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Exploring Differentiated Learning: A Teaching at the Right Level Approach in Elementary Schools

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ABSTRAK

Kesenjangan hasil belajar antara peserta didik dengan tingkat kemampuan yang berbeda merupakan suatu tantangan yang kompleks dalam dunia pendidikan. Pembelajaran yang terdiferensiasi merupakan solusi untuk mengakomodasi perbedaan individu siswa. Tujuan utama penelitian ini adalah untuk mengevaluasi keefektifan pendekatan Teaching at the Right Level (TaRL) dalam meningkatkan pemahaman siswa terhadap materi pengolahan data, dengan menggunakan kata kerja operasional tingkat tinggi seperti 'evaluate', 'analyze', dan ' mempersatukan.' Penelitian ini melibatkan guru kelas dan 30 siswa kelas 6A. Teknik pengumpulan data meliputi wawancara, observasi, dan dokumentasi hasil belajar siswa. Analisis data dilakukan melalui tahapan pengumpulan data, reduksi data, penyajian data, dan penarikan kesimpulan. Temuan penelitian menunjukkan bahwa pendekatan TaRL secara signifikan meningkatkan pemahaman siswa terhadap materi pengolahan data. Namun, untuk mengatasi tantangan dalam implementasi, diperlukan strategi yang lebih fokus dan dukungan yang komprehensif. Studi ini menyimpulkan bahwa penguatan pendekatan pembelajaran terdiferensiasi menggunakan TaRL dalam kurikulum sekolah dasar, dengan dukungan kuat dari sekolah, orang tua, dan pemerintah, sangat penting untuk keberhasilannya.

ABSTRACT

The gap in learning outcomes between students with different levels of ability is a complex challenge in the world of education. Differentiated learning is a solution to accommodate individual student differences. The primary objective of this research is to evaluate the effectiveness of the Teaching at the Right Level (TaRL) approach in enhancing students' understanding of data processing material, employing high-level operational verbs such as 'evaluate,' 'analyze,' and 'synthesize.' This research involved class teachers and 30 class 6A students. Data collection techniques included interviews, observation, and documentation of student learning outcomes. Data analysis was conducted through stages of data collection, data reduction, data display, and drawing conclusions. The research findings indicate that the TaRL approach significantly improves students' comprehension of data processing material. However, to address challenges in implementation, a more focused strategy and comprehensive support are necessary. The study concludes that strengthening the differentiated learning approach using TaRL in the elementary school curriculum, with robust support from schools, parents, and the government, is crucial for its success.

1. INTRODUCTION

The gap in learning outcomes between students with different levels of ability has become a complex challenge in the realm of education. This challenge arises because conventional learning methods are often unable to accommodate the individual needs of each student in one class (Fitriana et al., 2024; Suhartini, 2019). The impact is that there are students who succeed in achieving a deep understanding, while others still struggle to keep up. As a result, teachers are faced with difficulties in achieving optimal learning outcomes for all students due to significant differences in abilities (Arta et al., 2020; Intang Sappaile et al., 2024; Rahmawati & Budiningsih, 2014). In the same classroom context, the challenge of aligning learning to suit the needs of each student becomes increasingly complex and requires more differentiated learning strategies.

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Differentiated learning is a method that emphasizes the importance of understanding that each student has unique needs and learning styles. In this context, educators are expected to accommodate students' individual differences in their teaching (Halimah, 2023; Pertiwi, 2021). This means not only providing a uniform learning approach for the entire class but also adapting learning strategies according to the needs, interests, and ability levels of each student. This approach allows each student to learn in the most effective way for them, thereby increasing the opportunity to achieve maximum learning potential (Gusteti & Neviyarni, 2022; Sutrisno et al., 2023). By adopting a differentiated learning approach, educators can create an inclusive and supportive environment where each student feels valued and supported in their learning journey according to their level of ability (Ambarita et al., 2023; Yazar Soyadı, 2015).

The ability level of each student can be accommodated through the Teaching at the Right Level (TaRL) approach. This approach offers a framework that allows educators to identify and understand students' individual weaknesses and strengths in understanding learning material (Listyaningsih et al., 2023; Suharyani et al., 2023). Through this differentiated approach, TaRL aims to provide a more effective and adequate learning experience for each student so that they can better achieve their academic potential. By recognizing students' individual differences and providing appropriate assistance at the appropriate level, TaRL opens the door to greater educational equality and provides a solid foundation for students' future learning success, especially at the elementary school level (Irmayanti et al., 2023; Rohani et al., 2023).

In elementary schools, implementing the TaRL approach has become an important innovation in improving the quality of education. One of the main advantages of implementing TaRL is improving student learning outcomes because learning that is tailored to each student's ability level can optimize their understanding (As et al., 2024; Sanisah et al., 2023). Apart from that, TaRL also encourages students' active participation in learning because they feel more involved and motivated by challenges that match their abilities. The challenge in implementing TaRL is expanding the curriculum to cover more material so that it can be adapted to various levels of student ability (S. D. Cahyono, 2022; Yuli et al., 2024). Nevertheless, the application of TaRL has great potential to improve student learning outcomes and create a learning environment that is inclusive and oriented to individual needs.

Preliminary observations clearly demonstrate the efficacy of the Teaching at the Right Level (TaRL) approach in enhancing students' comprehension of data processing concepts. By prioritizing personalized learning tailored to individual student abilities, TaRL empowers educators to strengthen foundational understanding among students. Factors such as the integration of skills-based learning methodologies and interactive educational tools have proven highly effective in bolstering both student engagement and proficiency in data processing. Previous research underscores the pivotal role of differentiated learning strategies and the implementation of TaRL in significantly enhancing student comprehension (Indartiningsih et al., 2023; Yunus & Alim, 2023).

Based on the explanation above, it can be concluded that the TaRL approach is effective in increasing students' understanding of data processing concepts. By prioritizing learning tailored to individual abilities, TaRL allows educators to strengthen the foundation of students' understanding of the material. Previous research has shown an increase in learning outcomes through the TaRL approach but lacks an in-depth analysis of the challenges in its implementation (Syerlinda, 2023). In line with previous research, it tends to focus more on learning outcomes using the TaRL approach without providing specific strategies and challenges in implementing the TaRL approach in differentiated learning (Setiadi, 2023). Therefore, further research is needed that not only focuses on learning outcomes using the TaRL approach but also analyzes in depth the challenges of its implementation. This emphasizes the importance of an in-depth understanding of the challenges in implementing the TaRL approach, which will enable the development of more effective strategies for improving the quality of learning and overall student learning outcomes (Ningrum et al., 2022; Ulfah et al., 2023).

Previous research only focused on the nature of differentiated learning, so there is still a lack of research regarding concrete strategies and challenges in implementing the TaRL approach in differentiated learning, so this research intends to examine this topic in more depth (Gusteti & Neviyarni, 2022). Therefore, this research aims to analyze concrete strategies and challenges in implementing the TaRL approach in differentiated learning. The novelty of this study, it seeks to identify effective methods for integrating TaRL into classroom practices, understand the barriers teachers face during implementation, and evaluate the impact of these strategies on student achievement. The implication of this research is that a well-implemented TaRL approach in elementary schools can significantly enhance student achievement by providing tailored instruction that meets individual learning needs, thereby fostering a more inclusive and effective educational environment.

2. METHOD

This qualitative research investigates the implementation and effectiveness of the Teaching at the Right Level (TaRL) approach within the context of differentiated learning strategies (Johnson & Christensen, 2008). Adopting a case study design, the study focuses on how TaRL is applied and its impact in educational settings, specifically at elementary school in Surabaya, involving class teachers and students from class 6A as primary subjects. Data collection methods encompassed interviews, observation, and documentation to provide comprehensive insights into the implementation and outcomes of TaRL in differentiated learning. Purposive sampling was employed to deliberately select participants—such as class teachers and specific students—based on their relevance to the study's objectives, ensuring insights and experiences pertinent to TaRL and differentiated learning were captured. Interviews were conducted to gather in-depth perspectives from teachers and students regarding their experiences with TaRL, while observations were carried out to directly witness TaRL strategies in classroom settings. Both methods aimed to capture nuanced insights into the dynamics of teaching and learning under the TaRL framework.

Data analysis progressed through stages of data collection, data reduction (summarizing key points from interviews and observations), data presentation (using narrative text for clarity), and drawing conclusions. This systematic approach facilitated an accurate exploration of the relationship between multiliteracy skills and differentiated learning facilitated by TaRL. To ensure the validity of research findings, rigorous measures were implemented, including optimizing research time, ensuring accuracy and consistency in data collection, employing triangulation (cross-verifying findings from different data sources), and consulting with knowledgeable peers in the field of education. These efforts collectively strengthened the reliability and robustness of the study's outcomes.

3. RESULT AND DISCUSSION

Result

The results of interviews with class teachers explain that class 6A students consist of a variety of students with unique characteristics. Some students show a high interest in mathematics subjects, while others are more interested in other fields. In addition, the class teacher also noted variations in the level of mathematical ability among the students. Some students have demonstrated a strong understanding of previous material, while others may need additional help to overcome the difficulties they encounter. In addition, classroom teachers also note that some students may have different learning styles, requiring different learning approaches to meet their individual needs.

Based on observation results, class 6A, which consists of 36 students, shows diversity in their ability to understand mathematical concepts, especially in data processing material. It was found that some students had a fairly good understanding of the basic concepts of data processing, such as tables and diagrams, as well as calculating the mean, median, and mode. However, some students still experience difficulties applying these concepts in the context of real problems, especially in the process of interpreting and analyzing data. In addition, initial learning conditions also reflect variations in students' learning interests and motivations towards mathematics, which can influence their level of engagement in the learning process. Some students show high interest and actively participate in learning, while others may need additional encouragement to actively engage in learning.

From the observations, it was evident that the implementation of the Teaching at the Right Level (TaRL) approach within differentiated learning for grade 6 students, specifically in the mathematics subject of data processing, follows a systematic approach. Initially, teachers initiate the process by conducting a diagnostic test aimed at assessing students' individual learning needs. This diagnostic test is designed to evaluate students' comprehension levels of key data processing concepts such as mean, median, and mode. Alongside the test, direct observation of students in classroom settings provides additional insights into their understanding. Based on the outcomes of the diagnostic test and observations, teachers customize the learning experiences to address each student's specific needs effectively. This customization involves sequentially delivering data processing materials, starting from foundational concepts and progressing to more advanced topics, all aligned with students' current levels of understanding.

Furthermore, interactive and skill-based learning methods play a pivotal role in enhancing students' grasp of the material. These methods are integrated into the teaching process to promote active engagement and practical application of data processing concepts. Through interactive activities, collaborative exercises, and hands-on tasks, students are encouraged to participate actively in their learning journey. Throughout the learning process, teachers maintain continuous monitoring of students' progress and provide targeted feedback to support their development. This feedback mechanism ensures

that students receive timely guidance and reinforcement, fostering a supportive learning environment conducive to academic growth.

Teachers said that there were several challenges they faced in implementing the TaRL approach in differentiated learning. One of them is the difficulty in adapting data processing material to the various ability levels of students in the class. Another challenge highlighted is the limited time available in class, which makes it difficult for teachers to provide adequate individual attention to each student according to their needs. Apart from that, teachers also mentioned that the lack of resources, both in the form of varied teaching materials and adequate technology, was an obstacle to creating differentiated but effective learning. Although implementing a TaRL approach allows for differentiation of learning, finding the right balance between providing challenges appropriate to students' abilities and providing the support needed to overcome difficulties remains a significant challenge for educators.

From the results of the documentation review of grade 6 student learning evaluations in the mathematics subject of data processing material, it can be concluded that there has been significant progress in students' understanding of these concepts. Evaluation of learning outcomes is carried out through various methods, including formative tests, individual assignments, and group projects. Formative test results show consistent improvement over time, with the majority of students showing significant improvement in scores. Apart from that, individual assignments and group projects also provide a positive picture of students' understanding of data processing material. Students are actively involved in completing these tasks, demonstrating a good understanding of the concepts taught.

Based on the results of interviews with several grade 6 students regarding learning in the mathematics subject of data processing material, students expressed various responses. Some students stated that they found the data processing material interesting and useful in everyday life. They feel helped by a learning approach that uses real examples and a variety of interactive learning methods. However, some students also admit that they face some difficulties in understanding more complex concepts, such as mean, median, and mode. Some students said they needed more practice and guidance from teachers to master the concepts. Nevertheless, most students stated that they felt motivated to learn and tried to improve their understanding of the data processing material.

Discussion

The application of the Teaching at the Right Level (TaRL) approach in differentiated learning has had a significant positive impact on student understanding and achievement. Through this approach, students are not only invited to understand the subject matter in more depth but are also given the opportunity to learn according to their respective levels of ability (Kaimuddin et al., 2023; Ningrum et al., 2022). With an approach tailored to individual needs, students feel more motivated and enthusiastic about learning. As a result, many students showed significant improvements in their understanding of the concepts taught, as well as better academic achievements. Apart from that, the TaRL approach also helps students feel more confident in facing learning challenges (Attahira et al., 2023; S. D. Cahyono, 2022). By providing positive learning experiences and building success gradually, this approach not only increases students' understanding of the subject matter but also fosters a strong sense of self-confidence and intrinsic motivation to continue learning and developing. Thus, the positive impact of implementing the TaRL approach in differentiated learning on students' understanding and achievement has been proven to make a major contribution to improving the quality of education (Jauhari et al., 2023; Prihandini et al., 2023).

Implementing the Teaching at the Right Level (TaRL) approach in differentiated learning requires effective teaching strategies, starting with diagnostic tests as the first step. After diagnostic test results are obtained, teachers can use differentiation of content, processes, products, and learning environments to meet students' individual learning needs (Hockett, 2018; Saputro et al., 2024). First, in content differentiation, the teacher presents learning material that is adjusted to the student's level of understanding. The material is presented in stages, starting from basic to more complex concepts, according to the results of diagnostic tests. The learning process is also differentiated, where teachers use various learning methods that suit students' learning styles, such as group discussions, problem solving, or practical experiment (Alhafiz, 2022; Herwina, 2021). In addition, product differentiation allows students to demonstrate their understanding through various forms, such as creative projects, presentations, or writing assignments. Finally, a differentiated learning environment creates a supportive atmosphere for each student by providing additional help, personal attention, or additional resources as needed (Rafiska & Susanti, 2023; Saptariana et al., 2023; Wahyuni, 2022). With this strategy, the TaRL approach can be applied effectively in differentiated learning, enabling each student to better achieve their learning potential.

The teacher's role in facilitating student-centered learning is very important in the context of the TaRL approach. The teacher acts as a facilitator who guides students to be actively involved in the learning process (Sulistriani et al., 2021; Wardani et al., 2023). First, teachers must understand the learning needs of each student through diagnostic tests and direct observation so that they can design learning that is appropriate to the student's level of understanding. Furthermore, teachers provide appropriate direction and support to students to explore and understand learning material independently or in groups (Nofitasari et al., 2023; Widiyaningsih & Narimo, 2023). Teachers encourage students to ask questions, discuss, and find their own solutions, thereby building independence and self-confidence in learning. In addition, teachers provide feedback that is constructive and oriented towards individual development and adjust learning approaches according to student responses and progress (Afida, 2023; Faiz et al., 2022; Rohmat & Lestari, 2019). Thus, the teacher's role in facilitating student-centered learning is vital to creating a learning environment that is inclusive, dynamic, and allows each student to achieve their learning potential optimally.

To overcome the challenges in implementing the TaRL approach in differentiated learning, first, educators can use regular formative assessments to monitor individual students' progress and adjust learning according to their needs. By understanding individual students' levels of understanding, teachers can provide additional help to those who need more attention while also challenging students who already have a strong understanding (Milaini et al., 2023; Wahyuni, 2022). Second, educators can use a variety of teaching methods, including the use of learning materials adapted to students' learning styles, the use of technology, and project-based learning. In this way, students with various levels of ability can engage in learning that is relevant and interesting to them. Collaboration between teachers is also key, where they can share strategies and experiences in facing the same challenges (A. E. Cahyono, 2024; Widyawati & Rachmadyanti, 2023). Apart from that, involving parents as partners in the learning process can also provide additional support for students in facing learning challenges. By implementing these efforts in an integrated manner, educators can create an inclusive learning environment and support the optimal development of all students in accordance with TaRL principles (Ambarita et al., 2023; Jayanti et al., 2022).

In general, there are several key factors that have a significant influence on the success of implementing the TaRL approach in differentiated learning. First, there is a deep understanding of students' individual learning needs. Teachers need to have the ability to identify differences in students' levels of understanding and learning styles so they can design appropriate learning (Nofitasari et al., 2023; Rais et al., 2023). In addition, it is important to provide adequate resources and support, including textbooks appropriate to students' level of understanding, interactive learning aids, and training for teachers in implementing the TaRL approach effectively (Ritonga et al., 2022; Sigalingging, 2023). Next, there is active involvement and support from the school, parents, and community in supporting the implementation of TaRL. This support includes the commitment of school leaders, parent participation in supporting learning at home, as well as the integration of the TaRL approach in broader education policies. Lastly, there is continuous evaluation and adjustment of learning strategies. Teachers need to regularly monitor student learning progress, evaluate the effectiveness of the learning methods used, and make adjustments according to student needs and responses. By paying attention to these key factors, the application of TaRL in differentiated learning can be more effective and have a positive impact on student learning outcomes (Qowiyuddin, 2023; Sugianto et al., 2023). Implications of this research highlight the transformative potential of the TaRL approach in enhancing educational quality and student outcomes. By adapting teaching strategies to meet individual needs, educators can foster a more inclusive and supportive learning environment that empowers students to succeed academically and personally.

However, further research is still needed to dig deeper into the factors that influence the successful implementation of TaRL, as well as to explore ways to integrate this approach into the curriculum more broadly. In addition, future research could also evaluate the long-term impact of implementing TaRL on student learning outcomes and provide deeper insight into how to increase the effectiveness of differentiated learning in elementary schools. Thus, future research in this area will make a valuable contribution to improving learning practices and improving the overall quality of education.

4. CONCLUSION

The main findings of this research indicate that the application of the Teaching at the Right Level (TaRL) approach to differentiated learning in elementary schools has a significant positive impact. Through this approach, students are given the opportunity to learn according to their respective levels of ability, which leads to increased understanding and academic achievement. With learning strategies tailored to individual needs, teachers can guide students effectively to achieve their optimal learning

potential. The practical implication of these findings is the importance of strengthening differentiated learning approaches using TaRL in the elementary school curriculum. Teachers need to be equipped with adequate training in implementing student-centered learning strategies and utilizing diagnostic test results to identify individual learning needs. Apart from that, there needs to be support from schools, parents, and the government in providing resources and a learning environment that supports the implementation of TaRL. This research shows that the TaRL approach has great potential to improve the quality of learning and student achievement in elementary schools.

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