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BUILDING INTELLIGENCE IN THE LEARNING PROCESS IN HIGHER EDUCATION: PHILOSOPHICAL, THEORETICAL, PRACTICAL PARADIGM

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ABSTRACT

The development of student intelligence in higher education often faces challenges because the education system consistently prioritizes cognitive aspects while neglecting other dimensions, such as emotional, social, and creative components. This situation raises the question of how pedagogical strategies can enhance students' intellectual diversity, thereby making the learning process more comprehensive. This study aims to examine students' views on the development of intelligence during the learning process in higher education while providing insights into effective and adaptive learning practices. The method used is a literature review by reviewing scientific articles, research reports, and selected academic literature published between 2013 and 2023. The analysis used a content analysis approach through the stages of synthesis, classification, and data reduction. The results of the study indicate that although learning in higher education is still dominated by a cognitive orientation, emotional, social, and intrapersonal intelligence have been shown to play a significant role in supporting students' academic and personal success. The ideas of Gardner, Vygotsky, and Goleman emphasize the importance of holistic learning that integrates social interaction, emotional regulation, creativity, and ethical and spiritual dimensions. The contribution of this article lies in its efforts to integrate the theories of multiple intelligences, emotional intelligence, and constructivism into a practical framework for developing holistic learning in higher education, as well as providing concrete recommendations for lecturers to expand assessment and learning strategies beyond cognitive biases.

Keywords: intelligence; learning process; students; higher education; holistic learning.

INTRODUCTION

Higher education plays a strategic role in developing superior, critical, and adaptive human resources to the changing times. One of the primary goals of education is to develop students' intelligence, including cognitive, affective, and psychomotor skills. Higher education is not merely a place for transferring knowledge, but also a space for developing intellectual intelligence, creativity, and sound decision-making skills (Sudjana, 2021).

Theoretically, intelligence is not static but can be cultivated through appropriate learning approaches. (Gardner, 2011), through his theory of multiple intelligences, explains that every individual possesses linguistic, logical, musical, kinesthetic, spatial, interpersonal, intrapersonal, and naturalistic potential. Therefore, higher education institutions are expected to create learning processes that accommodate this diversity of intelligence so that students' potential can develop optimally. This aligns with (Vygotsky, 1978) view of the importance of social interaction in cognitive development, where students not only passively absorb knowledge but also construct understanding through discussion, group work, and reflective practice.

However, significant gaps remain in higher education practice. Various studies indicate that learning models and evaluation systems remain highly cognitive-centric. For example, over 70% of assessments in Indonesian universities still take the form of written exams, either essays or multiple-choice questions (Patipatpakdee et al., 2023). This evaluation model tends to neglect students' collaborative skills, leadership, empathy, and creativity. This situation reinforces cognitive biases, which limit the development of students' emotional, social, and creative intelligence (Hersing, 2017).

Therefore, a broader philosophical foundation must be considered. Humanism emphasizes the importance of education for the holistic and meaningful development of individual potential (Rogers, 1995). Constructivism (Piaget & Vygotsky) views knowledge as the result of students' active process of constructing learning experiences. Meanwhile, the holistic education paradigm emphasizes that education should integrate cognitive, emotional, social, moral, and spiritual aspects. With this perspective, intelligence development in higher education is no longer viewed merely as academic achievement, but as part of the formation of a holistic, resilient, and highly adaptable personality.

This study aims to critically examine how student intelligence is developed through the learning process in higher education by reviewing theories, research findings, and implemented practices. Thus, the results are expected to contribute to the design of more holistic and inclusive learning environments, while also addressing the cognitive biases that still dominate the higher education system in Indonesia.

RESEARCH METHODS

This study employed a literature review method to analyze, evaluate, and synthesize various information regarding the development of intelligence in the learning process of university students. This approach was chosen because it provides a comprehensive overview of theories, concepts, and previous research findings, while simultaneously establishing a comprehensive conceptual framework as a basis for developing the study (Zed, 2008).

The literature sources used included articles from accredited national journals and reputable international journals indexed by Scopus and Web of Science, international seminar proceedings, research reports, academic books, and credible online sources. The literature search was conducted through electronic databases such as Scopus, WoS, ProQuest, Google Scholar, and ResearchGate using keywords such as multiple intelligences, emotional intelligence, intelligence development, learning process, and higher education students.

The initial identification process yielded 126 articles published between 2013 and 2023. After a selection process based on inclusion and exclusion criteria, 38 articles were eligible for analysis. Inclusion criteria included articles published between 2013 and 2023, focused on intelligence development in higher education, and published in reputable journals. Exclusion criteria included articles not available in full text, opinion pieces without empirical support, and research focused on primary or secondary education.

Data were analyzed using content analysis techniques in three stages. First, data reduction was performed by filtering articles according to their research focus. Second, data classification grouped findings based on intelligence dimensions, such as cognitive, emotional, social, and spiritual. Third, data synthesis integrated the findings to identify patterns, research trends, and theoretical and practical implications for developing student intelligence in higher education. To enhance procedural transparency, the literature selection process was visualized using a PRISMA (Preferred Reporting

Items for Systematic Reviews and Meta-Analyses) diagram, which illustrates the process of identification, screening, eligibility, and final inclusion of articles.

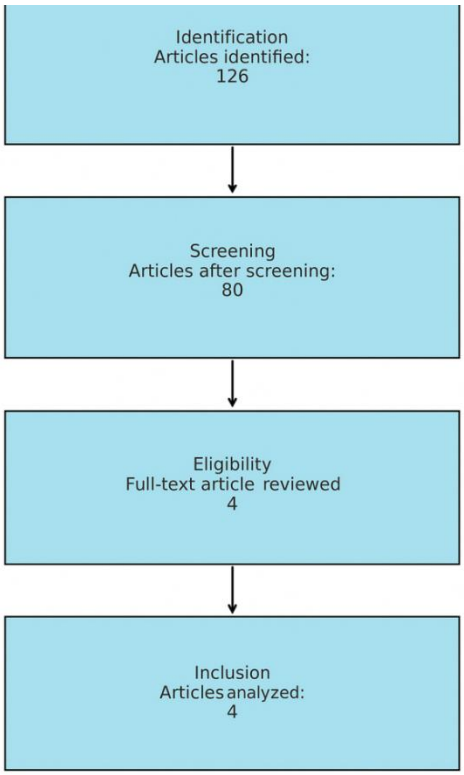

Figure 1. PRISMA Diagram

RESULTS AND DISCUSSION

Research Results

An analysis of four selected articles indicates that the issue of developing student intelligence in higher education has undergone a significant shift over the past decade. The first finding indicates that cognitive intelligence still dominates the learning process, particularly in assessment systems that emphasize mastery of material and logical-mathematical abilities. However, this trend is increasingly being questioned as it is inadequate to address the complex needs of the 21st century, particularly in preparing students for the workforce, which demands soft skills such as communication, collaboration, and resilience.

The second finding confirms that emotional intelligence plays a crucial role in supporting student success, both in academic and non-academic domains. The reviewed articles indicate that students with high emotional intelligence are better able to manage stress, maintain motivation, and build healthy social relationships. This aligns with global research trends showing an increase in publications on emotional intelligence in higher education since 2017, marking a shift in focus from purely intellectual abilities to a balance between cognitive and affective aspects (Erdem, 2024).

The third finding highlights learning innovations that have proven effective in developing student intelligence holistically. Problem-based learning (PBL) and project-based learning (PjBL) models have been reported to improve critical thinking, creativity, and collaboration skills. Meanwhile, blended learning and flipped classroom approaches provide space for students to be more active in the learning process, both individually and in groups. Collaborative learning has also emerged as a widely researched strategy, as it has been shown to strengthen students' interpersonal and intrapersonal intelligence.

The fourth finding is the limited implementation of Gardner's theory of multiple intelligences, Vygotsky's theory of constructivism, and Goleman's theory of emotional intelligence in real-world practice in Indonesian universities. Although these theories are widely cited in the literature, their application is still hampered by cognitive-dominant curricula and assessment systems.

Table 1. chart to compare theories

Theory/Model	Main Focus	Implementation in Higher Education	Main Impact
Gardner (Multiple Intelligences)	Development of diverse intelligences	Interest-based art, music, kinesthetic, and research projects	Creativity and motivation increase
Vygotsky (ZPD & Sosial)	Social interaction & scaffolding	Class discussions, mentoring, peer teaching	Stronger collaboration and social skills
Goleman (Emotional Intelligence)	Emotional regulation and empathy	Self-reflection, counseling, collaborative learning	Social resilience and adaptation increase
Konstruktivisme (Piaget & Vygotsky)	Active learning through experience	Problem-based learning, project-based learning	Critical thinking & problem solving develops

Discussion

The results of this study indicate that the higher education paradigm in Indonesia and globally is beginning to move toward a more holistic approach. However, the dominance of cognitive-based assessments remains a major obstacle. This aligns with the findings of Warsah et al. (2023), who stated that the learning orientation in Indonesian universities remains cognitively biased, despite national policies promoting the development of multiple intelligences.

Comparisons with international literature reveal mixed results. Some studies support the integration of emotional intelligence into the curriculum, citing evidence that it improves academic engagement and student psychological well-being (Neubauer & Freudenthaler, 2005). However, other studies highlight that emotional intelligence measurement instruments are not yet fully valid and reliable, thus the effectiveness of their implementation remains debated (Mayer, 2017). This tension suggests that despite the broadening of research directions, methodological challenges still need to be addressed.

In the Indonesian context, the Independent Learning–Independent Campus (MBKM) policy and the Pancasila Student Profile Strengthening Project (P5) actually provide significant scope for the development of non-cognitive intelligences. For example, internship programs, humanitarian projects, and collaborative research enable students to develop social, emotional, and moral intelligence. However, their implementation remains suboptimal because formal assessment in higher education remains dominated by written exams.

The practical implication of these findings for lecturers is the need for innovation in the development of Semester Learning Plans (RPS). Lecturers can expand learning strategies by integrating collaborative methods, portfolio assessments, and project-based assessments. This way, students are assessed not only on academic ability but also on their skills in collaboration, communication, and emotional management. This approach is consistent with the principles of student-centered learning and relevant to the global need for graduates with multidimensional intelligence.

Furthermore, project-based and collaborative learning also align with the constructivist paradigm, which emphasizes the importance of real-world learning experiences. Through hands-on experience, students have the opportunity to develop new knowledge, build skills, and broaden their social horizons. At the same time, their emotional intelligence is honed through dealing with group conflict, managing team dynamics, and engaging in self-reflection.

Conceptually, these results strengthen the argument that student intelligence development in higher education needs to be viewed as a holistic process. This shift demands reform of the evaluation and learning system in Indonesia so that it is not only oriented towards cognitive achievements, but also towards the formation of individuals who are resilient, creative and highly adaptable.

CONCLUSIONS

Based on the results of the literature review, it can be concluded that developing student intelligence in higher education is a complex and multidimensional process. Although cognitive learning still dominates the higher education system, research findings confirm that emotional, social, and spiritual intelligence contribute significantly to academic success and students' readiness to face life's challenges. Therefore, developing student intelligence should be viewed as a holistic effort that

integrates various dimensions of human potential. The practical implications of this study encompass three main aspects. First, at the lecturer level, innovation is needed in the development of Semester Learning Plans (RPS) by integrating collaborative methods, project-based learning, portfolio assessment, and peer assessment. This allows for more inclusive evaluations, assessing not only cognitive achievement but also students' social, emotional, and creative aspects. Second, at the curriculum level, higher education institutions need to balance cognitive-based courses with programs that foster non-cognitive skills, such as leadership, communication, and empathy. Third, at the policy level, the government and higher education institutions need to strengthen the implementation of the Independent Learning–Independent Campus (MBKM) policy by emphasizing the importance of holistic assessments that reflect mastery of multidimensional intelligence. Further research should focus on empirical studies that examine the influence of innovative learning methods such as project-based learning, problem-based learning, and collaborative learning on the development of students' social and emotional intelligence across various disciplines. Furthermore, quantitative and qualitative research that develops valid and reliable instruments to measure students' non-cognitive intelligence will significantly contribute to strengthening academic evidence. Thus, this study not only provides a theoretical foundation but also opens up space for applied research that can strengthen the transformation of higher education toward a more humanistic, constructivist, and holistic paradigm.

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