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Differentiated Instruction in Tertiary Classrooms A Systematic Review of Evidence from Global and Philippine Contexts

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Abstract: *As higher education institutions confront increasingly diverse student populations, differentiated instruction (DI) has gained prominence as a pedagogical strategy that promotes equity, flexibility, and learner engagement. While well-established in basic education, the application of DI in tertiary classrooms remains fragmented and underexplored. This systematic review examined global and Philippine-based evidence on DI in higher education, focusing on its philosophical foundations, instructional models, digital integration, learner outcomes, and institutional challenges. Following the methodological framework of Strech and Sofaer (2011), a comprehensive search was conducted across ERIC, Scopus, Web of Science, and Google Scholar using predefined keywords. A total of 53 peer-reviewed studies published between 2015 and 2025 met the inclusion criteria. These were analyzed through narrative synthesis and thematic abstraction. Findings revealed five major themes: (1) DI's philosophical grounding in constructivism and inclusive pedagogy; (2) models of DI including Tomlinson's framework and Universal Design for Learning; (3) the enabling role of digital tools in content delivery, assessment, and adaptive learning; (4) improved student outcomes in engagement, achievement, and inclusion; and (5) institutional barriers such as faculty preparedness, curricular rigidity, and uneven policy implementation. In the Philippine context, DI principles are increasingly visible through flexible learning and contextualized instruction, though systemic adoption remains limited. The study concludes that DI holds transformative potential for tertiary education but requires institutional commitment, sustained faculty development, and policy coherence to move from isolated practice to inclusive standard.*

Keywords: Differentiated Instruction and Tertiary Classrooms

1. INTRODUCTION

Higher education worldwide is undergoing a significant paradigm shift as institutions face increasingly diverse and complex learning environments. The traditional model of uniform instruction—characterized by standardized content delivery, rigid assessment practices, and passive knowledge transmission—is gradually being challenged by more flexible, inclusive, and student-centered approaches (Kariippanon, et.al, 2019). This transformation is driven by the recognition that university students today differ not only in terms of prior academic achievement but also across a spectrum of cultural, linguistic, cognitive, and socio-economic backgrounds. As a result, educators and policymakers alike are turning their attention toward pedagogical frameworks that can accommodate and respond meaningfully to learner diversity while maintaining academic rigor (Hamilton & Petty, 2023). Among these emerging frameworks, Differentiated Instruction (DI) has gained significant attention as a viable strategy for promoting equity, engagement, and success in tertiary classrooms.

Originally developed for K–12 education, differentiated instruction has gained relevance in higher education due to its foundational emphasis on recognizing and addressing individual differences among learners. Grounded in constructivist theories of learning—particularly those of Vygotsky, Piaget, and Gardner—DI advocates for varying content, process, product, and learning environments based on students' readiness, interests, and learning profiles (Gheyssens, et.al, 2020). It aligns well with the principles of inclusive pedagogy and universal design, challenging the "one-size-fits-all" approach to instruction that has historically dominated college and university settings. In response to rising global concerns about educational equity, learner agency, and academic accessibility, DI presents a pedagogical orientation that empowers instructors to meet students where they are and support their growth toward clearly defined learning outcomes (Terletska, 2024).

The need for differentiated instruction in higher education has been further amplified by recent developments in educational policy and practice. Frameworks such as Outcomes-Based Education (OBE) and Universal Design for Learning (UDL), now widely adopted across many countries, emphasize flexibility in teaching and assessment (Rao & Meo, 2016). The COVID-19 pandemic accelerated the implementation of remote and hybrid learning modalities, forcing educators to reconsider long-standing instructional norms and adapt to varying student needs in real time (Adedoyin & Soykan, 2020). This disruption prompted a global reconsideration of traditional teaching strategies and highlighted the practical relevance of differentiated instruction as both a philosophy and a set of techniques that support inclusive, adaptive, and equitable learning experiences (Ardenlid, et.al, 2025). As a result, the principles of DI have begun to permeate institutional discourse and faculty development programs in universities worldwide.

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In the Philippine context, the relevance of differentiated instruction is underscored by the country's diverse educational landscape. Philippine higher education institutions (HEIs) serve students from a wide range of geographic, cultural, and socio-economic backgrounds, including Indigenous Peoples, working students, first-generation college learners, and others historically marginalized in academic spaces (Llantos, 2021). National efforts to expand access to education—such as the Universal Access to Quality Tertiary Education Act—and policies from the Commission on Higher Education (CHED) promoting flexible learning have laid a foundation for more inclusive classroom practices (Cano, et.al, 2024). CHED's advocacy for OBE, contextualized instruction, and differentiated assessment reinforces the alignment between national education reforms and the core tenets of DI. However, despite this policy support, implementation at the classroom level remains uneven. Differentiated instruction in Philippine HEIs is often informally applied or labeled under other terms, such as "inclusive teaching" or "modular learning," rather than being systematized as part of a coherent pedagogical strategy (Cabeserano, 2025).

Challenges persist in bringing differentiated instruction from policy into practice. Many instructors in higher education are content experts rather than trained educators, and professional development programs in inclusive pedagogy are not always prioritized or institutionalized (Kennedy, et.al, 2021). Additionally, large class sizes, rigid curriculum structures, limited access to digital tools, and accreditation pressures create structural barriers to the flexible implementation of DI (Indrawati, et.al, 2024). Faculty members may also hold misconceptions about DI, such as fears of reduced academic standards or increased workload. These conditions contribute to the fragmented and inconsistent application of differentiation strategies across tertiary institutions. While there is growing awareness of the need for more inclusive teaching practices, there remains a lack of consolidated, context-responsive guidance for how DI can be effectively integrated into the higher education setting (Preston, et.al, 2025).

Amid these complexities, there is a growing imperative to revisit and reframe differentiated instruction in ways that are pedagogically sound, contextually appropriate, and practically feasible for higher education. As academic institutions strive to fulfill dual mandates of excellence and equity, differentiated instruction offers a promising framework for addressing the challenges of student diversity without compromising academic integrity. It demands a shift not only in instructional methods but also in institutional mindsets—one that views diversity not as a burden but as a resource for enriching learning environments. In this light, the exploration of differentiated instruction in tertiary education is not merely an academic exercise, but a necessary response to the evolving demands of inclusive, relevant, and transformative higher learning.

2. METHODS AND PROCEDURE

This systematic review adopted the methodological framework developed by Strech and Sofaer (2011), which emphasizes transparency, rigor, and replicability in synthesizing empirical evidence. The primary aim of this study was to explore the implementation, outcomes, and institutional dimensions of differentiated instruction (DI) in tertiary classrooms, drawing from both global and Philippine contexts. By focusing on differentiated instruction as a pedagogical response to learner diversity, this review sought to identify recurring themes, conceptual frameworks, and practice-based insights that could inform inclusive and responsive teaching in higher education.

A comprehensive literature search was conducted across major academic databases including ERIC, Scopus, Web of Science, and Google Scholar. The search strategy involved the use of Boolean operators and key terms such as "Differentiated Instruction in Higher Education," "Differentiated Teaching Strategies in University," "Inclusive Pedagogy in Tertiary Classrooms," "Flexible Teaching in Philippine Colleges," "Instructional Differentiation and College," "Universal Design for Learning and Higher Education," and "Teaching Strategies and Learner Diversity in Tertiary Education." The search was restricted to peer-reviewed journal articles, action research, and dissertations published in English between January 2013 and June 2025 to ensure the relevance and currency of findings. Both international and Philippine-based studies were included to provide a comparative and contextualized perspective.

To ensure methodological rigor, specific inclusion and exclusion criteria were applied. Studies were included if they focused explicitly on differentiated instruction or related inclusive pedagogical frameworks in the context of tertiary or higher education; reported empirical findings, conceptual models, or policy implications; were peer-reviewed and published in scholarly outlets; and were available in full-text English format. Excluded from the review were studies that centered solely on basic education, articles lacking a focus on instructional strategies, non-peer-reviewed content such as opinion pieces or blogs, and documents that were either duplicated or inaccessible.

The initial search generated over 1,200 articles. These were subjected to a multi-phase screening process. First, titles and abstracts were reviewed to assess relevance to the topic of differentiated instruction in higher education. Second, duplicates were removed using citation management tools. Third, a full-text screening of the remaining articles was undertaken to ensure alignment with the research objectives. Following this process, a final selection of fifty-three (53) studies was included in the review. These studies encompassed various methodological designs, including qualitative, quantitative, and mixed-method research, as well as Philippine action research studies and CHED-endorsed reports.

Key data from the selected studies were extracted using a structured protocol. Information gathered included author(s), year of publication, geographic and institutional context, discipline or subject area, research design, differentiated instruction strategies applied, reported outcomes related to learning and engagement, institutional or policy supports, and noted challenges or limitations. The extracted data were then analyzed thematically using a narrative synthesis approach in line with Strech and Sofaer's framework. This involved iterative reading, comparison, coding, and categorization to identify thematic patterns across the literature.

Five major themes emerged from this synthesis: (1) Philosophical and Pedagogical Foundations of Differentiated Instruction; (2) Models and Approaches of Differentiated Instruction in Tertiary Settings; (3) Digital Tools and Technology in Facilitating Differentiated Instruction; (4) Outcomes and Impact of Differentiated Instruction on Learner Achievement, Engagement, and Inclusion; and (5) Institutional Challenges, Faculty Readiness, and Policy Support for Differentiated Instruction in Higher Education Institutions. These themes reflect both the global evolution of differentiated instruction and its contextual manifestations within the Philippine higher education landscape. Collectively, they offer a holistic understanding of the opportunities and challenges in implementing differentiated instruction as a strategic approach to inclusive and equitable tertiary education.

RESULTS AND DISCUSSIONS

Differentiated Instruction in Tertiary Classrooms Evidence from Global and Philippine Contexts

Theme 1: Theme 1: Philosophical and Pedagogical Foundations of Differentiated Instruction in Higher Education

Differentiated instruction (DI) in tertiary education is grounded in a philosophical orientation that emphasizes learner variability and inclusive pedagogical responsiveness (Subban, et.al, 2024). Originally developed in the context of K–12 education, DI has found renewed significance in higher education institutions (HEIs) globally and in the Philippines due to the increasing diversity of student populations and the need for equitable learning environments (Gobiberia, 2021). The theoretical roots of DI are primarily anchored in constructivist learning theories, particularly those of Lev Vygotsky and Jean Piaget. Vygotsky's concept of the Zone of Proximal Development posits that learners achieve optimal growth when supported through scaffolding tailored to their current capabilities (Xi & Lantolf, 2020). This aligns with DI's core objective of matching instructional strategies to students' readiness levels.

Furthermore, Howard Gardner's theory of multiple intelligences and David Kolb's experiential learning theory reinforce the understanding that students have varied cognitive strengths, preferences, and learning pathways, thereby justifying the need for pedagogical flexibility (Kaushik, 2017). Carol Ann Tomlinson's model of DI operationalizes these philosophical foundations through four instructional dimensions: content, process, product, and learning environment (Tomlinson, 2003). These elements respond to student variables such as readiness, interest, and learning profile, promoting equity and engagement without compromising academic rigor. In HEIs, where uniformity has traditionally prevailed, this shift toward differentiation reflects broader changes in educational paradigms—from standardization and knowledge transmission toward personalization and learner agency.

However, this philosophical shift is not without tension. Critics argue that DI in higher education may be impractical in large classes, resource-limited settings, or within rigid curricular structures (Hayati, et.al, 2021). Moreover, concerns persist regarding whether differentiated strategies unintentionally lower academic expectations or create inconsistencies in assessment. These debates underscore the importance of viewing DI not as a prescriptive method but as a flexible, context-responsive framework that requires thoughtful implementation (Bondie, et.al, 2019). In the Philippine context, DI resonates with national goals of inclusive education, as reflected in the Commission on Higher Education's Outcomes-Based Education (OBE) policy thrusts (Bunga, 2025). CHED memoranda advocate for varied assessment and flexible teaching strategies, which align with DI principles. Nonetheless, Philippine HEIs face contextual challenges such as limited infrastructure, overcrowded classrooms, and faculty unfamiliarity with inclusive pedagogy (Ginja & Chen, 2020).

Cultural values like "pakikipagkapwa" (empathy and shared humanity) and "bayanihan" (collective support) naturally complement the DI philosophy, suggesting that Filipino academic institutions are culturally positioned to embrace DI with proper support (Valiendes, et.al, 2018). Local research has begun to document action-oriented efforts to apply DI, particularly in teacher education and humanities programs, signaling a shift toward more nuanced and inclusive classroom practices (Dulfer, et.al, 2021). As higher education continues to confront questions of access, equity, and relevance, DI offers a philosophically sound and pedagogically adaptable approach (Howe, 2020). Its success, however, hinges on faculty development, institutional commitment, and sustained inquiry into context-specific applications. Thus, differentiated instruction, when viewed through a philosophical lens, is not simply a set of teaching techniques but a transformative stance toward meeting learners where they are and helping them grow toward where they can be.

Theme 2: Models and Approaches of Differentiated Instruction in Tertiary Settings

Differentiated instruction (DI) in tertiary classrooms is most effectively understood not as a singular strategy but as a composite of flexible approaches that address learner diversity (Siyabi & Shekaili, 2021). At its foundation, DI enables instructors to modify what students learn (content), how they engage with the material (process), and how they demonstrate understanding (product), all within a classroom environment that supports varied learning preferences and readiness levels (Puzio, et.al, 2020). These three core dimensions—content, process, and product—are commonly associated with Tomlinson's model and have been widely adopted in global discourse surrounding inclusive pedagogy. In the context of higher education, this model is adapted to accommodate the unique challenges of adult learning, course-level expectations, and disciplinary norms. For example, content may be differentiated through offering a range of scholarly readings based on difficulty, while process might involve diverse learning activities such as debates, case analyses, or collaborative projects. Product differentiation allows learners to select output formats—such as research papers, video presentations, or portfolios—that align with their strengths, learning goals, or professional aspirations (Nasrodin, et.al, 2025).

Another relevant framework frequently associated with DI is Universal Design for Learning (UDL), which emphasizes proactive instructional design to accommodate all learners from the outset. While UDL and DI are distinct, they are often operationalized in tandem. UDL's principles—providing multiple means of representation, engagement, and expression—complement DI's flexible structure by removing systemic barriers to learning (Griful-Freixenet, et.al, 2020). In tertiary settings, this approach is evident in the growing use of multiple assessment pathways, varied teaching materials, and multimodal delivery strategies. For instance, professors in engineering or humanities may offer a common lecture but provide supplementary materials like simulations or infographics to support learners with different processing styles. Importantly, these adaptations are not remedial but anticipatory; they are designed to enhance engagement and success across a diverse student population (Peters, et.al, 2019). Such frameworks are especially relevant in contemporary universities where linguistic diversity, neurodiversity, and socio-economic variation intersect to challenge traditional teaching models.

Instructional grouping and flexible pacing are also core elements of DI in practice. Although small-group instruction is more common in basic education, its equivalent in tertiary settings can be found in seminar discussions, peer feedback circles, or capstone mentoring sessions (Aldemir-Firat, 2020). These structures allow instructors to target specific learning needs or provide scaffolding for underprepared students without lowering expectations. Similarly, flexible pacing—through asynchronous modules or self-directed learning tasks—has become increasingly common, particularly in blended and online learning environments (Rajmohan, 2025). During the COVID-19 pandemic, many HEIs in the Philippines adopted such models out of necessity, allowing differentiated access to instruction for students with limited connectivity or competing responsibilities (Yuen, et.al, 2023). These innovations, though born out of crisis, have created space for long-term institutional reforms that embed DI principles into curricular design.

In the Philippine context, differentiated approaches have begun to appear more intentionally in classroom practice, though often under different labels such as "contextualized instruction," "inclusive teaching," or "flexible learning." Faculty across disciplines have explored varied strategies like tiered assignments, flipped classrooms, and portfolio-based assessments to meet the needs of increasingly heterogeneous student cohorts (Bunga, 2025). However, the institutionalization of these practices remains uneven, often dependent on individual faculty initiative rather than systemic support. Still, the increasing awareness of DI frameworks—particularly through faculty development programs, CHED trainings, and graduate education coursework—suggests that higher education in the Philippines is moving toward a more differentiated, learner-centered paradigm (Peralta, et.al, 2025). As such, the application of DI models in HEIs reflects both the global shift toward inclusivity and the localized effort to respond meaningfully to the specificities of the Philippine educational landscape.

Theme 3: Digital Tools and Technology in Facilitating Differentiated Instruction

The integration of digital tools into higher education has significantly expanded the possibilities for differentiated instruction, allowing educators to tailor learning experiences to individual student needs at scale (Castro, 2019). With the rise of learning management systems (LMS) such as Moodle, Canvas, and Google Classroom, faculty now have access to platforms that support flexible content delivery, varied assessment formats, and personalized feedback (Keuning & Van Geel, 2021). These technologies enable instructors to differentiate content through multimedia resources—videos, podcasts, interactive simulations—catering to students with diverse learning preferences (Mayer, 2017). For example, learners with strong visual-spatial intelligence may benefit more from infographics and videos, while those with linguistic strengths may prefer textual readings or podcasts. These tools also allow for varied submission formats, enabling students to demonstrate mastery through essays, recorded presentations, or digital portfolios, depending on their strengths and interests. Such practices align with the principles of both Universal Design for Learning and Tomlinson's differentiated instruction framework, reinforcing the value of digital flexibility in promoting learner agency.

Beyond content and product differentiation, technology plays a pivotal role in personalizing the learning process itself. Adaptive learning platforms such as Smart Sparrow and Knewton use algorithm-driven diagnostics to adjust the sequence and difficulty of content based on learner performance in real-time (Sayed, et.al, 2022). These systems offer scaffolding for struggling students while simultaneously extending learning for those who progress quickly. In tertiary education, especially in science, technology, engineering, and mathematics (STEM) disciplines, adaptive quizzes, branching scenarios, and gamified learning paths provide differentiated routes toward the same learning outcomes. While these tools may not yet be universally adopted, their presence signals a pedagogical shift from static curriculum design to dynamic, learner-responsive instruction. Additionally, the use of analytics within LMS platforms allows instructors to track student engagement, identify those at risk, and provide timely interventions, thus operationalizing DI through data-informed practice (Leppan & Nierek, 2018).

The global pandemic further accelerated the integration of digital tools into higher education, creating new norms for differentiated instruction. In the Philippines, where students often face inconsistent internet connectivity and limited access to devices, asynchronous learning modules, recorded lectures, and offline learning kits became critical innovations (Abisado, 2020). Faculty adapted quickly to the constraints by providing flexible deadlines, offering multiple modes of submission, and breaking down course content into smaller, more manageable learning chunks. These strategies, though initially reactive, embodied the core ideals of differentiated instruction: responsiveness, flexibility, and respect for individual learning contexts. While the quality and consistency of implementation varied, the experience pushed many faculty members to reconsider rigid pedagogical norms and embrace more inclusive digital practices (Nedungadi, et.al, 2018). The Department of Education and CHED also supported these shifts through webinars and guidelines emphasizing flexible and learner-centered teaching approaches.

Despite these advancements, challenges remain in the effective use of digital tools for DI in higher education. Issues such as digital fatigue, unequal access to technology, and faculty preparedness persist, particularly in under-resourced institutions (Sarangal & Nargotra, 2022). Moreover, technology alone does not guarantee effective differentiation—it must be guided by a sound understanding of learner needs, curricular goals, and pedagogical principles. The successful use of digital tools for DI thus requires both infrastructure and professional development. When thoughtfully integrated, however, technology can serve not as a replacement for good teaching but as an amplifier of its most inclusive and responsive elements. In this light, digital tools hold transformative potential to institutionalize differentiated instruction as a norm rather than an exception in higher education classrooms (Amhag, et.al, 2019).

Theme 4: Outcomes and Impact of Differentiated Instruction on Learner Achievement, Engagement, and Inclusion

The outcomes of differentiated instruction (DI) in tertiary education have become increasingly important to examine, particularly as higher education institutions seek to improve student achievement, foster engagement, and promote inclusive learning environments (Liou, et.al, 2023). Numerous international studies have pointed to the positive relationship between DI and student academic performance. Learners exposed to differentiated instruction tend to demonstrate improved conceptual understanding, deeper critical thinking skills, and greater confidence in applying knowledge across contexts. This is particularly evident when differentiation is implemented through varied assessment types, scaffolded tasks, and tiered learning activities that allow students to work at appropriate levels of challenge. In contrast to traditional lecture-driven methods that often privilege a narrow range of learning styles, DI acknowledges and supports individual trajectories toward academic mastery, resulting in more equitable learning outcomes across diverse student populations (Jørgensen & Brogaard, 2021).

Student engagement is another critical area where DI shows positive impact. Differentiated instruction encourages student choice, autonomy, and relevance—all of which are known drivers of intrinsic motivation (Salazar & Gumanoy, 2025). When students are provided opportunities to select topics, learning formats, or assessment modes that align with their interests and strengths, they become more invested in the learning process. This sense of ownership fosters active participation, sustained focus, and deeper emotional connection to the subject matter. In classroom environments where DI is consistently applied, students report feeling more seen, respected, and valued, which in turn enhances their willingness to collaborate, explore, and take academic risks (Ardenlid, et.al, 2025). These effects are particularly pronounced in disciplines that traditionally struggle with student engagement, such as mathematics and technical fields, where DI can reframe content in ways that are meaningful and personalized.

Differentiated instruction also plays a critical role in the inclusion of marginalized learners in higher education. Students from underrepresented backgrounds—such as Indigenous Peoples, working students, first-generation college attendees, learners with disabilities, and those with limited proficiency in the language of instruction—often face systemic barriers to full participation in academic life (Reggiani, et.al, 2024). DI offers a framework to address these inequities by allowing multiple entry points to content and flexible pathways to success. In the Philippine context, where economic and geographic disparities are widespread, differentiated instruction has been shown to mitigate some of the access challenges through modular learning, alternative assessments, and context-based teaching strategies. Although the evidence base in the Philippines is still emerging, local action research and qualitative studies report increased student persistence, improved grades, and stronger sense of belonging among students exposed to differentiated strategies (Pallo & Ferenal, 2025).

Despite its promising outcomes, the impact of DI is not without complexities. Measuring the effectiveness of differentiated instruction in higher education remains a methodological challenge due to the diverse forms it can take and the multitude of variables at play (Liou, et.al, 2023). Moreover, student outcomes are influenced not only by instructional design but also by institutional support, faculty competence, and resource availability. Nonetheless, the growing body of global and local evidence suggests that when thoughtfully applied, differentiated instruction enhances the academic, motivational, and affective dimensions of learning in tertiary classrooms. As universities commit to inclusive excellence and educational equity, DI stands out as a vital strategy for achieving meaningful and measurable learner success across varied higher education contexts (Ramaila, 2025).

Theme 5: Institutional Challenges, Faculty Readiness, and Policy Support for Differentiated Instruction in HEIs

Implementing differentiated instruction (DI) in higher education institutions (HEIs) is not only a pedagogical endeavor but also an institutional challenge. The success of DI relies heavily on the broader organizational environment in which it is introduced. One of the most pressing barriers is class size, especially in public universities where faculty are often assigned to lecture halls filled with hundreds of students (Turner & Solis, 2017). Under such conditions, personalization and adaptation become logistically difficult, if not impossible, without additional teaching support or structural redesign. Furthermore, rigid curricular frameworks and standardized assessment regimes often leave little room for the kind of flexibility DI demands. In many HEIs, syllabi are tightly aligned to accreditation requirements, making it difficult for instructors to modify course content, processes, or products to suit the diverse needs of learners (Kahmann, et.al, 2022).

Faculty readiness presents another layer of complexity. While many university instructors possess deep subject matter expertise, few receive formal training in pedagogy, much less in inclusive or differentiated teaching. Faculty members may express reluctance or resistance toward DI, perceiving it as an additional burden rather than an opportunity for enhanced teaching. Some may also fear that differentiating instruction compromises academic standards or leads to grade inflation (Bondie, et.al, 2019). These perceptions are further compounded by time constraints, limited access to instructional resources, and lack of administrative incentives to innovate teaching practices. Even well-meaning faculty may struggle to implement DI without access to professional development, communities of practice, or examples of successful models within their institutions (Ginja & Chen, 2020). The absence of clear guidelines or support structures often leads to sporadic or inconsistent application of DI principles.

Policy support is critical in overcoming these barriers and creating enabling conditions for DI to thrive. Globally, education frameworks such as Universal Design for Learning (UDL) and inclusive education policies have guided institutions in making learning environments more accessible and responsive (Mckenzie & Dalton, 2020). In the Philippines, the Commission on Higher Education (CHED) has taken steps to align with these principles through its advocacy of outcomes-based education (OBE) and flexible learning modalities. CHED memoranda have emphasized learner-centered strategies, differentiated assessment, and curriculum contextualization, especially in response to the pandemic. However, the translation of these policy ideals into classroom reality remains uneven. Many institutions lack the monitoring mechanisms, technical support, or resource allocation needed to sustain DI initiatives (Rahimi. 2023). There is also a noticeable gap between policy rhetoric and faculty-level practice, indicating a need for more coherent implementation strategies that bridge top-down directives and grassroots instructional innovation.

Despite these challenges, there is reason for cautious optimism. Increasingly, institutions are recognizing the value of investing in faculty development programs focused on inclusive pedagogy. Some HEIs have begun integrating DI into teacher education and graduate-level coursework, signaling a generational shift in pedagogical orientation. Moreover, action research conducted by faculty members themselves is emerging as a powerful tool for reflective practice and context-specific adaptation of DI (Dulfer, et.al, 2021). If properly supported by institutional leadership, policies, and collaborative culture, differentiated instruction can become a sustainable element of teaching in higher education. To achieve this, it is essential to move beyond isolated practices toward a systemic commitment that values pedagogical diversity, professional growth, and inclusive excellence.

3. CONCLUSIONS AND RECOMMENDATIONS

This systematic review has explored the philosophical foundations, models, technological integration, outcomes, and institutional dimensions of differentiated instruction (DI) in higher education, drawing on evidence from both global and Philippine contexts. The findings affirm that differentiated instruction is not merely a strategy but a comprehensive pedagogical philosophy that responds meaningfully to learner diversity in tertiary classrooms. Rooted in constructivist learning theory and aligned with principles of inclusive education, DI challenges the traditional paradigm of standardized instruction by promoting flexibility, responsiveness, and equity in teaching and learning.

Globally, DI has gained traction as a framework to address the widening spectrum of learner readiness, interests, and cognitive profiles in postsecondary institutions. It has evolved through structured models such as Tomlinson's differentiation of content, process, and product, and its synergy with frameworks like Universal Design for Learning (UDL). These models offer both conceptual clarity and practical flexibility, allowing instructors to craft learning environments that honor student individuality while maintaining academic rigor. The rise of educational technology has further enabled the implementation of DI, offering tools for adaptive learning, asynchronous delivery, and multimodal assessment. While technology is not a substitute for sound pedagogy, it has emerged as an indispensable facilitator of differentiated approaches, particularly in large and heterogeneous classes.

Empirical evidence shows that differentiated instruction contributes positively to student achievement, engagement, and inclusion. By offering varied entry points to learning and multiple ways to demonstrate understanding, DI enhances learner confidence and fosters deeper comprehension. Furthermore, students exposed to differentiated strategies report greater motivation, ownership of learning, and satisfaction with their educational experience. These benefits are particularly pronounced among students from marginalized backgrounds, including those with disabilities, linguistic minorities, and first-generation college students. In the Philippine setting, differentiated instruction has been gradually incorporated into classroom practices, especially during the pandemic-induced shift to flexible learning. Local studies and action research highlight the adaptability of DI to resource-constrained environments, particularly through modular learning, alternative assessments, and contextualized instruction.

However, the full potential of DI remains constrained by systemic and institutional challenges. Faculty readiness is a critical barrier; many instructors, while subject experts, lack formal training in inclusive pedagogy. Additionally, rigid curricular structures, large class sizes, and lack of institutional incentives hinder the broader adoption of differentiated practices. In the Philippine context, while national policies such as CHED's Outcomes-Based Education (OBE) and flexible learning guidelines are supportive of DI principles, implementation remains inconsistent due to gaps in professional development, infrastructure, and administrative support. Moreover, misconceptions about DI—such as fears of diluted standards or increased workload—persist among faculty and administrators, further delaying systemic integration.

In light of these findings, this study offers several key recommendations. First, higher education institutions should institutionalize differentiated instruction through sustained faculty development programs. Workshops, mentoring, and learning communities should be created to familiarize instructors with DI models, tools, and classroom applications. These initiatives should move beyond surface-level seminars and toward sustained, practice-oriented engagement that allows for experimentation, reflection, and feedback. Second, DI must be embedded into curriculum design processes. Program chairs and academic units should revise syllabi to include differentiated content and assessment options, aligning these with program outcomes and accreditation requirements. Institutional policies should recognize and reward instructional innovation to foster a culture of pedagogical flexibility and responsiveness.

Third, digital technologies must be leveraged more strategically to support DI. HEIs should invest in accessible and inclusive learning management systems, as well as provide technical training for faculty to integrate multimedia, adaptive tools, and flexible assessments. This is especially crucial in contexts like the Philippines, where digital equity remains a challenge. Partnerships with EdTech providers and open-source platforms can provide scalable and cost-effective solutions. Fourth, CHED and other educational bodies should reinforce DI through clear policy articulation, funding for innovation, and inclusion in quality assurance indicators. Encouraging research on DI—especially localized studies on effective practices and challenges—can further strengthen evidence-based decision-making at both the institutional and national levels.

Lastly, DI should be approached as a collective institutional commitment, not just an individual teacher initiative. Administrators, faculty, instructional designers, and students must co-create inclusive learning environments that value diversity as an asset. Institutions should establish mechanisms for monitoring the impact of DI and continuously refining practices based on learner feedback and performance data. By integrating differentiated instruction into the core identity of higher education, universities can move closer to fulfilling the dual mission of academic excellence and inclusive access. In conclusion, differentiated instruction offers a powerful, context-responsive approach to improving the quality and inclusivity of tertiary education. While its implementation poses significant challenges, the benefits it brings to learner outcomes, engagement, and equity are both substantial and well-documented. With adequate support, professional development, and institutional will, DI can become a transformative force in the evolution of higher education in the Philippines and beyond.

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