IJETR International Journal of Education and Theoritical Research
https://journal.synrise.org/index.php/ijetr

e-ISSN : 3164-8150
Vol 1, Issue 2, 2026
pp. 36-43

Analysis of the Implementation of Differentiated Learning in Increasing Student Learning Involvement in the Independent Curriculum

Ravindah Pusparadi
Universitas Pendidikan Indonesia

*Corresponding email: *meladarmayanti@upi.edu*

Article Info

Article history:

Received: 22-10-2025
Revised: 13-12-2025
Accepted: 03-01-2026

Keywords:

Differentiated Learning, Independent Curriculum, Students

ABSTRACT

The change in educational paradigm in the 21st century requires a learning process that is able to accommodate the diversity of student characteristics. The Independent Curriculum exists by providing flexibility to educators in designing learning that is centered on student needs, one of which is through a differentiated learning approach. This study aims to analyze the implementation of differentiated learning in increasing student learning involvement in the implementation of the Independent Curriculum. The research uses a qualitative approach with a literature study method through the analysis of various relevant national and international journal articles regarding differentiated learning, student involvement, and the implementation of the Independent Curriculum. The results of the study show that differentiated learning is able to increase student learning engagement through adjustments to content, processes, products, and learning environments based on students' readiness, interests, and learning profiles. This strategy provides space for students to be more active, have higher learning motivation, and participate in the learning process according to their respective abilities. However, the implementation of differentiated learning still faces several challenges such as limited teacher competence, the need for greater planning time, and limited supporting facilities. Therefore, the successful implementation of differentiated learning in the Independent Curriculum requires increasing teacher pedagogic competence, school policy support, and strengthening a learning culture oriented to the individual needs of students.

Copyright © 2025, The Author(s).
This is an open access article under the CC–BY-SA license

INTRODUCTION

Education is a fundamental process in building the quality of human resources through the development of students' intellectual, social, and character abilities. The increasingly complex development of society causes the education system to no longer be able to use a uniform learning approach (*one size fits all*), because each student has different characteristics, initial abilities, interests, learning styles, and learning needs. These differences are a challenge for educators to create learning that is able to provide optimal development opportunities for all students.

The modern educational paradigm places students as the center of learning (*student-centered learning*) that emphasizes the active involvement of students in building knowledge. According to Vygotsky (1978), the learning process takes place effectively when students receive learning support that is in accordance with their actual level of development and ability. Therefore, effective learning is not only oriented to the delivery of material, but also how teachers are able to adapt learning strategies to the diversity of students' needs.

How to cite: Example: Pusparadi, R. (2026). Analysis of the Implementation of Differentiated Learning in Increasing Student Learning Involvement in the Independent Curriculum. IJETR: *International Journal of Education and Theoritical Research*, *1*(2), 36-43.

One of the approaches that has developed to answer these needs is *differentiated instruction*. Tomlinson (2001) explained that differentiated learning is a learning approach carried out by teachers by modifying the content of the learning (*content*), learning process (*process*), learning outcomes (*product*), and learning environment (*learning environment*) based on students' learning readiness, interests, and learning profiles. This approach does not aim to provide unfair differential treatment to students, but provides equal opportunities for each student to achieve learning goals in a way that suits their characteristics.

The application of differentiated learning is increasingly relevant in the context of the implementation of the Independent Curriculum in Indonesia. The Independent Curriculum is designed to provide flexibility to schools and teachers in developing a learning process that suits the needs of students. Through the concept *of independent learning*, teachers are given space to develop learning that is more adaptive, contextual, and oriented towards the development of student competencies (Kemendikbudristek, 2022).

The Merdeka Curriculum emphasizes the importance of deep *learning* through strengthening the competencies and character of students. One of the main principles in the curriculum is learning that pays attention to the diversity of students' abilities. In this context, differentiated learning is an important strategy because it allows teachers to identify students' learning needs and then design more appropriate learning activities.

Various studies show that differentiated learning has a positive influence on student learning engagement. *Student engagement* is an important aspect that shows the extent to which students actively participate in the learning process, both behaviorally, emotionally, and cognitively. Fredricks, Blumenfeld, and Paris (2004) explained that student involvement consists of three main dimensions, namely *behavioral engagement*, *emotional engagement*, and *cognitive engagement*. These three aspects are important indicators in determining the success of the learning process.

Learning that does not pay attention to individual differences can cause some students to have difficulty following learning, lose motivation, and participate less in class activities. On the other hand, differentiated learning provides a more relevant learning experience because students get learning opportunities according to their ability level and preferences. Research by Coubergs et al. (2017) shows that the application of differentiated learning can increase student participation because it provides opportunities for learners to engage through various learning strategies and activities.

In practice, the implementation of differentiated learning in the Independent Curriculum is not only related to changes in teaching methods, but also requires a change in the paradigm of teachers. Teachers no longer only play the role of conveying information, but also become facilitators who are able to understand the needs of each student. Teachers need to conduct diagnostic assessments, develop flexible learning strategies, and provide various alternative learning activities.

However, the implementation of differentiated learning still faces various challenges. Several studies show that some teachers have difficulty understanding the concept of differentiation, developing appropriate learning tools, and managing classes with a high level of diversity. Rahmawati (2023) explained that the main obstacles to the implementation of differentiated learning in the Independent Curriculum include limited time, teacher readiness, and the ability to develop adaptive learning modules.

In addition to the teacher factor, the success of differentiated learning is also influenced by the support of the school environment. School principals, learning facilities, school culture, and teacher professional development policies are important factors in

ensuring that this approach can run optimally. Without adequate education system support, differentiated learning has the potential to become a theoretical concept with no real implementation.

Research on differentiated learning in the Independent Curriculum is important because this approach is closely related to efforts to improve the quality of more inclusive learning. Several recent studies have shown that the implementation of differentiated learning is able to increase student motivation, active participation, and conceptual understanding, although there are still obstacles in the aspects of teacher competence and educational resources.

Based on this description, this study aims to analyze the implementation of differentiated learning in increasing student learning involvement in the Independent Curriculum. This study focuses on how differentiation strategies are applied, how they affect student involvement, as well as supporting and inhibiting factors in its implementation.

METHODS

This research uses a qualitative approach with the literature *review* method. This approach was chosen because the research aims to analyze in depth the implementation of differentiated learning in increasing student learning involvement in the Independent Curriculum based on various research results that have been conducted previously. Literature studies allow researchers to identify concepts, patterns, findings, and problems related to the application of differentiated learning in various educational contexts.

The data sources in this study come from articles in national and international scientific journals that discuss differentiated learning, *student engagement*, student-centered learning, and the implementation of the Independent Curriculum. The articles used were selected based on several criteria, namely published in academic journals that have a scientific reputation, relevant to the focus of the research, using a clear research approach, and published in a time span that is in accordance with the development of contemporary educational studies. In addition, this study also uses several main theoretical sources such as the concept of differentiated learning from Tomlinson and the theory of learning engagement from Fredricks, Blumenfeld, and Paris.

The data collection process is carried out through the stages of literature identification, source selection, content analysis, and synthesis of research results. The identification stage is carried out by searching for articles related to keywords such as *differentiated instruction*, *differentiated learning*, *student engagement*, *student-centered learning*, and *Merdeka Curriculum*. The articles that have been obtained are then analyzed based on the suitability of the topic, research methods, and research results related to the implementation of differentiated learning.

Data analysis was carried out using content *analysis techniques* by grouping various research findings based on the main theme. The themes include the concepts and principles of differentiated learning, implementation strategies in learning, the influence on student engagement, as well as supporting factors and obstacles to its implementation. The results of the analysis are then interpreted critically to gain a comprehensive understanding of the effectiveness of differentiated learning in the context of the Independent Curriculum.

RESULT AND DISCUSSION

Differentiated learning is one of the pedagogical approaches that has strong relevance to the philosophy of the Independent Curriculum because it both places students at the center of the learning process. The implementation of the Independent Curriculum is not

only oriented towards achieving academic competencies, but also provides space for students to develop according to their respective abilities, interests, and characteristics. In this context, differentiated learning is a strategy that allows teachers to provide a more flexible and meaningful learning experience.

Tomlinson (2001) explained that differentiated learning is based on the understanding that each student has different learning needs. Teachers need to make adjustments to the four main aspects of learning, namely content, process, products, and learning environment. Content differentiation is related to how teachers present learning materials according to students' readiness levels. Process differentiation is related to the variety of learning activities that allow students to understand concepts in different ways. Product differentiation refers to variations in the form of learning outcomes that can show student understanding, while learning environment differentiation is related to the creation of a classroom atmosphere that supports the diversity of students' needs.

In the implementation of the Independent Curriculum, the differentiation process begins through diagnostic assessment activities. This assessment aims to find out the initial condition of students, including academic abilities, interests, learning styles, and special needs that students may have. The results of the assessment are the basis for teachers to determine appropriate learning strategies. This approach is in line with the views of Black and Wiliam (2018) who stated that formative assessments have an important role in helping teachers understand students' learning development and make continuous learning adjustments.

The implementation of differentiated learning shows a paradigm shift in learning practices. Teachers no longer view the classroom as a homogeneous group with the same abilities, but as a diverse learning community. This change in perspective allows teachers to create more inclusive learning because each student is given the opportunity to learn based on their level of development.

Research conducted by Coubergs et al. (2017) shows that differentiated learning can improve the quality of learning interactions because students get the opportunity to participate in activities that suit their abilities. Teachers who apply differentiation tend to be more responsive to the needs of students so that the relationship between teacher and student becomes more positive. This condition contributes to increased student involvement in the learning process.

In the Indonesian context, the application of differentiated learning in the Independent Curriculum is increasingly important because the characteristics of students in each region have a high diversity. Differences in social, cultural, economic, and academic ability conditions cause a uniform learning approach to be less effective when applied comprehensively. Therefore, the flexibility provided by the Independent Curriculum is an opportunity for teachers to develop more contextual learning strategies.

However, the implementation of differentiated learning not only requires an understanding of concepts, but also the practical ability of teachers in designing learning. Teachers need to have the ability to map student needs, develop flexible teaching modules, choose the right learning method, and conduct evaluations based on individual student development. This shows that teachers' pedagogic competence is the main factor in the success of differentiated learning.

According to Tomlinson and Imbeau (2010), the success of differentiated learning is highly dependent on the ability of teachers to build a learning environment that respects the diversity of students. Teachers need to have confidence that every student is able to develop if they are given appropriate support and learning strategies. This view shows that

differentiation is not just a teaching technique, but an educational philosophy that places individual development as the top priority.

Student learning involvement is one of the important indicators in determining the success of the educational process. Students who have a high level of involvement tend to show better motivation to learn, actively participate in learning activities, and have deeper thinking skills. Fredricks et al. (2004) explained that learning involvement consists of three main dimensions, namely behavioral, emotional, and cognitive involvement.

Differentiated learning is closely related to increased learning engagement because this approach provides a learning experience that is more in line with students' needs. When students acquire materials, activities, and forms of evaluation that match their abilities, there is a sense of confidence and motivation to engage in learning. Conversely, learning that does not consider individual differences can cause students to have difficulties, lose interest, and even withdraw from the learning process.

Research by Deunk et al. (2018) shows that learning strategies that pay attention to the individual needs of students have a positive influence on academic development and student engagement. Differentiation provides opportunities for students to learn through approaches that suit their characteristics so that the learning process becomes more meaningful.

Behavioral engagement is seen when students are more actively participating in discussions, completing assignments, asking questions, and participating in class activities. Through differentiated learning, teachers can provide a variety of activity options that allow students to contribute to their abilities. For example, students with visual abilities can understand material through the medium of pictures or diagrams, while students with verbal tendencies can gain understanding through discussions or presentations.

On the emotional aspect, differentiated learning can create a more positive learning experience. When students feel that their needs are taken care of, a sense of appreciation and acceptance arises in the classroom environment. This condition can increase positive relationships between students and teachers and peers. Good social relationships are an important factor in building learning motivation.

Meanwhile, cognitive engagement is related to students' ability to think deeply, solve problems, and connect concepts with real experiences. Differentiated learning supports this aspect because students not only receive information, but are given the opportunity to explore knowledge through activities that are appropriate to their ability level.

The success of the implementation of differentiated learning is greatly influenced by the strategies used by teachers in designing and implementing learning. Teachers have an important role as a designer of learning experiences that are able to bridge the diversity of students' abilities with the learning goals that have been set. In the Independent Curriculum, teachers are given the flexibility to determine learning methods, media, and activities that suit the needs of students so that the learning process can take place more flexibly and adaptively.

One of the main strategies in differentiated learning is to map students' learning needs through diagnostic assessments. This assessment is the basis for teachers to understand students' learning readiness levels, interests, and learning profiles. Tomlinson (2014) explained that effective differentiation must start from teachers' understanding of students' characteristics, not just based on general assumptions about classroom ability. With this mapping, teachers can develop more targeted learning.

The next strategy is the application of a variety of learning methods and resources. In conventional learning, teachers often use the same method for all students. This

approach has the potential to ignore differences in learning styles and students' abilities. Differentiated learning encourages teachers to provide various learning alternatives, such as the use of visual media, discussion activities, project-based learning, experiments, and the use of digital technology. These variations provide opportunities for students to understand the material in a way that best suits their characteristics.

According to Hall, Meyer, and Rose (2012), learning designed based on *the principle of Universal Design for Learning* (UDL) has similarities with differentiated learning because both aim to create wider access to learning for all students. The main principle of the approach is to provide various ways to obtain information, express understanding, and engage in learning activities. This shows that modern learning needs to eliminate learning barriers through flexible learning design.

In addition to differentiation in the learning process, teachers also need to differentiate in the evaluation of learning outcomes. Evaluation does not always have to be done through written exams, but can use various forms of assessment such as projects, presentations, portfolios, and creative products. This approach allows students to show their understanding in a way that is more in line with their abilities.

Black and Wiliam (2018) emphasized that formative assessments carried out on an ongoing basis can help teachers provide appropriate feedback to students. In the context of differentiated learning, feedback has an important function because it helps students know their progress and determine their next learning strategy. Thus, evaluation is not only a tool for measuring learning outcomes, but also part of the learning process.

Supporting Factors for the Implementation of Differentiated Learning

The implementation of differentiated learning in the Independent Curriculum is influenced by various supporting factors, both from within the school and externally. The first factor is the professional and pedagogic competence of teachers. Teachers who have a deep understanding of student characteristics and differentiation strategies will find it easier to implement learning that is responsive to student needs.

Teacher competence is a fundamental aspect because differentiated learning requires more complex analytical skills than conventional learning. Teachers must be able to read assessment data, develop flexible learning plans, and reflect on the effectiveness of the strategies used. Research by Santangelo and Tomlinson (2012) shows that teacher readiness is the main factor that determines the success of the implementation of differentiation in the classroom.

The next supporting factor is the school culture that supports learning innovation. Schools that provide space for teachers to conduct pedagogical experiments will find it easier to develop differentiated learning practices. The support of school principals through training programs, teacher learning communities, and the provision of learning facilities can increase the readiness of schools to implement this approach.

In addition, the availability of technology and learning resources also plays a role in supporting differentiated learning. Technology provides opportunities for teachers to provide materials in various forms, such as learning videos, digital modules, interactive simulations, and online learning platforms. According to Bates (2019), the use of technology in education can increase learning flexibility because it allows students to access learning resources according to their needs and speed.

The classroom environment factor is also an important part of the success of differentiation. A learning environment that is safe, inclusive, and respects diversity will make students more comfortable participating. When students feel that their abilities and opinions are valued, then emotional engagement in learning will increase.

Barriers to the Implementation of Differentiated Learning

Despite its various benefits, the implementation of differentiated learning in the Independent Curriculum still faces a number of challenges. One of the main obstacles is the limited understanding of teachers to the concept of differentiation. Some teachers still understand differentiation as giving different tasks to students, even though the concept has a wider scope, which includes adjusting the entire learning process based on the needs of students.

Time constraints are another challenge that often arises. Differentiated learning planning requires a more complex process because teachers must prepare various strategies, materials, and forms of evaluation. In conditions of large student numbers, teachers often have difficulty giving individual attention to each student.

According to Suprayogi, Valcke, and Godwin (2017), one of the main obstacles to the implementation of differentiation is the increasing workload of teachers in the planning stage. Teachers need support in the form of continuous training and collaboration between educators so that the learning design process does not become a burden on individuals.

Another obstacle is related to school facilities and resources. Not all schools have the same access to technology, learning media, and other supporting facilities. These differences in conditions can affect the ability of schools to implement differentiated learning optimally.

In addition to structural factors, there are also challenges from the student side. Some students who are used to one-way learning need time to adapt to more active and independent learning. Therefore, the implementation of differentiation requires a gradual process so that students' learning culture can develop.

Differentiated learning has important implications for improving the quality of education because it changes the orientation of learning from material-centered to student-centered. Through differentiation, education no longer focuses only on achieving the same standards for all students, but provides opportunities for each individual to achieve optimal development.

This approach is in line with the concept of justice in education (*educational equity*). Justice does not mean giving the same treatment to all students, but providing support that suits their individual needs. Students who have different abilities still get the same opportunity to develop.

Hattie (2009) explains that the quality of learning interactions between teachers and students has a great influence on academic success. Differentiated learning strengthens this relationship because teachers actively understand students' conditions and provide support according to their needs.

In the context of the Independent Curriculum, differentiated learning can be one of the strategic approaches in realizing meaningful learning. This curriculum provides room for teachers to innovate, but its success depends heavily on the ability of educators to translate the principle of flexibility into classroom practice.

Thus, differentiated learning is not just a learning method, but a philosophical approach that places the diversity of learners as the basis in the educational process. Consistent implementation can create a more inclusive learning environment, increase student motivation, and strengthen their involvement in the learning process.

CONCLUSION

Based on the results of the literature review, it can be concluded that differentiated learning is a relevant and strategic approach in supporting the implementation of the

Independent Curriculum. This approach is able to accommodate the diversity of students through adjustments to content, processes, products, and learning environments based on student readiness, interests, and learning profiles. The application of differentiated learning has been proven to contribute to increasing student learning engagement through increased motivation, active participation, and cognitive involvement in the learning process.

The success of the implementation of differentiated learning is highly dependent on teacher competence, support of the school environment, the availability of learning resources, and a learning culture that respects diversity. Although it still faces various obstacles such as time constraints, teacher readiness, and educational facilities, this approach still has great potential in improving the quality of learning. Therefore, it is necessary to strengthen teachers' pedagogic competence through continuous training and school policy support so that differentiated learning can be applied effectively in realizing the goals of the Independent Curriculum.

REFERENCES

Bates, A. W. (2019). *Teaching in a digital age: Guidelines for designing teaching and learning* (2nd ed.). Tony Bates Associates Ltd.

Black, P., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in Education: Principles, Policy & Practice, 25*(6), 551–575.

Coubergs, C., Struyven, K., Vanthournout, G., & Engels, N. (2017). Measuring teachers' perceptions about differentiated instruction: The DI-Quest instrument and model. *Studies in Educational Evaluation, 53*, 41–54.

Deunk, M. I., Smale-Jacobse, A. E., de Boer, H., Doolaard, S., & Bosker, R. J. (2018). Effective differentiation practices: A systematic review and meta-analysis. *Educational Research Review, 24*, 31–54.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59–109.

Hall, T. E., Meyer, A., & Rose, D. H. (2012). *Universal design for learning in the classroom: Practical applications for bringing UDL to life*. Guilford Press.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Santangelo, T., & Tomlinson, C. A. (2012). Teacher educators' perceptions and use of differentiated instruction practices: An exploratory investigation. *Action in Teacher Education, 34*(4), 309–327.

Suprayogi, M. N., Valcke, M., & Godwin, R. (2017). Teachers and differentiated instruction: Exploring differentiation practices in the classroom. *Teaching and Teacher Education, 67*, 291–301.

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). Association for Supervision and Curriculum Development.

Tomlinson, C. A., & Imbeau, M. B. (2010). *Leading and managing a differentiated classroom*. Association for Supervision and Curriculum Development.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.