

Self-Reflection of 21st-Century Teachers: Cultivating Intrinsic Motivation and Professional Competence through a Deep Learning Approach

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ABSTRACT

Educators in the contemporary era must possess not just pedagogical expertise but also reflective awareness and an intrinsic motivation for continuous learning and creativity to adapt to the changing educational paradigm. This study aims to investigate how self-reflection among twenty-first-century educators boosts professional competence and fosters intrinsic motivation through immersive learning. This study employed a qualitative technique utilizing a phenomenological design, involving 13 educators enrolled in the Elementary School Teacher Education (PGSD) Teacher Professional Education (PPG) program at Universitas Islam Makassar (UIM) in 2025. Data was collected through in-depth interviews and thematically analyzed to investigate teachers' reflective experiences in immersive learning contexts. The findings demonstrate that self-reflection is essential in enhancing teachers' professional understanding of the significance and objectives of education. The reflection process helps educators to identify their strengths and limitations, cultivate learner-centered pedagogical practices, and assimilate the spiritual, social, and ethical principles of the profession. Intrinsic motivation arises when educators acknowledge their individual impact on student growth and the humanitarian principles intrinsic to the teaching profession. Moreover, immersive learning enables educators to cultivate critical, creative, and collaborative thinking skills, which are essential attributes of 21st-century professional competency. This research concludes that self-reflection is essential for cultivating intrinsic motivation and sustainably enhancing teachers' professional competence. Deep learning serves as a way between reflective awareness and transformative professional practice, fostering adaptive, reflective, and inspiring educators in contemporary education.

Keywords: *Deep learning; Intrinsic motivation; Professional competence; Self-reflection.*

INTRODUCTION

The 21st century is characterized by significant changes in education driven by technological advancements, globalization, and evolving pedagogical frameworks (Drigas et al., 2023). These modifications transform the role of educators from mere transmitters of information to enablers of learning, promoting critical, creative, collaborative, and communicative thought in students (Rubach & Lazarides, 2021; Dewi & Hasmirati, 2022; Sasabone et al., 2023; Imran et al., 2022). To cultivate these four competences, educators must not only command the subject matter but also exhibit reflective and inventive instructional abilities. Conventional teacher-centered pedagogies are insufficient to address the requirements of students in the

digital era (Sujarwo, et al., 2024; Nurhikmah H et al., 2024; Sujarwo, et al., 2024). Teachers must be lifelong learners who consciously reflect on their teaching practices and adapt strategies to students' learning needs (Holland & Piper, 2016).

Therefore, teacher professionalism in this era is determined not only by certification or tenure, but also by the ability to think reflectively, learn independently, and engage in meaningful learning processes (Sari et al., 2022; Dewi et al., 2024). 21st-century teachers need to possess a lifelong learning mindset—a mindset that enables them to continuously adapt to technological advances, curriculum dynamics, and increasingly complex social contexts (Sudarmin, 2023). Today's teachers are required to possess professional competence, adaptive skills, and reflective awareness in designing and implementing meaningful, deep learning-oriented instruction (Cebollero-Salinas et al., 2025). In this context, self-reflection and intrinsic motivation are two crucial elements supporting the continuous improvement of teachers' professional competence.

Self-reflection is not merely an introspective process, but a cognitive and affective activity that encourages teachers to re-understand the meaning of their profession, evaluate their teaching practices, and adapt pedagogical strategies to meet students' needs and the demands of the times (Caena & Redecker, 2019). Through deep self-reflection, educators foster intrinsic motivation derived from an understanding of their beliefs and professional objectives. This intrinsic motivation serves as the psychological impetus that drives educators to perpetually learn, innovate, and enhance the quality of education (Broeck et al., 2021). Consequently, self-reflection and intrinsic motivation create an ongoing cycle of professional development, wherein educators deliberately cultivate new competencies through experience, self-evaluation, and comprehensive learning.

METHODS

This study utilized a qualitative approach with a phenomenological design (Creswell, 2014), aiming to deeply explore the subjective, self-reflective experiences of 21st-century teachers in cultivating intrinsic motivation and professional competence through the application of deep learning pedagogy. The phenomenological method was chosen for its suitability in investigating the subjective meanings and essence of experiences encountered directly by individuals within their professional environments. The goal was to elucidate how instructors perceive and engage in the self-reflective process and how these experiences subsequently enhance their intrinsic motivation and foster their professional competence in the context of 21st-century learning.

Subjects of Research

The participants in this study were 13 teachers enrolled in the Teacher

Professional Education Program (PPG) in the Elementary School Teacher Education (PGSD) Study Program at the Islamic University of Makassar (UIM) during the 2025 academic year. The number of participants was determined based on the principle of data saturation. Participant selection employed purposive sampling (Tusquellas et al., 2025). based on the following specific criteria: (1) Current enrollment in or completion of PPG in PGSD at UIM Makassar. (2) A minimum of two years of teaching experience at the elementary school level. (3) Voluntary willingness to participate in in-depth interviews and provide personal reflections. And (4) Ability to verbally articulate reflective experiences and engage openly with the researcher's interpretation process. The final cohort included male and female teachers with diverse school backgrounds and experiences to ensure a variety of perspectives on the core phenomenon.

Instruments

The primary instrument in this qualitative research was the researcher herself, acting as the key instrument, responsible for collecting, interpreting, and analyzing data while maintaining reflective sensitivity and contextual awareness. The key structured instrument used was a comprehensive semi-structured interview guide (Elliott, 2018).

This guide was theoretically grounded in studies of self-reflection, intrinsic motivation, and professional competence in the context of deep learning pedagogy, and was designed to investigate three primary facets: (1) Educators' introspection over 21st-century pedagogical duties and methodologies. (2) The intrinsic motivation compelling educators toward professional development. (3) The professional competencies developed through implementing deep learning concepts. Supporting instruments included: (1) Non-participatory Observation Records: Used during training and reflection sessions within the PPG setting. (2) Reflective Documentation: Including learning journals, teacher portfolios, and self-evaluation records.

Data Collection and Analysis

Data were primarily obtained via comprehensive semi-structured interviews, which typically lasted between 45 to 60 minutes. These interviews were conducted either in person or online via Zoom, based on participant preference and convenience. All interviews were audio-recorded with participant consent and subsequently transcribed verbatim. Concurrently, researchers performed non-participatory observations during relevant PPG sessions and gathered reflective documentation. Triangulation across these three data sources (interviews, observations, and documents) was systematically conducted to enhance the validity and reliability of the findings. Ethical standards were upheld through the use of informed consent and ensuring participant confidentiality via numeric codes (G1–G13).

Data analysis utilized phenomenological analysis based on the systematic steps proposed by Creswell (2013): (1) Bracketing (Epoche): The researcher actively suspended personal assumptions and biases regarding the phenomenon. (2) Horizontalization: All relevant statements from participants were collected without discrimination, treating each statement as having equal initial weight. (3) Meaning Units: Relevant statements were grouped into discrete units of meaning reflecting dimensions of the participants' experiences. (4) Textural Description: The researcher created a detailed description of what the participants experienced in the context of self-reflection, motivation, and competency. (5) Structural Description: The researcher explained how these experiences occurred through interaction, reflection, and the application of deep learning pedagogy. (6) Essence Formation: The textural and structural descriptions were combined to produce a unified statement of meaning that represented the collective, fundamental experience (the essence) of the participants.

The credibility and validity of the data were ensured by applying the four criteria of trustworthiness (Denzin & Lincoln, 2018): (1) Credibility: Achieved through member checking (confirming data with informants), peer debriefing, and triangulation of sources and methods. (2) Transferability: Maintained by providing rich, detailed contextual descriptions to allow application of results to similar contexts. (3) Dependability: Ensured through the preparation of an audit trail, systematically documenting the entire research process. (4) Confirmability: Addressed by using the researcher's self-reflection and field notes to ensure that interpretations were derived from the participants' data, not researcher bias.

RESULTS AND DISCUSSION

Analysis of in-depth interview data with 13 teachers participating in the 2025 PPG (Teacher Professional Education) program at the Islamic University of Makassar (UIM) yielded three main themes representing the reflective experiences of 21st-century teachers in fostering intrinsic motivation and professional competence through deep learning:

Reflective Awareness as the Basis for Professional Transformation

Self-reflection is a metacognitive, affective, and spiritual process that transforms teacher identity by facilitating a critical review of teaching practices and interactions. Participant (G3) noted, *"Through reflection, I learned to review how I teach. I used to only focus on the material, but now I pay more attention to how students learn and think."* Reflection acts as a "professional mirror" (G9) that shifts the paradigm from knowledge transfer to facilitating student discovery.

Intrinsic Motivation Grows from the Values of Service and Meaning in Work

Teachers' motivation stems from an internal drive—a "sense of calling"—to positively impact students, rather than external incentives. Intrinsic motivation is reinforced by observing student progress (G11: "*When I see students who were initially passive become more willing to ask questions, it feels like a reward in itself.*"). Self-reflection allows teachers to perceive mistakes as opportunities for development, aligning intrinsic motivation with a growth mindset.

Strengthening Professional Competence through Deep Learning Principles

Professional competence is enhanced by adopting deep learning pedagogy, which emphasizes conceptual understanding, collaboration, and continuous reflection. Teachers realized that competence involves designing learning that fosters thinking and problem-solving, not just assessment via test scores (G2). This requires a paradigm shift from "teaching to complete the syllabus" to "teaching to foster thinking" (G8).

Integration of Reflection, Motivation, and Competence

Cross-theme analysis confirms a dynamic and iterative relationship: Self-reflection catalyzes intrinsic motivation, which then propels continuous improvement of professional competence. This loop demonstrates that deep learning principles apply equally to teachers (G12: "*I feel deep learning isn't just for students, but also for teachers. We learn how to relearn—from experience, from mistakes, and from reflection.*"). The structured environment of the PPG program, through peer review and lesson study (G6), provides a critical setting for internalizing this collective reflective practice.

The results establish self-reflection as the central mechanism for developing intrinsic motivation and professional competence in 21st-century teachers within the deep learning framework.

Self-Reflection as a Professional Learning Process

This finding reinforces Donald Schön's (1983) Reflective Practice theory, where teachers engage in *reflection-in-action* and *reflection-on-action* (Miller, 2020). Reflection acts as a means of metacognitive regulation (Wang et al., 2017), allowing teachers to control strategies and decisions based on past experiences, thereby enabling future planning. The PPG environment provides a structured context that validates reflection as a key driver of professional development (Liaudanske, 2021).

Intrinsic Motivation and Competency Development

Intrinsic motivation, rooted in autonomy, competence, and relatedness (Deci & Ryan, 2000), is the psychological engine for innovation. The teachers' *sense of calling* indicates an internalization of professional values (Klaeijssen et al., 2018). In deep learning, intrinsic motivation is crucial; it drives willingness to explore innovative methodologies, accept feedback, and persistently seek to meet student needs (Sinlapaninman & Yonwilad, 2025).

Deep Learning as a Framework for Professionalism

Implementing deep learning shifts the focus from content mastery to cultivating 21st-century skills (critical thinking, collaboration, communication). Deep learning encourages teachers to enhance their Pedagogical Content Knowledge (PCK) by connecting material to real-life contexts (Alamri et al., 2020) and utilizing authentic assessments. Deep learning serves as a vehicle for integrating professional competencies with digital literacy and adaptability (Forster, 2025), positioning reflection as an internal mechanism for continuous professional enhancement in the digital era.

Integration: The Reflective-Deep Learning Model

The cross-theme integration aligns with Mezirow's (1991) Transformative Learning Theory. The conceptual model derived from the findings is:

*Self-Reflection → Awareness of Meaning → Intrinsic Motivation → Professional Action
→ Competence → New Reflection*

This cycle proves that professional learning must be directed toward reflective deep learning, demanding critical awareness, empathy, and ethical responsibility. This novel finding contributes to the literature by positioning self-reflection as the epistemic pivot—a process of personal and professional transformation—in the context of the Indonesian PPG program.

Self-reflection is the key factor strengthening the intrinsic motivation and professional competence of 21st-century teachers. Through reflection, teachers build self-awareness, deepen the meaning of their work, and actualize their professional potential within a deep learning framework.

The theoretical implication is the expansion of the understanding of reflective practice, self-determination, and deep learning into a novel conceptual framework for teacher professional development. The practical implication demands that Teacher Professional Program providers (like PPG) prioritize systematic reflective practices (journal writing, peer mentorship) to cultivate critical thinking and fortify intrinsic commitment to lifelong learning. Thus, the ideal 21st-century teacher is a reflective, deep learner who makes reflection and intrinsic motivation the core pillars of their professionalism.

CONCLUSION

This study concludes that self-reflection is a key foundation for fostering intrinsic motivation and strengthening the professional competencies of 21st-century teachers through in-depth learning. Through the reflective process, teachers not only evaluate their teaching practice but also develop self-awareness, professional meaning, and a commitment to lifelong learning. Directed self-reflection fosters intrinsic motivation that encourages teachers to continuously innovate, think

critically, and adapt to changing educational paradigms. The findings of this research demonstrate that professional development for teachers is not merely the outcome of formal training, but also an internal process that is rooted in reflective awareness, personal values, and involvement in learning that is both changing and deep learning. Future researchers are advised to expand the study using a quantitative or mixed methods approach to empirically test the relationship between self-reflection, intrinsic motivation, and teacher professional competence. Further research could also explore the role of mediating or moderating variables such as self-efficacy, institutional support, and organizational culture in strengthening the relationship between these variables. Furthermore, further research should be conducted at various educational levels and in different cultural contexts to ensure the proposed conceptual model has stronger external validity and global relevance.

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