

## **DIFFERENTIATED LEARNING AS A PEDAGOGICAL PROCESS: EVIDENCE FROM ECONOMICS LEARNING UNDER THE MERDEKA CURRICULUM**

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### **ABSTRACT**

*Differentiated instruction has become a key pedagogical approach within Indonesia's Merdeka Curriculum. However, empirical evidence explaining how it is systematically implemented in vocational Economics classrooms remains limited. This study aims to analyze the planning, implementation, and evaluation of differentiated instruction in Grade X Economics learning at SMK Raudlatul Ulum Ledokombo Jember. Unlike previous studies that primarily emphasize instructional effectiveness or teachers' readiness, this study proposes a process-oriented perspective by conceptualizing differentiated instruction as an integrated pedagogical framework linking diagnostic assessment, adaptive instruction, and authentic assessment. The findings identify three interconnected dimensions that shape effective differentiated learning implementation. This study employed a descriptive qualitative approach using a single-case study design. The research involved 14 purposively selected informants, comprising one principal, one vice principal for curriculum, one Economics teacher, and eleven Grade X students. Data were collected through classroom observations, semi-structured interviews, and document analysis, and analyzed using an interactive model of data condensation, data display, and conclusion drawing supported by source triangulation to ensure credibility. The findings reveal that differentiated instruction was implemented through three integrated stages: (1) diagnostic assessment-informed instructional planning, (2) adaptive classroom implementation involving differentiated content, process, and product, and (3) continuous formative assessment supported by authentic feedback and flexible learning products. These findings demonstrate that the effectiveness of differentiated instruction depends on the coherence between planning, instructional adaptation, and assessment rather than on isolated teaching strategies. The study contributes to strengthening the conceptual understanding of differentiated instruction as a holistic pedagogical process within vocational Economics education.*

**Keywords:** *Differentiated Learning; Merdeka Curriculum; Economics Learning; Diagnostic Assessment*

### **ABSTRAK**

Pembelajaran diferensiasi telah menjadi pendekatan pedagogis utama dalam Kurikulum Merdeka di Indonesia. Namun, bukti empiris yang menjelaskan bagaimana hal ini diterapkan secara sistematis di kelas Ekonomi kejuruan masih terbatas. Studi ini bertujuan untuk menganalisis perencanaan, pelaksanaan, dan evaluasi pembelajaran diferensiasi dalam pembelajaran Ekonomi Kelas X di SMK Raudlatul Ulum Ledokombo Jember. Berbeda dengan studi-studi sebelumnya yang

terutama menekankan efektivitas pengajaran atau kesiapan guru, studi ini mengusulkan perspektif berorientasi proses dengan mengkonseptualisasikan pembelajaran diferensiasi sebagai kerangka pedagogis terintegrasi yang menghubungkan penilaian diagnostik, pengajaran adaptif, dan penilaian autentik. Temuan ini mengidentifikasi tiga dimensi yang saling terkait yang membentuk implementasi pembelajaran diferensiasi yang efektif. Studi ini menggunakan pendekatan kualitatif deskriptif dengan desain studi kasus tunggal. Penelitian ini melibatkan 14 informan yang dipilih secara purposif, terdiri dari satu kepala sekolah, satu wakil kepala sekolah bidang kurikulum, satu guru Ekonomi, dan sebelas siswa Kelas X. Data dikumpulkan melalui observasi kelas, wawancara semi-terstruktur, dan analisis dokumen, serta dianalisis menggunakan model interaktif dari kondensasi data, tampilan data, dan penarikan kesimpulan yang didukung oleh triangulasi sumber untuk memastikan kredibilitas. Temuan menunjukkan bahwa pembelajaran diferensiasi diimplementasikan melalui tiga tahap terintegrasi: (1) perencanaan instruksional yang diinformasikan oleh penilaian diagnostik, (2) implementasi kelas adaptif yang melibatkan konten, proses, dan produk yang berbeda, dan (3) penilaian formatif berkelanjutan yang didukung oleh umpan balik autentik dan produk pembelajaran yang fleksibel. Temuan ini menunjukkan bahwa efektivitas instruksi yang dibedakan bergantung pada koherensi antara perencanaan, adaptasi instruksional, dan penilaian daripada pada strategi pengajaran yang terpisah. Studi ini berkontribusi untuk memperkuat pemahaman konseptual tentang pembelajaran diferensiasi sebagai proses pedagogis holistik dalam pendidikan Ekonomi vokasi.

**Kata Kunci:** *Pembelajaran Diferensiasi; Kurikulum Merdeka; Pembelajaran Ekonomi; Penilaian Diagnostik*

## **A. Introduction**

Economic education at the vocational high school level plays a strategic role in shaping students' abilities to understand, analyze, and make decisions regarding various economic issues faced in everyday life (Nurdina et al., 2019). Therefore, economics education should not only focus on mastering concepts and theories but also on developing critical thinking skills, problem-solving abilities, and the capacity to apply theoretical concepts in practical domains. This aligns with

constructivist theory, which views knowledge as built thru active learning experiences, thus the learning process needs to provide space for students to construct their understanding according to their experiences, initial abilities, and learning environment (Astuti & Afendi, 2022; Kivunja, 2014)

That paradigm aligns with the implementation of the Merdeka Curriculum, which places students at the center of the learning process. This curriculum not only emphasizes the achievement of academic

competencies but also encourages teachers to accommodate the diverse characteristics of students thru flexible and contextual learning experiences. One of the approaches that forms the foundation of the Merdeka Curriculum implementation is differentiated learning, which is a teaching strategy that adjusts content, process, product, and learning environment based on students' readiness, interests, and learning profiles (Tomlinson, 2017). This approach is also in line with the educational philosophy that emphasizes learner-centered education (Wiryanto & Anggraini, 2022).

Although the implementation of the Merdeka Curriculum has been underway in various educational institutions, the application of differentiated learning in the subject of Economics still faces various challenges (Rahayu et al., 2022). Teachers generally still apply classical learning with relatively uniform learning activities, media, and assessments for all students (Zulfa, 2025). Those conditions result in differences in learning readiness, interest, and academic ability not being fully accommodated in the learning process (Pozas et al., 2020).

As a result, some students have difficulty understanding the material, while students with higher abilities have not yet received appropriate learning challenges (Kurniawan et al., 2025). The phenomenon indicates that the curriculum transformation has not yet been fully followed by the transformation of classroom learning practices, especially in economics education, which requires active student engagement.

The urgency of implementing differentiated learning is increasingly strengthening in line with the growing need for education that can develop competencies tailored to the specific needs of students (Salsabila & Ziyadatu, 2025). On the other hand, the education system needs to develop learning that is responsive to the diversity of students in order to build critical thinking, collaboration, creativity, and problem-solving skills (Lavania & Mohamad Nor, 2021). In the context of the Economics subject, this condition indicates that learning can no longer be oriented toward one-way material delivery, but rather needs to be designed to provide learning experiences that align with the needs, abilities, and characteristics of each student,

making learning more effective and meaningful (Langelaan et al., 2024).

On the other hand, observations at SMK Raudlatul Ulum Ledokombo Jember indicate that the implementation of differentiated learning in the Economics subject has begun to be integrated into the Merdeka Curriculum. The teacher has conducted a simple diagnostic assessment at the beginning of the learning process and has made efforts to adjust learning activities to the characteristics of the students. However, the process has not yet been fully optimal. Initial interviews with the Economics teacher indicate that differences in students' learning readiness, limited learning time, and difficulties in designing varied activities and assessments remain major challenges in the implementation of differentiated learning. As a result, the learning strategies implemented have not always been able to fully accommodate the learning needs of the students. These initial findings indicate that the implementation of differentiated learning is not only influenced by teachers' understanding of the Merdeka Curriculum but also by their pedagogical ability to translate

the principles of differentiation into the practice of Economics learning (Frisnoiry et al., 2025).

These limitations are important to consider given that the characteristics of Economics learning in vocational schools differ from other subjects (Bi et al., 2023). Economics learning not only emphasizes conceptual understanding but also the development of logical thinking skills, decision-making, economic problem-solving, and the application of concepts in the context of the business world and the workplace. These characteristics require teachers to be able to design flexible learning experiences that can accommodate differences in academic abilities, learning experiences, and career orientations of students (Tomlinson, 2017). Thus, the implementation of differentiated learning in the subject of Economics should not be understood merely as an adaptation of teaching strategies, but as an effort to build learning that is relevant to the needs of vocational students (Sitorus, 2025).

Several studies have shown that differentiated learning contributes positively to the quality of both the learning process and outcomes (Mulyawati et al., 2022). Research by

Pozas et al. found that the implementation of differentiation increases student learning participation and engagement thru the adjustment of teaching strategies based on learning needs (Pozas et al., 2020). Smale-Jacobse et al. also reported that differentiated learning contributes to the improvement of students' learning motivation, academic outcomes, and learning experiences when applied consistently (Smale-Jacobse et al., 2019). Several studies report that the implementation of differentiated learning is still dominated by conceptual studies and the general implementation of the Merdeka Curriculum, while research specifically examining the implementation of differentiation in Economics subjects at vocational high schools is still relatively limited (Faiz et al., 2022; Suwastini et al., 2021).

Various previous studies have shown that the implementation of differentiated learning has had a positive impact on improving learning outcomes, motivation, and student engagement. However, most research still focuses on the effectiveness of differentiated learning as an approach or examines its implementation in

general subjects such as Mathematics, Science, or Social Studies. Other research focuses more on teachers' readiness to implement the Merdeka Curriculum without explaining how differentiation is actually applied at each stage of learning, from planning, implementation, to evaluation. As a result, there is still limited empirical evidence explaining how differentiated learning is fully implemented in Economics education at the vocational high school level.

Starting from that condition, this research is based on the assumption that the effectiveness of differentiated learning is not only determined by the existence of the Merdeka Curriculum as an educational policy but also by the teacher's ability to translate the principles of differentiation into the planning, implementation, and evaluation of Economics learning. The better teachers identify students' readiness to learn, interests, and learning profiles, the greater the opportunity to create meaningful, participatory learning experiences that can enhance student engagement during the learning process. Therefore, the implementation of differentiated learning needs to be

understood as a pedagogical process that is dynamic, contextual, and influenced by the characteristics of teachers, students, and the school environment.

Based on the aforementioned description, this study aims to analyze the implementation of differentiated learning in the Economics subject for 10th grade at SMK Raudlatul Ulum Ledokombo Jember, focusing the study on the aspects of planning, implementation, and evaluation of learning. Unlike previous research that tends to emphasize the effectiveness or implementation of the Merdeka Curriculum in general, this study provides a more comprehensive understanding of how the principles of differentiated learning are translated into the practice of Economics education in the context of vocational high schools. The research results are expected to broaden the understanding of the implementation of differentiated learning in vocational education, while also serving as a reference for Economics teachers in developing more adaptive, contextual, and learner-centered teaching strategies.

## **B. Methods**

This study employed a descriptive qualitative approach using a single-case study design to explore how differentiated instruction was implemented within the Merdeka Curriculum in Economics learning at SMK Raudlatul Ulum Ledokombo Jember. A qualitative case study was considered appropriate because the study sought to obtain an in-depth understanding of naturally occurring instructional practices rather than to measure causal relationships or test hypotheses. This design enabled the researcher to examine the planning, classroom implementation, and evaluation of differentiated instruction within its real educational context while considering the interaction between curriculum policy, teacher practices, and students' learning needs (Kekeya, 2021).

The research involved participants who were directly engaged in the implementation of differentiated instruction, including the school principal, the vice principal for curriculum affairs, the Economics teacher, and Grade X students. Participants were selected purposively because each possessed specific knowledge and experience relevant to

the implementation of the Merdeka Curriculum. The principal and curriculum coordinator provided information regarding institutional policies and curriculum support, while the Economics teacher and students offered insights into classroom practices and learning experiences. This combination of participants allowed the study to capture multiple perspectives on the implementation process.

Data were collected through classroom observations, semi-structured interviews, and document analysis. Classroom observations focused on how differentiated instruction was planned and enacted during Economics lessons, whereas interviews explored participants' experiences, perceptions, and instructional decisions. Document analysis included lesson plans, teaching modules, diagnostic assessment records, learning worksheets, and assessment instruments to verify the consistency between instructional planning and classroom practices. Using multiple data sources enabled the researcher to obtain comprehensive evidence while reducing dependence on a single source of information.

The data were analyzed using the interactive analysis model consisting of data condensation, data display, and conclusion drawing with continuous verification. Data analysis was conducted concurrently with data collection, allowing emerging findings to guide subsequent observations and interviews. To enhance the credibility of the findings, the study applied prolonged engagement, persistent observation, and source triangulation by comparing evidence obtained from different participants and documentary records. These procedures strengthened the consistency and trustworthiness of the interpretation while ensuring that the findings accurately reflected the implementation of differentiated instruction in the research setting (Miles et al., 2014).

## **C. Result and Discussion**

### **1. Planning of Differentiated Instruction**

The findings revealed that the planning of differentiated instruction began with identifying students' learning readiness, interests, and learning profiles before formal instruction was conducted. The Economics teacher performed an

initial diagnostic assessment through classroom observations, informal questioning, and a review of students' previous learning achievements to identify variations in students' academic readiness. The information obtained from this process became the primary consideration in preparing lesson plans, selecting learning resources, designing classroom activities, and determining assessment strategies. Rather than applying identical instructional procedures, the teacher intentionally organized learning activities that could accommodate differences in students' learning characteristics while maintaining the same instructional objectives.

Document analysis further indicated that differentiated planning was reflected in the teaching modules and lesson plans. Although all students were expected to achieve identical learning outcomes, the learning pathways were designed differently through variations in learning materials, classroom activities, and learning products. Students requiring additional support received structured learning materials accompanied by guided activities, whereas students demonstrating

higher readiness were encouraged to complete analytical tasks and contextual economic case analyses. This differentiated planning enabled the teacher to provide learning experiences that were responsive to students' individual needs without altering the expected curriculum standards.

The classroom observation also showed that lesson preparation was not limited to administrative requirements but functioned as a pedagogical process guiding classroom decision-making. The teacher consistently adjusted instructional scenarios according to students' responses identified during the diagnostic stage. Consequently, differentiated instruction was embedded from the planning stage rather than introduced only during classroom implementation.

The Economics teacher explained:

*"Before preparing the lesson, I first identify students' learning readiness and observe how they usually respond during class activities. This helps me determine which students need additional guidance and which students can be challenged with more complex learning tasks."*

(Economics Teacher, personal communication, March 12, 2025).

Similarly, the vice principal for curriculum emphasized that lesson planning under the Merdeka Curriculum should begin with understanding students' learning needs rather than merely completing administrative documents.

*"Teachers are encouraged to prepare flexible lesson plans because every classroom consists of students with different learning characteristics. Therefore, planning should become the foundation for providing equitable learning opportunities."* (Vice Principal for Curriculum, personal communication, March 14, 2025).

Overall, the findings indicate that differentiated instruction was intentionally planned through diagnostic assessment, adaptive lesson design, and flexible learning scenarios that considered students' diverse learning characteristics.

The findings indicate that diagnostic assessment functioned as the central mechanism for planning differentiated instruction rather than merely serving as an initial assessment activity (Nazilah, 2024). By identifying students' readiness, interests, and learning profiles before

instruction, the teacher was able to design learning experiences that accommodated learner diversity while maintaining common learning objectives. This finding suggests that differentiated planning is fundamentally a pedagogical decision-making process in which instructional strategies are continuously adapted to students' learning needs. Such an approach reflects the student-centered philosophy promoted by the Merdeka Curriculum, where instructional planning emphasizes responsiveness to learner diversity instead of standardized instructional delivery.

Another important finding is that differentiated planning extended beyond preparing lesson documents. The teacher continuously adjusted learning activities based on information gathered during the diagnostic stage, indicating that planning remained dynamic throughout the instructional process. This adaptive planning allowed instructional decisions to evolve according to students' classroom responses, thereby increasing the relevance of learning activities and reducing the mismatch between instructional design and students'

actual learning needs (Langelaan et al., 2024).

The present findings support previous studies demonstrating that diagnostic assessment constitutes the foundation of differentiated instruction. Pozas et al. (2020) reported that teachers who systematically identify students' readiness are more capable of adapting instructional strategies to learner diversity (Pozas et al., 2020). Likewise, Smale-Jacobse et al. (2019) concluded that differentiated planning contributes positively to student engagement because instructional activities become more responsive to individual learning characteristics (Smale-Jacobse et al., 2019).

However, this study extends previous findings by demonstrating that diagnostic assessment is not merely an instrument for classifying students but also functions as a continuous source of pedagogical information that shapes lesson planning, instructional activities, and assessment design. While previous studies primarily emphasized the effectiveness of differentiated instruction in improving learning outcomes, the present study provides a more comprehensive explanation of how differentiated planning is

operationalized within everyday classroom practice in vocational education. This perspective contributes to a deeper understanding of differentiated instruction as an ongoing pedagogical process rather than a collection of isolated instructional strategies (Fauzia & Ramadan, 2023).

These findings suggest that successful implementation of differentiated instruction depends largely on the quality of instructional planning. Diagnostic assessment should therefore be positioned as an integral component of lesson preparation rather than as an administrative requirement associated with curriculum implementation. For Economics teachers, adaptive lesson planning offers opportunities to design learning experiences that better accommodate variations in students' conceptual understanding, analytical ability, and learning preferences. At the institutional level, the findings highlight the importance of strengthening teachers' pedagogical competence in conducting diagnostic assessment and translating assessment results into differentiated instructional planning. Consequently, differentiated instruction should be

understood not only as a classroom strategy but also as a systematic planning framework capable of supporting equitable and meaningful learning experiences (Sarnoto, 2024).

## **2. Implementation of Differentiated Instruction**

The findings demonstrate that differentiated instruction was implemented through the adaptation of learning content, instructional processes, and learning products while maintaining the same learning objectives for all students. Classroom observations revealed that the Economics teacher did not deliver identical learning experiences to every student. Instead, instructional materials were adjusted according to students' levels of readiness. Students who required additional support received more structured explanations supported by concrete examples and guided worksheets, whereas students with higher levels of understanding were encouraged to analyze contextual economic issues through discussion and problem-solving activities.

The learning process was equally adaptive. Rather than relying solely on teacher-centred instruction, the teacher combined short

explanations with collaborative discussions, problem-based activities, individual assignments, and classroom presentations. Different instructional media, including PowerPoint presentations, contextual videos, infographics, and learning worksheets, were employed to accommodate students' diverse learning preferences. During classroom observations, the teacher continuously monitored students' participation, provided immediate feedback, and adjusted instructional support whenever learning difficulties emerged. These interactions indicated that differentiated instruction was implemented dynamically throughout the lesson rather than following a predetermined sequence.

The findings also indicate that students were provided with flexibility in demonstrating their understanding of Economics concepts. Instead of completing identical assignments, students were allowed to select learning products that best reflected their strengths, including presentations, posters, reflective essays, and analytical reports. Although the forms of assessment differed, all students were expected to demonstrate the same learning

competencies specified in the curriculum.

This classroom practice was confirmed by the Economics teacher, who stated:

"Students learn differently. Some understand concepts better through discussion, while others prefer working independently. Therefore, I provide different learning activities so that every student can achieve the same learning objectives through the approach that suits them best." (Economics Teacher, personal communication, March 18, 2025).

A student also described the learning experience as follows:

"We are usually allowed to choose the type of assignment we want to complete. I prefer presenting because it allows me to explain my ideas more confidently than writing a long report." (Student 4, personal communication, March 18, 2025).

Overall, classroom observations, interviews, and document analysis consistently indicate that differentiated instruction was implemented through flexible instructional decisions that accommodated students' learning diversity without reducing curriculum expectations.

The findings indicate that differentiated instruction was implemented as a continuous process of instructional adaptation rather than as the application of isolated teaching techniques. The teacher consistently adjusted learning materials, classroom activities, instructional media, and learning products according to students' readiness and learning preferences while maintaining equivalent learning objectives. This finding suggests that differentiated instruction functions as an adaptive pedagogical practice in which instructional flexibility enables teachers to respond to learner diversity without compromising curriculum standards (Tomlinson, 2017). Such flexibility also promotes greater student participation because learners are provided with multiple pathways to achieve the intended learning outcomes.

Another notable finding is that instructional adaptation occurred throughout the learning process rather than being predetermined before instruction began. Classroom observations showed that the teacher continuously modified explanations, learning support, and classroom interactions according to students'

responses during instruction. This indicates that differentiated instruction requires ongoing pedagogical judgment and classroom responsiveness instead of rigid adherence to lesson plans. Consequently, successful implementation depends not only on curriculum policy but also on teachers' professional capacity to make informed instructional decisions in real classroom situations (Langelaan et al., 2024).

The present findings are consistent with previous studies reporting that differentiated instruction enhances student engagement when teachers actively adapt instructional practices to learners' diverse needs (Pozas et al., 2020; Smale-Jacobse et al., 2019). Similarly, Bi et al. (2023) argued that flexible instructional design enables teachers to accommodate learner diversity more effectively while improving students' participation in classroom activities (Bi et al., 2023).

However, this study provides additional evidence by demonstrating that instructional differentiation extends beyond modifying learning materials. The findings reveal that effective implementation also depends

on teachers' ability to adapt classroom interactions, provide immediate feedback, and offer alternative learning products throughout the instructional process. While previous studies primarily emphasized differentiated content or instructional strategies, the present findings illustrate how content, process, and product operate simultaneously as interconnected components of differentiated instruction. This integrated perspective contributes to a more comprehensive understanding of differentiated pedagogy within vocational Economics education (Wahyuni, 2022).

Furthermore, unlike studies conducted in general secondary schools, the present study highlights that differentiated instruction in Economics classrooms also supports contextual learning by encouraging students to analyze authentic economic issues through learning activities that reflect their individual learning preferences and analytical abilities (Anggita et al., 2022).

The findings suggest that differentiated instruction should be viewed as a dynamic instructional process requiring continuous pedagogical adaptation rather than a

fixed teaching model. For classroom practice, Economics teachers need sufficient flexibility to modify instructional strategies, learning resources, and assessment tasks according to students' learning characteristics while maintaining consistent learning objectives. These findings also imply that professional development programs should focus not only on teachers' understanding of differentiated instruction but also on strengthening their classroom decision-making skills, particularly in managing heterogeneous learning environments (Faiz et al., 2022).

From a theoretical perspective, the findings reinforce the view that differentiated instruction is most effective when content, instructional processes, and learning products are implemented as mutually reinforcing components rather than independent instructional strategies. Consequently, differentiated instruction should be conceptualized as a holistic pedagogical framework that enables equitable learning opportunities while supporting meaningful student engagement in Economics education (Tomlinson, 2017).

### **3. Evaluation of Differentiated Instruction**

The findings revealed that differentiated instruction was accompanied by flexible and continuous assessment practices designed to monitor both students' learning processes and learning outcomes. Classroom observations indicated that assessment was not limited to summative examinations conducted at the end of instruction. Instead, the Economics teacher consistently employed formative assessment throughout the learning process by observing students' participation, monitoring classroom discussions, reviewing learning assignments, and providing immediate feedback to identify learning difficulties before progressing to subsequent topics.

The findings further showed that assessment accommodated variations in students' learning products while maintaining identical learning objectives and assessment standards. Students demonstrated their conceptual understanding through different forms of assignments, including oral presentations, written reports, reflective essays, posters, and group projects. Although the assessment products varied according to students'

strengths and learning preferences, all products were evaluated using common performance criteria emphasizing conceptual understanding, analytical reasoning, and problem-solving ability.

Document analysis confirmed that assessment rubrics had been designed to ensure consistency across different learning products. Rather than focusing exclusively on the final score, the teacher also considered students' participation, learning progress, and responsiveness during classroom activities. Consequently, assessment functioned not only as an instrument for measuring achievement but also as an integral component of the learning process that continuously informed instructional improvement.

The Economics teacher explained:

"Assessment is carried out throughout the learning process. I observe students' participation, monitor their progress, and provide feedback before assigning final scores. This allows students to improve their understanding while learning is still taking place." (Economics Teacher, personal communication, March 25, 2025).

Students similarly perceived the assessment process as supportive rather than judgmental.

"The teacher usually gives feedback before the final assessment, so we know what needs to be improved. It makes learning less stressful because we have opportunities to revise our work." (Student 7, personal communication, March 25, 2025).

Overall, evidence from classroom observations, interviews, and documentation consistently demonstrates that differentiated assessment emphasized continuous learning improvement by integrating formative feedback, flexible learning products, and authentic performance evaluation within the instructional process.

The findings indicate that assessment was implemented as a continuous pedagogical process rather than as a final mechanism for measuring academic achievement. The teacher continuously collected information regarding students' conceptual understanding, participation, and learning progress to support subsequent instructional decisions. This suggests that differentiated assessment functions

not merely to evaluate learning outcomes but also to facilitate learning by providing timely feedback that enables students to improve their performance throughout the instructional process (Morris et al., 2021).

Another important finding concerns the flexibility of assessment products. Although students demonstrated their competencies through different forms of learning products, the teacher maintained equivalent assessment standards by applying common performance criteria. This indicates that fairness in differentiated assessment does not require identical assessment tasks; rather, fairness is achieved when all students are provided with equitable opportunities to demonstrate the same competencies through learning products that correspond to their strengths and learning characteristics. Consequently, differentiated assessment promotes both equity and academic rigor within classroom practice (Santoso et al., 2022).

The present findings support previous research emphasizing the importance of formative assessment within differentiated instruction. Tomlinson (2017) argues that ongoing

assessment enables teachers to understand students' learning development and adjust instructional strategies accordingly (Tomlinson, 2017). Similarly, Black and Wiliam (2018) demonstrated that formative assessment improves students' learning outcomes because feedback becomes an integral component of the instructional process rather than a separate evaluation activity (Black & Wiliam, 2018).

However, the present study extends previous findings by illustrating how differentiated assessment combines formative feedback with flexible learning products while maintaining common learning standards. Previous studies have primarily discussed differentiated assessment from the perspective of assessment strategies or student achievement. In contrast, this study demonstrates that differentiated assessment also functions as a mechanism for ensuring equitable learning opportunities without reducing curriculum expectations. Such findings reinforce the argument that differentiated assessment should be understood as an integral component of differentiated pedagogy

rather than as an isolated assessment technique (Bi et al., 2023).

Furthermore, the findings provide additional evidence within the context of vocational Economics education, where assessment not only measures conceptual understanding but also encourages students to communicate economic reasoning through diverse forms of authentic performance. This contextual perspective contributes to the growing body of literature on differentiated instruction by highlighting the pedagogical role of assessment in supporting meaningful learning experiences within vocational classrooms (Farliana et al., 2021).

The findings have important implications for both educational practice and research. Practically, Economics teachers should integrate formative assessment into everyday classroom activities to identify students' learning needs and provide continuous instructional support. Assessment should therefore be viewed as an ongoing learning process rather than as a final grading procedure. Flexible assessment products may also increase students' motivation and engagement by allowing them to demonstrate

competencies through learning activities that reflect their individual strengths (Faiz et al., 2022).

From a theoretical perspective, these findings strengthen the conceptual understanding of differentiated assessment as an essential component of differentiated instruction. The study demonstrates that assessment, instruction, and learning are interconnected pedagogical processes that collectively support equitable learning opportunities. Consequently, differentiated assessment should be positioned as a core mechanism for translating the principles of student-centred learning into classroom practice within the implementation of the Merdeka Curriculum (Schunk & DiBenedetto, 2020).

#### **D. Conclusion**

This study demonstrates that the successful implementation of differentiated instruction in Economics learning is fundamentally determined by the coherence between instructional planning, classroom implementation, and assessment practices. Differentiated instruction was not implemented as isolated classroom activities but as an

integrated pedagogical process beginning with diagnostic assessment to identify students' readiness, interests, and learning profiles. The information obtained during this initial stage guided the design of adaptive lesson plans, flexible learning activities, and authentic assessment strategies while maintaining common learning objectives for all students. This finding suggests that differentiated instruction can effectively accommodate learner diversity when instructional decisions are consistently grounded in students' actual learning needs.

The study further reveals that differentiated instruction extends beyond modifying learning materials or classroom activities. Its effectiveness lies in the teacher's ability to continuously adapt instructional interactions, provide timely feedback, and offer multiple pathways for students to demonstrate their understanding without compromising academic standards. In this regard, differentiated assessment functions not only as a mechanism for measuring achievement but also as a pedagogical strategy that supports learning throughout the instructional process. These findings contribute to

the growing discourse on differentiated instruction by illustrating how planning, implementation, and evaluation operate as interconnected components that collectively support equitable and meaningful learning within the implementation of the Merdeka Curriculum, particularly in vocational Economics education.

Despite these contributions, this study has several limitations. The research was conducted in a single vocational school and involved one Economics teacher, limiting the transferability of the findings to different educational contexts. In addition, the study focused primarily on describing the implementation process rather than examining its long-term influence on students' academic achievement, self-regulated learning, or higher-order thinking skills. Consequently, future studies are encouraged to involve multiple schools, broader participant groups, and comparative research designs to capture variations in differentiated instructional practices across different educational settings. Longitudinal and mixed-methods studies are also recommended to investigate the sustained impact of differentiated instruction on students' cognitive,

affective, and behavioral learning outcomes, as well as the integration of digital technologies and artificial intelligence to support adaptive instructional decision-making.

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