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Differentiated Learning Quality Management in Improving Student Learning Outcomes in Elementary Schools

Rohman Sidik
Universitas Islam Nusantara Bandung, Indonesia
rochmansidik0@gmail.com

Okke Rosmaladewi
Universitas Islam Nusantara Bandung, Indonesia
okkerosmala@yahoo.co.id

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Abstract:

Differentiated learning is an important approach to tailoring the learning process to students' needs, readiness, and interests. However, there is a phenomenological gap between the expectation of improved learning outcomes and its actual implementation in schools due to suboptimal quality management. In addition, a research gap exists because studies linking differentiation with learning quality management remain limited. Therefore, this qualitative research using a case study method aims to examine the implementation of differentiated learning quality management at SDN Wargaluyu 01 and SDN Cikancung 01. Data were collected through interviews, observations, and documentation, and then analyzed using an interactive model. The findings indicate that quality management processes are systematically implemented through the Plan-Do-Check-Act (PDCA) cycle. The planning stage (Plan) includes student needs analysis and the preparation of learning tools; the implementation stage (Do) involves differentiation of content, process, and product; the evaluation stage (Check) is carried out through supervision and analysis of learning achievement; while the follow-up stage (Act) focuses on continuous improvement interventions. Although operational constraints persist due to teachers' limited understanding, continuous improvement efforts, supported by the school principal and teachers' commitment, have been shown to positively impact student learning outcomes. These findings highlight the need for ongoing teacher training related to quality management and differentiated instruction.

Keywords: differentiated learning; learning outcomes; PDCA; quality management.

INTRODUCTION

The quality of learning in elementary schools (SD) is the primary foundation for developing competitive human resources in the 21st century, with a focus on holistic student development encompassing cognitive, affective, and psychomotor aspects. A differentiated learning approach is crucial for accommodating the diversity of students' learning needs based on their readiness, interests, and learning profiles, thereby optimally improving learning outcomes, as proposed (Tomlinson, 2017). This approach aligns with the Independent Curriculum, which emphasizes student-centered learning and the demands of 21st-century competencies such as creativity, collaboration, and adaptability.

According to Carol Ann Tomlinson in her work on differentiated instruction (Tomlinson, 2017), differentiated learning is a pedagogical approach that places learner diversity as the primary starting point in learning design. Tomlinson emphasizes that students come to class with varying academic readiness, interests, background experiences, and learning profiles, so that a uniform learning process (one-size-fits-all instruction) tends to fail to optimize individual learning potential. From this perspective, teachers are required to actively modify content, processes, products, and learning environments to align with the specific needs of each learner. Differentiation is not simply a variation of teaching methods, but rather a learning philosophy that demands data-based instructional decision-making and ongoing reflection.

Tomlinson (2017) also emphasized that implementing differentiated learning requires a systematic diagnostic process through initial assessment, ongoing observation, and formative evaluation to map student learning progress. Teachers must continually adjust strategies based on student responses to learning. This concept positions differentiation as a dynamic process that requires a continuous cycle of evaluation and improvement, not a static practice that stops at the instructional planning stage.

When combined with this article, Tomlinson's thinking has a strong conceptual link with the PDCA-based quality management model. The Plan stage in the PDCA cycle represents the process of identifying student readiness, interests, and learning profiles, as recommended by Tomlinson, through diagnostic assessments. The Do stage manifests itself in the implementation of differentiation strategies through modifications to content, processes, and learning products. The Check stage aligns with formative evaluation to measure the effectiveness of the implemented strategies on student learning outcomes. Meanwhile, the Act stage reflects the process of pedagogical reflection and refinement of learning strategies based on the evaluation results.

Thus, Tomlinson's theory provides pedagogical justification, while PDCA provides an operational managerial framework to ensure that differentiated learning is systematic and measurable. The synergy between the two strengthens the argument that improving student learning outcomes at SDN Wargaluyu 01 and SDN Cikancung 01 is not sufficient through the mere implementation of differentiation but requires a quality management approach that allows for continuous improvement. In the context of the Independent Curriculum, this integration is highly relevant because it supports student-centered learning while ensuring a mechanism for evaluation and continuous improvement of classroom learning practices.

In response to these challenges, strategic efforts are needed that focus not only on improving teachers' pedagogical competencies but also on strengthening systemic learning quality management. Integrating differentiated learning with educational quality management principles is a relevant approach to addressing these challenges. In this context, teachers play a role not only as learning facilitators but also as designers of learning experiences, capable of accurately mapping student needs, developing flexible teaching materials, and conducting ongoing, data-driven evaluations. Furthermore, institutional support through academic supervision, ongoing training, and the provision of diagnostic assessment instruments are key factors in ensuring the effective implementation of differentiated learning.

Furthermore, quality management-based approaches such as the Plan-Do-Check-Act (PDCA) cycle can be adapted into classroom learning practices to ensure continuous improvement. Through careful planning, adaptive implementation, comprehensive evaluation, and reflective follow-up, teachers can optimize the learning process according to student characteristics. Thus, the synergy between differentiated learning and quality management is expected to improve student learning outcomes more equitably, while simultaneously strengthening the implementation of the Independent Curriculum at the elementary school level.

However, the implementation of differentiated learning in elementary schools remains suboptimal, with teachers often struggling to plan systematic and adaptive teaching materials to accommodate student heterogeneity. At SDN Wargaluyu 01 and SDN Cikancung 01 in Bandung Regency, initial observations indicate uneven variation in student learning outcomes, compounded by limitations in quality standards, teacher competencies, and individual needs-based evaluations. National learning achievement data also reflects this inequality, with a report (Ministry of Education, Culture, Research, and Technology, 2024) highlighting the low quality improvement at the elementary level due to a lack of managerial approaches.

Deming's PDCA (Plan-Do-Check-Act) and Total Quality Management (TQM) quality management models offer a cycle of planning, implementation, evaluation, and continuous improvement to enhance the quality of the educational process (Shewhart & Deming, 1986). The advantage of PDCA lies in its holistic and systematic approach to designing differentiated learning, oriented towards learning objectives and improving student outcomes. Previous studies such as (Rohmah & Zulfitria, 2024) have demonstrated the

effectiveness of differentiation on learning outcomes, while Munifah (2025) and (Trisnantari & Jannah, 2025) have demonstrated the success of PDCA at the institutional level, although it has not yet been integrated into classroom practices.

However, there is a conceptual and empirical gap that has not been widely addressed in previous studies, namely the direct integration of PDCA-based quality management models with differentiated learning practices at the classroom level. Most studies tend to position PDCA and TQM within the institutional or managerial realm of schools, while the implementation of differentiated learning is mostly studied from a purely pedagogical perspective. However, the synergy between the two has the potential to produce a more operational and measurable framework, particularly in helping teachers design, implement, and evaluate learning that is responsive to student diversity. The absence of this integrative model leaves teachers working in a fragmented manner without systematic guidance linking learning planning with data-based evaluation and ongoing follow-up.

Based on these conditions, this research is important to develop and test a differentiated learning model based on PDCA quality management that is applicable at the elementary school level. The focus of the research is directed at how the Plan-Do-Check-Act cycle can be internalized in every stage of learning, starting from student needs analysis, preparation of differentiated teaching tools, implementation of learning strategies, to evaluation and reflection based on individual learning outcomes. Thus, this research not only contributes to strengthening teacher pedagogical practices but also provides a conceptual model that is able to bridge managerial and instructional approaches in an integrative manner, so that it is expected to improve the quality and equity of student learning outcomes in elementary schools.

Several previous studies have shown that the implementation of differentiated learning and PDCA cycle quality management can enhance the effectiveness of learning management and improve student learning outcomes. However, previous studies tended to separate differentiated learning (pedagogical) from PDCA (managerial) quality management, with minimal simultaneous integration in the Indonesian elementary school context. This gap does not address the need for a comprehensive model that contextually connects classroom and school levels. This research is relevant to bridging this gap, in line with the Internal Quality Assurance System for Elementary and Secondary Education (SPMI) (2021), which encourages independent quality improvement.

The problem formulation in this study is how the application of PDCA-based differentiated learning quality management in improving student learning outcomes at SDN Wargaluyu 01 and SDN Cikancung 01, Bandung Regency? Thus, this study aims to analyze the application of PDCA-based differentiated learning quality management in improving student learning outcomes at SDN Wargaluyu 01 and SDN Cikancung 01, Bandung Regency.

The novelty of this research lies in the integration of PDCA-based quality management with differentiated learning at the elementary school level, which has not been widely discussed before. Therefore, this research is expected to be able to contribute theoretically in the development of a differentiated learning approach and provide systematic managerial practical guidance for teachers and principals to improve student learning outcomes based on their needs, interests, and learning profiles. This approach produces a contextual model that connects classroom practices with school management, supporting continuous improvement in the Independent Curriculum.

The problem formulation in this study does not only focus on “how to implement”, but also includes the dimensions of process, mechanism, and results. Thus, the problem formulation can be elaborated into: (1) how to plan (Plan) differentiated learning based on the needs, interests, and learning profiles of students at SDN Wargaluyu 01 and SDN Cikancung 01; (2) how to implement (Do) differentiated learning strategies in the classroom; (3) how to evaluate (Check) the achievement of student learning outcomes based on data; and (4) how to follow up improvements (Act) to improve the quality of learning continuously. This formulation makes the research more analytical and in line with the PDCA framework.

In line with that, the research objectives can be emphasized as: to comprehensively analyze the implementation of the PDCA quality management cycle in differentiated learning, including the planning, implementation, evaluation, and continuous improvement stages, and to examine their impact on improving student learning outcomes at SDN Wargaluyu 01 and SDN Cikancung 01, Bandung Regency. This emphasis is important so that the objectives are not merely descriptive, but also have an evaluative dimension and practical contribution.

The novelty of this research can be positioned more strongly by emphasizing the integrative and applicative aspects. This research does not simply combine two concepts (PDCA and differentiated learning), but constructs an operational model based on the quality cycle that can be implemented directly at the classroom level. This novelty lies in: (1) the development of an integrative PDCA model in the context of differentiated learning in elementary schools; (2) the preparation of a systematic framework that connects student needs analysis with data-based evaluation and learning follow-up; and (3) strengthening the relationship between pedagogical practices in the classroom and school quality management within a continuous improvement framework.

Thus, this research contributes not only to the development of differentiated learning theory but also presents a practical model that teachers and principals can use as a reference in managing learning in an adaptive, measurable, and sustainable manner. This approach also strengthens the implementation of the Independent Curriculum by integrating pedagogical and managerial dimensions to improve the quality and equity of student learning outcomes.

Quality management according to (Deming, 1986) emphasizes continuous improvement through the PDCA (Plan-Do-Check-Act) Cycle and the System of Profound Knowledge, where quality is defined as the result of a consistent process oriented towards customer satisfaction in education, namely students and parents. The PDCA cycle includes: Plan (data-based plans for student needs, SMART vision, quality standards); Do (implementation of content, process, and product differentiation in the classroom with mentoring); Check (evaluation through observation, analysis of learning outcomes, feedback); and Act (correcting gaps through interventions such as training, starting a new cycle for continuous improvement). Total Quality Management (TQM) complements PDCA with the principles of customer (student) orientation, total involvement, and a process approach to improve quality holistically.

Differentiated learning, according to (Tomlinson, 2017), is a proactive approach that adapts content, processes, products, and learning environments to students' readiness, interests, and profiles. Learning outcomes include cognitive (knowledge, understanding), affective (attitude), and psychomotor (skills) changes post-learning, as described (Bloom et al., 1976).

Research (Rohmah & Zulfitria, 2024) proves that differentiated learning significantly improves elementary school student learning outcomes by reducing gaps. (Fauziah et al., 2019) found increased student motivation and engagement through differentiation, despite teacher competency constraints. Studies (Munifah et al., 2025) and (Trisnantari & Jannah, 2025) show PDCA is effective for institutional quality, while (Nurkia & Sulkifly, 2020) and (Kusum et al., 2023) confirm that integrating PDCA-TQM with differentiation supports sustainable learning in Indonesia. Research (Mulyasa, 2021) emphasizes the principal's role as an instructional leader in supervision for optimal learning outcomes.

Tomlinson's theory is relevant because it provides a pedagogical basis for accommodating student heterogeneity at SDN Wargaluyu 01 and SDN Cikancung 01, the primary focus of this study. PDCA and TQM support a systematic managerial approach, where the cycle is applied to plan differentiation (Plan), implement it in the classroom (Do), evaluate learning outcomes (Check), and improve practices (Act), thus integrating the micro (classroom) and macro (school) levels. Previous studies such as (Rohmah & Zulfitria, 2024) strengthen the argument that differentiation is effective, while the gap from (Munifah et al., 2025) emphasizes the urgency of integrating PDCA for the context of the Independent Curriculum in Elementary Schools.

The theoretical framework of this study integrates differentiated learning (Tomlinson) with PDCA-TQM quality management (Deming, 1986), where PDCA is the main cycle that manages differentiation holistically. Conceptually, the relationship between the elements is described as follows: Plan (student needs analysis and differentiation planning), Do (classroom implementation), Check (learning outcome evaluation and feedback), Act (data-based improvement), which are linked by TQM principles for an orientation towards improving student learning outcomes. This framework produces a contextual quality management model for Elementary Schools, aligned with SPMI (Internal Quality Assurance System in Elementary and Secondary Education, 2021).

METHOD

This research employed a qualitative approach with a case study design. A qualitative approach was chosen because it allows for a deep, contextual, and holistic understanding of social phenomena, particularly regarding the implementation of PDCA-based differentiated learning quality management in elementary

schools. The case study design was used to intensively explore practices occurring in specific units, resulting in a comprehensive understanding and an applicable model that can be replicated in similar contexts (Creswell & Poth, 2016).

The research was conducted at SDN Wargaluyu 01 and SDN Cikancung 01 in Bandung Regency, West Java Province. The locations were selected purposively, considering that both schools had begun implementing differentiated learning but had not yet systematically integrated it with a quality management approach. The research period lasted four months, from January to April 2026, covering the preparation, data collection, analysis, and report preparation stages.

The research subjects were determined using purposive sampling, which selects informants based on their direct involvement in the phenomenon being studied (Sugiono, 2013). Participants included the principals (KSA from SDN Wargaluyu 01 and KSB from SDN Cikancung 01), class teachers (GA and GB), and students (SwA and SwB) involved in the implementation of differentiated learning. The purpose of this participant selection was to obtain comprehensive data regarding the planning, implementation, evaluation, and follow-up of PDCA cycle-based learning.

Data collection techniques were conducted using several methods, as follows. First, in-depth interviews using semi-structured guidelines explored informants' perceptions, experiences, and practices regarding the implementation of PDCA quality management in differentiated learning. These interviews provided flexibility in data exploration while maintaining the research focus (Moleong, 2021). Second, participant observation was conducted to directly observe classroom learning activities, particularly at the Plan, Do, Check, and Act stages. Observations were conducted using observation sheets compiled based on differentiated learning indicators and the PDCA cycle. Third, a documentation study was conducted by analyzing various documents such as teaching modules, student learning profiles, assessment tools, academic supervision reports, and learning evaluation results to strengthen the empirical data (Arikunto, 2025).

The data analysis in this study used the interactive analysis model from (Miles et al., 2014), which includes three main stages: data reduction, data presentation, and conclusion drawing/verification. Data reduction was carried out through coding, categorization, and theme identification processes related to the integration of PDCA and differentiated learning. Data presentation was carried out in the form of matrices, tables, and descriptive narratives to facilitate interpretation. Next, conclusions were drawn iteratively through a continuous verification process until valid patterns and findings were obtained. The analysis process continued cyclically and continuously until data saturation was reached, namely the condition when no significant new information was found (Miles et al., 2014).

The validity of the data in this study was maintained through several techniques. First, source triangulation was conducted by comparing data from the principal, teachers, and students to increase the credibility of the findings. Second, technical triangulation was conducted by combining interviews, observations, and documentation. Third, member checking was conducted by confirming the researcher's interpretations with informants to ensure appropriateness of meaning (Guba & Lincoln, 1994). Furthermore, dependability was maintained through an audit trail, which systematically recorded the entire research process for retraceability. Thus, this study has a level of validity and reliability that can be scientifically accounted for.

RESULTS AND DISCUSSION

The results of this study reveal that the implementation of differentiated learning quality management significantly contributes to improving student learning outcomes based on PDCA. Key findings are presented thematically, based on in-depth interviews with teachers, principals, and students, classroom observations, and analysis of planning and assessment documents. The first theme that emerged was quality planning based on mapping student learning profiles. This study found consistency between the student needs analysis process and the development of lesson plans and teaching modules. The planning documents (lessons and teaching modules) at both schools indicated a dedicated section for mapping student learning profiles, which serves as the basis for designing differentiated learning activities.

Data excerpt from interview (Principal of SDN Wargaluyu 01): "We start with an initial assessment, then create a special column in the lesson plan for student categories: those who need intensive support, those who are currently receiving support, and those who are ready for enrichment. This serves as a guide for designing activities."

Extract of document data (RPP SDN Cikancung 01): On the activity plan page, there is a column entitled “Mapping Student Learning Readiness”, filled with student categories (fast, medium, slow) and the type of activity that is adjusted.

These findings indicate that differentiated learning quality planning is no longer generic, but is derived from real mapping data on students' readiness, interests, and learning characteristics. The second finding relates to the implementation of differentiation in content, process, and product. The implementation of differentiated learning in both schools is evident in three main dimensions: content, process, and product. Classroom observations showed that each learning activity aligned with the specified objectives and indicators, yet was flexibly structured to meet the dynamics of student questions and needs.

Observation data excerpt (grade 4 SDN Wargaluyu 01): Students were grouped based on their learning readiness. Faster learners worked on exploratory tasks with open-ended instructions, while slower learners received additional explanations and visual aids.

Excerpt from interview data from teachers at SDN Cikancung 01: "We differentiate the material: those who are slow learners get short texts and images, while those who are fast get longer texts plus enrichment questions. The goal must remain the same, but the learning methods are different."

In terms of products, documentation of student work results shows a variety of mini projects as part of inquiry exploration, ranging from simple experiments, observation reports, to group presentations.

Document data citation (work results of students of SDN Wargaluyu 01): “Student groups produced experimental reports on plant growth, while other groups created informational posters and presented short presentations to the class.” These findings suggest that differentiation is not only in the form of different tasks, but also learning methodologies that adapt to students' styles and levels of independence, while remaining grounded in the same learning objectives.

The third theme highlights quality evaluation through supervision and analysis of learning outcome data. The evaluation of differentiated learning quality at both schools was conducted through academic supervision, classroom observations, and analysis of learning outcome data. These activities went beyond checking administrative completeness and included a responsive approach to classroom conditions and student needs.

Interview data excerpt (Principal of SDN Wargaluyu 01): "We don't just look at whether the RPP is complete or not, but also see whether the student grouping is correct.-properly implemented, whether the tasks are different, and whether there are adjustments during the learning process.”

School documentation data excerpt (SDN Cikancung 01): The evaluation report stated that there was an increase in student participation after the implementation of differentiation, although there were still differences in development between groups. In addition, both schools began developing data-driven evaluation systems, recording daily scores, participation, and formative assessment results.

Document data citation (notes on analysis of learning outcomes at SDN Wargaluyu 01): “Previous date-test and post-The math test is written in Google Sheets. Every Friday, a team of teachers reviews the data to determine who needs remedial and who needs enrichment.” These findings indicate that quality evaluation is not merely an evaluative activity, but a continuous improvement instrument that is connected to learning planning and implementation.

The fourth theme is quality follow-up based on the PDCA cycle. Follow-up on evaluation findings is carried out systematically through the PDCA (Plan–Do–Check–Act) cycle. Principals and teachers use the results of supervision and data analysis to revise teaching materials and plan next steps for improvement.

Interview data excerpt (Principal of SDN Wargaluyu 01): "Every month we Plan: re-arrange the differentiated lesson plan; Do: test in class; Check: analyze learning outcome data; Act: revise for next month. For example, last month's Math remedial was less than successful due to a lack of equipment, so we purchased affordable equipment from the School Operational Assistance (BOS) fund, and our grades increased by 15 points."

Document data excerpt (follow-up report of SDN Cikancung 01): "Based on the analysis results, the teacher changed the strategy for explaining the material to be more gradual, added a variety of exercises, and increased the use of small groups." These findings indicate that quality management in both schools is starting to build a real quality cycle mechanism, although the implementation stage is still in the process of being strengthened.

The fifth theme is obstacles and solutions in differentiated quality management. The main obstacles emerging from interview and observation data are unclear differentiated quality standards, limited teacher

competency, and the complexity of student characteristics. Both schools lack detailed operational standards, resulting in differing implementations.-different between teachers.

Excerpt from teacher interview data (SDN Wargaluyu 01): "Sometimes it's confusing as to what should be considered 'differentiated.' The tasks are different, but if they don't use a standard format, they're sometimes considered the same."

Interview data excerpt (Principal of SDN Cikancung 01): "Teachers still struggle with time management, dividing attention, and designing three types of activities for three groups simultaneously. Not all teachers fully understand this."

As a solution, both schools developed tiered training, learning communities, and peer-based mentoring.

Interview data excerpt (Principal of SDN Wargaluyu 01): "We created a WhatsApp group 'Guardians of Wargaluyu Quality' to share lesson plans and demonstration videos, plus a cross-visit to SDN Cikancung 01 for classroom observations."

Teacher data quote (Mr. Rahmat, SDN Cikancung 01): "We use the Klasroom app and try visiting city schools to see more mature differentiation practices, then we try to implement them in a simple way."

In addition, students also provided relevant feedback through interviews, regarding their experiences participating in differentiated learning.

Student data quote (Andi, grade 6 SDN Wargaluyu 01): "If I'm divided into groups based on my abilities, it's easier for me to understand. I like being assigned to write my own story, not just memorize it."

Student data quote (Rina, grade 5 SDN Cikancung 01): "I like being able to see pictures or videos on my teacher's phone. The extra practice now feels like a game, not like punishment." These findings indicate that quality management constraints are not only technical in nature.-managerial, but also cultural and psychological, so that the solution is a combination of training, learning communities, and strengthening school culture.

The sixth theme highlights strengthening a culture of quality through collaborative leadership. Principal leadership in both institutions demonstrates a collaborative, rather than top-down, tendency.-The principal not only supervises but also acts as a facilitator and promoter of a culture of quality in the school.

Interview data excerpt (Principal of SDN Wargaluyu 01): "Every Monday, we hold 'Inspiration Morning,' where teachers share success stories of differentiation, and we appreciate the good ones. We also involve parents in quarterly forums so they know what we're building."

Observation data excerpt (SDN Cikancung 01): Posters with the theme “Learning for All” are displayed in every classroom and in the teachers' lounge, as a reminder that learning must be responsive to student differences.

These findings indicate that the culture of quality in both schools is starting to move towards inclusive learning, where all parties, principals, teachers, students, and parents, play a role in realizing differentiated learning quality.

Student Learning Profile Mapping-Based Quality Planning (Plan)

The findings indicate that the lesson planning stage has shifted toward the use of diagnostic assessments to map student readiness, interests, and learning profiles. Lesson plan documents and teaching modules at both schools include components for mapping learning profiles as a basis for developing differentiation strategies. This indicates a shift from generic planning to data-driven planning.

Theoretically, this finding aligns with Carol Ann Tomlinson's concept of differentiated learning, which emphasizes the importance of mapping readiness, interest, and learning profiles as the foundation of instructional design. From a quality management perspective, this stage also mirrors the Plan phase of the PDCA cycle, which demands data-driven planning and concrete needs (Deming, 1986).

Thus, the integration between diagnostic assessment and learning planning in this study shows a more systematic practice and is aligned with the principles of data-driven instruction, which has been proven to increase the relevance of learning to students' needs (Tomlinson, 2017).

Implementation of Content, Process, and Product Differentiation (Do)

During the implementation phase, differentiated learning is implemented through variations in content, process, and product. Teachers adapt materials, strategies, and assignment formats to suit students'

readiness levels, without altering learning objectives. Observations indicate flexible grouping and the use of scaffolding strategies for students with different needs.

These findings reinforce Tomlinson's differentiation framework, which encompasses three main dimensions: content, process, and product differentiation. Furthermore, the practices found also demonstrate the application of constructivist principles, where students actively construct knowledge through meaningful learning experiences (Hausfather, 1996).

From a quality management perspective, the Do stage of PDCA is reflected in the implementation of adaptive and responsive learning to classroom dynamics. This demonstrates that differentiated learning is not merely conceptual but has been operationalized in real-world classroom practice.

In terms of content, teachers adapt learning materials to suit students' readiness and abilities. The material provided is not uniform but varies in complexity, depth, and presentation format. Students with low readiness receive simpler material, using more concrete language and visual support, while students with high readiness receive more complex and exploratory material.

This approach demonstrates that learning content is no longer static, but rather flexible and adaptive to students' learning needs. This practice reinforces the principle that access to materials should be tailored so that all students can achieve the same learning goals through different pathways.

In the process dimension, learning is designed with a variety of strategies and activities that allow students to learn at their own pace and style. Teachers implement flexible, dynamic grouping, allowing students to move between groups based on their learning progress. Furthermore, the use of scaffolding strategies is evident, particularly in the form of step-by-step guidance, prompting questions, and providing concrete examples for students who need more support.

From a constructivist perspective, this approach demonstrates that the learning process is not one-way, but rather involves active interaction between students and their learning environment. Students not only receive information but also construct understanding through experience, discussion, and reflection.

In terms of products, teachers give students the freedom to demonstrate their learning outcomes through various outputs. Students are not limited to one type of assignment but can produce a variety of products, such as written reports, presentations, simple projects, and visual works.

This product variety allows students to express their understanding according to their individual strengths and preferences. Furthermore, product differentiation also allows for more authentic assessment, as teachers can view student learning outcomes more comprehensively, not only from a cognitive perspective but also from a skill and creativity perspective.

One important finding during the implementation phase was the use of flexible grouping. This grouping is not permanent but is adjusted based on learning objectives, assessment results, and class dynamics.

This approach demonstrates that classroom management in differentiated learning requires a high degree of flexibility from teachers. Teachers not only regulate the flow of learning but also simultaneously manage interactions between students, assignment distribution, and time allocation. This confirms that the success of differentiation is greatly influenced by teachers' managerial skills in managing heterogeneous classes.

Scaffolding strategies are a crucial component in implementing differentiation. Teachers provide support gradually, tailored to students' needs, ranging from additional explanations and concrete examples to direct guidance. As students' understanding improves, this support is gradually reduced to encourage independent learning.

This practice demonstrates that differentiated learning is not only outcome-oriented, but also focuses on the process of student development. Scaffolding allows each student to move from their zone of actual ability to their optimal potential.

Within the quality management framework, the Do phase is not simply defined as the execution of a plan, but as an adaptive and responsive implementation process to realities on the ground. Research findings indicate that teachers do not rigidly implement learning according to the initial plan, but instead make real-time adjustments based on student responses.

This demonstrates the practice of adaptive implementation, where the quality of learning is determined by the teacher's ability to read the classroom situation and make appropriate pedagogical decisions. Thus, the Do stage in this study is not mechanistic, but dynamic and contextual.

Overall, the implementation of differentiated learning shows that the learning process becomes more inclusive, participatory, and meaningful. Students are more actively engaged because learning is tailored to their needs, while teachers act as facilitators, strategically guiding the learning process.

These findings confirm that differentiation is not simply a variation in methods, but a paradigm shift in learning from uniformity to diversity. In the context of quality management, this demonstrates that learning quality is measured not only by curriculum achievement but also by the extent to which learning effectively accommodates individual student differences.

Data-Based Quality Evaluation and Academic Supervision (Check)

Learning evaluation is conducted systematically through academic supervision, classroom observations, and analysis of student learning outcomes. Both schools have begun developing data-driven recording systems, such as the use of spreadsheets to monitor student learning progress.

These findings indicate that evaluation is no longer limited to administrative aspects but has evolved into a performance-based evaluation and student learning outcomes. Within the PDCA framework, the Check stage serves to measure implementation effectiveness and identify gaps between plans and outcomes.

Theoretically, this practice aligns with the concept of formative assessment, which emphasizes the importance of continuous feedback in improving the quality of learning (Black & Wiliam, 1998). Data-based evaluation is also the foundation of modern quality management, which focuses on evidence-based decision-making.

Follow-up and Continuous Improvement (ACT)

The follow-up phase demonstrates that teachers and principals actively use evaluation results to improve the planning and implementation of subsequent learning. The PDCA cycle is applied repeatedly, creating a mechanism for continuous improvement in learning.

These findings demonstrate that quality management practices have moved from mere evaluation to transformational learning. From Deming's perspective, the Act stage is the core of continuous quality improvement, where evaluation results are used to innovate and improve the system (Deming, 1986).

The integration of this stage with differentiated learning is an important contribution of this research, because it expands the concept of differentiation from merely a learning strategy to part of a sustainable quality management system.

Constraints and Adaptive Strategies in Implementation

Despite showing positive developments, this study also found a number of obstacles, including teachers' limited understanding of the concept of differentiation, the absence of standard operating procedures, and the complexity of managing heterogeneous classes.

This finding is consistent with previous research that stated that the implementation of differentiated learning often faces challenges related to teacher readiness and system support (Subban, 2006). Furthermore, time constraints and teacher workload also act as inhibiting factors in optimally implementing differentiation.

In response, both schools developed adaptive strategies including ongoing training, teacher professional learning communities, and interschool collaboration. This approach aligns with the concept of community-based teacher professional development, which has been proven effective in improving the quality of learning (DuFour, 2004).

Strengthening Quality Culture through Collaborative Leadership

Recent findings indicate that the successful implementation of differentiated learning quality management is heavily influenced by the collaborative leadership of the principal. The principal acts as a facilitator, motivator, and agent of change in building a culture of quality in the school. This aligns with transformational leadership theory, which emphasizes the importance of shared vision, collaboration, and empowerment in improving the quality of educational organizations (Leithwood & Jantzi, 2005). The resulting culture of quality not only impacts teachers but also involves students and parents as part of the learning ecosystem.

Thus, this study shows that the integration of differentiated learning and PDCA quality management requires not only changes at the classroom level, but also a transformation of the school's overall organizational culture.

The discussion of research findings at SDN Wargaluyu 01 and SDN Cikancung 01 shows that differentiated learning quality management has been implemented relatively systematically through the Plan–Do–Check–Act (PDCA) cycle. However, the key finding is not simply the existence of the cycle, but rather how PDCA is operationalized contextually in classroom learning practices. This indicates that quality management is no longer confined to the administrative level but has entered the pedagogical realm as instructional quality management.

In the planning stage, teachers and principals analyze student needs through diagnostic assessments, which are then integrated into the development of teaching materials such as modules and differentiated lesson plans. These findings demonstrate a paradigm shift from teacher-centered planning to learner-centered planning. From the perspective of W. Edwards Deming's quality theory, data-driven planning is the primary foundation for creating sustainable quality (Shewhart & Deming, 1986). Furthermore, when linked to differentiated learning according to Carol Ann Tomlinson, this process reflects the crucial initial stage of differentiation, namely mapping readiness, interest, and learning profiles. Thus, the integration of diagnostic assessments and planning demonstrates that field practice has led to data-driven differentiated instruction, which theoretically can increase the relevance and effectiveness of learning.

However, this study also found that the quality standards for differentiation have not been fully formalized in the form of standard operational indicators. Consequently, the quality of planning still depends on the capacity of individual teachers. This situation indicates that even though the Planning stage has been implemented, the quality standardization aspect still needs to be strengthened to prevent variations in quality between classes.

In the Do (implementation) stage, differentiated learning is implemented through variations in content, process, and product. The practice of grouping students based on learning readiness, using a variety of media, and assigning assignments of varying complexity demonstrates that differentiation has been operationalized. This reinforces Tomlinson's (2017) argument that differentiation is not simply a modification of material, but a transformation of students' learning styles based on their characteristics.

From a learning theory perspective, these findings can also be explained through Lev Vygotsky's Zone of Proximal Development framework (Hausfather, 1996), which posits that effective learning occurs when students are provided with scaffolding appropriate to their ability level. Students with lower abilities receive more intensive support, while students with higher abilities are given more complex challenges. Thus, the implementation of differentiation in both schools is not only pedagogically relevant but also has a strong psychological basis.

However, implementation complexity remains a major challenge. Teachers face a high cognitive and managerial burden in managing multiple learning groups simultaneously. This indicates that the success of the Do phase depends heavily on teachers' professional competence and school system support.

In the Check (evaluation) stage, research indicates a shift from administrative evaluation to data- and process-based evaluation. Academic supervision not only assesses the completeness of teaching materials but also observes the implementation of differentiation in the classroom. Furthermore, the use of learning outcome data (pre-test, post-test, student participation) serves as the basis for assessing learning effectiveness.

From a Total Quality Management (TQM) perspective, this stage reflects the principles of continuous monitoring and customer focus, where students are positioned as the primary subjects whose satisfaction is measured through engagement and learning outcomes (Sallis, 2014). Furthermore, this practice is also in line with the concept of formative assessment, which emphasizes the importance of continuous feedback to improve the quality of learning (Black & Wiliam, 1998).

However, this study found that the data-driven evaluation system is still in its development stage and has not been fully integrated digitally or systematically. This is an important consideration, as without a robust evaluation system, the PDCA cycle could potentially stop at the reflection stage without producing optimal improvements.

In the Act (follow-up) phase, both schools demonstrated continuous improvement practices through revisions to teaching materials, adjustments to learning strategies, and strengthening remedial and enrichment programs. These findings confirm that PDCA is not merely understood as a concept but has become a working

pattern for improving the quality of learning.

In Deming's theory, the Act stage is the core of continuous improvement, where organizations learn from mistakes and systematically improve their quality. In the context of this research, integrating the Act stage with differentiated learning is a significant contribution, as it demonstrates that differentiation is not static, but rather dynamic and continuously refined based on empirical data.

Furthermore, this study also shows that the implementation of differentiated learning quality management cannot be separated from the cultural context and school leadership. The principal acts as an instructional leader who not only supervises but also facilitates, motivates, and builds a teacher learning community. Practices such as professional learning communities, sharing best practices, and collaborative supervision demonstrate that a culture of quality is beginning to form organically.

From an educational leadership perspective, this aligns with the concept of transformational leadership, which emphasizes collaboration, shared vision, and teacher empowerment (Leithwood & Jantzi, 2005). Furthermore, when linked to the educational values framework proposed by Achmad Sanusi, differentiated learning reflects the values of justice (ethics), rationality (logic), and educational goals (teleology), as it seeks to accommodate student diversity in a fair and meaningful manner.

Overall, this discussion shows that the integration of differentiated learning with PDCA-based quality management produces a more systematic, adaptive, and sustainable learning model. However, its effectiveness is still influenced by several key factors, such as teacher competence, clear quality standards, a data-driven evaluation system, and school leadership. Therefore, the success of this model depends not only on the conceptual design but also on the readiness of the school's systems and organizational culture to implement it consistently.

Empirically, the finding that differentiated learning can improve student motivation, engagement, and learning outcomes in these two elementary schools aligns with various national and international studies, such as (Churiroh et al., 2025), (Budi et al., 2025), (Sutrisno et al., 2023), (Dardiri et al., 2025), and (Osae & Papadopoulos, 2024). This similarity of findings strengthens the position of differentiated learning as a pedagogical approach that has empirical validity across contexts. However, the main contribution of this study does not stop at confirming the effectiveness of differentiation, but rather on how it is institutionalized within a quality management framework based on the PDCA cycle and Total Quality Management (TQM) principles.

Conceptually, this research demonstrates a significant shift from differentiation as an instructional technique to differentiation as a learning management system. While previous research tended to position differentiation at the level of classroom practice, this study constructs it as part of an integrated school quality system. Thus, differentiation is no longer sporadic or dependent on individual teacher initiatives, but rather becomes part of a structured, measurable, and sustainable institutional mechanism. This perspective expands the framework proposed by Carol Ann Tomlinson by incorporating a managerial dimension based on the quality cycle.

Furthermore, this study complements the findings of (Sutrisno et al., 2023) and (Suwandi et al., 2023) which emphasize the impact of differentiation on school quality holistically. This study provides more operational elaboration by showing that this impact is manifested in the recurring PDCA cycle and forms a culture of quality. In the context of the Independent Curriculum, the results of this study also confirm the findings of (Hasnida et al., 2024) and (Sarnoto et al., 2023), particularly in terms of increasing the relevance of learning and the measurability of learning outcomes. However, this study adds an important dimension: the role of the principal as an instructional leader who integrates policy with classroom learning practices.

In terms of excellence, PDCA-based differentiated learning quality management has been proven to be systematic, measurable, adaptive, and sustainable. Systematic because each learning stage follows a flow from planning to evaluation; measurable because it is based on learning outcome data; adaptive because it is responsive to student diversity; and sustainable because it prioritizes the principle of continuous improvement. From W. Edwards Deming's perspective, these four characteristics are key indicators of an organization implementing effective quality management (Shewhart & Deming, 1986).

However, this study also identified several structural and cultural limitations. First, the lack of standardized quality standards for differentiated learning leads to differing interpretations of implementation among teachers, potentially leading to inconsistencies in quality. Second, limited teacher competency in

designing and managing differentiated learning, particularly in accommodating multiple learning groups simultaneously, indicates that differentiation requires more complex pedagogical content knowledge than conventional learning. Third, limited learning time presents a practical obstacle to optimally implementing differentiation. Fourth, the evaluation system, which is not yet fully individual-based, and the still-developing quality culture, indicate that PDCA integration is not yet fully mature.

These findings are consistent with research by (Khofi & Santoso, 2024), Hartono (2022) (Dahroni et al., 2025), and (Strogilos et al., 2023) which emphasize that the success of differentiated learning is strongly influenced by teacher readiness, system support, and school culture. Therefore, this study confirms that differentiated learning quality management will only reach its optimal potential if supported by strong institutional policies, ongoing teacher professional development, and a collaborative quality culture.

Theoretically, this research contributes to the development of an integrative model that combines several key frameworks: the PDCA cycle in quality management (Deming, 1986), Carol Ann Tomlinson's theory of differentiated learning, and Achmad Sanusi's educational value system. This integration results in an approach that emphasizes not only learning effectiveness but also value dimensions such as fairness (ethics), rationality (logic), and educational goals (teleology). Thus, differentiated learning is understood not only as a technical strategy but also as an educational practice rooted in humanistic and inclusive values.

Practically, this research demonstrates that teachers and principals can manage the quality of differentiated learning more effectively through the structured application of the PDCA cycle. This implementation provides a clear framework for designing, implementing, evaluating, and continuously improving learning. Furthermore, the principal's role as an instructional leader is a key factor in ensuring the sustainability of this practice at the school level.

Based on the analysis of the findings, this study recommends several strategic steps. First, the need to develop differentiated learning quality standards integrated with the Education Unit Operational Curriculum (KOSP) and the Independent Curriculum, so that implementation is more consistent and measurable. Second, strengthening teacher capacity through ongoing training and the development of professional learning communities such as the Teachers' Working Group (KKG), Teachers' Working Groups (MGMP), and Professional Learning Communities (PLC), both offline and digital. Third, developing a data-driven evaluation system integrated with remedial and enrichment programs within the PDCA cycle, so that quality improvement is truly evidence-based. Fourth, strengthening school quality culture through the involvement of all stakeholders, including teachers, principals, school committees, and parents.

Thus, this study confirms that PDCA-based differentiated learning quality management is a model that is not only conceptually relevant but also empirically proven and has practical utility in improving the quality of learning in elementary schools. This model aligns with the policy direction of the Independent Curriculum and the strengthening of the Pancasila Student Profile, and has the potential to become a reference in developing more inclusive, adaptive, and sustainable educational practices in Indonesia. Overall, the results of this study confirm that the integration of differentiated learning with PDCA-based quality management produces a more systematic, adaptive, and sustainable learning model. While Carol Ann Tomlinson's theory emphasizes the pedagogical aspects of differentiation, this study expands it into an operational quality management framework through the PDCA cycle.

The primary contribution of this research lies in strengthening the relationship between student-needs-based learning design and mechanisms for continuous evaluation and improvement. This model not only improves student learning outcomes but also builds a reflective, data-driven learning system aligned with the principles of the Independent Curriculum.

CONCLUSION

This study shows that differentiated learning quality management at SDN Wargaluyu 01 and SDN Cikancung 01 has been implemented systematically and sustainably through the Plan–Do–Check–Act (PDCA) cycle. In the planning stage (Plan), teachers conduct a comprehensive analysis of student needs and integrate these into the development of teaching materials and learning quality standards aligned with the principles of the Independent Curriculum. The implementation stage (Do) is realized through the application of adaptive differentiated learning, with adjustments to content, processes, and products according to student characteristics and readiness levels.

In the evaluation phase (Check), teachers and principals systematically conduct academic supervision, classroom observations, and analyze learning outcomes and feedback data, allowing for objective measurement of learning effectiveness. Meanwhile, the follow-up phase (Act) demonstrates ongoing improvement practices through revisions to teaching materials, adjustments to learning strategies, and strengthening remedial and enrichment programs. This cycle emphasizes that differentiated learning quality management is not linear, but rather dynamic and continuously evolving based on evaluation results.

Overall, this study confirms that PDCA-based differentiated learning quality management is an integrative model, as it connects planning, implementation, evaluation, and improvement within a unified system. This model utilizes student diversity as the basis for learning decision-making, so it is no longer viewed as a barrier but as a potential for improving the quality and equity of learning outcomes.

Thus, this research provides an important contribution both conceptually and practically, namely presenting a more systematic, measurable, and sustainable differentiated learning framework, and can be a reference for elementary schools in developing adaptive, inclusive learning practices that are oriented towards improving the quality of education.

REFERENCES

Arikunto, S. (2025). *Prosedur Penelitian suatu Pendekatan Praktek*. Pt Rineka Cipta.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, *5*(1), 7–74. https://doi.org/10.1080/0969595980050102

Bloom, L., Rocissano, L., & Hood, L. (1976). Adult-child discourse: Developmental interaction between information processing and linguistic knowledge. *Cognitive Psychology*, *8*(4), 521–552. https://doi.org/10.1016/0010-0285(76)90017-7

Budi, I. B. K., Fauziah, D. N., Maftuh, B., & Somantri, M. (2025). Analisis Model PjBL Untuk Meningkatkan Pembelajaran Terdiferensiasi di Sekolah Dasar. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, *15*(3), 240–250. https://doi.org/10.24246/j.js.2025.v15.i3.p240-250

Churiroh, N., Prayogo, M. S., Rahmadani, D. N. L., & Rahman, S. A. (2025). Analisis Konseptual Implementasi Pembelajaran Tematik Terpadu dalam Kurikulum Merdeka di Sekolah Dasar. *Jurnal Penelitian Ilmiah Multidisipliner*, *2*(03).

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Dahroni, D., Saputra, Z. A., Restiani, H., Ayu, M., & Pratiwi, R. H. (2025). Perbandingan Efektivitas Pembelajaran Deep Learning dan Diferensiasi terhadap Kemampuan Pemecahan Masalah dan Penalaran Matematika Siswa SMP. *Aljabar: Jurnal Ilmuan Pendidikan, Matematika Dan Kebumian*, *1*(3), 124–140. https://doi.org/10.62383/aljabar.v1i3.683

Dardiri, A., Cholimah, N., Wijayanto, A., Arifiyanti, N., Al Afada, F. H., & Anugraheni, M. D. P. (2025). Efektivitas Program Pembelajaran Diferensiasi untuk Guru Taman Kanak-kanak. *Diklus: Jurnal Pendidikan Luar Sekolah*, *9*(2), 117–128. https://doi.org/10.21831/diklus.v9i2.85141

Deming, W. E. (1986). Principles for transformation. In *Out of the Crisis* (Vol. 18). MIT Press Cambridge, MA.

DuFour, R. (2004). What is a" professional learning community"? *Educational Leadership*, *61*(8), 6–11.

Fauziah, M., Setyowati, A., & Muyana, S. (2019). Self-Esteem Siswa Sekolah Menengah Kejuruan (SMK) Negeri Se-Kota Yogyakarta. *Jurnal Penelitian Bimbingan Dan Konseling*, *4*(1). https://doi.org/10.30870/jpbk.v4i1.5004

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of Qualitative Research*, *2*(163–194), 105.

Hasnida, S. S., Adrian, R., & Siagian, N. A. (2024). Tranformasi pendidikan di era digital. *Jurnal Bintang Pendidikan Indonesia*, *2*(1), 110–116. https://doi.org/10.55606/jubpi.v2i1.2488

Hausfather, S. J. (1996). Vygotsky and schooling: Creating a social context for learning. *Action in Teacher Education*, *18*(2), 1–10.

Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi (2024).

Khofi, M. B., & Santoso, S. (2024). Optimize the Role of The State Islamic High School (MAN) Bondowoso Principal in Promoting Digital-Based Learning. *JERIT: Journal of Educational Research and Innovation Technology*, *1*(2), 91–102. https://doi.org/10.34125/jerit.v1i2.7

Kusum, J. W., Akbar, M. R., & Fitrah, M. (2023). *Dimensi Media Pembelajaran (Teori dan Penerapan Media Pembelajaran Pada Era Revolusi Industri 4.0 Menuju Era Society 5.0)*. PT. Sonpedia Publishing Indonesia.

Leithwood, K., & Jantzi, D. (2005). A review of transformational school leadership research 1996–2005. *Leadership and Policy in Schools*, *4*(3), 177–199. https://doi.org/10.1080/15700760500244769

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis*. sage.

Moleong, L. J. (2021). *Metodologi Penelitian Kualitatif* (40th ed.). Remaja Rordakarya.

Mulyasa, H. E. (2021). *Menjadi guru penggerak merdeka belajar*. Bumi Aksara.

Munifah, M., Puspitasari, I. N. N., Zuhri, H. H., Yani, A., Jasmine, A. N., & Kurniasari, A. (2025). Cultural Barriers and Challenges of Ma'had Aly: The Path towards a Competitive Islamic Higher Education Institution. *Nazhruna: Jurnal Pendidikan Islam*, *8*(2), 464–479. https://doi.org/10.31538/nzh.v8i2.216

Nurkia, S., & Sulkifly, S. (2020). Penerapan teknik konseling restrukturisasi kognitif untuk meningkatkan kepercayaan diri siswa. *JAMBURA Guidance and Counseling Journal*, *1*(1), 14–30.

Osae, C., & Papadopoulos, I. (2024). Delving into educators' perspectives and practices in second language teaching contexts: Differentiated instruction in the spotlight. *Forum for Linguistic Studies*, *6*(3), 294–325. https://doi.org/10.26789/eaer.2024.03.011.

Rohmah, A., & Zulfitria, Z. (2024). Strategi pembelajaran diferensiasi berbasis aktivitas dalam meningkatkan motivasi belajar siswa SD. *Journal of Instructional and Development Researches*, *4*(4), 214–222. https://doi.org/10.53621/jider.v4i4.330

Sallis, E. (2014). *Total quality management in education*. Routledge.

Sarnoto, A. Z., Rahmawati, S. T., Ulimaz, A., Mahendika, D., & Prastawa, S. (2023). Analisis pengaruh model pembelajaran student center learning terhadap hasil belajar: studi literatur review. *Jurnal Pendidikan Dan Kewirausahaan*, *11*(2), 615–628. https://doi.org/10.47668/pkwu.v11i2.828

Shewhart, W. A., & Deming, W. E. (1986). *Statistical method from the viewpoint of quality control*. Courier Corporation.

SISTEM PENJAMINAN MUTU INTERNAL Pada Pendidikan Dasar Dan Menengah (2021).

Strogilos, V., King-Sears, M. E., Tragoulia, E., Voulagka, A., & Stefanidis, A. (2023). A meta-synthesis of co-teaching students with and without disabilities. *Educational Research Review*, *38*, 100504. https://doi.org/10.1016/j.edurev.2022.100504

Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, *7*(7), 935–947.

Sugiono. (2013). *METODE PENELITIAN KUANTITATIF KUALITATIF DAN R&D*. Perbit Alfabeta.

Sutrisno, L. T., Muhtar, T., & Herlambang, Y. T. (2023). Efektivitas pembelajaran berdiferensiasi sebagai sebuah pendekatan untuk kemerdekaan. *DWIJA CENDEKIA: Jurnal Riset Pedagogik*, *7*(2). https://doi.org/10.21831/diklus.v9i2.85141

Suwandi, F. P. E., Rahmaningrum, K. K., Mulyosari, E. T., Mulyantoro, P., Sari, Y. I., & Khosiyono, B. H. C. (2023). Strategi pembelajaran diferensiasi konten terhadap minat belajar siswa dalam penerapan Kurikulum Merdeka. *Prosiding Seminar Nasional Pendidikan Dasar*, *1*, 57–66.

Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms*. Ascd.

Trisnantari, H. E., & Jannah, S. R. (2025). Implementation Of The Deming Cycle In The School Quality Assurance System. *Ar-Rosikhun: Jurnal Manajemen Pendidikan Islam*, *4*(3), 388–400.

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