Effectiveness of Differentiated Learning Strategy Toward Student Achievement in English Subject: Rural Area School

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Abstract **–** English teaching in rural schools often faces challenges because it mainly relies on conventional methods such as textbooks and blackboard exercises. These traditional approaches are less effective in accommodating the diverse learning needs of students, which results in limited progress and reduced motivation. Therefore, the purpose of this research is to analyze the effectiveness of differentiated learning strategies toward student achievement in English subject in rural area schools, with a specific focus on the topic of parts of the body. This study employed an experimental design with pre-test and post test procedures. The research was conducted at SDN 118/II Candi Tanah Sepenggal, with a population of 45 fifth-grade students divided into two classes. Through cluster random sampling, one class consisting of 20 students was selected as the sample. Research instruments included a diagnostic test to identify learning styles—visual, auditory, and kinesthetic. The findings indicated that the students' average score increased from 71.75 in the pre-test to 84.75 in the post-test, showing notable improvement. Statistical analysis supported these results, with ANOVA showing a significant difference ($p = 0.000 < 0.05$) and Spearman Rank Correlation ($\rho = 0.762$, $p = 0.000$) indicating a strong positive relationship between the two test scores. Based on these findings, it can be concluded that differentiated learning strategies tailored to students' learning styles were effective in enhancing English achievement in rural schools. The implementation of this approach not only improved academic performance but also fostered greater motivation, engagement, and learning equity. Therefore, differentiated instruction can serve as a valuable teaching model to address diverse student needs in similar educational contexts.

Keywords **–** Differentiated Learning; Learning Strategies; Students Achievement

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I. Introduction

Differentiated learning is an instructional approach that emphasizes adapting teaching practices to accommodate students' diverse needs, abilities, and interests. Unlike the traditional one- size-fits-all model, differentiated instruction requires teachers to modify content, process, and learning outcomes to align with learners' readiness, interests, and profiles (Tomlinson, 2017; Tomlinson & Imbeau, 2015). With the implementation of the Emancipated Curriculum in Indonesia, the concept of differentiated learning has gained increasing attention, as it aligns with the principles of student-centered and personalized education (Kemendikbud, 2022).

Theoretical frameworks such as the Visual, Auditory, Kinesthetic (VAK) model, Kolb's Experiential Learning Theory, and Gardner's Theory of Multiple Intelligences provide valuable insights for designing inclusive instruction (Fleming, 2016; Kolb, 1984; Gardner, 2014). Despite criticisms of their empirical validity (Pashler et al., 2018), these perspectives remain relevant in

supporting flexible teaching approaches. However, in the Indonesian context, the application of differentiated learning is often hindered by limited teacher training, inadequate resources, and lack of technological access, particularly in rural schools (Fitriani, 2019; Sari, 2021). Urban schools tend to benefit from diverse teaching media and innovative strategies, while rural schools continue to rely heavily on conventional methods, which frequently result in lower student motivation and limited learning outcomes (Gilakjani, 2012; Prastowo & Lestari, 2023).

SDN 118/II Candi Tanah Sepenggal, located in a rural district, illustrates these challenges. English instruction in the fifth grade remains dominated by textbooks and blackboard activities, with only three short sessions per week and little use of interactive or digital resources. This traditional approach fails to accommodate diverse learning styles and limits students' engagement and vocabulary acquisition. Such conditions contrast with the goals of the Emancipated Curriculum, which emphasizes active, contextual, and differentiated learning to maximize student potential. Previous studies have shown that differentiated strategies, including multisensory activities, interactive media, and contextualized tools, can significantly improve student motivation and achievement, even in resource- limited environments (Utami et al., 2022; Rahmawati, 2021). Nonetheless, empirical evidence on their effectiveness in rural Indonesian schools remains scarce.

This study, therefore, aims to examine the effectiveness of differentiated learning strategies in improving English achievement among fifth-grade students at SDN 118/II Candi Tanah Sepenggal. By situating differentiated instruction within the rural school context, the research seeks to extend theoretical discussions while providing practical recommendations for educators working in resource-constrained settings. Ultimately, the findings are expected to contribute to both the literature on differentiated learning and the ongoing efforts to enhance teaching practices in rural Indonesian schools.

II. Methodology Section

This study applied a pre- experimental research design to examine the effectiveness of differentiated learning strategies in improving students' English achievement, with a specific focus on vocabulary acquisition, reading comprehension, and writing skills in descriptive texts. The research was conducted with fifth-grade students at SDN 118/II Candi Tanah Sepenggal, a rural school setting. The design followed a one-group pretest–posttest model, in which students completed a pretest before the intervention and a posttest after the treatment. This approach allowed the researcher to measure students' progress and compare results before and after the implementation of differentiated learning strategies. Although the absence of a control group limited the study's internal validity, this design was considered effective for exploring preliminary findings in real classroom contexts.

The population of this research consisted of fifth-grade students at SDN 118/II Candi Tanah Sepenggal, divided into two classes. A cluster random sampling technique was employed to determine the sample. From the two available clusters, one class was randomly selected through a lottery system, resulting in a sample of 20 students. This sample size was considered sufficient to provide meaningful insights while remaining feasible within the available time and resources.

The instruments used in this study included a pretest, treatment sessions, and a posttest, supported by documentation. The pretest was adapted from the Grow with English textbook and was designed to assess students' baseline proficiency in vocabulary, reading, and writing. The treatment phase consisted of four sessions over three weeks, each lasting 60 minutes, during which differentiated learning strategies were applied. Activities were designed to address visual, auditory, and kinesthetic learning preferences, ensuring that students could engage with the material in ways that matched their strengths. For example, visual learners used pictures and videos, auditory learners engaged with songs and storytelling, and kinesthetic learners participated in movement-based games and hands-on tasks. These activities were

developed based on Piaget's theory of cognitive development and Gardner's multiple intelligences framework, emphasizing active and meaningful learning experiences.

The posttest, conducted after the treatment, was designed to measure students' improvement across the three modalities. It included visual-based tasks such as matching and interpreting diagrams, auditory tasks such as listening comprehension and fill-in-the-blank activities, and kinesthetic tasks such as sentence arrangement and sequencing picture cards. This multimodal assessment ensured a fair evaluation that reflected the differentiated instruction provided during the treatment. The test results served as the primary data to determine the effectiveness of the differentiated learning strategy in enhancing English achievement.

For data analysis, several steps were carried out. First, the validity and reliability of the instruments were tested to ensure accuracy and consistency. The normality of the data distribution was then examined using the Shapiro–Wilk test, followed by a homogeneity test using Levene's method to confirm the comparability of the sample. Finally, hypothesis testing was conducted using Spearman's rank correlation to determine the relationship between students' pretest and posttest scores. The significance level was set at 0.05. If the p-value was below this threshold, the null hypothesis was rejected, indicating that differentiated learning strategies had a significant effect on student achievement.

The overall research procedure included preparing instruments, obtaining permission to conduct the study, selecting the sample class, and conducting preliminary observations to understand the learning environment. Following this, the pretest was administered, treatment sessions were carried out, and the posttest was completed to evaluate the outcomes. Through these structured steps, the study aimed to provide empirical evidence on the role of differentiated learning strategies in supporting English learning in rural elementary school contexts.

III. Results

The findings reveal a significant improvement in students' English proficiency after the implementation of differentiated learning strategies at SDN 118/II Candi Tanah Sepenggal. The pretest results show that the average student score was 71.75, with a minimum score of 60 and a maximum score of 83. Most students were in the "fair" to "good" category, indicating varying levels of English proficiency at the initial stage. The standard deviation of 7.22 reflects a fairly striking difference in student performance, emphasizing the need for an instructional approach that can accommodate diverse learning needs.

After the intervention, the posttest results showed a substantial performance improvement, with the average score increasing to 84.75, the minimum score increasing to 80, and the maximum reaching 95. The reduced standard deviation of 5.61 indicates that student achievement became more evenly distributed, highlighting not only individual progress but also a narrowing of the performance gap among students.

Further analysis showed that all learner groups benefited from differentiated instruction. Visual learners demonstrate better understanding when supported by images, diagrams, and text-based materials. Auditory learners show significant improvement through discussions, verbal instructions, and interactive group activities. Kinesthetic learners benefit significantly from practice-based activities such as role-playing, games, and movement-based exercises.

Instrument testing confirmed that the assessment tool is valid and reliable, with a content validity ratio of 1.00 and Cronbach's Alpha of 0.818, indicating consistency. Normality tests using the Kolmogorov–Smirnov and Shapiro–Wilk methods showed that the data were normally distributed ($p > 0.05$), while homogeneity tests confirmed equal variances ($p > 0.05$). Hypothesis testing revealed a significant difference between pretest and posttest scores (ANOVA: $F = 55.283$, $p = 0.000$). In addition, Spearman's rank correlation yielded a coefficient of 0.762 ($p < 0.01$), indicating a strong positive relationship between pre-intervention and post-intervention results.

IV. Discussion

The findings strongly support the effectiveness of differentiated learning in improving English language achievement among elementary school students in rural contexts. This indicates that differentiated learning is effective in improving learning outcomes and reducing achievement gaps. These results reinforce the principles of the VAK (Visual, Auditory, Kinesthetic) model and Gardner's theory of multiple intelligences, which advocate tailoring instruction to different learner profiles.

The research results are in line with previous studies by Tomlinson (2022) and Kristiani et al. (2021), which emphasize that differentiated instruction increases student engagement and academic outcomes. This study also reinforces Rahman (2023), who found that interest-based differentiation increases motivation, and Santangelo (2021), who argues that differentiated strategies foster a more inclusive learning environment.

Overall, this study shows that differentiated learning is not only relevant for schools with greater access to resources but also highly effective in rural schools with limited resources. By tailoring instructional methods to students' readiness, interests, and learning styles, teachers can significantly improve motivation, concentration, and achievement. These findings underscore the importance of integrating differentiated instruction into classrooms in Indonesia, particularly in rural elementary schools, to ensure more equitable and meaningful learning outcomes.

V. Conclusion

The results of this study conclude that the implementation of differentiated learning through the clustering technique had a significant positive effect on the English achievement of fifth-grade students at SDN 118/II Candi. The comparison between pre-test and post-test scores shows a clear improvement, with the average score increasing from 71.75 to 84.75, indicating that students not only made academic progress but also became more engaged and motivated in learning English. These findings confirm that differentiated learning, when tailored to students' learning styles and needs, can enhance understanding, retention, and overall performance, making it an effective instructional strategy that can be applied in similar educational settings.

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