



Modern Pedagogical Innovations and Learning Experiences to Enhance Learner Representations and Engagement

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ABSTRACT

This article aims to explore and synthesize modern pedagogical approaches and contextual learning experiences that can enhance student representation and engagement. Combining findings from two articles reviewed through a literature review method involving 20 accredited national and international scientific journals (SINTA 1–2 and internationally reputed), this article highlights five main aspects: (1) the integration of digital technology in learning; (2) the application of constructivist strategies; (3) the transformation of the teacher's role into a facilitator; (4) personalized learning and self-regulated learning (SRL); and (5) project-based and contextual learning experiences. All findings are framed within the context of how these approaches provide space for representation and increase student engagement in the learning process. The study results indicate that pedagogical innovations not only revolutionize teaching methods but also position students as active and reflective subjects in the educational process.

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Introduction

The transformation of 21st-century education demands learning approaches that are not only focused on academic achievement but also on strengthening student representation and engagement in the learning process. Representation includes student involvement in instructional design, decision-making, and recognition of diverse identities and learning styles. Meanwhile, student engagement reflects active participation in learning, both cognitively, emotionally, and socially. Contemporary modern pedagogical approaches have introduced significant changes in the role of teachers, the structure of learning, and the use of technology. The constructivist paradigm, the use of Learning Management Systems (LMS), and project-based learning strategies have become the main approaches in creating innovative, meaningful, and contextual learning environments (Zhang, 2020; Kearney et al., 2012).

The literature reviewed in this study demonstrates that when implemented appropriately, modern pedagogical approaches can significantly enhance both student engagement and representation.

Therefore, this article presents a comprehensive synthesis to answer the central question:



How can modern pedagogical approaches and contextual learning experiences enhance student representation and engagement?

Method

This article employs a literature review approach with a qualitative descriptive method to analyze the contribution of modern pedagogical approaches and learning experiences to enhancing student representation and engagement. The review integrates findings from several scholarly articles, each exploring pedagogical approaches based on digital and technological innovations, as well as contextual learning experiences and student representation.

1. Source Selection

Data were obtained from 20 reputable international scientific journals (indexed in Scopus/WoS) and 10 nationally accredited journals (SINTA 1 and 2), with selection criteria including publications between 2019 and 2025, relevance to the main topics (modern pedagogy, student engagement, learning experiences, student representation), and availability of bibliographic information and DOIs. The selection process was based on abstracts and the structure of the journal discussions.

2. Analytical Procedure

The analysis was conducted through the following steps:

- Theme Identification: Each journal was analyzed to identify its main focus and the pedagogical approach employed.
- Classification: Articles were grouped into five thematic categories: digital technology, constructivism, teacher roles, personalization & SRL, and PjBL & experiential learning.
- Narrative Synthesis: A thematic integration was conducted between the findings of two core articles and external references to construct a comprehensive conceptual framework.
- Comparative Analysis: Similarities and differences in context between national and international studies were compared.

Table 1. Summary of Literature Review Sources

No	Authors (Year)	Focus	Journals	Thematic Category
1	Zhang (2020)	Digital Technology in online learning	International	Technology Integration
2	Kearney et al. (2012)	PBL dan Mobile Learning	International	Constructivism
3	Chen (2013)	The role of the teacher as an innovate facilitator	International	Teacher's Role
4	Lai et al. (2016)	Self-regulated Learning	International	SRL & Personalization
5	Tiessen (2018)	Experiential learning & student representation	International	Learning Experience
6	Dobson & Dobson (2021)	Peer facilitation in experiential learning	International	Teacher's Role, Representation



No	Authors (Year)	Focus	Journals	Thematic Category
7	Birt et al. (2018)	Mixed Reality for learning engagement	International	Technology, Experiential Learning
8	Wong et al. (2022)	Student representation in project learning	International	PjBL, Student Representation
9	Gartland (2021)	Relational engagement in learning	International	Constructivism, Representation
10	Siemens (2005)	Connectivism Theory	International	Technology & Network Theory
11	Rahayu et al. (2022)	Contextual based PBL	SINTA 2	Constructivism
12	Sulastri & Indriyani (2021)	Flipped classroom & SRL	SINTA 1	SRL & Personalization
13	Permana & Santoso (2023)	Teacher as a co-learner	SINTA 1	Teacher's Role
14	Utami & Prasetyo (2020)	PjBL in the Independent Curriculum	SINTA 2	PjBL, Representation
15	Astuti & Wahyudi (2020)	Barriers to implementing the constructivist approach	SINTA 2	Constructivism, Policy
16	Nugroho & Atmojo (2020)	LMS in High School	SINTA 2	Digital Technology
17	Kurniawati & Widodo (2021)	Teacher's digital access and literacy	SINTA 2	Technological Challenges
18	Nugroho & Mutiaraningrum (2020)	Formative and participatory assessment	SINTA 2	SRL, Reflective Evaluation
19	Lee et al. (2020)	Motivation and personalization	Internasional	SRL
20	Panadero (2017)	Scaffolding in SRL	Internasional	Personalization Support

3. Validity and Reliability

To enhance internal validity, the authors conducted triangulation between the findings of the two main articles and other relevant literature sources. The synthesis process was carried out thematically and comparatively, and was analyzed using fundamental principles of reflective pedagogy.

The use of diverse sources from various cultural contexts and educational levels provided a broad perspective for understanding the phenomenon of modern pedagogy in both global and local contexts.



Findings

1. Integration of Digital Technology as the Foundation of Student Representation and Engagement

Digital technology functions not merely as a teaching aid, but as a foundational element in building a representative and participatory learning ecosystem. In both reviewed articles, the use of technology such as Learning Management Systems (LMS), educational social media, and online applications was found to enhance student flexibility, autonomy, and expressive capacity (Zhang, 2020; Nugroho & Atmojo, 2020). Student representation in digital contexts is reflected in their ability to choose preferred learning methods, adjust their learning pace, and communicate ideas through multimedia formats. This aligns with connectivism theory (Siemens, 2005), which views knowledge as constructed within dynamic networks rather than transmitted linearly. However, challenges persist, such as digital access gaps and low digital literacy among teachers (Kurniawati & Widodo, 2021; Permana & Santoso, 2023). Thus, the success of technology as a facilitator of representation depends heavily on the ability of schools and teachers to integrate it pedagogically, not merely technically.

2. Constructivist Strategies to Enhance Interaction, Reflection, and Learning Ownership

Constructivist approaches particularly in the form of problem-based learning (PBL), collaborative learning, and contextual learning create opportunities for students to build knowledge through direct experience, social interaction, and authentic problem-solving (Kearney et al., 2012; Rahayu et al., 2022). In this context, engagement occurs not only at the level of activity, but also cognitively and effectively. Students are involved in exploring meaning, constructing shared understanding, and taking ownership of their learning process. This leads to learning experiences that not only strengthen competencies but also students' academic and social identities. However, local studies (Astuti & Wahyudi, 2020) reveal that Indonesian school cultures often do not support such dialogical and exploratory practices. Teachers tend to dominate classroom interaction, while students are positioned as passive recipients hindering the emergence of healthy, representative learning environments.

3. Shifting Teacher Roles: From Instructor to Facilitator of Representation and Reflection

The modernization of pedagogy requires teachers to shift from an instructional role to a facilitative one. In this role, teachers do more than deliver information they accompany the learning process, spark discussions, and facilitate critical reflection (Chen, 2013; Permana & Santoso, 2023). This transformation significantly impacts student representation. Facilitative teachers create space for students to voice ideas, determine learning strategies, and express diverse ways of thinking. Students can even become co-creators in the learning process, as illustrated in experiential learning studies (Dobson & Dobson, 2021). However, for this role to be effectively internalized, teachers need sustained professional development focused on Pedagogical Content Knowledge (PCK), reflective approaches such as lesson study, and evaluation systems that assess facilitation skills rather than just student achievement.

4. Personalized Learning and SRL to Enhance Autonomy and Self-Representation

Personalized learning and Self-Regulated Learning (SRL) provide students with the space to design and manage their own learning experiences. This fosters ownership of the



learning process, strengthens intrinsic motivation, and enables students to express their learning identities authentically (Lai et al., 2016; Sulastri & Indriyani, 2021). Moreover, SRL emphasizes metacognition: students not only learn, but also become aware of and reflect on what, how, and why they are learning. In practice, SRL enhances emotional and social engagement, as students feel trusted to make decisions in their learning. However, without supportive frameworks, personalization can lead to inequalities, especially for students lacking strong self-management skills. Therefore, this approach must be accompanied by gradual scaffolding, process-based formative assessment, and flexible curriculum designs that acknowledge diverse learning needs.

5. Project-Based and Experiential Learning as Arenas for Social and Intellectual Representation

Project-Based Learning (PjBL) and experiential learning serve as the most tangible platforms for realizing comprehensive student representation and engagement. In these approaches, students act as designers, implementers, and reflectors of their own learning processes. They do not simply learn about something they learn through and for something. Utami & Prasetyo (2020) demonstrated that PjBL within the Merdeka Curriculum improved students' critical thinking, teamwork, and sense of responsibility. Meanwhile, Tiessen (2018) and Wong et al. (2022) provided strong evidence that experiential learning fosters deep social engagement and self-awareness, as students directly confront real-world societal challenges.

PjBL and experiential learning also enable students to represent their ideas in various expressive formats: reports, video presentations, podcasts, digital artifacts, and even policy advocacy. These forms of expression are authentic and highly relevant in the 21st-century context. Nonetheless, implementation challenges remain, including rigid curricula, assessments that do not support project-based learning, and limitations in time and resources. Hence, these approaches require well-crafted instructional design, policy support, and teacher readiness to facilitate transformative learning.

Discussion

21st-century learning requires a recontextualization of educational strategies that are not only technologically adaptive, but also inclusive in terms of student representation and engagement. Findings from several articles reveal that modern pedagogical innovation is not merely a technical shift, but a philosophical transformation in understanding the roles of students, teachers, and the learning ecosystem as a whole.

1. Digital Technology: From Instrument to Medium of Representation

The role of technology in education has transformed from being merely an instructional aid into a medium for student representation in the context of learning identity, self-expression, and social engagement. In the two reviewed articles, digital technology is identified as one of the core foundations of modern pedagogical innovation that meaningfully expands opportunities for student participation and representation. Zhang (2020) and Lai & Zheng (2018) highlight how digital platforms such as Learning Management Systems (LMS) and cloud-based learning applications open up flexible, personalized, and collaborative learning opportunities. LMS is no longer just a content delivery tool but also a social interaction space that allows learners to express their learning styles authentically (Zhang, 2020). Moreover, Chen (2013) shows that the use of technology can accelerate the shift towards dialogic, reflective, and student-centered learning.



The notion of student representation has expanded beyond content participation toward engagement in knowledge production. Through experiential learning, students become active agents who use technology for documentation, reflection, and even publication of their own projects (Tiessen, 2018; Dobson & Dobson, 2021). By leveraging digital media such as blogs, podcasts, and digital storytelling, students gain greater space to express their identities, life experiences, and personal values within the learning context. Furthermore, Wong et al. (2022) found that students involved in digital-based projects demonstrated increased confidence and metacognitive abilities through the online documentation of their learning experiences. This reinforces the idea that technology is not only a tool for communication, but also a bridge between learning experiences and personal representation that is socially and professionally documented.

However, there are fundamental challenges in implementing technology as a medium of representation. On one hand, disparities in access and low levels of digital literacy hinder inclusive use of technology (Kurniawati & Widodo, 2021; Permana & Santoso, 2023). On the other hand, many teachers still use technology merely as a replacement for the blackboard or as one-way presentation media, rather than as a reflective and participatory tool. Within the framework of modern pedagogy, student representation through technology must be interpreted as a democratic space in which students' voices, aspirations, and identities can be fully expressed. Therefore, a strategic approach is needed one that integrates adaptive instructional design, teacher training based on TPACK (Technological Pedagogical Content Knowledge), and digital literacy policies that empower students. Only then can technology truly serve as a medium of representation, rather than merely an administrative tool or a symbol of modernization in education.

2. Social Constructivism: Building Knowledge in Social and Representational Contexts

Social constructivism positions students as active knowledge builders who interact with their environment and peers throughout the learning process. Within the framework of modern pedagogy, this approach not only enriches students' cognitive development but also plays a crucial role in creating spaces for authentic social, cultural, and identity representation of learners. Constructivist approaches are strongly reflected in the use of problem-based learning (PBL) and inquiry-based learning, which allow students to learn by exploring real-world problems (Kearney et al., 2012; Rahayu et al., 2022). These methods encourage students to collaborate, engage in dialogue, and negotiate meaning collectively in meaningful contexts. In addition to enhancing critical thinking skills, such strategies create opportunities for students to express their ways of thinking openly thus fostering both intellectual and social forms of classroom representation.

Moreover, constructivism is manifested in the framework of experiential learning, which enables students to construct knowledge from direct field experiences. Dobson & Dobson (2021) explain that community-based learning experiences, when designed with reflective and collaborative approaches, allow students to engage in knowledge construction that is not unidirectional but rather a form of mutual learning between facilitators and learners. In this context, student representation is not limited to content, but extends to their role as social agents contributing to learning communities. Furthermore, Gartland (2021) emphasizes that dialogic and participatory learning processes produce *relational representation* a form of student representation that emerges from healthy social relationships and equal positioning in the classroom. This reinforces the idea that social constructivism not only develops thinking skills but also provides a space for the social recognition of students in democratic learning environments.



However, as [Kurniawati & Widodo \(2021\)](#) also point out, the implementation of constructivist approaches still faces cultural and structural barriers. In many educational settings, teachers continue to dominate classroom discourse, positioning students as passive recipients of knowledge. A learning culture that emphasizes final grades and obedience to authority often obstructs the dialogic, reflective, and open practices that are essential to constructivism. Therefore, social constructivist approaches require an epistemological transformation where knowledge is not viewed as fixed and absolute, but as a product of ongoing social interaction. For optimal implementation, this approach demands lesson study-based teacher training, curricula that allow for local contextualization, and authentic, process-based assessments that evaluate not only outcomes, but also the dynamic processes of meaning-making among students.

3. The Teacher's Role as a Facilitator of Representation and Reflection

The transformation of modern pedagogy demands a fundamental shift in the teacher's role from that of an instructor to that of a facilitator in student-centered learning. In this role, the teacher does not merely transmit knowledge but acts as a guide for reflective processes, a supporter of emotional learning, and a designer of environments that enable full student engagement and representation. This role shift is reflected in the transition of classroom structures toward more dialogic and participatory settings. A study by [Chen \(2013\)](#) found that teachers who adopt the role of facilitator create open learning atmospheres, promote meaningful discussions, and provide space for students to build their own opinions and learning strategies. Similarly, [Permana & Santoso \(2023\)](#) emphasize that when teachers act as co-learners and learning partners, students are given opportunities for their voices to be represented in learning decision-making processes.

This perspective is further enriched when we emphasize the importance of teachers as facilitators within experiential learning contexts. In this approach, the teacher is no longer the sole source of knowledge validation, but instead serves as a catalyst for reflection and a connector between students' experiences and academic theory. This is supported by research from [Wong et al. \(2022\)](#), which illustrates how learning facilitators play a crucial role in balancing experiential exploration with conceptual guidance. Such a role enables students not only to understand the material but also to reflect on their experiences as meaningful components of their learning journey.

Interestingly, the teacher's role as facilitator is closely tied to the concept of *representation equity*. This means that teachers must be able to accommodate diverse identities, cultures, and learning styles, and create an environment where every voice including those of minority students or those with lower confidence has equal value and space. Within this framework, [Dobson & Dobson \(2021\)](#) emphasize that effective facilitators must possess intercultural sensitivity and empathetic communication skills to ensure that student representation is not merely symbolic, but genuinely authentic and meaningful. Nevertheless, fulfilling this role is not without challenges. Research by [Nugroho & Mutiaraningrum \(2020\)](#) reveals that many teachers still function primarily as controllers of the learning process, often using technology in one-directional ways (e.g., for passive presentations), rather than as a dialogic bridge. This indicates the need for teacher training that goes beyond technical skills to also focus on reflective pedagogy and the development of humanistic learning relationships. Therefore, to realize the teacher's role as a true facilitator of representation and reflection, systemic support is essential ranging from school policies that uphold teacher autonomy, to professional learning communities, and evaluation models that assess not only student outcomes but also the quality of interactions and the development of students' learning potential.



4. Personalization and Self-Regulated Learning: Empowering Learners as Active Subjects

One of the key principles of modern pedagogy is the recognition of each student's uniqueness. This principle is realized through personalized learning approaches that accommodate students' interests, learning styles, and individual needs, while also strengthening Self-Regulated Learning (SRL) skills the ability of students to design, manage, and evaluate their own learning processes. These two approaches not only enhance learning effectiveness but also reinforce students' representation and engagement as active agents in the educational process.

Findings from studies by [Lai et al. \(2016\)](#) and [Sulastri & Indriyani \(2021\)](#) show that flexible learning environments such as online classes using adaptive digital platforms or flipped classroom models encourage students to learn at their own pace, set personal goals, and reflectively assess outcomes. This autonomy strengthens students' metacognitive capacities and increases their intrinsic motivation for learning.

Studies by [Sung et al. \(2015\)](#) and [Lee et al. \(2020\)](#) further reveal that SRL not only improves academic achievement but also contributes to students' emotional well-being, as they feel more in control of their learning process. This marks a fundamental shift in the student-curriculum relationship from merely following instructions to becoming the architect of their own learning journey.

Personalization and SRL are evident in project-based experiential learning practices that allow students to choose their forms of engagement, design activities relevant to their backgrounds, and reflect on experiences in ways that align with their personal expression. For instance, in [Tiessen's \(2018\)](#) study, students were engaged in cross-cultural collaborative projects, where they designed advocacy strategies based on social issues that were meaningful to them. This process encouraged them to harness both personal and social strengths, reinforcing autonomy and connectedness in learning.

However, personalization and SRL do not emerge automatically without a supportive framework. Freedom without structure can lead to confusion, frustration, or inequities in representation between students who possess strong self-directed learning skills and those who require more intensive guidance. Therefore, adaptive scaffolding strategies and instructional designs that provide graduated flexibility in line with students' developing capacities are essential [Zimmerman, \(2002\); Panadero, \(2017\)](#).

Criticism of SRL implementation also arises in the Indonesian education context, where assessment systems remain outcome-oriented and offer limited space for process-based evaluation. [Astuti & Wahyudi \(2020\)](#) argue that teachers need concrete guidance in developing formative assessments grounded in reflection and indicators of students' metacognitive development. Thus, personalization and SRL approaches will only have optimal impact when implemented within a supportive learning ecosystem. Teachers need to be equipped with the competencies to responsively identify student learning needs, while educational institutions must design curricula and assessments that allow flexibility and recognize the diversity of students' learning expressions.

5. Project-Based and Contextual Learning as a Medium for Representation and Engagement

Project-Based Learning (PjBL) and experiential learning hold a strategic position in modern pedagogy as approaches that integrate theory, practice, and student participation



into a comprehensive learning cycle. Beyond mere methodological strategies, these approaches create authentic spaces for student engagement and representation, where learners not only acquire knowledge but also shape their identities, values, and social contributions. PjBL has been proven effective in enhancing students' critical thinking, collaboration, and innovation skills. A study by [Utami & Prasetyo \(2020\)](#) revealed that projects designed within the *Kurikulum Merdeka* (Independent Curriculum) provide ample space for students to experiment, make learning decisions, and create real products relevant to their lives. Student involvement in the project cycle from planning to presentation cultivates a sense of ownership, responsibility, and confidence.

On the other hand, experiential learning fosters not only cognitive engagement but also strong emotional and social involvement. Research by [Dobson & Dobson \(2021\)](#) and [Tiessen \(2018\)](#) shows that students engaged in field-based learning through community service, cross-cultural collaboration, or advocacy practices demonstrated deeper understanding of social issues and enhanced empathy and collective responsibility. This not only enriches learning outcomes but also broadens the meaning of education as a process of humanization.

Moreover, project-based and contextual learning enables multimodal representation for students. They can express their ideas in various formats written, visual, audio, or digital supporting inclusion across diverse learning styles and multiple intelligences. Research by [Birt et al. \(2018\)](#) emphasizes that using media such as Mixed Reality (MR) in project-based learning can enhance engagement by allowing students to construct immersive and interactive learning experiences.

Nevertheless, implementing PjBL and experiential learning is not without challenges. A study by [Gartland \(2021\)](#) points out that without a solid framework for reflection and facilitation, student experiences can become shallow or diverge from learning objectives. In Indonesia, challenges also stem from a rigid curriculum system and assessments that have yet to fully accommodate project-based learning outcomes ([Rahayu et al., 2022](#); [Astuti & Wahyudi, 2020](#)).

Therefore, the implementation of project-based and contextual learning must be supported by robust instructional design, teacher training in project facilitation, and authentic assessment systems based on portfolios and reflection. Only then can these approaches serve as mediums for representation that not only give students a voice but also position them as agents of change and key actors in the educational process.

Conclusion and Suggestions

This study concludes that modern pedagogical innovations and contextual learning experiences significantly contribute to enhancing student representation and engagement in the learning process. These approaches function not merely as technical strategies, but as philosophical and transformative movements that position students as active agents in constructing knowledge, identity, and social relationships within the classroom. Through the integration of digital technology, students gain space for expression and flexibility in learning, which strengthens their autonomy and agency. Constructivist approaches foster collaborative and meaningful learning environments, where students are not just recipients of knowledge but active participants in the creation and negotiation of meaning.

Furthermore, personalization and self-regulated learning (SRL) have demonstrated their effectiveness in promoting learner independence and strengthening students'



metacognitive dimensions. Students do not only learn “what” and “how,” but also reflect on the “why” a critical element in shaping their learning identity. Meanwhile, Project-Based Learning and experiential learning unite students’ intellectual, social, and emotional domains within a single, authentic, participatory, and meaningful learning process.

However, the successful implementation of these approaches requires a supportive educational ecosystem: progressive policies, flexible curricula, reflective assessment systems, and continuous teacher capacity development. Student representation and engagement cannot flourish under authoritative and uniform teaching methods. They will only thrive in environments that are democratic, adaptive, and empathetic where students’ voices are not only heard but acknowledged and integrated into instructional decision-making. Thus, modern pedagogical innovation is not merely a methodical update, but a new philosophical foundation for the future of education one that prioritizes humanity, diversity, and the true empowerment of learners.

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