World Journal of Advanced Engineering Technology and Sciences
eISSN: 2582-8266
Cross Ref DOI: 10.30574/wjaets
Journal homepage: https://wjaets.com/

(RESEARCH ARTICLE)

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Beyond the Positivist Paradigm in Higher Education: Towards an Integrative Epistemology of Science and Meaning

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World Journal of Advanced Engineering Technology and Sciences, 2026, 18(03), 154-168

Publication history: Received on 29 January 2026; revised on 06 March 2026; accepted on 06 March 2026

Article DOI: https://doi.org/10.30574/wjaets.2026.18.3.0145

Abstract

This article examines the epistemological boundaries created by the absolutization of scientific positivism in modern education systems from both the Islamic intellectual tradition and a universal education perspective. According to the 2024-2025 UNESCO reports, only 18% of Sustainable Development Goal 4 (SDG 4) is on track to be achieved, and the global education system is facing a profound learning crisis. This crisis stems not only from access and resource problems but also from the neglect of the meaning and purpose dimensions of education. The study demonstrates how scientism constrains universal education systems through the concepts of "shroud of thought" and "epistemological matrix," and proposes a concrete pedagogical approach within the framework of the **A+B (Wisdom)** formulation that combines scientific data (A) with metaphysical meaning (B). The Tawhidic Epistemology Congress organized at IIUM in 2025, the Maarif Model implemented in Turkey in 2024-2025, the holistic approach in UNESCO's 2030 Education Agenda, and OECD's calls for value-based education are initiatives from different cultural contexts that point to a common problem: the necessity of addressing not only the cognitive and economic but also the spiritual, ethical, and existential dimensions of education. Methodologically, the study employs qualitative conceptual analysis and meta-synthesis methods; selected sources have undergone systematic filtering and thematic analysis.

Keywords: Tawhid; Scientific Positivism; Global Education Crisis; Fragmentation of Knowledge; Holistic Education; Epistemological Emancipation; UNESCO SDG 4; Maarif Model; Tawhidic Epistemology; Wisdom Pedagogy; Epistemological Hijrah; Digital Contemplation; Epistemological Dialogue

1. Introduction: The Shroud of Thought and Epistemological Matrix

Modern societies have become imprisoned within an epistemological 'matrix' as a result of the absolutization of scientific positivism. This matrix presents the observable and measurable as the entirety of reality while excluding metaphysical dimensions, the search for meaning, and existential questions as 'unscientific.' This situation constitutes what can be termed in Islamic thought as an epistemological limitation—a 'shroud of thought.'

The fundamental declaration of Islam, 'La ilaha illallah' (There is no deity but God), is not merely a theological statement but also a call for epistemological emancipation. This declaration requires the mind to migrate from the narrow matrix of creation to the infinite truth of the Creator, to seek knowledge not only in the material realm but also in the metaphysical dimension. This article examines the limits of scientific positivism from both the Islamic intellectual tradition and universal education perspectives, proposing an educational paradigm that unites science (A) with meaning (B).

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Method and Scope

This study is a qualitative conceptual analysis and meta-synthesis work. In the research, fundamental texts in the philosophy of education literature, international education reports from the 2024-2026 period (UNESCO, OECD, World Bank), and contemporary academic articles have been examined through a hermeneutic approach. Educational models from different geographies (Malaysia, Turkey, the Western world) have been comparatively analyzed along the axes of "purpose" and "conception of knowledge." The study aims not only to diagnose the problem but also to develop an applicable lesson model through the "A+B Formulation."

1.1. Methodological Details

The literature review was conducted over fundamental texts in the fields of educational epistemology and positivism critique. Academic publications, books, and international reports in English, Turkish, and Arabic were examined. **This study is a theoretical analysis and conceptual examination rather than a systematic literature review.** Concepts were coded using thematic analysis methods, and the emerging themes were synthesized under the headings of "epistemological boundaries," "holistic education," "values integration," and "practical pedagogy."

2. Scientific Positivism and Epistemological Limits

2.1. Historical Development of Positivism

Auguste Comte's positivism, developed in the 19th century, argued that knowledge must be based solely on observable phenomena. The logical positivism of the Vienna Circle radicalized this approach further by putting forth the verifiability principle: Every unverifiable statement is meaningless. However, this approach, by pushing fields such as metaphysics, ethics, and aesthetics outside the domain of knowledge, labeled important dimensions of human experience as 'non-scientific.'

2.1.1. Conceptual Clarification: Science ≠ Scientism

Clarifying what is being criticized in this study is a methodological necessity. The following table presents the critical distinction between science and scientism:

Table 1 Conceptual Distinction Between Science and Scientism

Concept	Definition	Epistemological Status	Position in This Study
Science	A method of explaining natural phenomena through systematic observation, experiment, and reasoning	Method (Epistemic tool)	Supported and preserved
Scientism	The claim that the scientific method is the only valid source of knowledge and can answer all questions	Ideology (Ontological claim)	Criticized
Positivism	The view that knowledge consists only of propositions based on empirical verification	Philosophical school	Limits demonstrated
Methodological Naturalism	The principle of not resorting to supernatural explanations in scientific research	Methodological preference	Considered legitimate

2.1.2. Critical Distinction

This study does not reject the methodological success of science; rather, it questions the ontological claims of scientism. In other words, what is criticized is not the answers science gives to the "how" question, but the assumption that it also answers the "why" and "what does it mean" questions. This distinction is maintained throughout the article.

2.2. Limits of the Scientific Method

Thomas Kuhn's work 'The Structure of Scientific Revolutions' (1962) demonstrated that science progresses through paradigm shifts and that scientific knowledge is far from absolute objectivity. Paul Feyerabend's 'Against Method' (1975) proposed epistemological anarchism, arguing that there is no single scientific method. Michael Polanyi's concept

of 'tacit knowledge' emphasized the importance of the inexplicable, experience-based dimension of knowledge. These developments have opened positivism's absolute claims to questioning (Kuhn, 1962; Feyerabend, 1975; Polanyi, 1958).

2.3. The Sacred and Profane Dichotomy

As Mircea Eliade stated in his work 'The Sacred and the Profane' (1959), modern science has completely separated the sacred from the profane realm and has 'disenchanted' the world. This separation, by excluding the spiritual and transcendent dimension of knowledge, attempts to understand humanity only within a materialist framework (Eliade, 1959).

2.4. Counter-View: Functional Achievements and Defenses of Scientific Positivism

At this point, an important distinction must be made. The methodological naturalism of scientific positivism has undeniable success in **functional** processes (flying airplanes, developing vaccines, building bridges). Our criticism is not of science's technical success but of its claim to answer **existential** questions. While science gives excellent answers to the "how" question, it remains silent in the face of the "why" question. The problem is when science ceases to be a "tool" and becomes an "ideology" (scientism) that is the sole explainer of life. The A+B model does not reject A's (science's) functional power; rather, it complements it with B (meaning).

Note: Strong proponents of scientific positivism (such as Steven Pinker, Richard Dawkins) emphasize the central role of science in humanity's progress and question the necessity of the metaphysical dimension. This article does not reject these views but argues that education cannot be limited to this paradigm alone.

3. Epistemology: Islam's Knowledge Paradigm

3.1. Tawhidic Epistemology: The 2025 Congress and Current Developments

The Tawhidic Epistemology Congress organized at International Islamic University Malaysia (IIUM) in September 2025 was a turning point for 21st-century applications of Islam's knowledge paradigm. The congress, with 69 papers and participants from 11 different departments, discussed the transition of tawhidic epistemology from theory to practice. Osman Bakar's opening speech was titled 'Tawhidic Epistemology as the Catalyst for the Integration of Knowledge in the 21st Century' and put forth the following fundamental thesis: All knowledge originates from God and unites in the unity of God (Bakar, 2025). According to Marazi's (2025) congress evaluation, this event was the strongest indicator of institutional commitment from theory to practice. Hasan (2025) emphasized that tawhidic epistemology is necessary to resolve the intellectual crisis (the duality of religious and secular knowledge) experienced by students.

3.2. Knowledge Theory in Islamic Thought

In Imam al-Ghazali's work 'al-Munqidh min al-Dalal' (Deliverance from Error), he defines three levels of knowledge: Ilm al-yaqin (certainty of knowledge), Ayn al-yaqin (certainty of seeing), and Haqq al-yaqin (knowing the truth itself). The highest level of knowledge, Haqq al-yaqin, can be attained not merely through rational inference but through the participation of the heart and spirit (al-Ghazali, 2017). Ibn Taymiyyah, in his work dealing with the principles of Sufism, also emphasized that spiritual knowledge is based on the harmony of reason and heart, and that this harmony is the key to attaining true knowledge (Ibn Taymiyyah, 2015). Syed Muhammad Naquib Al-Attas, in his work 'Islam and Secularism' (1993), states that modern secularism has separated knowledge from the sacred and that this 'secular dualism' is the greatest epistemological problem of Muslim societies. According to Al-Attas, in Islam, knowledge is always related to revelation and therefore cannot be value-free (Al-Attas, 1993). Wan Daud's (1998) comprehensive study examines Al-Attas's educational philosophy and practice in detail, revealing the central importance of his concept of 'ta'dib' (education/discipline) in modern Islamic education (Wan Daud, 1998). Seyyed Hossein Nasr, in his book 'Knowledge and the Sacred' (1981), argues that modern science's separation from the sacred has led to a crisis in the relationship between human beings and nature. According to Nasr, traditional Islamic science, by viewing nature as the signs of God, transformed scientific research into a spiritual act of worship (Nasr, 1981, 2006).

3.3. Islamic Conceptual Framework for K-12 Education: 2024 Developments

Abdullah and Tan's (2024) study published in Educational Philosophy and Theory proposes an Islamic conceptual framework for K-12 education. This framework centers the tawhidic worldview and emphasizes ontological and epistemological holism. The authors state that qalb-centered (heart-centered) knowledge must include not only rational but also spiritual dimensions (Abdullah and Tan, 2024).

3.4. The Intersection of Neuroscience and Spirituality

Current neuroscience research reveals that spiritual experiences and moral development are directly related to brain functions. Lisa Miller's (2021) study "The Awakened Brain" demonstrates that spirituality is a protective factor against depression and anxiety and regulates prefrontal cortex activity. Andrew Newberg's (2018) neurotheology research documents how contemplation and prayer change brain waves and connectivity. These findings show that the A+B model has not only a philosophical but also a neuroscientific foundation; supporting the notion that integrating the spiritual dimension into education is essential for cognitive and emotional health as well (Miller, 2021; Newberg, 2018).

4. Fragmentation of Knowledge vs. Unity of Knowledge (Tawhid)

4.1. The Specialization Problem of Modern Science

Modern academia has encouraged specialization by dividing knowledge into increasingly narrow disciplines. Fields such as physics, chemistry, biology, sociology, and psychology have developed as disconnected 'silos,' and interdisciplinary dialogue has weakened. More importantly, all these disciplines have considered producing 'value-free' knowledge as the ideal by excluding metaphysical and ethical dimensions. This fragmentation, as Habermas (1972) noted, has led to the reduction of knowledge to the purpose of 'technical control.' Knowledge is now seen not as wisdom but merely as an instrument of power (Habermas, 1972).

4.2. Post-Positivism and Critical Realism: 2025 Systematic Review

Fodouop Kouam's (2025) systematic literature review published in the International Journal of Changes in Education evaluated the role of post-positivism and critical realism in educational research. The study showed the limits of both positivism and post-positivism and revealed that critical realism provides a deeper understanding of causal mechanisms. However, Fodouop Kouam implies that even critical realism cannot provide the metaphysical dimension offered by tawhidic epistemology (Fodouop Kouam, 2025).

4.3. Fragmentation of Knowledge and Tawhid: 2025 Analysis

The analysis published by the International Qur'an Research Association (IQRA) in 2025 argues that the fragmentation of knowledge is a direct consequence of the Western Enlightenment. The Enlightenment used secularism to question religious authority, but this process completely severed knowledge from the sacred. IQRA states that the Islamic epistemological framework offers a solution to this problem by reuniting knowledge in the unity of God (IQRA, 2025).

5. Türkiye Century Maarif Model

5.1. Basic Principles of TYMM

The Türkiye Century Maarif Model (TYMM) is a comprehensive educational reform that began implementation in the 2024-2025 academic year. The model is built upon four fundamental integrities: (1) Ontological Integrity - emphasizes the unity of soul and body in humans. (2) Epistemological Integrity - combines the material and spiritual dimensions of knowledge. (3) Temporal Integrity - connects past, present, and future. (4) Axiological Maturity - aims at the internalization of values (MEB, 2024a, 2024b).

5.2. Türkiye Century Maarif Model: 2024-2025 Implementations

According to the official documents of the Ministry of National Education (MEB, 2024a, 2024b), the implementation of TYMM began in the 2024-2025 academic year. The model adopts the 'Virtue-Value-Action' framework and foregrounds values such as 'justice, respect, responsibility.' This is a pedagogical manifestation of the A+B formulation: A (competencies) + B (virtues) = Holistic Education. TYMM, by harmonizing Islamic civilization's wisdom tradition with modern pedagogical approaches, proposes an education system that not only transfers knowledge but also develops character (MEB, 2024a, 2024b).

5.3. Hermeneutic Analysis of the Maarif Model: 2025 Assessment

The study by Akpınar and colleagues (2024) published in EKEV Academic Journal analyzed the philosophical foundations of TYMM from a hermeneutic perspective. Using Gadamer's concept of 'fusion of horizons,' the authors demonstrated that TYMM combines past wisdom with contemporary educational science (Akpınar et al., 2024).

6. A+B Formulation: Science + Meaning = Wisdom

6.1. Theoretical Foundation of the A+B Model

At the center of this article lies the following formulation: A (Science/Instrument) + B (Meaning/Metaphysics) = Wisdom/Maarif. Here, A represents scientific data and observable phenomena—the 'alphabet' of the universe. B represents metaphysical meaning, values, and purpose—understanding the 'author' and 'purpose' of the universe. The A+B synthesis signifies wisdom (hikmah) or Maarif—the synthesis of science and meaning, epistemological emancipation. Education that remains only with A imprisons science within a materialist matrix. Without B, A is merely an instrument but meaningless. The A+B synthesis positions science as a way of understanding God's signs. This formulation also shares common ground with what is known in international literature as 'integrated science education.' Drake and Burns's (2004) works on interdisciplinary curriculum integration and Beane's (1997) theory of 'curriculum integration' have offered holistic approaches against the fragmentation of knowledge. Similarly, the STS (Science-Technology-Society) education movement advocates teaching science together with its social and ethical dimensions (Aikenhead, 2006). The A+B model deepens and completes these secular integration approaches with the dimension of metaphysics and values.

6.2. Inclusive Tawhid and Islamic Education Epistemology: 2025 Approach

Gaffar and Akhtar's (2025) article published in FIKROTUNA journal proposes the concept of 'Inclusive Tawhid.' This approach advocates developing tawhidic epistemology not only for Muslims but as a universal knowledge paradigm open to interfaith dialogue (Gaffar and Akhtar, 2025).

6.3. Nursi's Mana-i Ismi vs. Mana-i Harfi Distinction

The distinction between 'mana-i ismi' (nominative meaning) and 'mana-i harfi' (indicative meaning) presented in Said Nursi's work 'Sözler' (The Words) explains the A+B formulation. Mana-i ismi is reading the universe for its own sake, for its own existence—this is A. Mana-i harfi is reading the universe as letters pointing to God—this is B. According to Nursi, true knowledge is through mana-i harfi; that is, every existence is a sign pointing to its Creator (Nursi, 2011).

6.4. Epistemological Hijrah: A Novel Concept Proposal

This article proposes **"Epistemological Hijrah" (Epistemic Hijrah)** as a novel concept to the literature. Hijrah, in Islamic tradition, symbolizes a transition from a narrow and oppressive environment to a liberating space, beyond a mere physical migration. Epistemological Hijrah can be defined as follows:

Definition: The process of liberating knowledge from the narrow framework of material reductionism and repositioning it with meaning and wisdom. This concept does not signify rejecting science but placing it within an ontological superstructure.

6.4.1. Epistemological Hijrah:

- Is NOT anti-science—it preserves the functional power of science
- Is NOT a mystical escape—it does not disconnect from empirical data
- IS repositioning—it positions science within the context of meaning

This concept expresses the dynamic dimension of the A+B formulation: not an escape from A (science), but the process of reaching H (wisdom) by encompassing A with B (meaning).

6.5. Comparative Analysis of the A+B Model

The following table compares the educational outcomes of different epistemological approaches:

Table 2 Comparative Analysis of Epistemological Approaches and Educational Outcomes

Model	Core Focus	Strengths	Weaknesses	Educational Outcome
A Only (Science)	Empirical data, measurability	Technical success, standardization	Meaning vacuum, value erosion	Knowledgeable but directionless individuals
B Only (Meaning)	Values, spirituality	Sense of meaning and purpose	Methodological weakness, verifiability issues	Well-intentioned but inadequately equipped individuals
A+B (Wisdom)	Synthesis of science and meaning	Both technical competence and meaning integrity	Requires pedagogical rigor	Competent, meaningful, and ethical individuals

This table shows that the A+B model neither excludes science nor meaning, but rather synthesizes both while keeping them in their legitimate domains.

6.6. A+B+D Model: Wisdom Integration in the Digital Age

In the 21st century where the digital revolution is transforming education, the A+B formulation needs to be expanded as **A+B+D (Digital)**. The D component encompasses digital literacy, artificial intelligence ethics, digital minimalism, and the concept of "digital contemplation." For example, how artificial intelligence works (A), its social impacts and moral responsibility (B), and the wise use of digital tools (D) should be addressed together. This model aims to raise students as individuals who not only consume technology but also produce it meaningfully and ethically.

7. Practical Applications and Pedagogical Model

This study goes beyond theoretical discussions to offer educators a concrete **"Wisdom-Based Lesson Processing Model."** The A+B formula can be applied in the classroom through the following cycle:

7.1. Example Lesson Processing Cycle (Water Cycle Topic)

Table 3 Wisdom-Based Lesson Processing Cycle for the Water Cycle Topic

Stage	Pedagogical Focus	Example Application
Observation (A)	Factual Data	Examination of water evaporation, condensation, precipitation regimes, and physical laws. (Standard Curriculum)
Questioning	Critical Thinking	Going beyond mechanical view with questions like "Why does water boil at 100 degrees?" "If there were no gravity, how would rain fall to the ground?"
Meaning-Making (B)	Teleological Context	The "fine-tuning" of the water cycle for the continuation of life. Contemplation of water being sent purposefully as "mercy" and "sustenance" (Mana-i Harfi).
Internalization (Wisdom)	Action and Values	"What is my responsibility in the face of this perfect order?" Not wasting water, respecting nature is an expression of "gratitude" and ethical responsibility.

7.2. Pedagogical Scenarios: "What Does a Teacher Who Adopts This Approach Do?"

To concretize the in-class application of the A+B model, two detailed scenarios are presented:

7.2.1. ***Scenario 1****: Cell Topic in Science Class (8th Grade)*

Traditional Approach (A Only): The teacher explains the structure of the cell, organelles, and their functions. Mitochondria produce ATP, ribosomes synthesize proteins. Exam question: "What is the function of mitochondria?"

A+B Approach

- **Stage 1 (A - Science):** The structure and functions of the cell are taught. The same scientific content is preserved.
- **Stage 2 (Bridge):** The question is asked: "A cell has 10 million ribosomes, 1000-2000 mitochondria. How is the coordination of these ensured?"
- **Stage 3 (B - Meaning):** "This magnificent coordination is more complex than a factory. So what does this order point to?" Students contemplate and share written thoughts.
- **Stage 4 (Wisdom):** "37 trillion cells in our body are constantly working. What might our responsibility be toward this blessing?" Concepts of healthy living and the body as a trust are discussed.

Assessment-Evaluation: Scientific exam questions are preserved + an open-ended evaluation asking "What did the cell structure make you think about?" is added.

7.2.2. ***Scenario 2****: Historical Events in Social Studies Class (6th Grade)*

Traditional Approach (A Only): The Conquest of Istanbul: date, commander, strategy, consequences. Exam question: "In what year did the conquest take place?"

A+B Approach

- **Stage 1 (A - Knowledge):** Historical facts, military strategy, technological innovations (siege cannons) are taught.
- **Stage 2 (Bridge):** The question is asked: "Why did Fatih not leave Hagia Sophia as a church after the conquest but preserved the Christians' freedom of worship?"
- **Stage 3 (B - Meaning):** The concepts of justice, tolerance, and civilization are discussed. "How should one behave when one has power?"
- **Stage 4 (Wisdom):** "How do we behave in areas where we have power today (friend groups, social media)?" Personal reflection.

Assessment-Evaluation: Factual questions + portfolio evaluation on "What can we carry from this event to today?"

7.2.3. ***Scenario 3:*** *Climate Change in Science/Geography Class (9th-10th Grade)—A Universal Approach*

This scenario demonstrates how the A+B model can be applied through universal ethical values without using religious terminology. It can be used in secular education systems or pluralistic classrooms. Traditional Approach (A Only): The greenhouse gas effect, carbon cycle, temperature changes are taught. A+B Approach: Stage 1 (A - Science): IPCC data, greenhouse gases, carbon footprint calculations. Stage 2 (Bridge): "Who experiences the effects of climate change the most? Why do some countries produce less carbon but suffer more damage?" Questioning of justice and equality. Stage 3 (B - Values): Intergenerational justice: "What kind of world are we leaving to future generations?" The relationship between humans and nature: "Is nature a resource for us, or a trust?" Stage 4 (Wisdom - Action): Students calculate their personal carbon footprints and create a "sustainable living commitment." Assessment-Evaluation: Scientific exam + an argumentation essay on "Our ethical responsibilities in the face of climate change." This scenario demonstrates that the A+B model can be applied through universal ethical principles (justice, intergenerational responsibility, global solidarity) without any religious references.

Key Principles for Teachers

- Never reduce or alter scientific/factual content
- Be inquisitive, not dogmatic, in the meaning-making stage
- Help discover values, don't impose them
- Focus on universal ethical values in pluralistic classrooms

7.2.4. A+B Integration in Educational Curriculum

- **Physics Class Example:** When teaching quantum mechanics (A - scientific data), it can be discussed that the non-deterministic nature of the universe and the uncertainty principle point to God's absolute will (B - metaphysical meaning). This approach transforms science into a journey of wisdom rather than leading it toward atheism.

- **Biology Class Example:** Evolution theory or biological adaptations (A - scientific explanation) can be addressed together with the wisdom of creation (B - teleological perspective). This enables students to grasp both scientific mechanisms and the deep meaning of existence.

7.3. The Impact of Positivism on Education: 2024-2025 Debates

Positivist education systems, while labeling values as 'subjective' and excluding them, have sanctified scientific data as 'objective.' This has led to loss of meaning, erosion of values, and nihilistic tendencies among students. The 2024-2025 debates show that this problem has been recognized on a global scale.

7.4. Digital Contemplation and Classroom Application of the A+B+D Model

In the digital age, the time students spend in front of screens is increasing. The "digital contemplation" approach includes not only the instrumental dimension of technology (A) but also its effects on human relationships, attention spans, and spirituality (B), as well as skills for producing meaningful content in digital environments (D). For example, the operation of social media algorithms (A), the risks of ethical manipulation (B), and digital detox practices (D) can be discussed together.

8. Critical Evaluation

8.1. Strengths of Tawhidic Epistemology

Tawhidic epistemology offers a holistic perspective by rescuing knowledge from fragmentation. Science and meaning, reason and heart, matter and spirit unite. This approach provides epistemological emancipation: the mind migrates from the narrow matrix of creation to the infinite truth of the Creator. Furthermore, tawhidic epistemology places values at the center of knowledge. This relates education not only to the question 'what do I know' but also to 'how do I live.'

8.2. Potential Challenges and Applicability in Secular Contexts

The application of tawhidic epistemology in secular education systems may involve challenges due to sensitivities regarding the separation of religion and state. However, this challenge can be overcome with a universal version of the A+B model (science + values/cosmic purpose). The "Inclusive Tawhid" approach can be applied in secular classrooms through "holistic perspective" and "universal ethics" without using religious terminology. For example, "Philosophy and Civilization" courses within the framework of the "laïcité" principle in France or the "moral education" programs in Japan present values education on a non-religious basis. Additionally, how to balance scientific methodology with metaphysical insights requires pedagogically rigorous work; without falling into the trap of "pseudoscience," science must be given its due (A), and meaning should be built upon it (B). This is also a challenge emphasized in Forbes and Martin's (2004) studies on holistic education (Forbes and Martin, 2004).

Western critical pedagogy traditions (Ivan Illich, bell hooks, Henry Giroux) have also criticized the alienation created by positivism in education and emphasized the centrality of meaning. Dialogue with these traditions will strengthen the universality of the A+B model.

8.3. Dialogue with Classical Education Thinkers: Searching for Common Ground

To test the universality of the A+B model, a comparative dialogue with pioneering figures of Western educational philosophy is necessary. This dialogue seeks a common pedagogical ground by transcending the "us and them" dichotomy:

8.3.1. John Dewey (1859-1952) and the Experience-Meaning Connection

Dewey's pragmatist educational philosophy, rejecting the abstract transmission of knowledge, advocated the principle of "learning by doing." According to Dewey, education is not a preparation detached from life but life itself. This view intersects with the A+B model at the following point: Both reject the notion that knowledge should be a meaningless accumulation. However, the critical difference is this: While Dewey's pragmatism finds meaning in "functionality," tawhidic epistemology positions meaning in "transcendent reference" (the B component). Nevertheless, Dewey's concept of "reflective thinking" bears structural similarity to the "contemplation" stage of the A+B model (Dewey, 1916).

8.3.2. Paulo Freire (1921-1997) and Humanizing Education

The "banking education" model that Freire criticized in his "Pedagogy of the Oppressed" (2000)—the system where the teacher "deposits" knowledge into passive students—is precisely the reductionist approach that this article criticizes. Freire's concept of "conscientização" (consciousness-raising) emphasizes the liberating potential of education. This presents a parallel vision of emancipation with the concept of "epistemological hijrah." Freire's dialogical pedagogy is compatible with the "questioning" stage of the A+B model: knowledge is not transmitted one-way but constructed together. However, Freire's materialist Marxist framework does not include the metaphysical dimension (B) of tawhidic epistemology. This constitutes the limit of the dialogue (Freire, 2000).

8.3.3. Lev Vygotsky (1896-1934) and the Social Construction of Meaning

Vygotsky's sociocultural theory argues that knowledge is constructed socially, not individually. His concept of the "zone of proximal development" shows that learning occurs through guided interaction. This view bears structural similarity to the concept of "murabbi" (guide) in Islamic educational tradition: knowledge is transmitted within social context and in a mentoring relationship. Vygotsky's concept of "internalization" also overlaps with the "internalization/wisdom" stage of the A+B model (Vygotsky, 1978).

8.3.4. The Result of Dialogue

This comparison shows that the A+B model is not entirely foreign to Western educational thought but shares common concerns. The fundamental difference lies in the content of the B component: Tawhidic epistemology fills this component with metaphysical/revelation references, while secular traditions fill it with social, functional, or political content. However, both traditions agree on the inadequacy of the "A only" (knowledge transmission) model.

9. Meaning Crisis in Universal Education: A Global Perspective

9.1. Global Education Crisis and Fragmentation of Knowledge (2024-2025)

As of 2024, global education governance is entering a multipolar phase and striking data is emerging. UNESCO's (2024b) analysis titled "Fragmenting Consensus: The Multipolar Turn in Global Education Governance" reveals the epistemological dimensions of this transformation. According to UNESCO's 2024-2025 reports, the global out-of-school population has decreased by only 1% in the last 10 years, revealing the profound inadequacy of existing international cooperation mechanisms (UNESCO, 2024a). Even more concerning is that only 18% of the Sustainable Development Goals (SDGs) are on track to be achieved by 2030, with SDG 4 (quality education) falling particularly far behind (UN Statistics Division, 2024). According to UNESCO and the World Bank's 2024 joint report, there is an annual financing gap of 97 billion dollars for low and lower-middle income countries to achieve SDG 4 targets by 2030 (UNESCO and World Bank, 2024).

This represents 21% of total required costs. However, the problem is not only economic; the fundamental question is what education serves. Elfert and Ydesen (2024) emphasize that the question "whose knowledge?" is central to global education governance. Against Western-centered epistemological hegemony, China's establishment of cooperation centers for science-technology, higher education, and vocational training under the Shanghai Cooperation Organisation, and BRICS countries' development of alternative educational frameworks show that the fragmentation of knowledge is experienced not only across disciplines but also across geographies (Elfert and Ydesen, 2024).

9.2. Learning Crisis: Access to School Does Not Mean Learning

The "learning crisis" defined by the World Bank refers to the reality of weak learning outcomes despite increased access to school. More than half of 5th grade students in India have not achieved 2nd grade reading and writing levels. 53% of 10-year-old children in Nigeria are illiterate (World Bank, 2017). In Indonesia, according to the 2018 PISA results, fewer than one-third of students could answer mathematical questions at level 2 or above. Pritchett's (2013) pioneering study "The Rebirth of Education: Schooling Ain't Learning" questions the fundamental causes of this crisis. The learning crisis supports the main thesis of this article: Education systems have focused on 'what is taught' but neglected the questions of 'why it is learned' and 'what the purpose of learning is.' This is an epistemological reductionism, reducing education to mere knowledge transfer (Pritchett, 2013).

9.3. UNESCO's Holistic Education Vision and SDG 4.7

UNESCO's 2030 Education Agenda's SDG 4.7 target offers a vision that aligns with the holistic approach advocated in this article: 'By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable

development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity' (UNESCO, 2015). This goal emphasizes that education must include not only cognitive but also values, attitudes, and global responsibility dimensions. The study by Öztemur and colleagues (2024) examining UNESCO's 2030 agenda emphasizes that the education ecosystem must be "not only inclusive and equitable but also deeply interwoven with the principles of sustainable development, human rights, gender equality, peace, a culture of non-violence, global citizenship and appreciation of cultural diversity" (Öztemur et al., 2024, pp. 167-179). The 2024 Fortaleza Declaration, adopted with the participation of more than 50 Ministers, emphasized that inclusion, equity, and sustainable financing are the most important priorities for the remainder of the 2030 Agenda (UNESCO, 2024a). However, to achieve these goals, the epistemological foundations of education need to be reconsidered.

9.4. The Holistic Education Movement and the Spiritual Dimension

Holistic education emerged as a recognized field of study and practice in North America in the mid-1980s. In 1989, eighty educational representatives signed the Chicago Declaration, and a year later "Education 2000: A Holistic Perspective" was published, presenting ten principles for holistic education that fundamentally contradict the dominant reductionist paradigm (Mahmoudi et al., 2012). Holistic education is based on the idea of human wholeness and is defined as education that harmoniously integrates all aspects of a person's learning (intellectual, emotional, physical, social, aesthetic, and spiritual) (Forbes and Martin, 2004; Miller et al., 2019). Importantly, Miller (2007) distinguishes between "holistic" and "wholistic" education: Holistic education "includes the spiritual dimension" and does not focus only on biological and psychological aspects (Miller, 2007, p. 6). Marchuk and colleagues' (2024) study notes that holistic education emphasizes the unity of intellectual and emotional domains. Another contemporary study emphasizes that "spiritual and moral development" is an important element of holistic education, which does not necessarily mean religious instruction but focuses on helping students find purpose and meaning in their lives (Marchuk et al., 2024). Pong (2015) argues that emphasis should be placed on developing students' spirituality and inner lives, which will help them connect with their inner selves. This approach supports the main thesis of the article: Education must encompass not only the external world (A - science) but also the internal world (B - meaning) (Pong, 2015).

9.5. Cross-Cultural Projections of the Idea of Ontological Unity: A Philosophical Bridge from Tawhid to Ubuntu

To reveal the universal dimension of the "tawhid" concept at the center of this article, a systematic comparison with similar ontological conceptions in different cultures is necessary. This comparison is essential to prevent the criticism that the Islamic concept is "presented as if it were universal" and to establish a genuine intercultural dialogue ground.

9.5.1. Tawhid (Islam)

The unity of existence, all knowledge originating from God and uniting in the unity of God. Epistemological consequence: Knowledge cannot be fragmented because its source is one.

9.5.2. Ubuntu (Africa)

"Umuntu ngumuntu ngabantu" - "I am human because we are." The relationality of existence, an ontology where the individual cannot be separated from the community. Epistemological consequence: Knowledge is not individual but collective and relational.

9.5.3. Sumak Kawsay (Andean Cultures)

"Good living" - The harmony of humans with nature, community, and themselves. Humans as part of the cosmic order (Pacha). Epistemological consequence: Knowledge cannot be separated from cosmic harmony.

9.5.4. Tao (China)

Universal way/principle, the unity of opposites (yin-yang), harmony with nature. Epistemological consequence: Knowledge must be in harmony with the natural order.

Common Pattern - The Principle of Ontological Wholeness: All these traditions, despite using different terminology, share a common ontological proposition: **Existence is an indivisible whole, and knowledge cannot be separated from this wholeness.** This is the antithesis of Cartesian dualism (mind/body, subject/object, human/nature distinctions) in modern Western thought.

Table 4 Cross-Cultural Comparison of Ontological Unity Concepts

Tradition	Core Concept	Unity Principle	Understanding of Knowledge
Islam	Tawhid	Unity of God	Revelation-reason integrity
Africa	Ubuntu	Relational being	Collective wisdom
Andean	Sumak Kawsay	Cosmic harmony	Knowledge with nature
China	Tao	Unity of opposites	Balanced knowledge

9.5.5. Methodological Note

This comparison does not claim that these traditions are "the same." Each has its own unique historical, theological, and cultural context. However, all of them offer an alternative ontological framework to positivist fragmentation. The A+B model translates the common concern of these diverse traditions (the meaning integrity of knowledge) into a universal pedagogical language.

9.6. Global Citizenship Education: The Universality of Values

Global Citizenship Education (GCE) was officially introduced by UNESCO in 2011, but its core values are deeply rooted in traditional philosophies such as Ubuntu from Africa and Sumak Kawsay from Quechua culture (UNESCO, 2024c). Ubuntu means "I am because we are" and emphasizes the interconnectedness of humanity, collective responsibility, empathy, and mutual respect (Waghid and Hungwe, 2023). Similarly, Sumak Kawsay, meaning "good living," emphasizes harmony within communities, with nature, and with oneself (Walsh, 2010). These philosophies reflect long-standing cultural aspirations for peace, understanding, and respect that GCE aims to foster on a global scale. In 2024, the OECD blog, in an article titled "Reimagining Citizenship," argued that the traditional concept of national citizenship is inadequate in the face of globalization, the digital revolution, and climate change, and needs to be redefined as "planetary belonging" (OECD, 2024). The "Framework for Active Global Citizenship" developed by AFS Intercultural Programs in 2024, in line with UNESCO and OECD's global education goals, aims for educational institutions to integrate intercultural and global learning into their curricula, encourage experiential learning through exchange programs, and promote civic participation (AFS, 2024). This approach parallels the A+B formulation advocated in this article: A (academic knowledge) + B (global values and responsibility) = Transformative Education.

9.7. OECD Learning Compass 2030 and Value-Based Education

OECD's "Future of Education and Skills 2030" project, launched in 2015 (Education 2030, transitioning to 2040), aims to help countries adapt their education systems by taking into account 21st century competencies (knowledge, skills, attitudes, and values). The OECD Learning Compass 2030 was co-created to represent the competencies considered important for students to succeed in the future (OECD, 2024). OECD's 2021 report "Embedding Values and Attitudes in Curriculum: Shaping a Better Future" provides guidance on how values can be embedded in education (OECD, 2021). According to Bernotaite and Karseth's (2024) analysis, this report transforms values from a global societal issue to an issue defined within OECD's Learning Compass 2030 framework. This also carries the risk of standardization of values (Bernotaite and Karseth, 2024). However, the critical point is this: OECD's emphasis on values legitimizes this article's B component (meaning/values). Education is now about not only cognitive skills (A) but also values, attitudes, and character development (B). This is an epistemological expansion and an effort to transcend the limits of positivism.

9.8. Epistemological Diversity in a Multipolar World

In 2025, global higher education has entered an era of geopolitical realignment. UNESCO's (2024c) report "UNESCO in Action: Education Highlights in 2024" documents the global diversity of educational initiatives during this period. Marginson (2024) notes that Western dominance is giving way to a network of distributed academic centers, which is redefining student mobility, research collaboration, and the global academic landscape. In what Xu (2025) calls "policy mutations," national systems selectively import, recombine, and indigenize foreign templates rather than copying them wholesale (Marginson, 2024; Xu, 2025). This multipolar era shows that epistemologically monistic approaches (a single correct epistemology) are unsustainable. Different cultures are developing different knowledge paradigms, and all have a legitimate place. Islam's tawhidic epistemology, China's Confucian educational philosophy, Africa's Ubuntu paradigm, and the West's liberal-pragmatist approach are different but equally valuable epistemological frameworks. The future of global education governance depends on the capacity to recognize this diversity and learn from each.

10. Comparative Synthesis: Universal Problem, Diverse Solutions

10.1. Common Diagnosis: Fragmentation of Knowledge and Loss of Meaning

Educational reform initiatives from different cultural and geographical contexts point to a common problem: Modern education systems have fragmented knowledge and separated it from meaning. This diagnosis is seen in the following sources:

- **Islamic Thought:** Al-Attas (1993) speaks of "secular dualism," Nasr (1981) of modern science's "separation from the sacred," IQRA (2025) of "fragmentation of knowledge."
- **UNESCO:** Emphasizes "holistic" education in SDG 4.7 and states that knowledge must be integrated with sustainable development, values, and global citizenship.
- **Holistic Education Movement:** Miller (2007) advocates education that includes the "spiritual dimension" against positivism's "reductionist paradigm."
- **Critical Pedagogy:** Freire (2000) criticizes "banking education"; emphasizes that education should not merely store knowledge but create meaning.
- **OECD:** Emphasizes the importance of values, attitudes, and student agency in Learning Compass 2030, acknowledging that cognitive skills alone are not sufficient.

10.2. Comparative Framework: Holistic Education Initiatives

The following table compares the similar responses different cultures have given to the same epistemological crisis through the A+B formula:

Table 5 Comparative Framework of Holistic Education Initiatives Across Cultures

Initiative	Geography/Context	Core Emphasis	A+B Formula Equivalent
Tawhidic Epistemology	Islamic World	"Unity of knowledge in God's unity"	A: Science + B: Revelation/Tawhid
Türkiye Century Maarif Model	Türkiye	"Ontological-epistemological integrity, national-spiritual values"	A: Competence + B: Virtue
UNESCO SDG 4.7	Global	"Sustainability, values, global citizenship"	A: Knowledge + B: Values/Sustainability
Holistic Education Movement	North America, Global	"Spiritual dimension, whole child development"	A: Academic + B: Spiritual/Emotional
OECD Learning Compass 2030	OECD Countries	"Values, attitudes, student agency"	A: Competencies + B: Values/Character
Global Citizenship Education (GCE)	Global (Ubuntu, Sumak Kawsay origins)	"Interconnectedness, collective responsibility, empathy"	A: Global knowledge + B: Global values

11. Conclusion: A Universal Call for Epistemological Emancipation

This study demonstrates that the absolutization of scientific positivism has produced a profound epistemological crisis in modern education systems, manifested in the fragmentation of knowledge, a global learning crisis (with only 18% of UNESCO's SDG 4 targets on track), and the systematic neglect of meaning, values, and existential purpose in teaching and learning. Drawing on the Islamic intellectual tradition's tawhidic epistemology, the A+B (Science + Meaning = Wisdom) formulation is proposed as a universal pedagogical response—one that preserves the methodological rigor of science while integrating the metaphysical, ethical, and spiritual dimensions indispensable to holistic human development; this convergence is evidenced across diverse reform initiatives including Turkey's Maarif Model, UNESCO's SDG 4.7 holistic vision, the OECD Learning Compass 2030, and the global Holistic Education movement. The findings of this study offer educators, curriculum designers, and policymakers a concrete intercultural framework for transcending positivist reductionism, ultimately contributing to the formation of morally grounded, epistemologically emancipated learners capable of addressing the complex meaning crisis of the 21st century.

Compliance with ethical standards

Acknowledgments

Artificial intelligence tools were used for language editing and formatting support during the preparation of this article.

Disclosure of conflict of interest

The author declares no conflict of interest.

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