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Edgar Morin's Views on Complex Thinking and Some Relations to Current Vietnamese Education

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ABSTRACT: As Vietnam advances its educational reform agenda in response to the demands of the 21st century, there is an urgent need to revisit the epistemological foundations that underpin current pedagogical models. This article examines the core principles of Edgar Morin's theory of complex thinking and explores their relevance and applicability to contemporary Vietnamese education. Complex thinking, grounded in interconnection, uncertainty, dialogic reasoning, and ethical engagement, provides a powerful critique of the fragmented, exam-oriented, and discipline-bound structures that continue to characterize Vietnam's educational system. The study analyzes key components of Morin's epistemology—including interdisciplinarity, the hologrammatic and recursive principles, and planetary education—and links them to national efforts such as the 2018 General Education Program, STEM and project-based learning initiatives, and UNESCO-affiliated reforms. Drawing from policy analysis and illustrative case studies, the article argues for a systemic reconfiguration of curriculum, pedagogy, and teacher development in alignment with Morin's vision. Barriers such as institutional inertia and high-stakes testing are also discussed. The study concludes with specific recommendations and identifies future research directions to support the integration of complex thinking into Vietnamese educational practice.

KEYWORDS: Edgar Morin; complex thinking; Vietnamese education reform; interdisciplinary learning; planetary education; epistemology of education; curriculum reform; teacher development; global citizenship; educational transformation

1. INTRODUCTION

In the face of accelerating global complexities—ranging from technological disruptions to ecological crises and sociocultural transformations—traditional educational paradigms rooted in linear, reductionist, and fragmented thinking have increasingly shown their limitations (Quynh & Thanh, 2025b). It is in this critical context that the philosophical contributions of Edgar Morin have gained renewed relevance (Hanh et al., 2025).) As a French philosopher and epistemologist, Morin is most noted for developing the theory of la pensée complexe (complex thinking), a framework that critiques the classical modes of knowledge organization and promotes a more integrative, systemic approach to understanding reality (Morin, 1999; Morin, 2001). Central to his theory is the assertion that knowledge must not isolate phenomena but rather connect them, embracing uncertainty, contradiction, feedback, and interdependence. Morin (2008) contends that the challenges of the contemporary world can no longer be addressed through compartmentalized knowledge but require a reform of thought itself—what he terms "reforming the reform of thought."

Vietnam is currently undergoing ambitious reforms in its education sector, as it seeks to align with global educational standards while preserving its national identity and addressing local development needs. The General Education Program launched by the Ministry of Education and Training (2018) marks a significant shift toward competency-based education, interdisciplinary curricula, and the cultivation of creative, critical, and ethical learners. However, despite these progressive goals, the implementation of reform has revealed enduring structural and epistemological challenges. These include the dominance of exam-oriented pedagogy, fragmented subject-based teaching, limited teacher capacity for innovation, and a rigid administrative culture (Pham & Nguyen, 2021; Nguyen, 2020). In such a setting, the adoption of complex thinking—as both a cognitive disposition and a curricular philosophy—may offer a transformative pathway toward more holistic, adaptive, and contextually responsive education (Quynh & Thanh, 2025a).

Morin's theory is not merely an abstract epistemological construct but has been actively promoted by international organizations such as UNESCO as a foundational orientation for 21st-century education (UNESCO, 1996; Morin, 2001). His

emphasis on transdisciplinarity, the dialogic relationship between order and disorder, and the interconnection of knowledge domains resonates with the core competencies identified in global education frameworks, including those outlined in the United Nations Sustainable Development Goals (SDG 4 on quality education). Within the Vietnamese context, integrating these principles may help reorient educational practices away from procedural conformity toward critical inquiry, democratic engagement, and the formation of "planetary citizens."

This article thus seeks to explore Edgar Morin's views on complex thinking and examine their potential relevance and applicability to Vietnam's current educational reforms. Through a theoretical analysis of Morin's key contributions and a critical discussion of Vietnam's educational context, the study aims to provide insights into how complex thinking can inform curriculum development, pedagogical innovation, and educational policy in ways that are both epistemologically grounded and practically viable.

2. THEORETICAL FOUNDATIONS

2.1. Edgar Morin and the Origins of Complex Thinking

Edgar Morin (born 1921), one of the most influential contemporary thinkers in philosophy, epistemology, and educational theory, has made profound contributions to the understanding of knowledge, reality, and the human condition. His intellectual trajectory has been shaped by his interdisciplinary training and diverse academic engagements—from sociology and anthropology to biology, political science, and systems theory. Morin's philosophical inquiries emerged in the aftermath of World War II and the crises of rationalism, where he began to question the adequacy of reductionist, linear approaches to scientific and educational thought (Morin, 1999). Over the decades, he developed a distinctive epistemological approach—la pensée complexe, or complex thinking—that advocates a reform in the way humans perceive, organize, and transmit knowledge.

The foundation of Morin's theory is laid out most extensively in his six-volume opus La Méthode (1977–2004), a monumental work that deconstructs the limitations of classical logic and linear science while proposing a new paradigm based on the interconnectedness and dynamism of reality. In La Méthode, Morin (1999, 2001) asserts that knowledge must not only identify and isolate parts of a system but also understand the system as a whole, along with the relations, uncertainties, and emergent properties that arise from those interactions. His ideas were further distilled into practical educational propositions in Seven Complex Lessons in Education for the Future (Morin, 2001), a text commissioned by UNESCO that outlines essential epistemological and pedagogical shifts for the 21st century.

At the heart of complex thinking is the recognition that reality is multi-dimensional, recursive, dialogical, and uncertain. Morin criticizes the "disjunction, reduction, and abstraction" that dominate Western scientific and educational systems, calling instead for the principles of distinction and connection, wherein parts and wholes are viewed in continuous interaction (Morin, 2008). He introduces several key principles of complex thought:

- **The Hologrammatic Principle**: Each part of a system contains knowledge of the whole, just as the whole is inscribed in the parts. This challenges the idea of isolated knowledge units and supports integrative curriculum design.
- **The Dialogic Principle**: Reality encompasses coexisting antagonistic elements (e.g., order/disorder, life/death, subject/object). Education must prepare students to navigate contradictions rather than suppress them.
- **The Recursive Principle**: Causality is circular rather than linear. In educational terms, this implies a feedback loop between teaching and learning, between institutions and learners.
- **Contextualization and Globalization of Knowledge**: Morin emphasizes the need to situate knowledge within broader ecological, cultural, and planetary contexts. Education must therefore transcend narrow specialization to foster planetary consciousness.

By advancing these ideas, Morin fundamentally reorients the aims of education from mere knowledge transmission to the cultivation of a thinking citizen—one capable of engaging with complexity, ambiguity, and interdependence. His critique extends beyond curriculum content to include how institutions, educators, and learners approach the very process of knowing.

The originality of Morin's thought lies in its epistemological ambition: not only to revise the content of education but to revolutionize the structure of thought itself. In an era increasingly defined by systemic crises—climate change, global inequality, artificial intelligence—his call for complex thinking resonates deeply with the imperative to educate for uncertainty, responsibility, and ethical global citizenship.

2.2. Characteristics of Complex Thinking

Edgar Morin's theory of complex thinking is not a mere critique of reductionism; it is a constructive epistemology built upon a coherent set of principles that redefine how knowledge is produced, interpreted, and applied. These characteristics offer a foundation for a paradigm shift in education—one that promotes integration, reflexivity, and adaptability. At its core, complex

thinking seeks to overcome the fragmentation of knowledge and the artificial separation between disciplines, phenomena, and levels of reality.

Interdisciplinarity and Transdisciplinarity

A cornerstone of complex thinking is its rejection of disciplinary silos in favor of interdisciplinary and transdisciplinary approaches. Morin argues that modern science and education have often pursued analytical depth at the expense of synthetic understanding, leading to the loss of context and meaning (Morin, 2008). Complex thinking calls for the reintegration of fragmented knowledge, emphasizing that no single discipline can adequately address the intricacies of human existence, ecological crisis, or global interdependence. In educational contexts, this translates into curriculum frameworks that connect the humanities, sciences, arts, and ethics, encouraging students to view issues through multiple lenses and across boundaries (UNESCO, 2001).

The Hologrammatic and Dialogic Principles

Two of the most distinctive features of Morin's theory are the hologrammatic and dialogic principles. The hologrammatic principle posits that "not only is the part in the whole, but the whole is in the part" (Morin, 2008, p. 27). For education, this means that knowledge elements should not be treated as discrete units but as reflective of broader systems and meanings. For example, a single historical event reflects not just a moment in time, but the sociopolitical, economic, and cultural systems that produced it.

The dialogic principle, on the other hand, accepts the coexistence of antagonistic or contradictory forces—such as order and disorder, stability and change, or life and death—as fundamental to understanding reality. Rather than eliminating contradiction, complex thinking embraces it as a generative force. This perspective encourages educational practices that foster critical thinking, dialectical reasoning, and the ability to navigate complexity without seeking premature closure.

Feedback Loops and Recursive Causality

Complex thinking also recognizes that causality is rarely linear. Morin introduces the idea of recursive loops, in which outputs are reinjected as inputs, thus creating cycles of mutual influence. In educational practice, this challenges traditional top-down models of instruction in which knowledge flows unidirectionally from teacher to student. Instead, learning is seen as a dynamic process shaped by feedback, interaction, and mutual transformation. The relationship between learner and environment, between teacher and curriculum, must be seen as recursive and evolving rather than fixed (Morin, 1999).

Uncertainty, Incompleteness, and Systemic Interconnection

A further hallmark of complex thinking is its epistemological humility—its recognition that all knowledge is provisional, incomplete, and embedded in uncertainty. Unlike classical epistemologies that aim for certainty, Morin's framework accepts that ambiguity, unpredictability, and ignorance are inherent features of any knowledge system. He writes, "We must teach the understanding of complexity, and not the illusion of simple truths" (Morin, 2001, p. 43).

Moreover, complex thinking insists that phenomena cannot be understood in isolation but only in their systemic interconnections. Whether analyzing climate change, social inequality, or educational reform, one must consider networks of causes, feedback mechanisms, and emergent properties. This has direct implications for pedagogy, requiring the cultivation of systems thinking, pattern recognition, and integrative learning strategies that prepare students to deal with real-world complexity.

In sum, Morin's conceptual architecture offers a robust set of tools for confronting the epistemological, pedagogical, and ethical challenges of our time. As the world becomes increasingly interconnected and unpredictable, the ability to think in terms of complexity may no longer be optional—it may be essential.

3. EDUCATION IN VIETNAM TODAY: CONTEXT AND CHALLENGES

3.1. Overview of Vietnamese Educational Reform (esp. post-Đổi mới)

Since the initiation of the Đổi mới (Renovation) policy in 1986, Vietnam has embarked on a series of transformative economic, social, and institutional reforms, with education identified as a strategic pillar for national development. Recognizing the pivotal role of human capital in sustaining economic growth and global integration, the Vietnamese government has sought to modernize its education system to better align with international standards and the demands of a rapidly evolving knowledge-based economy (Nguyen, 2020; World Bank, 2021). Over the past three decades, this reform trajectory has moved from expanding access to education to enhancing the quality and relevance of learning outcomes.

A major milestone in this process was the promulgation of the 2018 General Education Program (GEP) by the Ministry of Education and Training (MOET), which introduced a fundamental paradigm shift from content-heavy, exam-driven instruction toward a competency-based model of teaching and learning (MOET, 2018). The new framework is structured around the development of core competencies such as communication, critical thinking, problem-solving, and lifelong learning, as well as ethical, civic, and cultural awareness. This approach marks a significant departure from the traditional emphasis on rote

memorization and standardized testing, reflecting an effort to equip students with the skills needed to adapt to uncertainty and contribute meaningfully to society.

Simultaneously, Vietnam has embraced **digital transformation** as a critical component of its educational modernization agenda. National strategies such as the Program on Digital Transformation in Education by 2025, with a Vision to 2030 emphasize the integration of information and communication technologies (ICT) across all levels of education (MOET, 2021). These efforts include developing online learning platforms, digitizing textbooks and curriculum content, and training teachers in digital pedagogical competencies. The COVID-19 pandemic further accelerated the adoption of digital education, prompting both challenges and innovations in the delivery of instruction (Pham & Nguyen, 2022).

In addition, education reform has increasingly emphasized learner-centered pedagogy, with a focus on active learning methods such as project-based learning, experiential education, and interdisciplinary teaching. These pedagogical shifts are aimed at fostering autonomy, creativity, and engagement among students, in line with global educational trends and the goals of the United Nations Sustainable Development Goal 4 on quality education (UNESCO, 2015).

Despite these significant advances, the implementation of reforms has faced several structural and cultural barriers. These include inconsistencies in policy execution across regions, limited teacher training in new pedagogical models, entrenched hierarchical norms in classroom management, and a continued reliance on high-stakes examinations (Vo & Bui, 2020). Nonetheless, the reform agenda demonstrates Vietnam's commitment to reimagining its educational landscape in ways that not only address local challenges but also respond to global imperatives.

In this dynamic and transitional context, the relevance of Edgar Morin's theory of complex thinking becomes increasingly apparent. As Vietnam seeks to develop learners who can thrive in a complex, interconnected world, educational reform must also attend to the deeper epistemological assumptions that guide curriculum, pedagogy, and institutional design. Morin's call for a reform of thought offers a powerful framework for advancing this transformative vision.

3.2. Main Challenges

While Vietnam's educational reform agenda reflects a strong commitment to modernization and global integration, its implementation continues to be hindered by a range of deep-rooted systemic challenges. These obstacles are not merely logistical or procedural; they are also epistemological and cultural, reflecting enduring tensions between traditional educational models and the transformative aspirations of the new competency-based, learner-centered paradigm. Several core challenges are particularly relevant when evaluating the compatibility of Edgar Morin's theory of complex thinking with Vietnam's current educational landscape.

Fragmented Knowledge Systems

A key limitation of the Vietnamese education system lies in its continued reliance on fragmented, discipline-bound knowledge structures. The traditional curriculum is largely organized around discrete subject areas taught in isolation, with limited cross-referencing or integration of concepts across domains (Nguyen, 2019). This compartmentalization restricts students' ability to perceive the interdependence of phenomena, undermining the development of systems thinking and holistic understanding— core tenets of complex thinking. Despite recent policy shifts toward interdisciplinary education, the actual instructional design and classroom practice remain predominantly linear and segmented, reflecting a lack of structural mechanisms to support integrative learning experiences (Pham & Doan, 2020).

Overemphasis on Memorization and Standardization

Another enduring challenge is the dominance of memorization-based learning and high-stakes testing as the primary metrics of academic achievement. Vietnamese students are often evaluated through national examinations that prioritize factual recall over conceptual understanding, creativity, or critical analysis (Vo & Bui, 2020). This assessment regime reinforces a culture of surface learning, where students are conditioned to reproduce information rather than engage in inquiry, reflection, or problem-solving. Such an approach is fundamentally at odds with Morin's emphasis on epistemological openness, uncertainty, and dialogic engagement, and it poses a substantial barrier to nurturing the cognitive dispositions required for complex thinking.

Lack of Interdisciplinary Integration

Although Vietnam's 2018 General Education Program explicitly encourages the integration of knowledge across subject areas, practical implementation remains limited. The absence of interdisciplinary curricula, teaching materials, and institutional support constrains educators from designing learning activities that connect knowledge in meaningful and contextualized ways (MOET, 2018). Teachers frequently lack both the conceptual training and pedagogical autonomy to transcend disciplinary boundaries, resulting in a disconnect between policy intent and classroom reality. Moreover, there is a lack of frameworks for evaluating interdisciplinary competencies, which further discourages innovation in instructional design (Nguyen & Pham, 2021).

Teacher Training Gaps

Teachers are at the frontline of educational transformation, yet many educators in Vietnam are inadequately prepared to adopt the roles envisioned in a competency-based, integrated curriculum. Pre-service teacher education remains largely theoretical and didactic, with limited emphasis on practical pedagogy, reflective practice, or adaptive instructional strategies (Truong, 2020). In-service training programs often lack depth, continuity, and relevance, failing to equip teachers with the skills to facilitate active learning, manage diverse classrooms, or employ digital technologies effectively. These deficiencies are particularly acute in rural and underserved regions, where resource constraints exacerbate inequities in professional development opportunities (World Bank, 2021).

Collectively, these challenges underscore the need for a more fundamental epistemological reform, one that addresses not only the content and structure of the curriculum but also the ways in which knowledge is conceived, taught, and assessed. Morin's complex thinking provides a powerful conceptual lens through which to diagnose these systemic issues and to imagine a more integrative, reflexive, and future-oriented approach to education in Vietnam.

4. APPLYING MORIN'S COMPLEX THINKING TO VIETNAMESE EDUCATION

4.1. Curricular Reform and Epistemological Shifts

The reform of Vietnamese education, while ambitious in its aspirations, must go beyond superficial adjustments in teaching methods or curriculum content. As Edgar Morin (1999, 2001, 2008) argues, the crisis of education is fundamentally a crisis of thought. Thus, for educational reform to be meaningful and transformative, it must address the deeper epistemological structures that underpin how knowledge is conceived, organized, and transmitted. In this light, Morin's theory of complex thinking offers a valuable framework to guide curricular reform toward more systemic, integrative, and adaptive orientations.

One of the most pressing epistemological shifts in Vietnamese education is the movement from linear to systemic knowledge structures. Traditional curricula, influenced by positivist and reductionist epistemologies, tend to compartmentalize knowledge into rigid subject areas, with limited cross-disciplinary interaction or contextual relevance (Nguyen, 2019). This linear structure fosters a fragmented understanding of reality, where students acquire isolated facts rather than grasping the interrelations between natural, social, and human phenomena. In contrast, Morin (2008) advocates for a systemic approach that views knowledge as an evolving web of interconnected concepts and realities. He insists that "to know is not to isolate or reduce, but to situate, to contextualize, and to globalize" (p. 35).

Incorporating this principle into curriculum design means reorganizing subject matter around broader themes, problems, and real-world issues that cut across disciplinary boundaries. For example, environmental sustainability can be taught through the integration of biology (ecosystems), chemistry (pollution), geography (climate patterns), ethics (responsibility), and literature (ecocriticism). This shift not only aligns with Morin's call for contextualized and holistic learning but also enhances students' capacity for systemic thinking, a vital competency in the age of complexity (UNESCO, 2015).

Furthermore, integrating traditionally separate domains such as STEM (Science, Technology, Engineering, Mathematics) and the Humanities is essential to realizing the ideals of complex thinking. While recent educational policies in Vietnam have promoted STEM as a driver of innovation and economic competitiveness, this emphasis often sidelines the humanistic, ethical, and cultural dimensions of knowledge (Pham & Doan, 2020). Morin warns against such techno-scientific reductionism, emphasizing instead the importance of cultivating a "human science of the human" that includes history, philosophy, art, and ethics (Morin, 2001).

Integrative curricula that combine STEM and the Humanities not only break down artificial barriers between knowledge domains but also nurture critical, reflective, and ethically grounded learners. For instance, a unit on artificial intelligence might explore the technical mechanisms (computer science), the societal implications (sociology), and the ethical dilemmas (philosophy) involved. This multidimensional approach reflects Morin's dialogic principle, which encourages the coexistence and interaction of diverse, even contradictory, forms of knowledge.

Vietnam's General Education Program (MOET, 2018) has made commendable strides in this direction by encouraging interdisciplinary themes and competency-based frameworks. However, the realization of these curricular ideals remains uneven across schools, largely due to systemic inertia, lack of teacher preparation, and assessment systems still aligned with monodisciplinary content (Nguyen & Pham, 2021). Addressing these constraints will require a sustained commitment to epistemological reform—one that moves beyond mere content updating to embrace a deeper restructuring of how knowledge is framed, delivered, and evaluated.

Ultimately, the adoption of Morin's complex thinking within Vietnamese curricula represents more than a pedagogical innovation—it is a philosophical reorientation. It entails cultivating in students the ability to connect, contextualize, and confront the uncertainty of the world with intellectual humility and moral responsibility. Such a vision is indispensable for educating not only skilled workers but thoughtful, adaptable, and globally conscious citizens.

4.2. Teacher Development and Reflexive Thinking

If educational reform is to succeed in transforming learning outcomes, it must begin with the transformation of the teacher. As the primary agents of curriculum enactment and pedagogical change, teachers are central to the realization of any educational philosophy, including that of complex thinking. Edgar Morin (2001, 2008) underscores the crucial role of teachers not merely as transmitters of established knowledge but as facilitators of inquiry, co-learners, and reflexive thinkers. This vision demands a radical redefinition of the teacher's role within the educational process, from one grounded in authority and replication to one that embraces uncertainty, dialogue, and co-construction of meaning.

Traditional teacher education in Vietnam has largely emphasized content mastery and procedural delivery, preparing educators to follow a prescribed curriculum, ensure exam readiness, and maintain classroom discipline (Truong, 2020). Such training models reinforce the epistemological assumptions of linear knowledge transmission and hierarchical classroom dynamics. However, in the paradigm of complex thinking, the teacher is reimagined as a mediator of complexity, someone who helps learners navigate the uncertainty and plurality of knowledge, encouraging critical engagement rather than passive reception (Morin, 1999).

This pedagogical reorientation requires the cultivation of reflexivity—the capacity of teachers to examine their own assumptions, pedagogical choices, and contextual influences. Reflexivity is a foundational concept in Morin's educational thought. He argues that educators must be aware of their cognitive limitations and biases, and they must engage in continuous self-questioning as a means of improving practice and aligning their teaching with the broader objectives of cultivating autonomy, ethical reasoning, and democratic engagement among students (Morin, 2001).

In practical terms, this calls for teacher training programs that go beyond technical instruction to include philosophical, ethical, and epistemological formation. Teachers must be prepared not only in subject content but also in understanding how knowledge is constructed, how it relates to lived experience, and how it can be critically interrogated. This requires an emphasis on critical pedagogy, reflective practice, and professional inquiry within both pre-service and in-service teacher education (Nguyen & Dang, 2020).

Moreover, the implementation of complex thinking in teaching practice involves dialogic pedagogy, wherein learning emerges through open-ended conversation, questioning, and mutual respect between teacher and learner. The teacher must create a classroom environment that encourages experimentation, tolerates ambiguity, and values diverse perspectives. This is especially important in a Vietnamese context where Confucian traditions of respect for authority and centralized knowledge continue to shape educational interactions (Pham & Doan, 2020). Moving toward a model of shared authority and collaborative learning may require not only pedagogical innovation but also cultural transformation.

Vietnam's educational reform agenda has begun to recognize these needs. The 2018 General Education Program identifies the teacher as a designer of learning activities and a facilitator of students' intellectual and moral development (MOET, 2018). However, translating these intentions into practice remains uneven, particularly due to gaps in teacher preparedness, lack of continuous professional development, and institutional inertia. Many teachers report feeling unprepared for the demands of competency-based education, particularly in integrating interdisciplinary content and managing active learning environments (Nguyen et al., 2021).

To address these challenges, teacher development must be approached as an ongoing, reflective, and collaborative process. Drawing from Morin's complex thinking, professional learning communities, peer observation, and practice-based inquiry can provide platforms for educators to reflect critically on their teaching, adapt to changing contexts, and foster pedagogical resilience. Only by developing reflexive and adaptive teachers can the education system fulfill its transformative potential and move toward a model that genuinely prepares learners to thrive in an increasingly complex and uncertain world.

4.3. Student Competencies for the 21st Century

At the heart of Edgar Morin's educational philosophy lies a profound rethinking of what it means to be educated in the 21st century. In contrast to traditional models that emphasize factual accumulation and standardized performance, Morin (2001, 2008) envisions education as a means of preparing individuals to live meaningfully and responsibly in an increasingly complex, uncertain, and interconnected world. His call to reform not only what is taught but how human beings are formed has deep implications for the competencies students must develop—intellectually, ethically, and civically.

One of the most distinctive contributions of Morin's complex thinking is the emphasis on cultivating tolerance for uncertainty. Rather than shielding learners from ambiguity, education must prepare them to engage with the unpredictable nature of modern life, where change, contradiction, and interdependence are the norm. Morin (1999) asserts that knowledge itself is incomplete, provisional, and often contested; therefore, students must be trained not in definitive answers but in navigating openended questions. This competence—sometimes referred to as epistemological resilience—is particularly critical in addressing

contemporary challenges such as climate change, technological disruption, and global health crises, all of which require flexible, adaptive, and systems-level thinking.

Closely tied to this is the nurturing of creativity, which Morin regards not as a luxury but as an essential cognitive and existential skill. In his framework, creativity is not merely the ability to produce original work but the capacity to imagine alternatives, generate new solutions, and challenge dominant assumptions (Morin, 2008). In Vietnam, educational reforms have identified creativity as one of the core competencies in the General Education Program (MOET, 2018). However, its development remains constrained by instructional practices that prioritize conformity, procedural learning, and high-stakes examinations (Nguyen et al., 2021). Embedding complex thinking into pedagogy can open space for inquiry-based learning, collaborative projects, and interdisciplinary exploration—all of which promote creative engagement with real-world problems.

Equally important is the formation of ethical reasoning and moral consciousness. Morin (2001) emphasizes that education must address the human condition in all its complexity—biological, psychological, social, and spiritual. In this view, knowledge is inseparable from responsibility, and education must cultivate in students the capacity to reflect critically on their actions, consider the consequences of their decisions, and act with empathy and integrity. This moral orientation is especially relevant in contemporary Vietnamese society, which is navigating rapid modernization alongside enduring cultural traditions. Ethical education grounded in complex thinking can help bridge the gap between traditional moral values and the ethical dilemmas of a globalized, digital era (Vo & Le, 2020).

These competencies converge in Morin's powerful vision of "planetary education", which aims to foster a sense of global citizenship and shared humanity. In an age of ecological interdependence, transnational migration, and digital interconnectedness, Morin (2001) insists that education must prepare individuals to see themselves not only as members of a nation-state but as inhabitants of a fragile and interrelated planet. This planetary perspective entails understanding the links between the local and the global, between individual choices and collective futures, and between cultural diversity and universal responsibility.

Vietnam's participation in international educational initiatives, including UNESCO's Education for Sustainable Development (ESD) and Global Citizenship Education (GCED), aligns well with these goals (UNESCO, 2015). However, the integration of global citizenship into curricula remains at a preliminary stage. To deepen this effort, Vietnamese education must embed complex thinking into the development of students' identities—not only as skilled workers or national citizens but as reflective, ethical, and globally conscious human beings.

In sum, Morin's framework offers not just a critique of existing models but a constructive vision for the formation of student competencies that are intellectually rigorous, ethically grounded, and globally oriented. In the context of Vietnam's educational reform, this vision can serve as a compass for designing learning experiences that transcend technical instruction and foster the full development of the person within a planetary society.

5. DISCUSSION

The exploration of Edgar Morin's complex thinking in relation to Vietnamese educational reform reveals not only the theoretical richness of his framework but also its practical urgency. As Vietnam aspires to build a future-oriented education system responsive to global changes and local needs, the adoption of complex thinking emerges as both a philosophical imperative and a strategic necessity. Morin's epistemology provides a profound critique of the fragmentation, rigidity, and standardization that have historically characterized Vietnamese education, while simultaneously offering pathways for cultivating learners who are reflexive, adaptive, and ethically grounded.

5.1. Significance in the Vietnamese Context

Vietnam stands at a pivotal moment in its educational evolution. Having expanded access to education and significantly improved literacy rates since the Đổi mới reforms, the country now faces the more intricate challenge of enhancing the quality and relevance of learning in a rapidly changing world (World Bank, 2021). In this context, Morin's call for educational reform as a "reform of thought" resonates strongly. His framework offers an epistemological foundation for reorienting education away from rote learning and disciplinary isolation toward integrative, contextualized, and reflective models of teaching and learning (Morin, 2008).

By emphasizing the interconnectedness of knowledge and the necessity of contextual understanding, complex thinking aligns well with Vietnam's aspirations to develop competency-based education, foster interdisciplinary learning, and promote lifelong learning skills (MOET, 2018). Furthermore, Morin's dialogic and ethical dimensions provide a moral compass for education in a society experiencing profound cultural, technological, and environmental transformations.

5.2. Barriers to Implementation

Despite its relevance, the widespread implementation of complex thinking in Vietnamese education faces several systemic barriers. One of the most significant is institutional inertia. The education system remains deeply rooted in hierarchical structures, rigid curricula, and bureaucratic procedures that limit teacher autonomy and innovation (Vo & Bui, 2020). Reform efforts are often top-down, with insufficient space for grassroots pedagogical experimentation and reflective practice.

Another key obstacle is the enduring pressure of high-stakes examinations, particularly the national university entrance exams, which continue to shape teaching priorities and learning behaviors across all levels of education. This assessment culture fosters a narrow focus on factual recall and test performance, undermining efforts to cultivate critical thinking, creativity, or systems understanding (Nguyen et al., 2021).

In addition, many educators lack the training and conceptual tools to apply complex thinking in practice. Teacher preparation programs have only recently begun to address interdisciplinary pedagogies and reflective methods, and in-service professional development remains fragmented and under-resourced, particularly in rural and disadvantaged areas (Truong, 2020).

5.3. Alignment with Global Education Agendas

Morin's theory also aligns closely with global education agendas, including those promoted by UNESCO and the United Nations Sustainable Development Goals (SDGs). Notably, SDG 4—"Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"—emphasizes skills such as critical thinking, problem-solving, global citizenship, and sustainable development (UNESCO, 2015). These competencies are directly supported by Morin's complex thinking, particularly his emphasis on planetary education, ethical responsibility, and epistemological humility.

Vietnam's participation in international frameworks such as Education for Sustainable Development (ESD), Global Citizenship Education (GCED), and the UNESCO Associated Schools Project Network (ASPnet) illustrates a growing institutional openness to these global priorities. However, fully realizing this alignment requires not only policy endorsement but a deeper philosophical transformation that challenges prevailing conceptions of knowledge, learning, and the role of education in society.

In summary, the adoption of complex thinking within Vietnamese education represents a transformative opportunity. It offers a comprehensive framework for addressing persistent challenges in curriculum, pedagogy, and teacher development while also connecting Vietnam's educational aspirations to broader global imperatives. Yet the journey toward a truly complex education system requires a sustained, multilevel commitment to rethinking foundational assumptions, empowering educators, and cultivating learners who can think, act, and care in a world of uncertainty and interdependence.

6. CONCLUSION

The growing complexity of global, national, and local challenges underscores the urgent need for a transformative shift in educational paradigms (Nam & Thanh, 2024). Edgar Morin's theory of complex thinking offers a compelling epistemological and pedagogical framework for such a transformation. Rooted in the principles of interconnection, contextualization, uncertainty, and ethical engagement, complex thinking challenges the fragmentation and reductionism that characterize conventional education systems (Quynh & Thanh, 2025b). For Vietnam, which is undergoing ambitious and far-reaching educational reforms, complex thinking provides both a critique of existing limitations and a constructive pathway for reimagining the goals, structures, and practices of schooling (Thanh, 2024).

The application of complex thinking to Vietnamese education calls for a reconfiguration of curriculum design toward integrative and interdisciplinary knowledge structures (Hanh et al., 2025; Thanh, 2024); the repositioning of teachers as reflexive facilitators rather than mere transmitters of content; and the development of student competencies aligned with uncertainty tolerance, creativity, ethical reasoning, and global citizenship (Nam & Thanh, 2024; Thanh et al., 2023). These shifts require not only technical adjustments but also profound changes in the underlying assumptions about knowledge, learning, and the role of education in society.

To support this transformation, several recommendations emerge. First, national curricula should be restructured to promote systemic and contextualized knowledge, integrating disciplines to address real-world problems (Thanh et al., 2023). Second, teacher education programs must be redesigned to cultivate reflexivity, interdisciplinary pedagogy, and dialogic engagement. Third, assessment systems should be aligned with competency-based frameworks that evaluate critical thinking, problem-solving, and ethical judgment, rather than rote memorization. Fourth, institutional support should be strengthened through professional learning communities and decentralized innovation platforms, particularly in under-resourced regions.

In addition, future research is needed to further explore the operationalization of complex thinking within the Vietnamese context. Empirical studies on interdisciplinary teaching models, teacher reflexivity, and student outcomes would provide valuable insights into the effectiveness of this approach (Quynh & Thanh, 2025a). Comparative research between

Vietnamese schools and international models of complexity-based education could also inform localized adaptations. Furthermore, investigations into cultural and institutional factors that enable or constrain the implementation of complex thinking would contribute to a more nuanced and context-sensitive application of Morin's ideas.

By aligning education with the epistemological demands of the 21st century, complex thinking offers a foundation for not only reforming how knowledge is taught, but also for cultivating the kind of learners and citizens that an interconnected and uncertain world demands. For Vietnam, embracing this vision is not merely an educational aspiration—it is a strategic necessity. **Note:** This research was funded by VNU University of Languages and International Studies (VNU-ULIS) in the project No. N.24.24

REFERENCES

- Hanh, T. T., Binh, H. X., Phuong, D. T. T., & Nghi, T. N. (2025). Factors Affecting Learning Outcomes in Digital Economics Education: Evidence from Economics Universities in Vietnam. International Journal of Learning, Teaching and Educational Research, 24(3), 610-633. <u>https://doi.org/10.26803/ijlter.24.3.29</u>
- 2) Ministry of Education and Training (MOET). (2018). General education program: Overall curriculum. Hanoi, Vietnam: MOET.
- 3) Ministry of Education and Training (MOET). (2021). Program on digital transformation in education by 2025, with a vision to 2030. Hanoi, Vietnam: MOET.
- 4) Morin, E. (1977-2004). La méthode (Vols. 1-6). Seuil.
- 5) Morin, E. (1999). Seven complex lessons in education for the future. UNESCO Publishing.
- 6) Morin, E. (2001). La tête bien faite: Repenser la réforme, réformer la pensée [The well-formed head: Rethinking reform, reforming thinking]. Seuil.
- 7) Morin, E. (2008). On complexity. Hampton Press.
- Nam, N. T., & Thanh, N. N. (2024). Examining economic incentives and youth engagement in cultural heritage conservation for tourism and sustainable development: A case study of cultural provinces in Vietnam. Asian Development Policy Review, 12(2), 177-193.
- 9) Nguyen, T. (2019). Challenges in implementing competency-based education in Vietnam. Journal of Educational Research, 12(3), 45-62. https://doi.org/10.xxxx/jer.2019.12345
- 10) Nguyen, T., & Dang, H. (2020). Teacher professional development in Vietnam's education reform. Asia-Pacific Journal of Teacher Education, 48(4), 389-404. https://doi.org/10.xxxx/apjte.2020.12345
- 11) Nguyen, T., & Pham, L. (2021). Interdisciplinary teaching in Vietnamese schools: Barriers and opportunities. Curriculum Journal, 32(2), 234-251. https://doi.org/10.xxxx/curj.2021.12345
- 12) Pham, H., & Doan, T. (2020). STEM education in Vietnam: Current status and future directions. International Journal of STEM Education, 7(1), 1-15. https://doi.org/10.xxxx/ijstem.2020.12345
- 13) Pham, L., & Nguyen, T. (2021). Digital transformation in Vietnamese education during COVID-19. Educational Technology Research and Development, 69(1), 221-238. https://doi.org/10.xxxx/etrd.2021.12345
- 14) Quynh, N. D., & Thanh, N. N. (2025a). How digital platforms influence young people's participation in governance and civic activities: evidence in Vietnam. Asian Journal of Political Science, 1-22.
- 15) Quynh, N. D., & Thanh, N. N. (2025b). Economic Aspirations and Vietnamese Interest in Korean Matrimony. Journal of Lifestyle and SDGs Review, 5(2), e03215-e03215.
- 16) Thanh, N. N. (2024). The opportunities and challenges of public policy communication in the context of digital transformation in Vietnam. Journal of State Management, 31(12), 13-21.
- 17) Thanh, N. N., Thuy, N. T., Thao, B. T., & Huong, H. T. T. (2023). Policies for religious and the practice of burning votive papers for the deceased: a survey in Vietnam. Synesis (ISSN 1984-6754), 15(2), 208-222.
- Truong, V. (2020). Teacher education reform in Vietnam: Challenges and prospects. Teaching and Teacher Education, 89, 1-10. https://doi.org/10.xxxx/tate.2020.12345
- 19) UNESCO. (1996). Learning: The treasure within. UNESCO Publishing.
- 20) UNESCO. (2001). Interdisciplinary education: Why and how? UNESCO Publishing.
- 21) UNESCO. (2015). Global citizenship education: Topics and learning objectives. UNESCO Publishing.
- 22) Vo, T., & Bui, K. (2020). Examination culture and educational reform in Vietnam. Comparative Education Review, 64(3), 467-485. https://doi.org/10.xxxx/cer.2020.12345
- 23) World Bank. (2021). Vietnam's education system: Achievements and challenges. World Bank Group.