

Reconstruction Of Contemporary Educational Epistemology Through Integration Of Knowledge And Values As The Basis For Holistic Human Formation

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ABSTRACT

Social transformation, the advancement of digital technology, and changes in the global structure of knowledge have brought education into a new epistemological phase that requires the integration of knowledge, values, and humanity. This study aims to analyze and reconstruct contemporary educational epistemology through the integration of knowledge and values as the foundation for the development of holistic human beings. The main issue examined concerns the dominance of positivistic and instrumental paradigms, which tend to perceive knowledge as an object that can be technically measured, while ethical, social, and humanistic dimensions are often marginalized. This research employs a qualitative approach using the library research method through a philosophical-critical review of various literatures on educational epistemology, critical theory, humanistic education, constructivism, and the complexity paradigm. The analysis is conducted using a philosophical hermeneutic approach and conceptual analysis to identify the relationships between knowledge, values, experience, and action within educational practices. The findings indicate that education cannot be understood merely as a process of information transmission or technical competency development but must be directed toward the formation of individuals with reflective, moral, social, and transformative capacities. This study proposes the concept of the Integrative-Humanistic Epistemological Model, which connects epistemic, axiological, humanistic, and transformational dimensions as the foundation of future education. This model positions values not as an additional element, but as a fundamental component in the process of knowledge formation, utilization, and transformation. The contribution of this research provides a theoretical framework for the development of curricula, pedagogical approaches, and educational policies oriented toward the formation of holistic human beings who are capable of critical thinking, ethical action, and responsibility toward global change.

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1. INTRODUCTION

Social transformation, the development of digital technology, and changes in the global knowledge structure have brought education into a new epistemological phase characterized by the increasing complexity of the relationship between humans, knowledge, and values. Contemporary education no longer merely deals with the issue of how to transmit information, but also how to shape individuals capable of understanding, evaluating, and using knowledge responsibly. The development of artificial intelligence, automation, and the knowledge-based economy further reinforces the need for an education system that produces individuals not only technically competent but also possessing reflective, ethical, and social capacities. In this context, the issue of educational epistemology becomes increasingly important because it determines how knowledge is understood, produced, used, and directed for the benefit of humanity (Jandric & Knox, 2022; Williamson & Eynon, 2022).

Historically, the development of modern education has been heavily influenced by a positivistic paradigm that positions empirical scientific knowledge as the most valid form of knowledge. This paradigm has made significant contributions to the advancement of science and technology, but at the same time has led to a tendency towards reductionism in the meaning of education. Knowledge is often treated as a commodity measurable through competency standards, academic achievement, and productivity indicators, while the moral, spiritual, cultural, and existential dimensions of humankind receive less attention. Criticism of the dominance of this instrumental paradigm has emerged from various contemporary educational thinkers who assert that education cannot be reduced to a mere process of producing human capital, but rather must be understood as a process of forming human subjects with agency, responsibility, and ethical awareness (Biesta, 2022; Zhao, 2021).

Studies on the relationship between knowledge and values in education have developed from various perspectives. Contemporary research indicates that education has multidimensional goals that include competency development, social integration, and the formation of individual identity and agency. This perspective demonstrates that education is not only concerned with the transfer of knowledge but also with the formation of human existence as a moral and social subject. Furthermore, a complexity-based approach to education emphasizes that modern educational issues require a knowledge paradigm capable of simultaneously connecting cognitive, affective, social, and ethical aspects. However, most research still discusses the relationship between values and knowledge separately, thus failing to fully offer an integrative epistemological framework for holistic human development (Guillemin, 2025; Juvonen et al., 2024).

Research gaps (research gap) in contemporary educational epistemology studies lies in the underdevelopment of a conceptual model that explains how the integration of knowledge and values can become the epistemological basis for holistic human development. Many educational approaches still position values as an additional aspect in the curriculum, rather than as a fundamental part of the process of knowledge production, interpretation, and validation. Yet, all educational practices always contain normative dimensions regarding human goals and the direction of societal development. Therefore, a reconstruction of educational epistemology is needed that can transcend the dichotomy between facts and values through an integrative approach that understands knowledge as a human construct influenced by social, cultural, and ethical contexts (Jandric & Knox, 2022; Biesta, 2022).

From a global perspective, the need for a reconstruction of educational epistemology is increasingly relevant as various international agendas emphasize the importance of education oriented towards holistic human development. 21st-century education focuses not only on literacy and numeracy skills but also encompasses socio-emotional competencies, creativity, collaboration, global responsibility, and the ability to make value-based decisions. UNESCO, through its report *Reimagining Our Futures Together* emphasizes the need for a new social contract in education that positions knowledge as a means of building human relationships with oneself, society, and the world. This perspective demonstrates that future education needs to shift from a paradigm of knowledge transmission to a humanity-oriented knowledge transformation (UNESCO, 2021; Carney, 2022).

Based on these problems, this study aims to analyze and reconstruct contemporary educational epistemology through the integration of knowledge and values as the basis for holistic human formation. This study seeks to answer several main questions: (1) What are the characteristics and limitations of the currently dominant contemporary educational epistemology? (2) What is the

conceptual relationship between knowledge and values from the perspective of modern and contemporary educational philosophy? And (3) How can an integrative educational epistemology model be formulated as the foundation for holistic human formation? The novelty of this study lies in the development of an integrative epistemological framework that not only views values as the goal of education, but as a fundamental element in the structure of educational knowledge itself (Jandric et al., 2022; UNESCO, 2021).

2. METHODS

This research uses a qualitative approach with the type of library research (library research) oriented towards a philosophical-critical study of contemporary educational epistemology. This approach was chosen because the research does not focus on empirically measuring relationships between variables, but rather on conceptual exploration of the construction of knowledge, the relationship between scientific rationality and human values, and efforts to reconstruct a more holistic educational paradigm. Qualitative research enables researchers to understand intellectual, social, and philosophical phenomena through in-depth interpretation of texts, ideas, and the construction of meaning that develops in various sources of knowledge (Creswell & Creswell, 2023). In library research, literature is positioned not only as a collection of information, but as an object of critical analysis to build theoretical arguments through a process of selection, interpretation, comparison of perspectives, and conceptual synthesis (Snyder, 2023). This approach is relevant for use in the study of the philosophy of education because it allows exploration of the relationship between knowledge, values, humans, and educational goals through an analysis of various developing scientific paradigms (Kivunja, 2022). Research data were obtained through a documentary study of various primary and secondary literature sources related to the philosophy of science, educational epistemology, contemporary educational theory, and the integration of values in the educational process. Primary sources include theoretical works by educational thinkers and philosophers such as John Dewey, Paulo Freire, Jürgen Habermas, Edgar Morin, Martha Nussbaum, and Gert Biesta, while secondary sources include articles from reputable international journals and accredited national journals within the last five years. Literature selection was based on theoretical relevance, academic credibility, publication recency, and conceptual contributions to the development of an integrative educational paradigm.

Data analysis in this study uses a philosophical hermeneutic approach and conceptual analysis (conceptual analysis) to understand the philosophical meaning contained in various academic texts and identify the structure of thought that builds the paradigm of educational epistemology. The analysis is carried out in three stages, namely conceptual reduction by identifying the main ideas of each literature, critical interpretation by comparing various epistemological perspectives, and theoretical reconstruction by formulating an integrative educational paradigm. Data validity is guaranteed through a strategy of triangulation of sources and triangulation of theoretical perspectives by comparing literature from various fields, such as philosophy of education, social sciences, educational psychology, and global educational policy, as well as testing the consistency of arguments through a humanistic approach, critical theory, constructivism, and the complexity paradigm. Through this methodology, this research is directed to produce a theoretical construction of contemporary educational epistemology that is able to bridge the gap between knowledge and values. This research positions values not merely as an external normative aspect, but as an epistemic element inherent in the process of formation, use, and transformation of knowledge. Thus, the results of the study are expected to not only provide a theoretical mapping of educational epistemology issues, but also provide a conceptual basis for the development of a holistic educational model that is relevant to the challenges of 21st-century global society.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1 Contemporary Educational Epistemology: From Knowledge Transmission to Meaning Construction

Contemporary educational epistemology is a philosophical field of study that seeks to understand how knowledge is acquired, constructed, validated, and directed in the educational process. Unlike the

traditional paradigm that positions education as a linear process of knowledge transmission from teachers as epistemic authorities to students as passive recipients, the contemporary perspective views knowledge as a dynamic construct formed through experience, social interaction, critical reflection, and interpretation. This paradigm shift demonstrates that students are not merely objects of information transfer, but rather active subjects who construct understanding through engagement with their epistemic environment. In the context of modern education, knowledge construction has become increasingly complex due to the influence of social change, the development of digital technology, and the transformation of how humans produce and access information (Creswell & Creswell, 2023; Schunk, 2023).

The development of social constructivism theory and contemporary philosophy of science has changed the perspective on the nature of knowledge in education. Knowledge is no longer understood as an objective representation that stands alone outside of humans, but rather as the result of the interaction between subjective experience, social structures, language, culture, and specific historical contexts. This perspective emphasizes that the educational process must provide space for students to interpret, dialogue, and reflect on the knowledge they acquire. Thus, learning is not only directed at mastering factual information (knowledge acquisition), but also on the ability to construct meaning (meaning construction) and develop a critical awareness of reality. This epistemological transformation forms the basis for a more reflective, dialogical education oriented toward the development of holistic human capacities (Kuhn et al., 2023; Zhang & Cui, 2024).

In 21st-century society, educational epistemology faces increasingly complex challenges because advances in science and technology have created multidimensional problems. Issues such as climate change, artificial intelligence disruption, social inequality, and ethical dilemmas in technology demonstrate that technical skills and mastery of information alone are insufficient to address the dynamics of global life. Education requires an epistemological paradigm that connects scientific knowledge, human values, social responsibility, and practical wisdom. Therefore, the orientation of education needs to shift from merely knowing what going to knowing why And knowing how to act, namely the ability to understand the reasons behind knowledge and apply it responsibly in real life (Selwyn, 2024; UNESCO, 2023).

Furthermore, contemporary educational epistemology positions humans not merely as individuals with cognitive abilities, but as moral subjects living within social and cultural networks. Education is not simply understood as an instrument for increasing economic competence, but rather as a process of developing individuals capable of critical thinking, ethical behavior, and contributing to society. Biesta emphasized that the goal of education is not merely related to qualifications (qualification), but also socialization (socialisation) and subject formation (subjectification) who have the capacity to make conscious decisions in the social world. This perspective demonstrates that educational epistemology must always consider the relationship between knowledge, values, and human development holistically (Biesta, 2022; Jandric et al., 2023).

3.1.2. Critique of the Positivist and Reductionist Paradigms in Education

The positivist paradigm has made significant historical contributions to the development of modern education systems through its emphasis on objectivity, scientific rationality, empirical measurement, and systematic evaluation procedures. Through this approach, educational institutions gain the ability to design competency-based curricula, develop assessment instruments, and improve the effectiveness of learning processes through measurable data. However, developments in contemporary educational thought demonstrate that the dominance of positivism also presents epistemological limitations when human reality is treated solely as an object reducible to quantitative indicators. Learners are not merely biological or cognitive entities measurable through numbers, but rather complex individuals possessing subjective experiences, values, identities, and existential dimensions. Therefore, a positivist approach requires dialogue with humanistic and interpretive perspectives so that education can understand humans more holistically (Biesta, 2022; Jandric et al., 2023).

Reductionism in education arises when the success of the educational process is only understood through easily quantifiable parameters, such as academic achievement, standardized test scores, graduate productivity, or institutional efficiency indicators. Although these indicators have important

value in educational management, their dominant use has the potential to ignore fundamental aspects such as character development, creativity, empathy, reflective ability, and social responsibility of students. Education that is too tied to the logic of measurement can shift the orientation of education from the process of human development to merely the production of technical competencies. In the perspective of contemporary education, knowledge is not only related to the ability to know (knowing), but also the ability to understand the meaning (meaning-making) and act ethically (ethical action). Thus, educational evaluation needs to broaden its scope to be able to capture the complexity of human development in a multidimensional manner (Mertens, 2023).

Criticism of the dominance of positivism also relates to the issue of rationality in educational practice. Habermas distinguishes between instrumental rationality, which focuses on efficiency, control, and achieving technical goals, and communicative rationality, which emphasizes dialogue, shared understanding, and the formation of consensus based on value judgments. In the educational context, the dominance of instrumental rationality can lead to a shift in the pedagogical relationship into a technocratic one, where teachers and students are positioned more as implementers of the system than as subjects involved in the process of seeking meaning. Education that loses its communicative dimension will experience a narrowing of function because it is only oriented towards measurable results, while aspects of democracy, dialogue, and the formation of critical awareness are marginalized. Therefore, educational epistemology needs to integrate scientific rationality with communicative rationality to create a reflective and humanistic learning process (Kirylo & Naicker, 2022).

In addition to criticizing positivism, the critical educational approach emphasizes that education always has social, political, and moral dimensions that cannot be separated from the process of knowledge production. Freire, through the concept of conscientization, explains that education should help students critically understand reality so they can participate in social change. From this perspective, students are not passive objects receiving information from educational authorities, but rather active subjects constructing understanding through dialogue, reflection, and life experiences. Criticizing the positivist paradigm does not mean rejecting science or the scientific method, but rather rejecting the tendency to make science the sole source of legitimate knowledge. Future education requires an integrative epistemological paradigm capable of reconciling scientific objectivity with human values, so that knowledge produces not only technical skills but also wisdom in action (Freire, 2021; Shahjahan et al., 2023).

3.1.3. Integration of Knowledge and Values as the Foundation of Educational Epistemology

The relationship between knowledge and values is a fundamental issue in educational epistemology because it concerns the nature of how humans understand, produce, and use knowledge. In the classical positivist tradition, empirical facts are often strictly separated from normative values through the concept of fact-value dichotomy, which assumes that science can develop objectively without being influenced by moral or social considerations. However, developments in contemporary philosophy of science demonstrate that scientific activity is never entirely value-free because every research process always involves decisions regarding the object of study, the purpose of knowledge, the methods used, and the consequences of applying those scientific findings. Therefore, modern education needs to move away from the dichotomous view of facts and values and toward an integrative epistemological paradigm that understands that knowledge is always situated within the context of human, cultural, and social responsibility (Kuhn et al., 2023; Shahjahan et al., 2023).

From a contemporary educational perspective, the integration of knowledge and values emphasizes that the goal of education is not solely about intellectual ability or mastery of academic competencies, but also about developing human capacity to use knowledge responsibly. Knowledge without a value orientation can lead to technological progress that is not always in line with humanitarian interests, while values without a strong knowledge base have the potential to become normative ideas that fail to provide solutions to real-world problems. The relationship between the two is complementary, with knowledge providing the ability to understand the complexities of the world, while values provide ethical direction in determining how that knowledge is applied. In the context of 21st-century education, this integration becomes increasingly important as students face various global issues that require both critical thinking skills and moral considerations, such as climate change, digital transformation, and the development of artificial intelligence (Biesta, 2022; UNESCO, 2023).

Edgar Morin's complexity paradigm makes a significant contribution to understanding the need for integration of knowledge and values through a critique of the fragmentation of knowledge in modern education. Morin asserts that human reality cannot be understood solely through partial and separate approaches across disciplines, as life phenomena are always interconnected between biological, social, cultural, technological, and moral aspects. Therefore, future education needs to develop complex thinking patterns capable of connecting various forms of knowledge while considering the ethical implications of their use. Values, in this perspective, are not merely additional elements added after the learning process has taken place, but rather an intrinsic part of the epistemic process itself. For example, the development of artificial intelligence technology requires technical competence as well as an understanding of algorithmic fairness, privacy protection, social impact, and human responsibility as both developers and users of technology (Jandric et al., 2023; Selwyn, 2024).

3.1.4. The Concept of Holistic Humanity from an Educational Perspective

The concept of holistic human beings in education stems from the philosophical understanding that humans are multidimensional beings who cannot be reduced solely to their intellectual capacity or academic abilities. Humans encompass the interconnectedness of cognitive, affective, social, moral, spiritual, and physical dimensions, which collectively shape their identity and quality of being. A holistic educational perspective rejects the reductionist view that positions students merely as objects of economic competence production, but rather views them as subjects who continuously develop through experience, social relationships, and self-reflection. In the context of contemporary education, a holistic approach is becoming increasingly relevant because global challenges require not only individuals with technical skills but also individuals with ethical awareness, adaptability, and a concern for the sustainability of life together (Biesta, 2022).

Holistic education has a close relationship with the ideal human capabilities developed in the tradition of Martha Nussbaum's thought on the goals of democratic education. The capability perspective emphasizes that educational success cannot be measured solely by economic productivity or academic achievement, but also by an individual's ability to live a dignified and meaningful life. Education must provide space for the development of critical thinking skills, moral imagination, social empathy, freedom of choice, and respect for human diversity. Thus, education functions as a process of empowering people to actively participate in community life. In the digital era and complex social transformations, developing the human dimension is increasingly important because technological advances without an ethical foundation have the potential to create inequality and dehumanization (Jandric et al., 2023).

Furthermore, the holistic human paradigm positions education as a humanization process aimed at developing a balance between human rational, emotional, moral, and social capabilities. In this perspective, knowledge is not viewed as an end in itself, but rather as a means to improve the quality of human life and build a more just society. Therefore, education must be able to integrate mastery of knowledge with character development, professional competence with social responsibility, and intellectual intelligence with moral wisdom. This approach demonstrates that the ideal human being is not only an individual capable of solving technical problems but also able to understand the human consequences of every action. This concept aligns with developments in contemporary educational studies that emphasize the importance of transformative learning, student well-being, and holistic human development (Schleicher, 2023; Shahjahan et al., 2023).

3.1.5. Reconstruction of Educational Epistemology as an Integrative Paradigm

The reconstruction of contemporary educational epistemology requires a paradigm shift from a fragmentary approach to an integrative approach that connects the dimensions of knowledge, values, experience, and action as an epistemic whole. In this perspective, knowledge is understood not merely as the accumulation of information or an objective representation of reality, but as a process of meaning-making involving critical thinking, reflection, and ethical awareness. Values serve as a moral orientation that determines the direction of knowledge use; experience serves as a space for the formation of understanding through human interaction with the world; and action serves as a concrete form of actualization of the results of the educational process. This integrative paradigm emphasizes that education must be able to build a harmonious relationship between intellectual ability and human responsibility, so that knowledge does not lose its social relevance in facing the complexities of modern

life (Biesta, 2022; Jandric et al., 2023).

The integrative epistemological model positions education not merely as a mechanism for transmitting information from educators to students, but as a process of holistic human transformation. In this approach, students are understood as active subjects with the ability to construct meaning, reflect on experiences, and connect academic knowledge with the realities of life. The learning process does not stop at the stage of knowing (knowing), but develops towards understanding (understanding), evaluate critically (evaluating), and act responsibly (acting responsibly). This approach aligns with the transformative learning paradigm, which emphasizes that education must transform how individuals understand themselves, society, and the world they encounter. Thus, educational success is measured not only by cognitive achievement but also by students' ability to use knowledge to create positive change in social life (Illeris, 2022; Shahjahan et al., 2023).

Ultimately, the reconstruction of educational epistemology is directed toward building an educational paradigm capable of producing holistic individuals with a balance between intellectual intelligence, moral depth, social sensitivity, and the ability to adapt to global change. Future education will not only produce professionally competent individuals, but also requires people who are able to consider the ethical consequences of their actions, understand diverse perspectives, and contribute to the sustainability of life together. In the context of the development of digital technology and artificial intelligence, an integrative paradigm is becoming increasingly important because humans require not only technical skills but also wisdom in directing technology for the benefit of humanity. Therefore, contemporary educational epistemology must move toward an approach that integrates science, human values, life experiences, and social responsibility as the foundation for the formation of a sustainable civilization (Selwyn, 2024).

3.2. Discussion

3.2.1. Problems of Contemporary Educational Epistemology: Fragmentation of Knowledge and the Crisis of Value Orientation

The results of a review of various literature indicate that the main problem of contemporary educational epistemology is not solely related to the limitations of knowledge production, but more fundamentally concerns the question of how knowledge is constructed, given meaning, and directed for human benefit. The development of science, digital technology, and information systems has expanded human capacity to produce and access knowledge, but this increase has not always been balanced with the development of moral wisdom, social responsibility, and human awareness. This condition shows a gap between epistemic progress (epistemic advancement) and the development of human wisdom (human wisdom development). In the context of education, this phenomenon shows that learning success is not only measured by the ability to acquire information, but also by the ability to understand the ethical and social implications of the knowledge possessed (Biesta, 2022; Jandric et al., 2023).

The dominance of the instrumental paradigm in modern education is one factor that reinforces the fragmentation between knowledge and values. Education is often directed towards competency orientation, economic productivity, and job readiness, so that students are more often understood as human capital (human capital) that must meet the needs of the global market. While this approach contributes to economic development and increased competitiveness, reducing education to utilitarian aspects has the potential to ignore the fundamental dimension of education as a process of human development. Education aims not only to produce individuals with professional skills, but also individuals capable of critical thinking, moral awareness, and an understanding of their responsibilities to society. Therefore, the orientation of education needs to be expanded from merely developing technical competencies to developing more comprehensive and meaningful human capacities (Schleicher, 2023; Shahjahan et al., 2023).

The study's findings also indicate that the fragmentation of knowledge has given rise to a crisis of orientation in the use of scientific knowledge. Individuals may possess high levels of academic literacy and technical skills, but they may not possess the reflective capacity to consider the social and moral consequences of their actions. The development of digital technology and artificial intelligence is a clear example of how technical progress requires a foundation of values to prevent new problems such as privacy violations, algorithmic bias, the spread of disinformation, and the weakening of human social

relationships. From a contemporary epistemological perspective, knowledge cannot be treated as a neutral entity separate from the context in which it is used, as every innovation always has consequences for human life. Therefore, education needs to develop epistemic capabilities that combine technological literacy, critical reflection, and ethical considerations in addressing global change (Selwyn, 2024; UNESCO, 2023).

Furthermore, a critical epistemological perspective asserts that the crisis in modern education is rooted in outdated assumptions that separate scientific facts from human values. This separation often leads to knowledge being understood solely as an instrument for understanding and controlling reality, while the normative dimensions concerning the purpose, meaning, and responsibility of using knowledge receive less attention. Yet, every educational practice always involves value choices regarding the kind of human being we want to shape and the kind of society we want to realize. Therefore, a reconstruction of educational epistemology is necessary to shift the educational paradigm from merely accumulating information to creating meaning, wisdom, and social responsibility. Future education must be able to integrate scientific rationality with ethical awareness so that knowledge not only produces abilities but also brings benefits to human life (Kuhn et al., 2023).

3.2.2. Theoretical Analysis: The Relationship between Knowledge, Values, and Human Formation

Based on an analysis of various philosophical perspectives on science and contemporary educational theory, the relationship between knowledge and values cannot be understood as two separate aspects, but rather as epistemological elements that shape each other in the educational process. Knowledge without a value orientation has the potential to produce instrumental intelligence that only pursues technical efficiency without considering the human impact, while values without the support of knowledge can lose the practical capacity to solve real-life problems. Therefore, education requires a paradigm that can balance the cognitive and normative dimensions. From a contemporary perspective, knowledge is always situated within a specific social, cultural, and moral context because the process of producing and using knowledge involves decisions regarding goals, benefits, and consequences for humans and society. The integration of knowledge and values is an important foundation in building an education that not only produces competent individuals but also ethically responsible human beings (Biesta, 2022; Shahjahan et al., 2023).

The constructivist perspective makes an important contribution to understanding that knowledge is not merely objective facts mechanically transferred from educators to students, but rather the result of active construction through experience, social interaction, language, and cultural context. Within this framework, students are viewed as epistemic subjects who have the ability to construct, interpret, and evaluate the meaning of their learning experiences. The educational process aims not only to increase information, but also to develop reflective abilities so that individuals are able to understand the relationship between knowledge and the realities of their lives. This view suggests that personal experience, the social environment, and the values developed within the community play a crucial role in shaping human understanding. Thus, education becomes a process of meaning-making (meaning construction) which enables students to develop critical thinking and awareness of the social context in which they are located (Kuhn et al., 2023; Zhang & Cui, 2024).

The progressive educational thinking of John Dewey and the critical education of Paulo Freire reinforce the view that knowledge must be rooted in experience and directed toward human transformation. Dewey places experience as the primary foundation of learning because meaningful knowledge is born through a process of reflection on real-life experiences. Meanwhile, Freire asserts that education must foster critical awareness (critical consciousness) so that students are able to understand social structures, recognize injustice, and participate in societal change. From this perspective, education functions not only as a means of adaptation to the existing world but also as a space for the formation of individuals with the moral and social capacity to create change. Values such as justice, solidarity, respect for human dignity, and social responsibility are integral to the epistemological process of education. Therefore, the reconstruction of contemporary education requires an approach that connects knowledge, experience, values, and action as a whole in human formation (Freire, 2021; Jandric et al., 2023).

3.2.3. Critique of the Competency-Based Education and Measurement Paradigm

The theoretical analysis shows that the competency-based education paradigm has made a

significant contribution to improving the learning evaluation system through more structured achievement standards, performance indicators, and assessment instruments. However, this approach faces epistemological problems when educational success is only understood through aspects that are easily measured quantitatively. The use of academic scores, institutional rankings, and productivity indicators often become the dominant measures in determining educational quality, while complex human dimensions such as creativity, practical wisdom, character, empathy, and reflective ability receive less attention. Education is essentially not only oriented towards achieving results (outcomes), but also in the process of developing humans as subjects capable of understanding, assessing, and acting responsibly. Therefore, it is necessary to expand the competency paradigm so that it does not stop at mastering technical skills but encompasses holistic human development (Biesta, 2022).

An educational model that is strongly oriented towards measurement (measurement-oriented education) has the potential to reduce the complexity of students because it assumes that all aspects of human development can be represented through numbers and standard indicators. Although quantitative assessment has an important function in ensuring the quality and accountability of education, its dominant use can shift the orientation of education from the process of creating meaning to merely achieving administrative targets. The dimensions of creativity, the ability to build social relationships, moral integrity, concern for the environment, and the capacity to face uncertainty are important aspects of human development that cannot always be measured through conventional instruments. In the context of 21st-century education, competence should be understood as a combination of knowledge, skills, values, and moral dispositions that enable individuals to participate meaningfully in a constantly changing society (Schleicher, 2023).

Criticism of the competency-based education paradigm is becoming increasingly relevant as education systems begin to rely heavily on evaluation technology, learning analytics, and data-driven predictive mechanisms. Biesta asserts that education cannot be entirely treated as a technical process that can be controlled and predicted through measurement instruments because it always involves interpersonal relationships, ethical considerations, and the process of individual identity formation. Thus, educational success is not only related to questions of "what someone can do," but also "why someone does something" and "to what humanitarian purpose the action is directed." Therefore, the reconstruction of the competency paradigm needs to place technical abilities in a broader relationship with wisdom, social responsibility, and the ability to make decisions based on moral considerations (Biesta, 2022; Selwyn, 2024).

3.2.4. Comparison of the Modern Educational Epistemology Paradigm and the Integrative Paradigm

A comparison between the modern-conventional educational epistemology paradigm and the integrative epistemology paradigm reveals a fundamental shift in understanding the nature of knowledge, the role of students, and the primary goals of education. The modern-conventional paradigm generally starts from the assumption that knowledge is objective information that can be discovered, classified, and transmitted through a structured learning process. Within this framework, students are often positioned as recipients of knowledge, while educational success is often measured through academic achievement, competency standards, and productivity. In contrast, the integrative paradigm views knowledge as a construct of meaning formed through experience, reflection, social interaction, and the context of human life. Education is not only directed at mastering technical competencies but also at developing individuals with critical thinking skills, moral character, and social responsibility. This paradigm shift demonstrates that contemporary education requires an approach that connects the cognitive dimension with ethical and humanistic dimensions (Biesta, 2022; Jandric et al., 2023).

In the paradigm of integrative epistemology, the relationship between knowledge and values is no longer understood as two separate areas, but rather as complementary elements in the educational process. Scientific rationality still plays a crucial role in producing valid knowledge, but its use needs to be guided by moral and humanitarian considerations. Therefore, the measure of educational success is not solely based on academic achievement or professional ability, but also includes emotional intelligence, integrity, the ability to collaborate, and an individual's social contribution. Reconstructing educational epistemology does not mean rejecting the modern paradigm in its entirety, but rather carrying out a critical synthesis that maintains the strength of scientific rationality while broadening the

orientation of education toward holistic human transformation. In the context of global change and the development of digital technology, an integrative approach is becoming increasingly important because humans need not only the ability to know (knowing), but also the ability to assess (judging) and act responsibly (acting responsibly) (Selwyn, 2024; UNESCO, 2023).

3.2.5. Synthesis and Reconstruction of the Holistic Educational Epistemology Model

Based on the results of a theoretical analysis of various perspectives on educational epistemology, this study offers a conceptual construct called the Integrative-Humanistic Epistemological Model as an alternative paradigm in understanding the goals and processes of contemporary education. This model starts from the assumption that education must be able to connect four main dimensions, namely the epistemic dimension (knowledge dimension), axiological (value dimension), humanistic (human dimension), and transformational (transformative dimension). In the epistemic dimension, knowledge is not understood as a fixed, mechanically transferable collection of facts, but rather as a dynamic process that develops through research, dialogue, experience, and critical reflection. The axiological dimension provides moral direction for the use of knowledge through ethical values, justice, social responsibility, and ecological concern. The integration of these two dimensions demonstrates that knowledge requires a value orientation to contribute to improving the quality of human life (Biesta, 2022; Jandric et al., 2023).

The Integrative-Humanistic Epistemology Model further positions humans as the center and primary goal of education through humanistic and transformational dimensions. In this perspective, students are viewed not only as individuals who need to possess academic competence, but as multidimensional human beings who develop through the integration of intellectual, emotional, social, moral, and spiritual aspects. Education ideally moves through a continuous process of knowing (knowing), understand (understanding), consider ethically (judging), to realize responsible actions (acting responsibly). The transformational dimension emphasizes that the ultimate goal of education is not simply to produce individuals capable of adapting to global change, but rather to produce people with the capacity to create positive change for society. Thus, the epistemological path of education moves from scientific knowledge to critical reflection, value integration, the formation of human consciousness, and the actualization of actions oriented toward the common good (Nussbaum, 2020).

3.2.6. Implications of Epistemological Reconstruction for Educational Practice

The reconstruction of educational epistemology has fundamental implications for the design and implementation of educational practices, particularly in curriculum development, which is no longer solely oriented toward mastering academic content but also toward developing reflective, ethical, and contextual thinking skills. An integrative paradigm curriculum needs to be designed as an epistemic space that enables students to understand the relationship between science, human values, the social environment, and global challenges. Interdisciplinary approaches are becoming increasingly important because contemporary issues such as climate change, technological transformation, and social inequality cannot be resolved through a single scientific perspective. Therefore, education needs to develop the ability to connect various fields of knowledge so that students not only understand facts but also are able to analyze the complexities of reality and make decisions based on scientific and moral considerations (UNESCO, 2023; Jandric et al., 2023).

At the pedagogical level, epistemological reconstruction demands a change in the role of educators from merely conveying information (knowledge transmitter) become a facilitator of meaning formation (meaning facilitator) which helps students develop understanding through dialogue, experience, and critical reflection. Learning models that fit this paradigm include problem-based learning (problem-based learning), project-based learning (project-based learning), social collaboration, and reflection on experiences as a means of building epistemic awareness. In this approach, students are no longer positioned as passive recipients, but as active subjects constructing knowledge through interactions with their environment and community. Teachers play a role in creating learning spaces that foster curiosity, critical thinking skills, social empathy, and moral responsibility. Thus, the educational process becomes a transformational experience that shapes both intellectual capacity and human character (Biesta, 2022; Kuhn et al., 2023).

The implications of epistemological reconstruction also include a paradigm shift in educational policy and evaluation. The modern education system, which has historically emphasized measuring

cognitive achievement through standardized tests, needs to be expanded with indicators that more comprehensively depict human development. Educational evaluation should not only measure academic ability but also consider critical thinking, creativity, collaboration, integrity, social literacy, and responsibility towards society and the environment. In a global context marked by the development of artificial intelligence, climate change, and social complexity, education requires individuals who are not only able to adapt to change but also possess the wisdom to direct that change toward humanitarian goals. Therefore, the epistemological reconstruction of education is not merely a renewal of learning methods, but also a fundamental shift in the purpose of education itself, namely to shape individuals who are able to understand the world, create solutions, and act responsibly (Selwyn, 2024).

4. CONCLUSION

This study demonstrates that contemporary educational epistemology faces a fundamental problem in the form of a fragmentation between scientific knowledge and human values. The dominance of instrumental and positivistic paradigms has contributed significantly to the development of science, but at the same time has the potential to narrow the meaning of education when knowledge is only understood as a tool for increasing technical competence and economic productivity. The results of the study indicate that education cannot be separated from epistemological issues concerning how humans acquire knowledge, how that knowledge is given meaning, and how its use is directed towards the sustainability of human life. Therefore, a reconstruction of educational epistemology is needed to overcome the dichotomy between scientific rationality and value considerations through a more integrative approach.

The novelty of this research lies in the formulation of the Integrative-Humanistic Epistemological Model, which views knowledge and values as two interrelated dimensions in the educational process. Unlike approaches that place values merely as additional aspects in the curriculum or character education, this model places values as a fundamental part of the epistemological structure of education itself. In this model, the educational process occurs through a dynamic relationship between scientific knowledge, critical reflection, value orientation, human experience, and transformative action. This reconstruction emphasizes that the human being who is the goal of education is not merely an individual with intellectual abilities, but a holistic human being capable of critical thinking, ethical behavior, social awareness, and responsibility for their environment.

The global contribution of this research lies in strengthening the 21st-century educational paradigm, which places humanization as the primary orientation of scientific development. Facing global complexities such as the development of artificial intelligence, ecological crises, social change, and future uncertainty, education requires a paradigm capable of connecting intelligence with wisdom. Reconstructing educational epistemology through the integration of knowledge and values provides a theoretical foundation for the development of a more sustainable curriculum, pedagogy, and educational policy. Thus, education functions not only as a mechanism for the reproduction of knowledge, but as a space for the formation of human beings capable of understanding the world in depth and contributing to creating a more humane life.

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