



Submitted : November 15, 2024
Accepted : May 31, 2025
Published : October 15, 2025

ASSESSMENT AND DIFFERENTIATED LEARNING FOR TEACHERS IN VOCATIONAL SECONDARY SCHOOLS

Reni Dwi Susanti^{*1}, Marhan Taufik², Akhsanul In'am³

^{*1,2,3}Mathematics Education, Faculty of Teacher Training and Education, Universitas Muhammadiyah Malang

Jl. Raya Tlogomas 246 Malang, East Java, Indonesia

*Corresponding Author. E-mail: renidwi@umm.ac.id

Abstract: This study aims to investigate the effectiveness of differentiated and inclusive education in Vocational High Schools (SMK), focusing on teacher understanding, implementation strategies, differentiated learning, and its impact on student motivation and learning outcomes. The method used is qualitative descriptive which involves document analysis, observation, and interviews. The findings of the study show that teachers understand the principles of education and have successfully implemented them, despite facing several challenges such as time constraints, difficulties in daily implementation, and challenges from the student side. Differentiation assessments are carried out through project and formative assessments, but providing in-depth feedback is still an obstacle. The application of differentiated learning has a positive impact on student motivation and learning outcomes. This research makes a theoretical and practical contribution to the development of vocational education. These findings highlight the importance of school environment support and collaboration between teachers and students so that the learning and assessment process can be carried out more effectively.

Keywords: Differentiated assessment, differentiated learning, learning interests, learning outcomes, Vocational High School.

INTRODUCTION

As a successful strategy for meeting the various requirements of kids in the classroom, differentiated education is becoming more and more popular (Tomlinson, 2014; Suprayogi, Valcke, & Godwin, 2017). Students' backgrounds, learning preferences, interests, and skills vary greatly in today's classrooms, which has an impact on how they absorb and interact with knowledge (Tomlinson & Moon, 2013). In order to better accommodate individual student variations and maximize learning results, differentiated education aims to modify the content, process, product, and learning settings (Vygotsky, 1978; Sousa & Tomlinson, 2018).

Differentiated instruction is now even more urgently needed due to recent social and educational developments. The rapid advancement of technology, the diversity of student populations, and the shift toward more inclusive and equitable educational institutions have highlighted the need for flexible and student-centered teaching methods (UNESCO, 2020; OECD, 2019). In this sense, differentiated instruction is an essential framework for developing inclusive, flexible, and fruitful learning opportunities.

The use of customized education is even more important in vocational high schools, where the goal is to prepare students for a variety of specialized professional tracks. In vocational contexts, students frequently pursue a variety of specializations and exhibit differing levels of preparedness, drive, and aptitude for practical skills (Kemendikbud, 2020). To meet the unique competency criteria of each student, vocational teachers must thus develop and put into practice a variety of teaching and evaluation techniques (Heacox, 2018). In this situation,

differentiation guarantees that learning is relevant to the needs of the actual world of work in addition to promoting academic success.

Differentiated education relies heavily on assessment since it enables teachers to pinpoint students' needs, track their development, and adjust their teaching methods accordingly. Specifically, formative assessment is a potent instrument for obtaining continuous feedback and guiding educational choices (Brookhart, 2017; Stiggins, 2018). Differentiated assessment in vocational education helps teachers to test students' abilities in real-world, practice-based settings, improving assessment alignment with occupational objectives and competences.

Implementing individualized instruction and evaluation in vocational schools poses a number of difficulties, despite its promise. These include insufficient resources, a lack of teaching time, and various teacher readiness levels for successfully implementing differentiated techniques (Suprayogi et al., 2017). These limitations emphasize how crucial it is to provide educators with useful frameworks and resources to facilitate the successful integration of individualized instruction. The 2001 update of Bloom's Taxonomy by Anderson and Krathwohl is one such framework that aids educators in matching learning activities to suitable cognitive levels and encouraging higher-order thinking abilities.

Differentiated instruction and evaluation are not frequently used in vocational school environments, despite their proven benefits. The goal of this study is to resolve this research issue. Many vocational teachers continue to employ the same methods of instruction and assessment, which may not be adequate to satisfy the diverse learning needs of their students. This discrepancy calls for a more in-depth examination of the ways in which differentiated instruction—particularly especially, its evaluation component—can be effectively applied in vocational contexts to enhance teaching quality and student results.

Therefore, given the contemporary expectations for inclusive, skill-oriented, and student-centered education, this study is important. By offering evidence-based insights on how differentiated instruction and assessment may be applied more successfully, it supports ongoing efforts to enhance vocational education. It is anticipated that the results will influence practices and policies that promote instructional innovation and teacher professional development.

This study is interesting since it focuses specifically on evaluation within the larger context of vocational education's varied teaching. Assessment procedures frequently get relatively less attention than instructional tactics, which have been the focus of most prior research (Gregory & Chapman, 2017). This study offers a distinctive and useful addition to the body of research on differentiated instruction and vocational pedagogy by examining the ways in which differentiated assessment might be utilized to meet the requirements of individual students in vocational schools.

As a result, it is anticipated that this research will significantly advance the creation of a more thorough and useful model of individualized instruction in vocational education. The study's conclusions will be a useful guide for vocational educators who want to improve their pedagogical proficiency and use more adaptable, fair, and efficient evaluation techniques.

RESEARCH METHODOLOGY

This study employed a qualitative descriptive approach designed to provide an in-depth understanding of how differentiated learning and assessment are implemented by vocational school teachers. The qualitative descriptive method was selected because it allows researchers to explore a phenomenon naturally and contextually, without manipulating the research setting. This approach was also considered appropriate for capturing teachers' authentic experiences, reflections, and practices in applying differentiated instruction according to students' learning readiness, interests, and profiles.

The research was conducted in vocational schools located in Malang Regency, involving ten teachers from various fields of expertise such as engineering, hospitality, accounting, and information technology. The selection of participants used a purposive sampling technique, where teachers were chosen based on specific criteria—namely, having teaching experience of more than three years and having implemented differentiated learning in their classrooms. This sampling ensured that the participants could provide relevant and rich information in line with the research objectives.

Data were collected using three complementary techniques: semi-structured interviews, classroom observations, and document analysis. The semi-structured interviews were conducted individually with each teacher to explore their understanding of differentiation, the strategies used in planning and conducting lessons, and the challenges faced during implementation. Interview questions were designed to be open-ended, allowing participants to elaborate freely while maintaining focus on the main research themes. Each interview lasted approximately 45–60 minutes and was audio-recorded with participants' consent to ensure accuracy of data transcription.

To complement the interview data, classroom observations were carried out to directly examine the teachers'

instructional practices and assessment processes. These observations aimed to identify how differentiation principles were applied in real classroom contexts, including how teachers adapted learning materials, grouped students, and used varied assessment instruments. Observation notes were taken systematically using an observation sheet that covered aspects of lesson preparation, learning activities, and feedback given to students.

The third technique, document analysis, was conducted to strengthen the data obtained from interviews and observations. Teaching documents such as lesson plans, instructional modules, and assessment rubrics were examined to identify evidence of differentiated strategies in the planning and evaluation stages. This analysis enabled researchers to verify the consistency between teachers' stated practices and the materials they used in class.

The process of data analysis followed the stages of thematic analysis, beginning with data transcription, coding, categorization, and theme formulation. Data from interviews, observations, and documents were first organized and read repeatedly to identify patterns and recurring ideas. The initial codes were then grouped into broader categories representing teachers' understanding, implementation strategies, and challenges related to differentiated learning and assessment. Themes were refined through several rounds of review to ensure coherence and clarity.

To enhance the credibility and trustworthiness of the findings, the researcher employed data triangulation by comparing and cross-validating the information obtained from the three sources. Member checking was also conducted by asking several participants to review the interview summaries and preliminary interpretations to ensure that the findings accurately reflected their perspectives. This triangulated and iterative process strengthened the validity of the conclusions drawn regarding the implementation of differentiated learning and assessment in vocational school contexts.

RESULTS AND DISCUSSION

Result

The implementation phase of the Integrated Industrial Class program for the Hospitality Skills Program at The Public Vocational School 60 Jakarta was characterized by a series of coordinated activities designed to immerse students in authentic industry environments. This phase, spanning from the second semester of Grade X to the fifth semester of Grade XII, involved structured student engagement in partner hotels, continuous supervision, and active school support. Teachers' Understanding of Differentiated Learning

Ten instructors were interviewed, and the majority of them showed a solid grasp of the fundamentals of differentiated instruction. They understand how crucial it is to modify the educational process to accommodate students' requirements, skills, and learning preferences. It is still difficult to implement consistent differentiation tactics, nevertheless. Although they haven't been used to their full potential yet, some teachers have made an attempt to employ differentiation techniques including flexible grouping and content customization.

The majority of vocational instructors showed a solid understanding of the fundamentals of differentiated learning, including adapting lesson plans and instructional strategies to suit the requirements of various student populations. They agree that the goal of differentiated learning is to provide each student the chance to develop in accordance with their abilities. Despite having this knowledge, many educators still find it difficult to completely incorporate difference into their regular lessons. This challenge results from the pressure to finish the curriculum in a short amount of time and the lack of time to create more diversified learning activities.

Effective differentiated teachers typically categorize students according to their skill levels and modify assignments and methods accordingly. Nonetheless, some educators continue to believe that excessive student difference might create an unjust feeling, especially for those kids who find it difficult to keep up with more rigorous education. Therefore, more training in differentiation tactics and a greater knowledge of how to design learning that is equitable for all kids and not only centered on one approach are desperately required.

Sample Interview Excerpt:

"I try to tailor the material to student's abilities, especially when teaching basic skills. However, sometimes it's challenging due to limited time and large class sizes." (Teacher A, Mathematics)

Several teachers also pointed out that differentiated learning requires not only awareness of students' diverse needs but also creativity in managing classroom dynamics. In vocational classrooms, students often have different levels of practical and academic readiness, so teachers must find ways to make lessons relevant to everyone. Some teachers have tried to provide varied learning pathways—for example, allowing students to demonstrate understanding through projects, practical tasks, or simulations. This approach gives students with weaker theoretical backgrounds the opportunity to succeed through applied learning. Yet, preparing diverse materials and activities takes considerable time and effort, which many teachers struggle to balance with other instructional responsibilities.

Collaboration among teachers also emerged as an important factor in supporting differentiated learning. Some instructors mentioned that sharing lesson ideas or discussing student progress with colleagues helped them discover new strategies to meet diverse learning needs. Peer discussions and informal exchanges were seen as helpful for gaining fresh perspectives and practical tips. However, these collaborative efforts are still limited and tend to rely on

individual initiative rather than structured institutional programs. This finding suggests that schools should provide more systematic support and professional learning opportunities to help teachers strengthen their differentiation practices.

Challenges in Implementing Differentiation

When creating differentiated learning materials, teachers encounter a number of difficulties, such as a lack of time, resources, and assistance. Additionally, the consistency of differentiation's implementation in the classroom is impacted by variations in instructors' comprehension of its principles. Some educators believe that implementation is made more difficult by a lack of training on differentiation and evaluation techniques.

Time and resource constraints are the main obstacles teachers encounter while implementing differentiated instruction. A common issue is a lack of time to create learning activities and materials that are suited to the needs of the pupils. Additionally, classroom administration becomes more difficult when each class has a big number of pupils. Not every teacher has the resources necessary to assign students to groups or offer a wider variety of materials. Another obstacle to delivering more individualized instruction for each student's requirements is limited usage of technology.

Another limitation is that teachers are not formally trained in differentiation tactics, which leads to disparities in their comprehension and implementation. This discrepancy may result in uneven class distinction. Some educators are apprehensive about differentiation strategies and favor more straightforward, well-known conventional teaching techniques. Therefore, it is essential to give instructors the necessary training and materials so they can feel more comfortable adopting differentiated instruction.

Sample Interview Excerpt:

"We often struggle to find the best way to differentiate tasks without leaving slower students behind or boring faster students." (Teacher B, Indonesian Language)

Several teachers also pointed out that institutional expectations can sometimes limit their flexibility in implementing differentiation. The emphasis on completing the curriculum and meeting standardized targets often leaves little room for experimentation or adaptation. As a result, teachers may focus more on coverage than on responsiveness to students' learning differences. Some suggested that schools should allow greater autonomy in lesson design and assessment methods, so teachers can adapt more freely based on student diversity.

In addition, a few instructors highlighted the emotional aspect of the challenge. Managing diverse classrooms requires patience, empathy, and sustained motivation. Teachers shared that constant effort to balance the needs of all students can be exhausting, especially without recognition or support from administrators. Building a supportive professional community and fostering collaboration among teachers could help reduce this sense of isolation, enabling them to share strategies and sustain their commitment to differentiated instruction.

Implementation of Differentiated Assessment

There are several approaches to implement differentiated assessment, such as using formative evaluations to track students' development over time and summative evaluations to measure final performance. To accommodate students' capacities, teachers make an effort to craft assignments or questions with different degrees of difficulty. However, consistency in fully implementing differentiated assessment is hampered by a lack of time and resources.

Differentiated assessment is really carried out using a variety of methods that are adapted to the requirements and skills of the pupils. Formative assessments, including quizzes and group discussions, are used by teachers to track students' progress over time and offer helpful criticism. Project-based examinations are also used to provide students with opportunities to show their learning in more original and useful ways. But even though a lot of instructors are already using differentiated assessment, they still struggle with objectivity and fairness, particularly when evaluating work from kids with significantly disparate skill levels.

Time constraints are the biggest barrier to giving each student thorough and in-depth feedback, according to many educators. They believe that they must assess a lot of assignments fast, yet they are unable to focus sufficiently on the specifics of each student's work. Despite requiring more time for evaluation and feedback, project-based evaluations that gauge students' practical abilities are seen to be more successful in this respect. Thus, it is necessary to create a more effective evaluation method that yet gives a clear image of each student's development and accomplishments.

Table 1. Assessment Category

Assessment category	Methods Applied	Constraint
Formative assessment	Group discussions, quizzes	Time is limited for all students

Project-based assessment	Practical Assignments	Difficulty in objective evaluation
Summative assessment	Final exam with a variety of questions	Uniformity of assessment results between students

In addition to technical and logistical issues, teachers also expressed concern about aligning differentiated assessments with institutional grading standards. Many schools still emphasize standardized scoring systems that prioritize numerical results over descriptive feedback. As a result, teachers find it difficult to integrate flexible assessment methods within rigid evaluation frameworks. They noted that greater institutional support and clearer assessment policies are needed to help balance fairness, consistency, and responsiveness to student diversity.

Furthermore, some educators highlighted the importance of involving students in the assessment process. Encouraging self-assessment and peer feedback helps students take greater responsibility for their learning and understand how their progress is measured. This participatory approach not only promotes reflection but also fosters a sense of ownership and motivation. Strengthening such practices could make differentiated assessment more meaningful and sustainable in the long term.

The Impact of Differentiation on Student Interest and Learning Outcomes

Students' motivation and interest in learning have generally increased as a result of the use of tailored teaching and evaluation. When students are given the freedom to select assignments based on their skill level, some professors report increased student involvement.

It has been demonstrated that tailored education increases students' motivation to study in vocational high schools. Students feel more appreciated and motivated when they are given the freedom to select instructional strategies that suit their learning preferences and skill levels. A more engaging and dynamic learning environment is produced by teachers who successfully apply differentiation. Students who were previously disengaged are now participating more actively in class discussions and assignments. This implies that a variety of teaching strategies can pique students' interest and boost their motivation for studying.

The enhancement of students' academic achievement is yet another benefit of differentiation. Teachers who are able to modify their lessons based on the capacity of their students—whether they are slower or quicker learners—create an atmosphere that fosters the growth of every individual. According to observations, students who receive the right kind of instruction—such as small group sessions or more difficult assignments—see a notable improvement in their academic performance. In vocational high schools, this emphasizes how crucial individualized instruction is to maximizing learning results.

Interview Excerpt:

"I see that students are more enthusiastic when they know the tasks are tailored to their abilities, and they also tend to ask more questions." (Teacher C, Science)

Beyond motivation and achievement, several teachers highlighted that differentiated learning encourages stronger peer interaction and collaboration. Grouping students with varying skill levels enables peer tutoring, where more advanced learners assist others in understanding difficult concepts. This not only benefits lower-performing students but also reinforces the knowledge and empathy of stronger ones. As a result, the classroom becomes a more inclusive and supportive space that values mutual growth rather than competition.

Moreover, differentiation appears to have a positive impact on students' self-regulation and learning independence. When given choices in tasks and assessment formats, students learn to make decisions about how they learn best and take greater responsibility for their progress. Teachers observed that over time, students became more reflective about their learning habits and more proactive in seeking help or feedback. This shift from teacher-centered to learner-centered engagement demonstrates how differentiation can cultivate lifelong learning skills that extend beyond academic performance.

Observation Data Analysis

According to observational data, teachers employ a variety of differentiation strategies for children with varying learning rates, including task adaptability and small group supervision. Learning exercises become more focused and meet the needs of each individual learner.

According to the observations made, vocational teachers have implemented a number of differentiation strategies in order to foster students' development. In mathematics, for example, teachers assign pupils to groups according to their skill levels, giving more challenging problems to advanced groups and extra practice to help slower learners grasp the material. Nonetheless, there are still issues with making sure every kid gets enough attention in the little amount of time available. Although it is still only used in a few topics and has not yet been widely adopted,

some teachers now employ technology, such as learning software, to deliver exercises that are tailored to each student's skills.

Teachers also make an attempt to measure students' development in a more comprehensive way. Formative assessments, such as daily quizzes and group discussions, are often used by teachers to determine their students' comprehension, according to observations. Even while these tests enable teachers to give prompt feedback, it is still difficult to carry out more thorough evaluations, particularly for projects or final assignments that take longer to complete. Therefore, time and resource constraints continue to be the principal barriers to optimal implementation, even while observational data shows efforts to use differentiated assessment.

Beyond these observations, classroom interactions showed that differentiation tends to work best when teachers combine structured guidance with flexibility. Lessons that incorporate real-life vocational contexts and hands-on activities tend to engage students more deeply, as they can see the relevance of learning to their future careers. Teachers who were able to link theory with practice appeared to foster higher student participation and motivation compared to those relying solely on textbook-based instruction.

Another finding from the observations highlights the importance of teacher collaboration and reflection. In some classrooms, teachers who collaborated in lesson planning demonstrated a smoother and more coordinated approach to differentiation. They shared responsibilities in monitoring groups and providing feedback, which made differentiated instruction more manageable. This suggests that peer collaboration and team teaching can be effective ways to overcome some of the practical constraints associated with differentiation, especially in vocational education settings.

Discussion

Teachers' Understanding of Differentiated Instruction

Research results indicate that teachers generally have a good understanding of differentiation, but implementation remains inconsistent. Research by Suprayogi et al. (2017) supports this finding, showing that teachers face difficulties in consistently applying differentiation in the classroom. Vygotsky's Zone of Proximal Development (ZPD), which highlights the significance of instructional scaffolding catered to students' preparedness, may be used to study this. Although teachers' comprehension shows that they are aware of ZPD, their lack of application points to a disconnect between theory and practice. Continuous training and skill development are needed to help teachers enhance their differentiation skills.

These findings suggest that teachers' conceptual understanding must be accompanied by continuous practice in real classroom settings. Peer mentoring, classroom observation, and reflective dialogue among colleagues could serve as valuable opportunities for teachers to refine their differentiation techniques. In this way, understanding differentiation becomes not only a theoretical awareness but also a living practice that evolves through experience.

Challenges in Implementation

According to Brookhart's (2017) research, time and resource constraints are frequently cited as difficulties in differentiated education. These limitations are especially noticeable in vocational schools, underscoring the necessity of institutional support to raise the standard of differentiated teaching in terms of resources and time. According to Tomlinson (2014), systemic change is necessary for differentiation. This includes changes in school culture, schedule flexibility, and educator collaboration—all of which are still lacking in many vocational schools. The organizational degree of preparedness for pedagogical transformation is also reflected in the challenges faced by educators (Fullan, 2007).

These conditions indicate that the success of differentiation cannot rely solely on individual teacher effort. Schools need to cultivate a supportive environment where teachers have the time, tools, and collaborative space to plan differentiated learning. Encouraging leadership that values innovation and flexibility could gradually shift the culture toward one that naturally accommodates diverse learners.

The Role of Assessment in Supporting Differentiated Instruction

According to Stiggins' (2018) study, formative evaluation is essential for tracking students' development and modifying education to meet their needs. These findings are consistent with that research. Although time restrictions continue to be a problem, vocational school professors occasionally employ formative evaluation to gauge students' development. Assessment is a component of the learning process itself, not only a means of assessment (Black & Wiliam, 2009). However, data-driven instructional decisions and the best possible feedback are hampered by teachers' lack of assessment literacy training.

This shows that strengthening teachers' assessment literacy is key to making differentiation more meaningful. When teachers can design and interpret assessments effectively, they are better equipped to adjust instruction

responsively. Integrating assessment as part of daily learning routines—rather than as a separate, final step—can help ensure that feedback truly guides students' growth.

Impact of Differentiation on Learning Outcomes

Particularly in the context of vocational education, differentiation has been demonstrated to have a favorable impact on student interest and involvement. Gregory and Chapman (2017) provide evidence for this claim, stating that individualized education improves student engagement and enables students to learn in ways that align with their interests and skills. These results also support Deci and Ryan's (2000) Self-Determination Theory, which holds that relatedness, competence, and autonomy all contribute to increased intrinsic motivation. Students feel more motivated and have a greater feeling of agency when they are given the freedom to select assignments or participate in activities that suit their skill level.

The findings suggest that differentiation plays a vital role in nurturing students' intrinsic motivation and self-confidence. By recognizing each learner's strengths, teachers not only improve academic outcomes but also foster a sense of belonging and competence. Such emotional engagement is essential in vocational settings, where learning is closely connected to personal identity and career aspirations.

Alignment with Vocational Education Goals

To match education with the ever-changing needs of the workforce, vocational institutions must differentiate their instruction. According to research, vocational education should modify its teaching strategies to better meet the needs for practical skills (Kemendikbud, 2020). Additionally, constructivist learning theory, which stresses active, student-centered learning customized to individual settings and prior knowledge, is consistent with differentiated teaching (Fosnot, 2013).

This alignment underscores the importance of integrating real-world contexts into vocational learning. Differentiation allows teachers to design experiences that mirror industry practices while addressing students' diverse readiness levels. When instruction connects theory with authentic application, students can see clearer relevance between what they learn in school and the skills they need for future employment.

Student Engagement in the Learning Process

Students are more engaged when they get differentiated instruction that puts them at the center of the learning process. In vocational high schools, Sousa & Tomlinson (2018) discovered that pupils who are more involved in their studies typically do better. This is consistent with Peirce's theory of abduction in learning, which holds that pupils can develop deeper comprehension and meaningful connections by actively generating hypotheses about new material based on patterns.

Encouraging students to explore, predict, and test ideas through differentiated learning tasks can deepen their reasoning and problem-solving skills. When learners are trusted to take intellectual risks and express their understanding in multiple ways, engagement transforms into genuine curiosity. Such learning experiences promote independence and lifelong learning habits.

Need for Ongoing Teacher Training

Implementing differentiation may be difficult, which highlights the necessity for continual training to assist instructors become proficient in a variety of techniques. This is consistent with research indicating that in order to satisfy the needs of contemporary education, teachers need to constantly adapt their teaching methods (Heacox, 2018). In order for teachers to absorb and modify methods in actual classroom settings, professional development programs should include chances for collaborative reflection in addition to introducing differentiation tactics (Darling-Hammond et al., 2017).

These observations highlight that professional growth is most effective when it connects directly with teachers' daily realities. Workshops and training should move beyond theoretical exposure toward coaching, mentoring, and shared lesson study. Through such continuous learning communities, teachers can gradually internalize differentiation as part of their teaching identity rather than as an external demand.

CONCLUSION

The results of this study indicate that students' interests and learning outcomes are significantly impacted when differentiated instruction is used in vocational high schools. Through a variety of strategies catered to each student's requirements, including ability-based grouping, a variety of media and techniques, and pertinent evaluations, teachers may improve student engagement and cultivate greater motivation for learning. Because they may study whichever best suits their requirements, students feel more appreciated and enthusiastic about

learning.

Despite the numerous advantages, the primary obstacles are the lack of sufficient time and resources to carry out differentiation in each class as effectively as possible. Training and support for teaching aids that are suited for differentiation strategies are still lacking for teachers. Furthermore, it is still difficult to conduct fair and objective assessments in differentiated evaluations since not all instructors have the time or resources to give thorough and timely feedback.

It is advised that schools give instructors more training on more durable and successful differentiation techniques in order to improve differentiated instruction in vocational schools. Additionally, instructors will find it much easier to manage diverse classes with the growth of supported tools like educational technology and a greater variety of learning materials. In order to ensure that every student receives the proper attention based on their skills, differentiated assessment should also be maximized by implementing more efficient and diverse evaluations. Differentiation will thereby enhance students' engagement and learning results while also advancing inclusive and successful educational theory and practice in the future.

This study has limitations due to the relatively small number of schools and teachers involved, as well as the lack of data from students' perspectives. Future research is recommended to include a larger and more diverse sample, incorporating students' viewpoints to provide a more comprehensive understanding. Longitudinal studies and investigations on the use of technology to support differentiated instruction in vocational schools are also needed.

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