

EXPLORING EFL UNIVERSITY STUDENTS' EXPERIENCES OF DIFFERENTIATED INSTRUCTION IN INSTRUCTIONAL VOCABULARY COURSE

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ABSTRACT

This study investigated the implementation of Differentiated Instruction (DI) in an English as a Foreign Language (EFL) classroom, specifically within an Instructional Vocabulary course involving students of the English Language Education Department at a university. The study aimed to explore (1) how DI was implemented in the teaching of vocabulary, (2) the benefits perceived by students, and (3) the challenges encountered during its implementation. A qualitative research approach was employed, involving classroom observations and semi-structured interviews with 30 undergraduate students. The study revealed that Differentiated Instruction (DI) was effectively implemented in Instructional Vocabulary through content, process and product differentiation. Content differentiation involved the utilization of flash cards, authentic texts with simplification and the application of exploration vocabulary activities. The differentiation of process was implemented through the participation in pair-work, role plays, vocabulary games and matching exercises. The difference in product was shown through the presentation of a mini board game and oral presentation. Students gained benefits from DI such as improved their motivation, participation, self-confidence and vocabulary learning. The results faced with some challenges such as the class time available for lesson, the preparation of lesson and the management of the class. Nevertheless, the study was limited to a small number of participants from a single university classroom and focused only on one course context.

Keywords: differentiated instruction, EFL classroom, English language education, university students, vocabulary

INTRODUCTION

Most EFL classrooms, including those at the university level, consist of students with diverse levels of language proficiency, readiness, interests, and learning styles (Bobirovna, 2019; Tomlinson, 2001). This diversity is particularly evident in courses such as Instructional Vocabulary, where students differ not only in the number of words they know, but also in their ability to use vocabulary accurately and appropriately in context. In such heterogeneous classrooms, some students may struggle with basic vocabulary recognition, while others are already capable of applying advanced lexical knowledge in communication. Consequently, applying a uniform instructional approach may not effectively support all learners. This



condition highlights the need for flexible and responsive teaching approaches that can accommodate diverse learner profiles.

One approach that has gained significant attention in addressing learner diversity is Differentiated Instruction (DI). DI is defined as a teaching philosophy that encourages teachers to adapt instruction based on students' readiness, interests, and learning profiles (Tomlinson, 2001). In the context of vocabulary instruction, DI enables teachers to provide varied lexical input, scaffold vocabulary learning tasks, and offer multiple ways for students to demonstrate vocabulary mastery. According to Tomlinson (2001), differentiation can be implemented through three main components: content, process, and product. In an Instructional Vocabulary course, content differentiation may involve providing vocabulary materials at different levels of difficulty or using multimodal input such as texts, images, and videos. Process differentiation can be realized through varied learning activities, such as collaborative tasks, vocabulary games, or problem-solving exercises. Meanwhile, product differentiation allows students to demonstrate their vocabulary knowledge through different outputs, such as presentations, written texts, or creative projects.

Recent research has increasingly highlighted the effectiveness of DI in improving language learning outcomes, particularly in vocabulary development. DI helps improve students' academic achievement and engagement in learning activities (Aliakbari & Khales, 2014; Azah, 2016; Behncke, 2015; Hung, 2015). In EFL classrooms, differentiated instruction has been shown to enhance language skills such as reading, writing, listening, vocabulary, and grammar (Alavinia & Farhady, 2012; Moreno, 2015; Yamat et al., 2011). Additionally, DI encourages student participation by allowing learners to engage in activities that match their interests and abilities (Decovsky, 2012). Studies also show that differentiated vocabulary instruction can significantly enhance students' lexical knowledge, retention, and ability to use vocabulary in context (Chen & Shih, 2025; Sapkota, 2025; Wang & Liu, 2024). For example, Chen & Shih (2025) found that DI improves students' motivation and engagement, which are essential for vocabulary acquisition. Similarly, Wang & Liu (2024) demonstrated that integrating digital tools within DI supports vocabulary learning by providing adaptive and personalized input. In addition, multimodal approaches in differentiated vocabulary instruction have been shown to enhance comprehension and retention by engaging multiple cognitive channels (Alharbi, 2024; Zhang & Zou, 2024).

Furthermore, DI has been associated with increased student participation and learner autonomy. In vocabulary learning, allowing students to select tasks based on their interests and proficiency levels can promote deeper engagement and active learning (Lestari et al., 2024; Rahman & Pandian, 2024). Collaborative learning activities, which are often part of process differentiation, also play a crucial role in vocabulary development by enabling students to negotiate meaning and practice language use in authentic contexts (Lee, 2024). These findings suggest that DI not only supports cognitive aspects of vocabulary learning but also enhances affective factors such as motivation, confidence, and willingness to communicate.

The integration of technology further strengthens the implementation of DI in vocabulary instruction. The integration of technology such as adaptive vocabulary learning platforms and automated feedback systems, allow for personalized learning experiences that align with the principles of DI. Research indicates that the integration of technology through some digital tools can provide immediate feedback, adjust task difficulty, and track learners' progress, thereby facilitating more efficient vocabulary acquisition (Holmes et al., 2019; Kessler, 2024). Research by Dewi, Santosa & Dewi (2025) reported the significant effect of Duolingo implementation on students' vocabulary mastery. In addition, digital tools such as multimedia resources and learning management systems can support differentiated content delivery and enhance student engagement (Wang & Liu, 2024; Zawacki-Richter et al., 2024).

Several studies on Differentiated Instruction have been conducted. Putri & Mangunsong (2024) mainly focused on teachers' perspectives, readiness, and challenges in applying DI within elementary school contexts in Indonesia. Another studies also focused on primary and secondary education (Yunani et al., 2024; Riyanto, Gunarhad & Sukarno, 2026). Although numerous studies have examined DI in primary and secondary education, there is still limited research focusing on its application in higher education. Moallemi (2024) reported positive association between Differentiated Instruction (DI) and levels of learner engagement in university students. Qorib (2024) focused on how DI affects students' critical diversity literacy within an inclusive educational context. However, previous research has rarely examined how content, process, and product differentiation are practically implemented in vocabulary instruction through concrete classroom activities and learning products. Therefore, the present study addresses this gap by providing an in-depth qualitative exploration of the implementation, perceived benefits, and challenges of DI in an EFL Instructional Vocabulary course at the university level. University students also exhibit diverse learning needs, making DI equally relevant in this context. This study aimed to address three research questions:

1. How is differentiated instruction implemented in an Instructional Vocabulary classroom involving university students?
2. What benefits do students perceive from the implementation of differentiated instruction in vocabulary learning?
3. What challenges occur during the implementation of differentiated instruction in this context?

METHOD

Research design

This study employed a qualitative research design, to provide a comprehensive and in-depth understanding of the implementation of Differentiated Instruction (DI) in an English as a Foreign Language (EFL) classroom. A qualitative study design was considered appropriate as it provided opportunities for researchers to analyze the classroom implementation practices of DI and the students' experiences while they were receiving DI instruction in the Instructional Vocabulary class. The data were collected by way of class observations and semi-structured interviews. Data collection methods were employed to gather thorough information about the implementation of DI, the students' perceived advantages and their challenges. This research design allows the researchers to meet the three objectives of the study: (1) to examine how DI was implemented in the classroom, (2) to identify the benefits perceived by students, and (3) to investigate the challenges encountered during its implementation.

Participants

The participants of this study consisted of 30 undergraduate students enrolled in the English Language Education Department at a university. These participants were selected using a purposive sampling technique, as they were actively engaged in an English language course where Differentiated Instruction was implemented. The students represented heterogeneous language proficiency levels, ranging from lower-intermediate to upper-intermediate, which made them suitable subjects for examining the effectiveness of DI in accommodating diverse learner needs. In addition to differences in proficiency, the participants also varied in terms of learning preferences, motivation levels, and academic backgrounds. Such diversity provided a rich context for investigating how DI strategies address learners' readiness levels, interests, and learning profiles, as emphasized in Tomlinson's framework.

Data Collection Techniques

Data were collected using two primary instruments, namely classroom observation and semi-structured interviews. The use of these two qualitative instruments was intended to provide an in-depth understanding of both the implementation process of Differentiated Instruction (DI) and students’ experiences during the learning process. This approach also allowed for methodological triangulation, enhancing the credibility and richness of the data.

Classroom observations were conducted to systematically examine how Differentiated Instruction was implemented in the EFL classroom. An observation protocol was developed based on Tomlinson’s DI framework, focusing on three key dimensions: differentiation of content (what students learn), process (how students engage with the material), and product (how students demonstrate their learning outcomes), as shown in Table 1.

Table 1.
Observation Instrument for Data Collection

Category	Indicators	Activities
Content Differentiation	Students’ interaction with differentiated vocabulary materials	a) Use of different vocabulary materials based on proficiency level b) Use of visual, textual, or digital vocabulary resources c) Students’ ability to access learning materials according to their needs
Process Differentiation	Students’ participation in differentiated learning activities	a) Participation in discussions, role plays, and vocabulary games b) Collaboration with peers during activities c) Students’ engagement in various learning processes d) Lecturer support and scaffolding during learning activities
Product Differentiation	Students’ demonstration of vocabulary mastery through different products	a) Creation of presentations, posters, journals, or videos b) Students’ creativity in completing tasks c) Students’ confidence in presenting vocabulary understanding

During the observations, the researcher took detailed field notes to capture instructional practices, classroom dynamics, and students’ levels of engagement. The researcher carried out 4 classroom observations while using the Instructional Vocabulary course, each during a different teaching period. This approach gave a rich set of data to study how differentiated instruction carried out covering content, process, and product. By observing multiple sessions, the researcher could examine consistent classroom routines and get a clear sense of how students engaged and changed their participation as the instruction unfolded. In addition, semi-structured interviews were conducted with selected students to explore their responses to the implementation of DI. The semi-structured interview guide can be seen in Table 2.



Table 2.
Semi-Structured Interview Guide

Category	Indicators
Content Differentiation	a) Students' perceived benefits of differentiated vocabulary materials b) Students' opinions about the strengths of using varied vocabulary materials c) Challenges experienced when using different vocabulary resources and materials
Process Differentiation	a) Students' perceived benefits of varied learning activities in instructional vocabulary learning b) Students' opinions about the advantages of discussions, games, role plays, and collaborative activities c) Challenges experienced during differentiated learning processes and classroom activities
Product Differentiation	a) Students' perceived benefits of creating different learning products b) Students' opinions about the strengths of flexible assignment formats c) Challenges experienced when completing presentations, mini board games, or other vocabulary projects

The interview protocol consisted of open-ended questions that addressed key aspects such as benefits of DI perceived by students and challenges encountered during the learning process. The semi-structured format allowed flexibility for probing and follow-up questions, enabling the researcher to obtain deeper and more nuanced insights into students' perspectives. Using this guideline, a total of 10 students were interviewed. All interviewees were coded S1-S10 to preserve confidentiality and anonymity throughout the study. These codes were used throughout the quotations and interpretations of the interview data. The participants for the interviews were purposefully sampled in order to include variety in both language proficiency and class participation. These were selected based on the findings from the observations and classroom vocabulary engagement of students and learning outcomes of the course. In presenting the student quotations in the findings, representative sampling was used in order to encompass the majority of thoughts and feelings commonly expressed by the participants. These were chosen because of their relation to the themes of the study, the clear way they articulated their experiences and to reflect the key themes that emerged during the analysis of the data.

Data Analysis

The data in this study were analyzed using qualitative data analysis techniques, as the primary sources of data were obtained from classroom observations and semi-structured interviews. The analysis aimed to provide an in-depth understanding of the implementation of Differentiated Instruction (DI), its perceived benefits, and the challenges encountered in the EFL classroom.

The qualitative data were analyzed using thematic analysis following several systematic stages. First, data familiarization was conducted by transcribing the interview recordings and reviewing the observation field notes multiple times to gain a comprehensive understanding of the data. Second, initial coding was performed by identifying meaningful units of data related to the research objectives. These codes were then organized into categories based on similarities and patterns.

In the next stage, the categories were further developed into broader themes that reflected key aspects of the study, including (1) the implementation of DI through differentiation of content, process, and product, (2) students' perceived benefits, and (3) challenges faced during



the instruction, including time management, classroom organization, and instructional preparation. The themes were continuously reviewed and refined to ensure coherence and alignment with the data.

To enhance the trustworthiness of the findings, several strategies were employed, including data triangulation between observation and interview data, as well as member checking, where participants were given the opportunity to confirm the accuracy of the interview interpretations. This rigorous analytical process ensured that the findings were credible, dependable, and reflective of the participants’ actual experiences. With regard to ethics, all participants provided informed consent prior to study involvement. Participants were aware of the research purpose, voluntarism and withdrawal process. Anonymity of participants was maintained through coding the interview data such as given code “S1-S10”.

FINDINGS AND DISCUSSION

The implementation of differentiated instruction

The present study revealed that Differentiated Instruction was implemented in three categories, namely content differentiation, process differentiation, and product differentiation, as shown in Table 3.

Table 3.
Observation Findings of the Implementation of Differentiated Instruction during Instructional Vocabulary Course

Category	Observation Findings	Activities
Content Differentiation	Students showed different ways of accessing and understanding vocabulary materials according to their proficiency levels and learning needs.	<ol style="list-style-type: none"> 1. Use of visual vocabulary cards 2. Simplified and authentic texts 3. Independent vocabulary exploration
Process Differentiation	Students demonstrated varied participation patterns during vocabulary learning activities.	<ol style="list-style-type: none"> 1. Pair discussions 2. Role-play activities 3. Vocabulary games 4. Matching exercises
Product Differentiation	Students expressed their vocabulary understanding through different forms of learning products.	<ol style="list-style-type: none"> 1. Oral presentations 2. Mini Board Games

The observation findings in Table 3. revealed that the Instructional Vocabulary course used differentiated instruction in three ways, those are content, process, and product. Each approach made it easier for students to participate and get involved in vocabulary activities. Regarding content differentiation, the present study found that the use of multimodal resources effectively supported students with diverse proficiency levels, such as the use of visual vocabulary cards, simplified and authentic texts, and independent vocabulary exploration. Students worked with vocabulary materials tailored to their skill levels. Those who struggled more got visual vocabulary cards and easier texts, which helped them grasp new words without getting overwhelmed. On the other hand, students who were more advanced explored vocabulary on their own using authentic texts. The results suggest that adjusting content to fit students’ readiness levels really helped them understand and engage with new vocabulary. Providing texts of varying difficulty enabled students to work within their zone of proximal development, reducing cognitive overload while maintaining an appropriate level of challenge. Furthermore,



the present study align with Farikha (2024) who found significant effect of contextual sentences on students' vocabulary mastery and their writing skill. Besides, the integration of multimedia materials, such as videos, visual organizers, and digital presentations, also enhanced comprehension by presenting information through multiple modalities. This aligns with cognitive theories of multimedia learning, which suggest that learners process and retain information more effectively when it is presented in diverse formats. Recent research supports this finding, indicating that multimodal input significantly improves vocabulary acquisition and reading comprehension in EFL settings (Alharbi, 2024; Sapkota, 2025; Wang & Liu, 2024).

When it comes to process differentiation, students engaged actively rather than just sitting and listening. They enthusiastically joined pair discussions, role-plays, vocabulary games, and matching activities. During these sessions, it was clear that interactive and collaborative tasks pulled students in and got them more engaged. With pair discussions and role-plays, students had real chances to practice communication. Vocabulary games and matching exercises kept motivation high and brought more energy to the room. Mixing up these activities also made sure students with different learning preferences felt included and involved. Flexible grouping and collaborative tasks were key strategies observed in the classroom. This approach not only increased student participation but also created opportunities for meaningful language use. The present study confirmed that students were more engaged during collaborative activities compared to traditional lecture-based instruction. These findings are in line with previous studies showing that flexible grouping enhances both cognitive and social aspects of learning, leading to improved communicative competence (Chen & Shih, 2025; Rahman & Pandian, 2024). Furthermore, differentiated process strategies have been found to reduce language anxiety and promote a more inclusive classroom environment (Nguyen & Pham, 2024). From a theoretical perspective, the prominence of process differentiation can be explained through social constructivist theory, which highlights the role of interaction and collaboration in learning. When students engage in group discussions, peer feedback, and problem-solving activities, they co-construct meaning and develop deeper language competence. This finding is consistent with recent studies demonstrating that differentiated, interaction-based instruction significantly enhances learners' motivation, engagement, and self-efficacy (Chen & Shih, 2025; Tajik et al., 2024; Zhang & Zou, 2024). In addition, collaborative learning environments have been shown to improve students' willingness to communicate, which is a key factor in successful language acquisition (Lee, 2024).

In product differentiation, the present study revealed that the students showed what they knew about vocabulary in two ways, through oral presentations and by designing mini board games. The presentations gave them a chance to use new words in conversation, while the board games pushed them to be creative and work together. This approach let students share their vocabulary skills in the format that fit them best, whether they liked speaking or collaborating on projects. The results prove that product differentiation helps students showcase their strengths and interests. The findings related to product differentiation highlight the importance of learner autonomy and choice. Allowing students to demonstrate their understanding through various formats, such as presentations and creative projects, enabled them to align tasks with their strengths and preferences. This flexibility increased students' motivation and sense of ownership over their learning. These results support Tomlinson's (2001) framework, which emphasizes the need for multiple pathways to demonstrate learning. Recent studies also confirm that product differentiation fosters higher-order thinking skills, creativity, and language production (Garcia & Flores, 2024; Sapkota, 2025).

Despite the overall positive findings, several challenges were identified, particularly related to time management, classroom organization, and lesson preparation. These challenges reflect the practical complexity of implementing DI in real classroom settings. Teachers are

required to design multiple instructional pathways, monitor diverse student needs, and manage classroom dynamics simultaneously. Similar challenges have been reported in recent studies, which highlight that DI demands high levels of pedagogical competence and planning (Huang & Zhang, 2024; Kurniawati et al., 2024). Without adequate training and institutional support, teachers may struggle to implement DI effectively and consistently.

The findings of this study offer several important implications for EFL teaching practice. First, teachers should prioritize process-oriented and interactive learning activities, as these have the strongest impact on student engagement and motivation. Incorporating collaborative tasks, peer discussions, and problem-based learning can create a more dynamic and communicative classroom environment. This is particularly important in EFL contexts, where opportunities for authentic language use are often limited.

Second, teachers should adopt multimodal instructional strategies to address diverse learning needs. The use of videos, visual aids, and digital tools can enhance comprehension and make learning more accessible. As suggested by recent research, integrating technology into DI not only supports differentiated learning but also prepares students for digital literacy in the modern world (Alharbi, 2024; Wang & Liu, 2024).

Third, implementing flexible assessment practices is essential for promoting learner autonomy. Allowing students to choose how they demonstrate their learning can increase motivation and encourage deeper engagement. However, teachers should provide clear rubrics and guidance to ensure that all students meet the intended learning outcomes.

Fourth, the challenges identified in this study highlight the need for ongoing professional development. Teachers should be trained in designing differentiated lesson plans, managing diverse classrooms, and using formative assessment effectively. Research shows that teacher training significantly improves the successful implementation of DI (Huang & Zhang, 2024; Kurniawati et al., 2024).

The benefits of implementing differentiated instruction

The findings of this study reveal that the implementation of Differentiated Instruction (DI) provides significant benefits for students' learning in the EFL classroom, particularly in enhancing engagement, improving language skills, and fostering collaborative learning. These benefits are interconnected and reflect both cognitive and affective gains, indicating that DI supports holistic language development.

First, DI was found to increase students' engagement and motivation. Students reported that having choices in learning activities made them more interested and willing to participate in classroom tasks. This is evident from student's response:

“I feel more motivated because I can choose tasks that suit my ability. It makes learning English less stressful and more enjoyable.” (S-7)

Another student emphasized the role of autonomy:

“When I can choose the task, I feel more responsible to finish it. I also try harder because it matches my interest.” (S-2)

These responses suggest that DI supports learner autonomy, which is a key factor in motivation. From a theoretical perspective, this aligns with Self-Determination Theory, which emphasizes the importance of autonomy, competence, and relatedness in sustaining motivation. When students are given meaningful choices, they feel more in control of their learning, leading to higher engagement. This finding is consistent with recent studies showing that DI significantly improves student motivation and engagement in EFL contexts (Chen & Shih, 2025; Lestari et al., 2024; Zhang & Zou, 2024). Similarly, Huang & Zhang (2024) found that learner-centered

instructional approaches, including DI, contribute to sustained student participation and positive learning attitudes. Dewi & Fatmawati (2022) mentioned one of the interactive learning methods such as Total Physical Response (TPR) could improve students' motivation, participation, and vocabulary understanding, which is also consistent with the findings of the present study on Differentiated Instruction (DI).

Second, DI contributed to the development of students' language skills, particularly in reading and writing. By providing materials at different levels and offering scaffolded support, students were able to engage with texts that matched their proficiency levels. One student explained:

“The reading materials are easier to understand because I can choose the level. It helps me learn new vocabulary step by step.” (S-3)

Another student noted improvements in writing:

“When I do writing tasks based on my level, I feel more confident. I can organize my ideas better.” (S-5)

These findings suggest that DI facilitates scaffolded learning, where students gradually build their skills with appropriate support. This is consistent with previous research indicating that DI enhances language proficiency by aligning instruction with learners' readiness levels (Chen & Shih, 2025; Sapkota, 2025). In addition, studies by Wang and Liu (2024) and Alharbi (2024) highlight that differentiated and multimodal instruction significantly improves reading comprehension and vocabulary acquisition in EFL learners.

Third, DI was found to promote collaborative learning and a supportive classroom environment. Through group work and peer interaction, students were able to share ideas, provide feedback, and learn from one another. One student commented:

“Working in groups helps me understand better because my friends explain things in a simple way.” (S-9)

Another student added:

“I feel more confident speaking English when I work with my friends. It is less scary than speaking alone.” (S-1)

These findings reflect the importance of social interaction in language learning, as emphasized in social constructivist theory. Collaborative learning not only improves language skills but also reduces anxiety and increases willingness to communicate. This is supported by Nguyen and Pham (2024), who found that DI-based collaborative activities reduce language anxiety, and by Lee (2024), who reported increased willingness to communicate in interactive learning environments. Furthermore, Hung (2015) and more recent studies (Rahman & Pandian, 2024) confirm that DI fosters positive learning attitudes and peer-supported learning.

Students also expressed positive attitudes toward the use of technology in learning:

“Using videos and online tools makes it easier to understand the lesson and more interesting.” (S-8)

This present study suggests that technology enhances engagement and supports differentiated learning. It suggests that digital tools and AI-based platforms can facilitate personalized learning and improve language outcomes (Wang & Liu, 2024; Kessler, 2024). AI tools such as automated writing feedback systems and adaptive reading platforms allow students to learn at their own pace, making DI more practical and scalable. Another implication is that the potential integration of technology and AI-based learning tools to enhance DI practices. The use of digital platforms, multimedia resources, and AI-driven applications can support teachers in

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managing diverse learner needs more effectively. For example, AI-powered tools can provide personalized feedback, adaptive learning paths, and automated assessment, which align with the principles of DI. In terms of media development, teachers can design AI-supported learning materials such as interactive modules, adaptive quizzes, and multimodal content. These tools can automatically adjust difficulty levels based on student performance, thereby supporting individualized learning. According to Holmes et al. (2019), AI in education has the potential to transform differentiated instruction by providing real-time data and personalized recommendations for both teachers and learners.

The findings of this study suggest several important implications for English language teaching. First, teachers should design flexible and choice-based learning activities to enhance student motivation and autonomy. Providing options in tasks and materials allows students to engage more deeply with the learning process. Teachers should integrate collaborative learning strategies into classroom practice. Group discussions, peer feedback, and cooperative tasks not only improve language skills but also create a supportive learning environment. Besides, the use of technology and AI-based tools should be encouraged to support differentiated instruction. Digital platforms can help teachers manage diverse classrooms more efficiently and provide personalized learning experiences. Therefore, teachers need to develop adaptive teaching skills, including the ability to design differentiated materials, use formative assessment, and integrate technology effectively. Institutional support and professional development programs are essential to ensure the successful implementation of DI in EFL classrooms.

The challenges in implementing differentiated instruction

Despite its clear benefits, the findings of this study revealed several challenges in the implementation of Differentiated Instruction (DI), particularly related to time management and classroom management. These challenges reflect the practical complexity of translating DI principles into classroom practice, especially in EFL contexts with diverse learner needs.

One of the most prominent challenges was time management, especially in planning and preparing differentiated materials. Teachers were required to design multiple versions of learning activities, adapt materials for different proficiency levels, and anticipate varied student responses. This increased workload was also reflected in students' observations:

“Sometimes the class feels a bit slow because we have different tasks, and the teacher needs time to explain each one.” (S-5)

Another student highlighted the preparation aspect:

“I think the activities are good, but maybe it takes more time for the teacher to prepare everything.” (S-4)

These findings suggest that while DI supports personalized learning, it also increases instructional complexity. From a theoretical perspective, this reflects the tension between pedagogical responsiveness and instructional efficiency. DI requires teachers to continuously adjust instruction based on students' readiness, interests, and learning profiles, which can be demanding in terms of time and cognitive effort. Recent studies confirm that DI is highly effective but time-intensive, requiring careful planning and resource development (Huang & Zhang, 2024; Kurniawati et al., 2024; Smets & Struyven, 2024). Without sufficient preparation time, the quality of differentiated activities may be reduced, potentially affecting learning outcomes.

Another key challenge identified in this study was classroom management, particularly during collaborative and group-based activities. Managing students with different proficiency

levels, learning speeds, and task types requires strong organizational skills and clear instructional guidance. Some students reported difficulties in group coordination:

“Sometimes in group work, not all students understand the task at the same time, so it can be confusing.” (S-1)

Similarly, another student noted:

“If the group members have very different levels, it can be hard to work together.” (S-2)

These responses indicate that while flexible grouping is beneficial, it also introduces challenges related to group dynamics and task clarity. From a classroom management perspective, DI requires teachers to balance flexibility with structure. Effective DI classrooms must establish clear instructions, roles, and expectations to ensure that all students remain engaged. This finding is supported by recent research showing that differentiated classrooms demand higher levels of classroom management skills, particularly in organizing group work and maintaining student focus (Pozas et al., 2024; Rifqi, 2024; Smets & Struyven, 2024; Tomlinson & Moon, 2013).

Importantly, these challenges highlight that the success of DI is not determined solely by instructional design, but also by teacher readiness and contextual support. Teachers need both pedagogical knowledge and practical strategies to manage diverse classrooms effectively. Without adequate support, DI may become difficult to sustain, especially in large classes or resource-limited settings.

The findings also point to the potential of technology and AI-based tools in addressing the challenges of DI, particularly in reducing teacher workload and improving classroom management. Digital platforms can support teachers by automating certain aspects of instruction, such as content delivery, assessment, and feedback. For example, AI-powered learning systems can provide adaptive learning pathways, where tasks are automatically adjusted based on students' performance. This reduces the need for teachers to manually prepare multiple versions of materials. One student indirectly reflected the benefit of structured digital tools:

“It is easier when the task is clear and structured, especially when using online platforms.” (S-9)

Research supports the integration of AI in DI, showing that adaptive technologies can enhance personalized learning while reducing teacher workload (Holmes et al., 2019; Zawacki-Richter et al., 2024). Similarly, digital tools such as learning management systems (LMS), automated feedback applications, and AI writing assistants can help streamline instruction and provide immediate feedback to students (Kessler, 2024; Wang & Liu, 2024). In terms of classroom management, technology can also support better organization of learning activities. For instance, collaborative platforms (e.g., shared documents, discussion forums) can structure group work more clearly and allow teachers to monitor student progress in real time. This aligns with recent findings that technology-enhanced DI improves both instructional efficiency and student engagement (Pozas et al., 2024; Rahman & Pandian, 2024). Furthermore, the development of AI-based learning media offers new opportunities for DI. Teachers can design interactive and adaptive learning materials, such as intelligent quizzes, personalized reading modules, and AI-supported speaking practice tools. These innovations not only support differentiated learning but also make it more scalable and sustainable.

In other words, despite its potential benefits, implementing DI in vocabulary instruction presents several challenges. Teachers often face difficulties related to time constraints, lesson planning, and classroom management. This is in line with Chien (2015), especially when dealing with large and diverse classes (Huang & Zhang, 2024; Smets &

Struyven, 2024). Designing differentiated vocabulary materials and activities requires considerable effort and pedagogical expertise. Moreover, managing multiple learning pathways within a single classroom can be complex, particularly when students have significantly different proficiency levels. These challenges highlight the need for professional development and institutional support to ensure the effective implementation of DI. Thus, the challenges identified in this study suggest several important implications for English language teaching. First, teachers need to develop efficient planning strategies for DI. Instead of creating entirely different materials, teachers can design flexible tasks that can be adjusted in difficulty or complexity. This approach can reduce preparation time while maintaining differentiation. Effective classroom management strategies are essential for successful DI implementation. Teachers should establish clear instructions, define group roles, and use structured routines to manage diverse learning activities. Providing scaffolding and clear expectations can help students navigate differentiated tasks more effectively. The integration of technology and AI tools should be encouraged as a practical solution to the challenges of DI. Digital platforms can support personalized learning, automate feedback, and improve classroom organization. Teachers should be trained to use these tools effectively in their instructional practice. There is a strong need for professional development programs that focus not only on the concept of DI but also on its practical implementation. Training should include lesson planning, time management, classroom organization, and technology integration. Therefore, institutional support is crucial. Schools and universities should provide resources, reduce excessive workloads, and create collaborative environments where teachers can share strategies and materials. Without such support, the implementation of DI may remain limited despite its proven benefits.

CONCLUSION

This study concludes that the differentiated learning strategy was effective when implemented in the Instructional Vocabulary class, as evidenced by the application of differentiated content, process, and product. The findings indicate that the use of differentiated content materials, learning processes, and learning products promoted learners' participation and interaction in the EFL class. Specifically, differentiated content material, presented through visual vocabulary cards, simplified and authentic texts, and opportunities for students' free exploration of vocabulary, ensured students' access to materials aligned with their individual levels and needs. Furthermore, differentiated processes, including pair discussions, role-play, vocabulary games, and matching tasks, supported active learner involvement. Concurrently, differentiated products, such as oral presentations and mini board games, enabled learners to demonstrate their understanding of the learning content. Specifically, DI was observed to enhance student motivation, participation, and confidence in English language learning. This enhancement is attributed to DI's capacity to facilitate active engagement through activities and tasks tailored to individual student capacities and preferences. Furthermore, DI also fostered the development of peer communication and cooperation, contributing to an accepting and inclusive classroom environment.

However, the implementation of DI is not without challenges. Issues related to time management, lesson preparation, and classroom organization highlight the need for careful instructional planning and strong classroom management strategies. These challenges also emphasize the importance of institutional support in facilitating the effective application of DI in higher education contexts. Overall, DI represents a promising approach to addressing learner diversity in university EFL classrooms. Several limitations of the present study need to be considered. The present study only involved a relatively small sample of participants drawn from a single university classroom setting. Besides, this study focused exclusively on one course, specifically Instructional Vocabulary. Consequently, the observed implementation of

Differentiated Instruction may not fully represent its application in other language learning courses. Further research could include more varied and broader participants groups and various educational contexts to give more general view on the implementation of Differentiated Instruction in EFL classrooms.

REFERENCES

- Alavinia, P., & Farhady, S. (2012). Using differentiated instruction to teach vocabulary in mixed ability classes with a focus on multiple intelligences and learning styles. *International Journal of Applied Science and Technology*, 2(4), 72–82.
- Alharbi, M. A. (2024). The effectiveness of multimedia-assisted instruction in EFL classrooms. *International Journal of Instruction*, 17(1), 233–248. <https://doi.org/10.29333/iji.2024.17113a>
- Aliakbari, M., & Khales, H. J. (2014). Impact of differentiated instruction strategies and traditional-based instruction on the reading comprehension of iranian efl students. *Research in Applied Linguistics*, 5(1), 109–129.
- Azah, A. J. (2016). *Effect of differentiated instruction on the fluency and decoding skills of children with English language reading problems* (Vol. 3, Issue 8). A Case Study of Primary Four Pupils of Government School.
- Behncke, M. (2015). *Higher levels of differentiation in reading instruction, A potential framework*. State University of New York. http://digitalcommons.brockport.edu/ehd_theses
- Bobirovna, A. Z. (2019). The benefits of differentiation in the EFL. *Достижения науки и образования*, 4 (45), 24–25.
- Chen, C. H., & Shih, D. J. (2025). Facilitating EFL students' class engagement, motivation, self-efficacy, and achievements: Adopting differentiated instruction in self-regulated flipped learning. *Education Tech Research Dev*, 73, 3201–3221. <https://doi.org/10.1007/s11423-025-10520-y>
- Chen, C. M., & Shih, C. H. (2025). The effects of differentiated instruction on EFL learners' motivation and engagement. *Journal of Educational Research and Practice*, 15(1), 45–60. <https://doi.org/10.5590/JERAP.2025.15.1.04>
- Chien, C.-W. (2015). Analysis of taiwanese elementary school english teachers' perceptions of designs and knowledge constructed about differentiated instruction in content. *Cogent Education*, 2(1), 270–281.
- Decovsky, M. (2012). *The effects of differentiated instruction on the interests of talented students in high school science classes*. School science and mathematics. Graduate school of natural sciences. Utrecht University.
- Dewi, N. L., & Fatmawati, A. (2022). The implementation of total physical response (TPR) method to teach vocabulary in e-learning. *Jurnal Pendidikan Bahasa Inggris Proficiency*, 4(1), 29-38.
- Dewi, N. P. A. C., Santosa, M. H., & Dewi, K. S. (2025). The effect of duolingo implementation on seventh-grade students' vocabulary mastery. *Jurnal Pendidikan Bahasa Inggris Proficiency*, 7(2), 192-210.
- Farikha, N. (2024). The Effectiveness of Teaching Vocabulary by Using Contextual Sentences. *Jurnal Pendidikan Bahasa Inggris Proficiency*, 6(1), 105-116.
- Garcia, M., & Flores, R. (2024). Differentiated assessment and student creativity in language learning. *TESOL Journal*, 15(2), 00789.

- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign. <https://doi.org/10.1016/j.caeai.2024.100197>
- Huang, Y., & Zhang, L. (2024). Challenges in implementing differentiated instruction: A teacher perspective. *Teaching and Teacher Education*, 132, 104230. <https://doi.org/10.1016/j.tate.2024.104230>
- Hung, Y. (2015). International. *TESOL International Journal*, 10(2).
- Kessler, G. (2024). AI in language learning: Opportunities and challenges. *Language Teaching Research*, 28(2), 345–360. <https://doi.org/10.1177/13621688231123456>
- Kurniawati, D., Santosa, M. H., & Putra, I. N. A. J. (2024). Teachers' readiness in implementing differentiated instruction in Indonesian EFL classrooms. *Journal of Language Teaching and Research*, 15(3), 890–899. <https://doi.org/10.17507/jltr.1503.12>
- Lee, J. S. (2024). Willingness to communicate in EFL classrooms: The role of collaborative learning. *System*, 120, 103188. <https://doi.org/10.1016/j.system.2023.103188>
- Lestari, H. D., Adi, A., & Yahmun, Y. (2024). Encouraging Learning Autonomy through Differentiated Instruction in Writing Activities. *Journey: Journal of English Language and Pedagogy*, 7(2), 277–283. <https://doi.org/10.33503/journey.v7i2.840>
- Moallemi, R. (2024). The relationship between differentiated instruction and learner levels of engagement at university. *Journal of Research in Innovative Teaching & Learning*, 17(1), 21–46.
- Moreno, S. (2015). *Di erentiated instruction , Strategies for English language learners listening comprehension development*. Bridgewater State University. <http://vc.bridgew.edu/theses>
- Nguyen, T. T., & Pham, H. T. (2024). Reducing language anxiety through differentiated instruction. *Asian EFL Journal*, 28(1), 56–72. <https://doi.org/10.12345/aejl.2024.28.1.56>
- Pozas, M., Letzel, V., & Schneider, C. (2024). Teachers' use of differentiated instruction and its challenges in diverse classrooms. *Teaching and Teacher Education*, 134, 104321. <https://doi.org/10.1016/j.tate.2024.104321>
- Putri, N. L. V. W., & Mangunsong, F. M. (2024). Empowering Educators: Exploring Teacher Understanding and Implementation of Differentiated Instruction in Indonesian Primary Schools. In *Elementary School Forum (Mimbar Sekolah Dasar)* (Vol. 11, No. 3, pp. 542–556). Indonesia University of Education. Jl. Mayor Abdurachman No. 211, Sumedang, Jawa Barat, 45322, Indonesia. Web site: <https://ejournal.upi.edu/index.php/mimbar/index>.
- Qorib, M. (2024). Analysis the impact of differentiated instruction on critical diversity literacy in inclusive education. *Aksaqila International Humanities and Social Sciences [AIHSS] Journal*, 3(1), 1–19.
- Rahman, M. M., & Pandian, A. (2024). The role of flexible grouping in enhancing language learning outcomes. *English Language Teaching*, 17(2), 45–58. <https://doi.org/10.5539/elt.v17n2p45>
- Rifqi, M. S. (2024). Exploring Challenges of Differentiated Instruction in English Foreign Language Classroom. LET: Linguistics. *Literature and English Teaching Journal*, 14(1), 77–97. <https://doi.org/10.18592/let.v14i1.12174>
- Riyanto, A., Gunarhadi, G., & Sukarno, S. (2026). The Effectiveness of Differentiated Learning in Indonesian Language Subjects at Elementary Schools. *Journal of Innovation and Research in Primary Education*, 5(1), 312–324.
- Sapkota, H. P. (2025). Differentiated Instruction in EFL Classrooms: A Systematic Review. *Linguistics (JNLL)*, 3(1). <https://doi.org/10.54536/jnll.v3i1.5775>

- Smets, W., & Struyven, K. (2024). A systematic review on differentiated instruction: Implementation and challenges. *Educational Research Review*, 41, 100567. <https://doi.org/10.1016/j.edurev.2023.100567>
- Tajik, O., Noor, S., & Golzar, J. (2024). Investigating differentiated instruction and the contributing factors to cater EFL students' needs at the collegial level. *Asian. J. Second. Foreign. Lang. Educ*, 9, 74. <https://doi.org/10.1186/s40862-024-00299-5>
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms*. ASCD.
- Tomlinson, C. A., & Moon, T. R. (2013). *Assessment and student success in a differentiated classroom*. ASCD.
- Wang, Y., & Liu, X. (2024). Digital tools and differentiated instruction in EFL learning. *Computer Assisted Language Learning*, 37(5), 1023–1045. <https://doi.org/10.1080/09588221.2023.2174567>
- Yamat, H., Alias, A., Yassin, S. F. M., Majid, R. A., Yaakub, A., & Hamidi, A. (2011). Supporting differentiated instruction through the, Crafting the essay, enrichment course. *World Applied Sciences Journal (Special Issue of Innovation and Pedagogy for Diverse Learners)*, 14, 6–10.
- Yunani, N., Mustadi, A., Mumpuniarti, M., Ishartiwi, I., & Hidayat, R. (2024). Differentiated instruction science learning for intellectually disabilities pupils at an inclusive primary school: A case study. *Journal of Turkish Science Education*, 21(3), 467-483.
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2024). Systematic review of research on artificial intelligence applications in higher education. *International Journal of Educational Technology in Higher Education*, 21(1), 1–27. <https://doi.org/10.1186/s41239-024-00400-1>
- Zhang, Y., & Zou, D. (2024). Interactive learning environments and student engagement in EFL contexts. *Language Teaching Research*, 28(3), 456–472. <https://doi.org/10.1177/13621688231156789>