMPLEMENTATION OF DIFFERENTIATED INSTRUCTION IN SCIENCE AND SOCIAL STUDIES LEARNING

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ABSTRACT

This research is motivated by the importance of implementing differentiated learning to meet the diverse learning needs of students in grade 5B at MIN 2 Sidoarjo. The issue was further discussed using Dreikurs' theory to identify the underlying factors. The main problem in this study concerns the difficulties faced by teachers due to age, time constraints, and the complexity of implementing differentiated instruction. This research aims to describe the strategies used by teachers in applying differentiated learning and to identify the challenges and their impact on students' learning motivation in Grade 5B. The study employed a qualitative descriptive approach through teacher interviews and classroom observations, adapted from the Designer 9 Model of Teaching and Learning. The findings reveal that teachers have implemented CIS and CIP strategies by engaging students in groups categorized as high, middle, and low achievers, which positively influenced students' motivation and participation, particularly among kinesthetic and visual learners. However, the implementation of COP and CSI remains suboptimal. The study concludes by recommending improved teacher preparation and stronger institutional support to enhance the effectiveness of differentiated learning practices in elementary madrasah settings.

Keywords: *Teacher Strategies, Different Learning, IPAS Learning*

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INTRODUCTION

In the learning process, students are a crucial element with equal rights to education. Each student is fundamentally different from others, making it crucial to understand their unique characteristics. To address these differences, inclusive education can be implemented, providing opportunities for all children to appreciate their right to education. This paradigm recognizes student diversity, emphasizing that different students should not only be accepted but also given the opportunity to tailor learning to their individual needs. Teachers play a crucial role in the learning process, serving as guides for students and determining their success. Despite rapid technological advancements, the role of teachers in supporting students in learning remains irreplaceable. Teachers have similar roles and functions, including teaching, guiding, educating, and training. These four skills are integrative and interrelated, making them irreplaceable by technologies such as Artificial Intelligence. (Wulansari et al., 2024)

Teachers can create quality learning through teaching methods. A teaching method is the approach used by teachers or other educational staff to convey subject matter to students. This method may involve the use of different strategies, techniques, and methods to achieve desired learning objectives. One method that has advantages in the context of learning is the differentiated learning method. Differentiated learning is a method designed by teachers to meet the learning needs of students in the classroom, including their learning readiness, interests, and learning profiles. Differentiated learning focuses not only on the product of learning but also on the process and content. This method can be applied to almost all subjects. (Putri, Yantoro, & Sholeh, 2024)

Based on the previous argumentation, it shows that differentiated learning is a learning process activity carried out by adapting to the needs of each individual student. This shows that learning activities should be in accordance with the characteristics and learning styles of each student. In fifth-grade Islamic elementary schools, students experience changes in cognitive and social development, moving away from more concrete development. This situation necessitates a more adaptive approach to learning. Intra-class differentiation in fifth-grade students at MIN 2 Sidoarjo is the focus of this study, exploring how teachers design and implement strategies based on the principle of differentiation.

Based on the analysis of several previous studies, it appears that the application of differentiated learning in elementary schools has been widely discussed, but there are still several aspects that have not been well researched. Research by Anwar, Munir, Muharram, & Rozaq (2025) shows that the implementation of differentiated learning in elementary schools still faces problems in converting concepts into actions in the classroom, since some teachers do not fully understand the principles of differentiation. Meanwhile, research by Prahastiwi, Zuriah, & Widodo (2025) focused more on students who learn more slowly, so the results do not represent the complete application of differentiation to all students in regular classes.

Furthermore, research by Sholikhah & Hapsariwa (2025) emphasized the importance of Islamic Religious Education (PAI) teacher professionalism in implementing differentiated learning in Islamic Cultural History (SKI) subjects in elementary madrasas. The focus on religious studies specifically makes the research findings inapplicable to general subjects in madrasas. Meanwhile, research by Ningrum & Andriani (2023) focused more on the independent curriculum policy that uses a differentiated approach in elementary madrasas, but did not delve into how teacher strategies operate in the classroom.

Research by Anwar & Sukiman (2023) also emphasizes the role of teachers in implementing differentiated learning, but this research is theoretical and has not touched on real aspects such as those that occur in state madrasas. These five studies demonstrate a

gap in research regarding strategies for teachers to apply differentiated learning in state elementary madrasas (MIN), particularly in higher grades such as fifth grade, where students' characteristics and learning abilities are increasingly diverse. Therefore, this research is necessary to provide concrete evidence to deepen our understanding of how to implement differentiated learning in state elementary madrasas.

Furthermore, how these students interact and the explanations provided will impact this, which is also crucial in distinguishing the supporting and inhibiting factors of the strategy. This study focuses on this objective, particularly what influences student participation and learning outcomes. Therefore, the focus of this study remains on teacher strategies in implementing non-discriminatory learning in grade 5 of MIN 2 Sidoarjo. This study is expected to be more adaptive in learning. Intra-class differentiation in grade 5 at MIN 2 Sidoarjo is a focus in this study to explore how teachers attempt to design and implement strategies based on the principle of differentiation.

Based on the analysis of several previous studies, it appears that the application of differentiated learning in elementary schools has been widely discussed, but there are still several aspects that have not been appropriately examined. Research by Anwar, Munir, Muharram, & Rozaq (2025) shows that the implementation of differentiated learning in elementary schools still faces problems in converting concepts into actions in the classroom, because some teachers do not fully understand the principles of differentiation. Meanwhile, research by Prahastiwi, Zuriah, & Widodo (2025) focused more on students who learn more slowly, so the results do not represent the complete application of differentiation to all students in regular classes.

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METHOD

This study uses a qualitative descriptive approach with the aim of revealing the strategies implemented by teachers in differentiated learning in depth and comprehensively. (Halimatussakdiah, 2024) Qualitative descriptive research is research that explains and depicts conditions and phenomena clearly regarding situations that occur in the field, with data in the form of words, pictures, and not numbers. The subjects of this study were 5B grade teachers at MIN 2 Sidoarjo who actively implement differentiated learning. The research location was chosen purposively because MIN 2 Sidoarjo has diverse student characteristics and has adopted a learning approach tailored to their needs. The researchers used three stages of data collection: in-depth interviews, observation, and document study. The researchers conducted in-depth interviews with teachers as key informants. These interviews aimed to obtain data (Halimatussakdiah, 2024) regarding the experiences, strategies, and obstacles faced by teachers in implementing differentiated learning.

The second data collection technique was observation. Observations were conducted directly in the school environment to observe the differentiated learning process implemented by teachers. Observations served to obtain a concrete picture of strategy implementation, teacher student interactions, and the use of learning media in the classroom. The final technique used was a document study. Document studies were conducted by collecting and analyzing documents (Halimatussakdiah, 2024) related to differentiated learning, such as lesson plans, teaching modules, diagnostic assessment results, and learning evaluation records. This document study aimed to strengthen data from interviews and observations and obtain written evidence regarding the implementation of differentiated learning strategies. In the final stage, the researcher conducted data analysis. Data obtained from interviews, observations, and document studies were analyzed qualitatively through the stages of data reduction, data presentation, and drawing conclusions to obtain a complete picture of teacher strategies in implementing differentiated learning.

RESULTS AND DISCUSSION

Differentiated learning can be implemented using three strategies: content, process, and product differentiation. (Ayu Sri Wahyuni, 2022) Content differentiation is what is taught to students. Content can be differentiated in response to students' readiness, interests, and learning profiles, or a combination of the three. (Sarie, 2022) Content differentiation refers to students' learning styles and needs, which are divided into three categories: auditory, visual, and kinesthetic.

Process differentiation refers to how students will understand or make sense of what they are learning. Process differentiation can be achieved through tiered activities, providing guiding questions or challenges to be addressed within interest areas, creating individualized agendas for students in the form of to-do lists, varying the amount of time students can spend on assignments, and developing varied activities. Product differentiation is the work or demonstration of abilities that students need to present to teachers. This can be in the form of writing, speeches, recordings, diagrams,

or other physical objects (Sarief, 2022). With this product differentiation, teachers can comprehensively evaluate students' understanding and enhance their learning interests and talents.

Based on the results of interviews and observations conducted at MIN 2 Sidoarjo, especially in class 5B, researchers found the following results;

Based on an interview with a class 5B teacher at MIN 2 Sidoarjo, the teacher has met students' learning needs by implementing differentiated learning. However, the teacher grouped students according to their learning abilities (high, middle, and low). This is based on an excerpt from the interview with the class teacher.

"So far, I've been implementing differentiated learning by grouping students based on their learning ability levels. I group them and then differentiate the assignments. This way, each student receives their own portion of the learning material," (M.GK.170325).

From the quote above, the classroom teacher differentiates products for student work. And content differentiation is used to group students based on learning ability levels. In content differentiation, the teacher adapts learning materials to suit students' learning abilities (Berdifrensiasi, 2024).

"I've also used differentiating students based on their learning styles. But for me, being older, it's difficult to implement. It takes a lot of time in terms of preparation, implementation, and evaluation. So now I'm just differentiating based on learning abilities." (M.GK.170325).

Referring to the quote above, classroom teachers perceive the weaknesses of differentiated learning styles (auditory, visual, and kinesthetic). They feel that differentiated learning activities are time-consuming for older teachers.

Based on field observations in class 5B, researchers found that the majority of students had a kinesthetic learning style. However, some students also had a visual learning style, as evidenced by the enthusiasm of several students when learning materials were presented via video or PowerPoint (PPT). Students with a kinesthetic learning style were also shown to be enthusiastic when given an assignment to create a product by cutting, drawing, and pasting.

Distributed teaching in Grade 5B at MIN 2 Sidoarjo shows that teachers have attempted to meet students' learning needs by

grouping students based on their learning ability levels. This strategy reflects the implementation of content and product differentiation, where information and assignments are presented differently to students according to their abilities. Teachers stated that this strategy allows students to learn content according to their individual allocation and makes classroom management easier. This addresses the first problem formulated regarding the teaching strategies used by teachers in multisession distributed teaching, namely by using a student-level approach (Fitriani & Winarsih, 2020).

However, teachers also expressed complexities related to implementing differentiated learning based on learning styles. In their view, strategies tailored to visual, auditory, or kinesthetic learning styles seem to require a long time and require a very complex evaluation process, which in turn creates an unnecessary additional burden, especially for older teachers. This statement suggests that time constraints, age, and the complex nature of technology present real challenges to implementing differentiated learning that addresses the second research question. This aligns with Arifin (2019) who stated that implementing differentiated instruction requires teacher readiness both pedagogically and managerially.

Field observations also confirmed the interview results, indicating that the majority of students tended to have a kinesthetic learning style, with some having a visual learning style. Student motivation increased when instruction was conducted through physical activities such as drawing and pasting, as well as through visual aids such as videos and presentations. This suggests that students are motivated to actively participate in learning when the teaching strategies used are aligned with their learning styles. Therefore, these results address the third question, namely the impact of implementing differentiated instruction on student motivation and learning outcomes. This aligns with findings by Nasution and Hidayati (2022), which state that differentiated instruction can improve student motivation and performance when the strategies used are aligned with their learning characteristics.

CONCLUSION

The results of the study in class 5B MIN 2 Sidoarjo showed that teachers have implemented differentiated learning by grouping students based on their learning ability levels (high, middle, low) through the application of content and product differentiation. This strategy helps students understand the material according to their respective abilities and increases learning motivation, especially for students with kinesthetic and visual learning styles. However, the application of process and learning style differentiation is still limited due to time constraints, the age of the teacher, and the complexity of preparation and evaluation. This illustrates that although the concept of differentiated learning has been fundamentally applied, its implementation has not touched all aspects of differentiation, especially the variety of student learning styles, so its effectiveness is not optimal in accommodating all learning needs in the class.

It is recommended that fifth-grade teachers at MIN 2 Sidoarjo expand the application of differentiated learning beyond learning abilities to encompass student learning styles (visual, auditory, and kinesthetic) in order that each student can learn optimally according to their characteristics. Teachers can utilize simple learning technologies such as visual media and kinesthetic activities to enrich the learning process without significantly increasing the workload. Furthermore, schools need to provide ongoing training and mentoring on differentiated learning strategies to enhance teachers' pedagogical and managerial readiness. This will ensure that the implementation of differentiated learning in madrasah is more effective, adaptive, and supports the achievement of optimal learning outcomes for all students.

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