

Implementation of Differentiated Learning in Public Elementary Schools in North Banggai District

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Abstract

This study examines the implementation of differentiated learning in public elementary schools in North Banggai District. Differentiated learning is essential to address student diversity in abilities, backgrounds, language, and motivation. The study aims to provide a comprehensive overview of its implementation and school readiness. A quantitative descriptive explanatory design was employed. Data were collected through questionnaires, interviews, documentation, and observation, then analyzed using descriptive percentage techniques. The respondents included principals, teachers, and support staff. The findings show that the implementation of differentiated learning is categorized as good. Curriculum planning scored 82.1%, teacher understanding and commitment 84.7%, facilities and infrastructure 81.5%, monitoring and evaluation 85.7%, and student abilities 85.6%. Overall, public elementary schools in North Banggai District demonstrate good readiness and performance in implementing differentiated learning.

Keywords: Implementation, Differentiated Learning, Independent Curriculum, 21st-Century Skills, Teachercommitment

Introduction

21st-century learning demands an adaptive approach oriented toward the diverse characteristics of elementary school students (Blyznyuk et al., 2025; Jena & Barad, 2024; Pramesworo et al., 2023). Differentiated learning is one approach designed to adapt learning strategies, processes, and products to students' needs, interests, and learning abilities. This approach is believed to increase student engagement, minimize gaps in learning outcomes, and optimize the achievement of cognitive, affective, and psychomotor competencies. However, learning practices in elementary schools still tend to be uniform, thus not fully accommodating individual student differences (Rose & Strangman, 2007).

The success of differentiated learning implementation is greatly influenced by school readiness, which includes teacher readiness, principal leadership support, the availability of facilities and infrastructure, and a school culture that supports learning innovation. In North Banggai District, differentiated learning has been implemented in stages since 2022 and will be fully implemented in 2024. However, to date, there is insufficient empirical data available

regarding the implementation of differentiated learning in public elementary schools throughout North Banggai District.

Therefore, this study was conducted to obtain a comprehensive overview of the implementation of differentiated learning as a basis for formulating policies and strategies for continuously improving the quality of learning. 21st-century education demands a shift in the learning paradigm in elementary schools, no longer oriented toward a uniform approach, but rather focused on meeting the diverse learning needs of students. Students have different abilities, interests, backgrounds, and learning styles, requiring teachers to implement adaptive and inclusive learning strategies.

One approach relevant to these demands is differentiated learning, which emphasizes tailoring learning content, processes, and products to individual student characteristics (Gusteti & Neviyarni, 2022). Several previous studies have shown that differentiated learning is an effective approach in addressing student diversity in elementary schools. However, most of these studies have focused on conceptual aspects, classroom learning strategies, or teacher perceptions (Lumpkin et al., 2015; Campbell et al., 2001). Research examining the comprehensive implementation of differentiated learning from the perspective of school readiness and management, particularly encompassing curriculum planning, teacher understanding and commitment, infrastructure availability, monitoring and evaluation, and student abilities, remains relatively limited.

Furthermore, empirical studies that take into account the context of island regions and regions with diverse geographic characteristics and educational resources, such as North Banggai District, have been scarce. Yet, the implementation of differentiated learning is strongly influenced by the local school context, regional policy support, and the social and cultural conditions of the community. The limited empirical data on the implementation of differentiated learning in public elementary schools throughout North Banggai District has resulted in the lack of a strong foundation for formulating policies and programs to improve the quality of learning that are contextual and based on the actual needs of the schools.

The scientific novelty of this article lies in presenting an empirical overview of the implementation of differentiated learning in public elementary schools throughout North Banggai District, examined from a comprehensive perspective of school management, including curriculum planning, teacher understanding and commitment, the availability of facilities and infrastructure, monitoring and evaluation systems, and student abilities. This study uses a quantitative descriptive approach to map the level of implementation of differentiated learning based on actual conditions in the field after the full implementation of the Independent Curriculum in 2024 (Rumahorbo et al., 2024; Umayrah et al., 2024).

Furthermore, this article provides a novel contribution in the form of a map of the implementation of differentiated learning in a specific administrative region with diverse geographic characteristics and educational resources. The findings of this study are expected to serve as an empirical reference for the development of regional education policies and enrich studies on the implementation of differentiated learning, which have so far been dominated by studies in urban areas or schools with relatively adequate resources.

Based on the background description and problem identification, the main problem in this study is the unclear level of implementation of differentiated learning in public elementary

schools in North Banggai District in terms of planning, implementation, and evaluation of learning. These problems are formulated into research questions: 1) How is curriculum planning related to the implementation of differentiated learning in public elementary schools in North Banggai District? 2) What is the understanding and commitment of teachers in supporting the implementation of differentiated learning? 3) What is the availability of facilities and infrastructure to support differentiated learning? 4) How is the implementation of monitoring and evaluation of differentiated learning in public elementary schools in North Banggai District? 5) What are the abilities of students in differentiated learning? Because this research is descriptive quantitative, the research does not formulate statistical hypotheses, but rather focuses on mapping the actual conditions of the implementation of differentiated learning in public elementary schools in North Banggai District.

Based on the background and research problems described, the purpose of this article is to obtain a comprehensive overview of the implementation of differentiated learning in public elementary schools throughout North Banggai District. Specifically, this article aims to analyze curriculum planning, teacher understanding and commitment, the availability of facilities and infrastructure, the implementation of monitoring and evaluation, and student abilities in differentiated learning as a basis for developing recommendations for contextual and sustainable learning quality improvement.

Literature Review

Various studies have shown that differentiated learning is an effective approach to accommodating the diverse characteristics of students in elementary schools. Research conducted by Gusteti & Neviyarni (2022) found that the implementation of differentiated learning significantly increased student engagement, learning motivation, and learning outcomes. This study confirms that differentiation of content, process, and learning products provides space for students to learn according to their individual readiness and learning styles.

Another study by Koimah et al. (2024) highlights the importance of school readiness in implementing differentiated learning. The research findings indicate that flexible curriculum planning, principal leadership support, and teacher competence are key determinants of successful implementation. Schools with strong managerial support tend to be more consistent in implementing differentiated learning strategies than schools with minimal support.

In terms of teacher competence, Sinaga et al. (2025) revealed that teachers' understanding of the concept of differentiated learning remains moderate. Although some teachers understand the basic concept, classroom implementation still faces challenges such as time constraints, administrative burdens, and difficulties in conducting differentiated assessments. This finding is supported by Awal et al. (2024), who stated that learning practices in elementary schools are still dominated by a uniform approach, resulting in suboptimal learning differentiation.

Hadi (2024) conducted research focusing on facilities and infrastructure, concluding that limited learning resources and supporting facilities are the main obstacles to implementing differentiated learning, particularly in areas with limited geographic conditions and access to education. Schools with access to learning media and technology demonstrated better levels of differentiation implementation than schools with limited facilities.

In general, previous research findings indicate that differentiated learning has significant potential for improving the quality of learning in elementary schools, but its implementation

still faces various structural and pedagogical challenges. Based on these studies, it can be concluded that further research is needed to comprehensively examine the implementation of differentiated learning at the school level, particularly in the context of specific regions such as North Banggai District, in order to obtain a more contextual and relevant empirical picture.

Methods

The research was conducted at a public elementary school in North Banggai District, Banggai Laut Regency, Central Sulawesi Province. The location was selected based on the consideration that this region has a relatively large number of public elementary schools with diverse characteristics, making it representative for describing the implementation of differentiated learning. The research was conducted over three months, from September to December 2025, encompassing the licensing process, instrument development and validation, data collection, data analysis, and report preparation. This research employed a quantitative approach with a descriptive explanatory design. This approach was chosen because the study aimed to objectively measure and describe the level of implementation of differentiated learning based on numerical data obtained through a survey. Descriptive analysis was used to describe trends and proportions of the level of implementation of differentiated learning in public elementary schools based on established indicators. The study subjects consisted of principals and teachers directly involved in the learning process in public elementary schools throughout North Banggai District. A purposive sampling technique was used, with respondents having experience in planning and implementing differentiated learning. This study involved all eight public elementary schools in North Banggai District, with a total of 99 respondents. The research subjects were selected because they play a strategic role in academic decision-making and the implementation of learning in the schools.

Data collection was conducted through questionnaires, interviews, observations, and documentation. The questionnaire was used as the primary instrument to measure the implementation of differentiated learning based on five indicators: curriculum planning, teacher understanding and commitment, availability of facilities and infrastructure, monitoring and evaluation, and student abilities. The questionnaire consisted of 50 closed-ended questions with a five-level Likert scale ranging from very poor (score 1) to very good (score 5). Semi-structured interviews were conducted with several school principals and teachers to obtain supporting data regarding obstacles, strategies, and support in the implementation of differentiated learning. Observations were conducted to observe teaching practices, classroom management, and the use of learning support facilities. Documentation included analysis of teaching modules, assessments, and other supporting documents for supplementary data and triangulation. The questionnaire instrument was validated through expert judgment by education experts to ensure the instrument's content aligned with the research indicators and objectives. Validation was conducted before the instrument was distributed to respondents. The data obtained were analyzed using descriptive statistics in the form of frequencies and percentages. The percentage achievement for each indicator was calculated using the following formula:

$$P = (F / N) \times 100\%$$

In addition, the level of implementation of differentiated learning is calculated based on the comparison between the actual score and the ideal score with the formula:

$$Pr = (SA / SI) \times 100\%$$

The analysis results were classified into five categories: very good (90.01–100%), good (80.01–90.00%), fair (70.01–80.00%), poor (60.01–70.00%), and poor ($\leq 60.00\%$), referring to Sugiyono's (2014) assessment criteria.

The research indicators included: (1) differentiated learning curriculum planning, (2) teacher understanding and commitment, (3) availability of facilities and infrastructure, (4) monitoring and evaluation, and (5) student abilities, including cognitive, affective, social, psychomotor, and analytical skills. These indicators were compiled based on theoretical studies and previous research on the implementation of differentiated learning in elementary schools.

Results and Discussion

The results of this study describe the level of implementation of differentiated learning in public elementary schools throughout North Banggai District based on five main indicators: curriculum planning, teacher understanding and commitment, availability of facilities and infrastructure, monitoring and evaluation, and student abilities. Data were obtained from 99 respondents and analyzed using descriptive statistics in the form of percentages.

Curriculum Planning

The analysis results show that the curriculum planning indicator scored 82.1%, which is in the good category. This finding indicates that most schools have curriculum plans that support the implementation of differentiated learning. The implemented curriculum has accommodated an analysis of student learning needs and the formulation of learning objectives that take into account the diversity of student abilities. However, there is still room for improvement to optimize curriculum planning in adapting to students' diverse learning needs.

Teacher Understanding and Commitment

The teacher understanding and commitment indicator scored 84.7%, which is in the good category. This result indicates that most teachers have an adequate understanding of the concept of differentiated learning and demonstrate a high commitment to its implementation. Teachers have made efforts to adapt learning strategies to student characteristics, although there is still variation in the level of understanding and implementation among teachers.

Availability of Facilities and Infrastructure

The availability of facilities and infrastructure indicator scored 81.5%, which is in the fair category and is the indicator with the lowest achievement. These findings indicate that the availability and quality of supporting facilities for differentiated learning are still not fully optimal. Limited learning resources, classroom flexibility, and access to training and professional development are factors that influence the effectiveness of differentiated learning implementation in schools.

Monitoring and Evaluation

The monitoring and evaluation indicator received the highest score, at 85.7%, and is in the good category. This result indicates that the monitoring and evaluation mechanisms for the implementation of differentiated learning have been implemented relatively effectively. Schools and teachers have evaluated the learning process and outcomes, including the use of learning resources and their impact on student learning outcomes, although ongoing monitoring of student progress still needs improvement.

Student Abilities

The student ability indicator received a score of 85.6%, which is in the good category. This result indicates that students responded positively to the implementation of differentiated learning. Students demonstrated active involvement in the learning process and demonstrated good development of cognitive, affective, social, and psychomotor skills. Differentiated learning can support students in learning according to their individual readiness, interests, and characteristics.

Recapitulation of Differentiated Learning Implementation

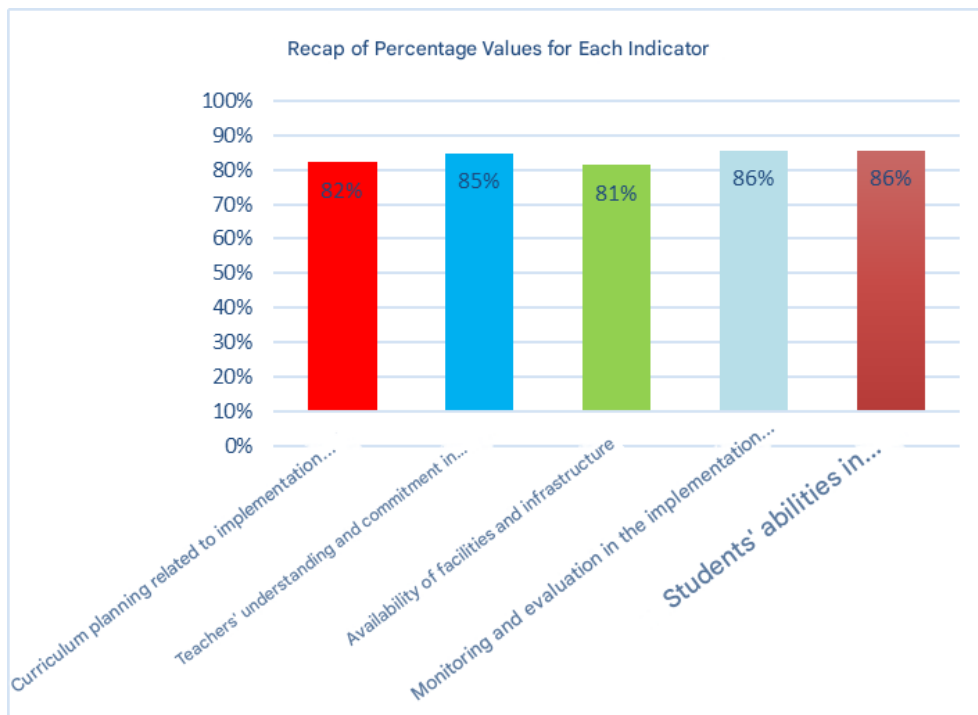


Figure 1. Recap of Percentage Values for Each Indicator

The results of the study on the implementation of differentiated learning in public elementary schools throughout North Banggai District were obtained from the average achievement of each indicator, expressed as a percentage. Overall, all indicators showed high achievement, indicating that the implementation of differentiated learning has been successful. The curriculum planning indicator showed an achievement of 82%. This result indicates that schools have generally integrated differentiated learning principles into lesson planning documents, including lesson plans (RPP), teaching modules, and the formulation of learning objectives that take into account the diverse needs of students.

The teacher understanding and commitment indicator achieved a percentage of 85%. This achievement demonstrates that teachers have a good understanding of the importance of differentiated learning and demonstrate commitment to supporting its implementation through adjustments to learning methods, assessments, and classroom interactions. The availability of facilities and infrastructure indicator showed an achievement of 81%, which is the lowest percentage compared to the other indicators, although still in the high category. These findings indicate that supporting facilities for differentiated learning are available, but they are not yet fully optimal in supporting the variety of learning strategies that require diverse learning resources and flexible learning spaces.

The monitoring and evaluation indicator achieved a score of 86%. This result indicates that the school has conducted monitoring and evaluation of the implementation of differentiated learning through regular learning supervision, reporting, and program evaluation. The student ability indicator also showed a score of 86%, which is in the high category. This finding indicates that students are able to follow the differentiated learning implemented by teachers, both in the learning process and in the resulting learning outcomes.

Based on these five indicators, it can be concluded that the implementation of differentiated learning in public elementary schools throughout North Banggai District is in the good category, with relatively consistent achievement percentages across all indicators. However, the availability of facilities and infrastructure remains an aspect with relatively lower achievement compared to other indicators, requiring further attention to support the optimization of differentiated learning implementation.

Interviews with principals and class teachers at public elementary schools in North Banggai District indicate that most teachers conceptually understand differentiated learning. Teachers stated that differentiated learning is understood as an effort to adapt learning to the abilities, needs, and characteristics of students. However, the level of understanding and implementation in the classroom varies. Some teachers have mapped students' initial abilities and attempted to apply differentiation to the learning process and products, while others are still limited to varying learning methods without systematic differentiation planning.

Principals reported that support for the implementation of differentiated learning has been provided through academic supervision, teacher working group discussions, and opportunities to participate in training. However, principals also revealed that teachers' limited competence in designing differentiated learning tools and the burden of learning administration are major obstacles to optimal implementation.

Based on classroom observations, teachers have attempted to create an active and conducive learning environment. Some teachers implement a variety of learning activities, such as group work and discussions, to accommodate the differences in student characteristics. However, the implementation of differentiation in content, process, and learning products has not been fully and consistently demonstrated. Learning is still dominated by the same type of activity for all students, with limited customization.

Observations also indicate that classroom management and teacher-student interactions are well-functioning, but the use of diagnostic assessments as a basis for planning differentiated learning has not been optimal. Teachers tend to use formative assessments in general without directly linking them to learning differentiation strategies.

Analysis of documentation in the form of learning tools, such as teaching modules, Lesson Plans (RPPs), and assessment instruments, indicates that most teachers have included the term "differentiated learning" in their lesson plans. However, in substance, differentiation planning has not been described in detail. Differentiation remains limited to variations in learning methods, while differentiation planning based on student readiness, interests, and learning profiles has not been clearly documented.

Other supporting documents, such as supervision results and school meeting minutes, demonstrate the school's commitment to supporting the implementation of differentiated learning. The school has planned mentoring and teacher competency development activities,

although their implementation has not been carried out in a sustainable and structured manner.

Table 1. Research instruments

No	Indicator	Sub-Indicator	Statement
1	Curriculum planning related to the implementation of differentiated instruction in public elementary schools in North Banggai District	Analysis of students' learning needs	1. Teachers conduct diagnostic assessments to determine students' initial abilities before starting instruction.
			2. Teachers map students' interests and learning styles as a basis for preparing lesson plans or teaching modules.
		Formulation of learning objectives	3. Data from the initial assessment are not used to design differentiation of content, process, and learning products.
			4. Learning objectives in the curriculum are formulated flexibly according to students' readiness levels.
		Differentiation planning	5. The formulation of learning objectives does not consider differences in students' abilities and backgrounds.
			6. Teachers design instruction with clear variations in content, process, and product within the curriculum.
		Selection of learning resources	7. The curriculum includes various types of learning resources such as textbooks, videos, experiments, and projects.
			8. The prepared learning resources accommodate visual, auditory, and kinesthetic learning styles.
		Grouping strategy	9. Teachers do not have the freedom to select and develop varied learning resources.
			10. Teachers apply homogeneous and heterogeneous grouping strategies according to instructional needs.

2	Teachers' understanding and commitment in supporting differentiated instruction	Conceptual understanding	11. Differentiated instruction is defined as providing learning experiences that match each student's needs, abilities, and interests.
			12. Differentiation of content, process, product, and the learning environment is not a core principle of differentiated instruction.
		Commitment to implementation	13. Teachers are able to plan and organize instruction that considers diverse student needs, including academic ability, learning styles, and interests.
			14. Teachers routinely use various instructional strategies to provide opportunities for every student to learn effectively, including the use of supportive technology and media.
		Commitment and reflective adjustment	15. Teachers regularly reflect on the implementation of differentiated instruction and evaluate its success in meeting student needs.
			16. Teachers routinely use student feedback to continuously adjust teaching methods to make them more effective.
		Collaboration with colleagues	17. Teachers do not collaborate with peers or related parties to share experiences and strategies in implementing differentiated instruction.
			18. Teachers are not open to criticism and suggestions that could improve the quality of differentiated instruction.
		Professional learning commitment	19. Teachers regularly participate in training or workshops to improve their teaching skills.
			20. Teachers strive to continuously update their knowledge of the latest teaching methods to improve instructional quality.

3	Availability of facilities and infrastructure supporting differentiated instruction	Availability of varied learning materials	21. Teachers provide teaching materials appropriate to various levels of student ability.
			22. Schools provide visual, audio, and interactive learning media for different learning styles.
		Educational technology support	23. Adequate hardware (computers, tablets, projectors) is available to support digital learning.
			24. Technology is used to create more monotonous learning materials, such as non-interactive videos or modules.
		Flexible and collaborative classroom infrastructure	25. Teachers arrange classrooms to enable group-based learning and discussion, such as adjustable seating layouts.
			26. Facilities for individual learning are available, such as reading areas or independent study spaces.
		Diverse assessment facilities	27. There is no space for practicum or exploration activities for students who require project-based learning.
			28. Various assessment instruments (written tests, observation, project assessment, portfolios) are available and adaptable to students' abilities.
		Access to professional development	29. Clear assessment rubrics are provided for various types of assignments and learning products.
			30. Regular training is provided for teachers to understand and effectively implement differentiated instruction.
4	Monitoring and evaluation in the implementation of differentiated instruction	Continuous monitoring of student progress	31. Teachers regularly monitor student progress through various formative assessments, such as quizzes, tests, observation, and direct feedback during learning.
			32. The monitoring results are not used to adjust teaching strategies, provide additional

			support, or challenge fast learners.
		Evaluation of resource utilization	33. Evaluation is conducted to assess the extent to which available facilities and infrastructure support differentiated instruction.
			34. Teachers do not assess whether the use of various resources has positively impacted students' understanding and engagement.
		Student involvement in evaluation	35. Teachers involve students in evaluation through self-assessment and peer assessment to gain additional insight into their progress.
			36. Teachers are not encouraged to conduct self-reflection, identify areas for improvement, or plan subsequent learning steps.
		Evaluation of learning outcomes	37. Assessment considers differences in students' abilities and learning styles; students are evaluated based on personal achievement rather than comparison with classmates.
			38. Evaluation examines the overall impact of differentiated instruction on whether students from diverse backgrounds can achieve similar learning goals.
		Self and peer evaluation	39. Teachers openly accept input and feedback from colleagues to improve teaching quality.
			40. Teachers regularly discuss with peers to evaluate successes and challenges in their teaching.
5	Students' abilities in differentiated instruction	Cognitive ability: understanding and application	41. More advanced students can connect theory with practical applications, while others show basic understanding through simpler examples.
			42. Students have difficulty linking subject matter to its application in everyday life.

		Psychomotor ability: practical skills	43. Students can accurately conduct experiments, create artwork, or operate tools at levels appropriate to their abilities.
			44. Students' motor skills, such as writing, drawing, or practical work, have not developed according to their developmental stage.
		Social ability: cooperation and collaboration	45. Students do not collaborate in group projects by dividing roles according to their strengths.
			46. Students experience difficulty working with peers of different ability levels.
		Affective ability: motivation and emotional regulation	47. Students who face difficulties remain calm, ask for help when needed, and enthusiastically try to complete challenges.
			48. Students show low self-confidence when asked to present their learning outcomes in front of the class.
		Analytical ability	49. Students give up easily when facing difficult tasks or challenges.
			50. Students rarely ask questions or express opinions during the learning process.

Discussion

Curriculum Planning in the Implementation of Differentiated Learning

Research results indicate that curriculum planning for the implementation of differentiated learning in public elementary schools throughout North Banggai District is in the good category. Teachers have conducted student learning needs analyses by identifying their abilities, backgrounds, and learning styles. This finding confirms that teachers understand the importance of student initial readiness as a basis for learning planning, as Tomlinson (2001) stated that learning needs analysis is an essential first step in differentiated learning. The formulation of learning objectives also reflects the diversity of student needs. The objectives are specific and measurable, allowing teachers to adapt learning strategies to student characteristics.

This aligns with Rosenfeld & Rosenfeld (2008), who emphasized that learning objectives that are responsive to individual differences can increase learning effectiveness. Differentiated planning in terms of material, time, and assignments has been implemented effectively through the use of various learning methods and approaches. This demonstrates that teachers

strive to provide equal access to learning for all students, even though they may use different methods. These findings reinforce Haniya & Roberts-Lieb (2017) theory, which states that differentiated learning must encompass a variety of content, processes, and products. However, some teachers still experience difficulty in developing differentiated plans that truly accommodate all students' needs, especially when managing heterogeneous classrooms.

The selection of diverse learning resources, including books, digital media, and other learning resources, also falls within the good category. This diversity of learning resources allows students with different learning styles to achieve a more optimal learning experience. This finding aligns with Hall's (2002) opinion, which states that a variety of learning resources is a crucial element in differentiated learning. However, student grouping strategies still fall into the underprepared category. Inflexible grouping methods that do not consider individual student needs have the potential to hinder the effectiveness of differentiated learning. This indicates the need to improve teacher competency in implementing flexible grouping based on student readiness, interests, and learning profiles, as recommended by Tomlinson (2001).

Teacher Understanding and Commitment

Teachers' understanding and commitment to supporting the implementation of differentiated learning fall within the good category. Teachers demonstrated an adequate understanding of the concept of differentiated learning and the importance of accommodating individual student differences. This finding supports Tomlinson's (2001) argument that teachers' conceptual understanding is key to the successful implementation of differentiated learning. Teachers' commitment was reflected in their efforts to create relevant learning experiences for all students, despite facing various challenges. This aligns with the principle of flexibility in differentiated learning, which requires teachers to adapt teaching practices to student needs (Tomlinson, 2001). Teachers also demonstrated the ability to reflect on learning outcomes and make necessary adjustments, which is a crucial part of continuously improving the quality of learning. Collaboration among teachers was in the ready category, indicating a culture of cooperation in designing and implementing differentiated learning. This collaboration enabled the exchange of ideas and effective learning strategies, as suggested by Lieberman & Mace (2009). Furthermore, teachers' commitment to continuous professional development was also a contributing factor to the successful implementation of differentiated learning (Darling-Hammond, 2013).

Availability of Facilities and Infrastructure

The availability of supporting facilities and infrastructure for differentiated learning is generally considered good. A variety of learning resources allows teachers to design engaging learning experiences tailored to student needs. This finding aligns with Mayer (2014), who stated that the use of diverse learning media can increase learning effectiveness. The use of educational technology also supports the implementation of differentiated learning by providing access to a variety of learning resources and more flexible presentation methods. However, classroom flexibility remains a barrier due to limited space arrangements that support student grouping and collaboration. Furthermore, access to training and professional development related to differentiated learning needs to be improved to optimize the use of available resources.

Monitoring and Evaluation

Monitoring and evaluation in the implementation of differentiated learning show varying results. Continuous monitoring of student progress remains in the poor category, indicating

that learning evaluation has not been conducted systematically and continuously. Effective monitoring is crucial to ensuring that each student receives support tailored to their needs (Tomlinson, 2001). Conversely, evaluations of the use of learning resources and student involvement in the evaluation process showed positive results. Evaluation of the impact of differentiated learning on student achievement also showed excellent results, confirming that this approach positively contributes to student learning outcomes. Teachers' self- and peer-evaluations reflect a commitment to continuously improving the quality of learning.

Student Abilities

Students' abilities in differentiated learning were in the good category, encompassing cognitive, psychomotor, social, and affective aspects. Differentiated learning allows students to learn according to their readiness and interests, thus supporting the development of critical and creative thinking skills. These findings align with the opinions of Tomlinson (2001) who emphasize the importance of learning that encourages higher-order thinking skills. Overall, this discussion indicates that the implementation of differentiated learning in public elementary schools throughout North Banggai District has been successful and has had a positive impact on the learning process and outcomes. However, optimization of grouping strategies, continuous monitoring, and strengthening of supporting facilities and teacher training are still needed to increase the effectiveness of the implementation of differentiated learning as a whole.

Conclusion

Curriculum planning related to the implementation of differentiated learning is in the good category. Teachers have been able to analyze student learning needs, formulate learning objectives that take into account student diversity, plan differentiated learning, and select varied learning resources. However, student grouping strategies have not been fully implemented flexibly and adaptively, requiring improvement to optimize differentiated learning. Teachers' understanding and commitment to supporting the implementation of differentiated learning are in the good category. Teachers have a strong understanding of the concept of differentiated learning and demonstrate a strong commitment to its implementation. Teachers also reflect on and continuously adjust their learning, collaborate with colleagues, and demonstrate a strong desire to continuously develop professional competencies. The availability of facilities and infrastructure to support differentiated learning is in the good category. A variety of learning resources, educational technology support, diverse assessment facilities, and access to training and professional development have supported the implementation of differentiated learning. However, limited classroom flexibility remains a barrier to optimizing the management of diverse learning. Monitoring and evaluation in the implementation of differentiated learning are in the good category. Evaluation of the use of learning resources, student involvement in the evaluation process, evaluation of learning impact, and self- and peer-evaluation have been carried out effectively. However, ongoing monitoring of student progress still needs to be improved so that learning adjustments can be made more appropriately according to each student's needs. Student abilities in differentiated learning are in the good category. The implementation of differentiated learning has a significant positive impact on the development of students' cognitive, psychomotor, social, affective, and critical and creative thinking skills. This demonstrates that differentiated learning is effective in accommodating individual differences and supporting student development holistically.

Author's Note

The author declares that there is no conflict of interest related to the publication of this article. The entire research and writing process was conducted independently without any influence from any party. Furthermore, the author confirms that this article is free from plagiarism and is compiled in accordance with applicable academic ethics.

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