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DEVELOPING A “LEARNING AND CREATIVITY ECOSYSTEM” MODEL IN PRIMARY SCHOOLS IN THE MEKONG DELTA REGION OF VIETNAM

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ABSTRACT

In the context of rapid educational transformation and digitalization, primary education is increasingly expected to foster creativity, experiential learning, and holistic student development. This study aims to develop a contextualized Learning and Creativity Ecosystem model for primary schools in the Mekong Delta region of Vietnam. The research draws upon key theoretical perspectives, including constructivist learning theory, experiential learning theory, and contemporary learning ecosystem frameworks. Using theoretical synthesis and contextual analysis, the study identifies essential components that support a dynamic and integrated learning environment involving students, teachers, families, technology, and local communities.

The findings propose a comprehensive ecosystem model consisting of five interrelated components: learning actors, creative learning knowledge, educational technology, creative learning contexts, and a culture of creative learning. The model also incorporates regional characteristics of the Mekong Delta, particularly community-based learning, environmental education linked to riverine ecosystems, and digital learning infrastructures adapted to rural educational settings.

The proposed framework provides a practical and theoretically grounded approach for enhancing students' creativity, problem-solving skills, and social responsibility. Furthermore, it offers valuable implications for policymakers, school leaders, and educators seeking to design innovative and sustainable learning environments in Vietnamese primary education.

KEYWORDS: learning ecosystem; creative learning; primary education; Mekong Delta; educational innovation; experiential learning.

INTRODUCTION

In the knowledge-based economy of the twenty-first century, education systems worldwide are undergoing a significant transformation from traditional knowledge transmission toward competency-based learning. Increasing emphasis is placed on developing learners' creativity, critical thinking,

collaboration, and problem-solving abilities—competencies considered essential for sustainable development and global citizenship. Within this transformation, primary education plays a foundational role in shaping children’s cognitive, social, and creative capacities, as well as establishing the basis for lifelong learning.

In Vietnam, recent educational reforms have reflected this global trend. The implementation of the General Education Curriculum 2018 represents a major shift from content-oriented instruction to competency-based education, encouraging schools to create learner-centered, flexible, and innovative learning environments. The reform highlights the importance of experiential learning, interdisciplinary integration, and the development of students’ core competencies. Nevertheless, the practical implementation of innovative educational models remains uneven across different regions of the country. In particular, many schools in rural and semi-rural areas still face considerable challenges related to limited educational resources, insufficient digital infrastructure, and traditional teaching practices.

The Mekong Delta region represents a distinctive educational context within Vietnam. Characterized by a complex riverine ecosystem, agricultural livelihoods, diverse cultural traditions, and strong community networks, the region offers both constraints and opportunities for educational innovation. On the one hand, disparities in infrastructure and access to digital technologies may hinder the implementation of modern learning approaches. On the other hand, the region’s rich ecological and cultural environment provides valuable opportunities for experiential, place-based, and community-oriented learning. These contextual characteristics highlight the need for educational models that integrate local cultural resources, environmental knowledge, and community participation into the learning process.

In recent years, the concept of a learning ecosystem has emerged as a promising framework for understanding and designing innovative educational environments. A learning ecosystem emphasizes the interconnected relationships among learners, educators, educational institutions, technological systems, and social communities. Rather than focusing solely on classroom instruction, this perspective views learning as a dynamic process occurring across multiple contexts, including schools, families, digital platforms, and community settings. Such an approach supports more holistic and adaptive forms of learning that align with the demands of contemporary education.

Despite the growing interest in learning ecosystems internationally, research on contextualized models suitable for Vietnamese primary education—particularly in the Mekong Delta—remains limited. Existing studies have primarily focused on general educational innovation or digital transformation, while relatively few have examined how ecosystem-based approaches can be adapted to specific regional conditions and cultural contexts.

Therefore, this study aims to develop a *contextualized model of a Learning and Creativity Ecosystem for primary schools in the Mekong Delta region of Vietnam*, contributing to the advancement of innovative and sustainable educational environments in Vietnamese primary education.

Specifically, the objectives of this study are:

1. To synthesize key theoretical perspectives related to learning ecosystems and creative learning in contemporary education.
2. To identify the core components that constitute an effective learning ecosystem in primary education.
3. To propose a contextualized model of a Learning and Creativity Ecosystem suitable for primary schools in the Mekong Delta region.

Through this analysis, the study seeks to provide theoretical insights and practical implications for policymakers, school leaders, and educators in designing innovative learning environments that promote creativity, experiential learning, and holistic student development.

2. THEORETICAL FRAMEWORK

2.1 Learning Ecosystem Theory

In recent years, the concept of a **learning ecosystem** has gained increasing attention in educational research as a framework for understanding how learning occurs within interconnected networks of individuals, institutions, technologies, and socio-cultural environments. A learning ecosystem refers to a dynamic system of relationships among learners, educators, knowledge resources, technological infrastructures, and social contexts that collectively support continuous learning and innovation (Brown & Thomas, 2011; Jackson, 2013).

Unlike traditional education models that focus primarily on classroom-based instruction, learning ecosystems emphasize the integration of **formal, non-formal, and informal learning environments**. These environments include schools, families, communities, digital platforms, and professional networks, all of which contribute to the learning process (Siemens, 2005; Jackson, 2013). Within this perspective, learning is viewed as a distributed and collaborative process occurring across multiple contexts and mediated through social interactions and technological systems.

Several scholars have identified key components of effective learning ecosystems. Johnston et al. (2019) and Kangas (2010) suggest that learning ecosystems typically include the following interconnected elements:

- learners and educators as central actors
- diverse learning resources and knowledge repositories
- technological infrastructure supporting digital learning
- socio-cultural environments shaping learning experiences
- collaborative networks connecting educational stakeholders

These components interact dynamically to facilitate **personalized learning, knowledge sharing, and collaborative problem-solving**. Educational institutions within such ecosystems function not merely as knowledge providers but as **innovation hubs** that connect learners with broader networks of knowledge production and application (Brown & Thomas, 2011).

In the context of Vietnam, the concept of a learning ecosystem has gradually attracted scholarly attention, particularly in relation to educational innovation and digital transformation. Nguyễn Mạnh Hùng (2013) examined the learning ecosystem from the perspectives of systems theory and connectivism, emphasizing the importance of technological connectivity and social interaction in knowledge creation. Similarly, Đỗ Hồng Cường et al. (2022) highlighted the role of collaborative networks among schools, families, and communities in developing innovative learning environments in Vietnamese education.

Within primary education, the development of a learning ecosystem can enhance educational quality by fostering meaningful interactions among learners, teachers, families, and community members while integrating technological resources and local knowledge systems.

2.2 Constructivist Learning Theory

Constructivist learning theory provides a fundamental theoretical foundation for designing learner-centered educational environments. Originating from the works of Jean Piaget and Lev Vygotsky, constructivism posits that knowledge is actively constructed by learners through interactions with their environment rather than passively transmitted from teacher to student (Piaget, 1972; Vygotsky, 1978). Piaget emphasized the role of cognitive development and individual exploration in knowledge construction, suggesting that learners build mental structures through processes of assimilation and accommodation. In contrast, Vygotsky highlighted the social dimension of learning, introducing concepts such as the **Zone of Proximal Development (ZPD)** and the importance of social interaction in cognitive development.

Contemporary educational research has further expanded constructivist perspectives by emphasizing **collaborative learning, inquiry-based instruction, and authentic problem-solving activities** (Bruner, 1996; Fosnot & Perry, 2005). In primary education, constructivist approaches encourage students to engage actively in the learning process through exploration, questioning, and reflection.

Key pedagogical strategies aligned with constructivist learning include:

- inquiry-based learning
- collaborative problem solving
- experiential exploration
- reflective thinking

These strategies foster deeper conceptual understanding and support the development of higher-order thinking skills and creativity among learners (Hmelo-Silver, Duncan, & Chinn, 2007).

In the Vietnamese educational context, constructivist principles have been increasingly incorporated into recent curriculum reforms, particularly within the competency-based approach of the General Education Curriculum 2018. Scholars such as Phạm Minh Hạc (2011) and Trần Bá Hoàn (2014) have emphasized the importance of learner-centered pedagogy and active learning in improving educational quality and student engagement.

Within a learning ecosystem framework, constructivist theory highlights the importance of **meaningful learning experiences and social collaboration**, which enable students to construct knowledge through interactions with peers, teachers, and their surrounding environment.

2.3 Experiential Learning Theory

Experiential learning theory, primarily developed by David Kolb (1984), emphasizes learning through direct experience and reflective practice. According to Kolb, learning is a continuous process in which knowledge is created through the transformation of experience.

Kolb's experiential learning model consists of four stages:

1. **Concrete experience** – engaging in a new experience or activity
2. **Reflective observation** – reflecting on the experience
3. **Abstract conceptualization** – forming new ideas or modifying existing concepts
4. **Active experimentation** – applying new knowledge in practice

This cyclical process enables learners to integrate theory and practice, thereby enhancing their ability to understand complex phenomena and solve real-world problems.

Experiential learning is particularly important in primary education, where children's cognitive development is closely linked to concrete experiences and active exploration (Dewey, 1938; Kolb, 1984). Educational activities that support experiential learning include:

- environmental exploration
- hands-on science experiments
- project-based learning
- community-based learning activities

Such activities enable students to develop critical thinking, creativity, and problem-solving skills while fostering a deeper connection between knowledge and real-life contexts.

In the Mekong Delta region, experiential learning offers significant potential due to the region's rich ecological and cultural environments. Educational activities related to **river ecosystems, agriculture, environmental sustainability, and local cultural traditions** can provide meaningful learning experiences that integrate scientific knowledge with local community practices.

Vietnamese researchers have also highlighted the value of experiential learning in primary education. For example, Nguyễn Thị Hồng Nam (2019) emphasized the role of experiential learning in developing

students' competencies and social responsibility, while Trần Khánh Đức (2015) highlighted experiential education as a key strategy for fostering creativity and practical skills among learners.

2.4 Creative Learning in Primary Education

Creativity has become a central goal of contemporary education systems as societies increasingly require innovative thinking and problem-solving abilities. Creative learning refers to educational processes that enable learners to generate new ideas, explore alternative solutions, and express original perspectives (Craft, 2005; Robinson, 2011).

Creative learning environments typically emphasize:

- flexible and interactive learning spaces
- project-based and inquiry-based learning
- interdisciplinary learning experiences
- collaborative problem-solving activities

These approaches encourage students to actively participate in knowledge construction while developing creative thinking skills and intellectual curiosity (Sawyer, 2012).

Research has shown that creative learning environments are particularly important in primary education, where children's natural curiosity and imagination can be nurtured through supportive educational practices (Beghetto & Kaufman, 2014). Teachers play a crucial role in fostering creativity by encouraging experimentation, valuing diverse perspectives, and creating a classroom climate that supports risk-taking and innovation.

In Vietnam, promoting creativity in education has become a strategic priority in recent educational reforms. Scholars such as Nguyễn Cảnh Toàn (2010) and Phạm Minh Hạc (2011) have emphasized the importance of creative thinking and innovation in developing human resources for national development. Educational initiatives such as STEM education, project-based learning, and digital learning platforms have also been introduced to promote creativity in Vietnamese schools.

Within a learning ecosystem framework, creative learning emerges through the interaction of multiple elements, including pedagogical practices, technological resources, collaborative networks, and supportive learning cultures. Such ecosystems enable students to engage in meaningful learning experiences that integrate knowledge, creativity, and real-world problem solving.

3. Proposed Learning and Creativity Ecosystem Model for Mekong Delta Primary Schools

Based on the integration of learning ecosystem theory, constructivist learning theory, and experiential learning theory, this study proposes a Learning and Creativity Ecosystem Model designed for primary schools in the Mekong Delta region of Vietnam. The model conceptualizes education as a dynamic and interconnected system in which multiple components interact to foster creativity, critical thinking, and holistic student development. Within this ecosystem, learning is not confined to classroom instruction but emerges through continuous interaction among human actors, knowledge systems, technological resources, learning environments, and cultural values.

The proposed model consists of five interrelated dimensions that collectively form the foundation of a creative learning ecosystem.

3.1 Learning Actors

Learning actors constitute the human foundation of the learning ecosystem. Contemporary educational research emphasizes that learning is a socially constructed process shaped through interaction among learners, educators, families, and broader communities. Within this ecosystem, students are positioned at the center of the learning process as active agents who construct knowledge through inquiry, collaboration, and reflection.

Teachers play a transformative role as facilitators of learning, guiding students in problem-solving, exploration, and creative thinking rather than merely transmitting knowledge. School leaders support the ecosystem by fostering collaborative school cultures, encouraging pedagogical innovation, and providing institutional conditions that enable creative teaching practices. Meanwhile, parents and community members contribute valuable contextual knowledge and social support.

In the Mekong Delta, where community relationships and local livelihoods remain deeply embedded in everyday life, the participation of families and community stakeholders significantly enriches learning experiences. Community-based knowledge related to agriculture, river ecosystems, and local cultural traditions provides meaningful contexts for authentic and experiential learning.

3.2 Creative Learning Knowledge

Creative learning knowledge represents the intellectual core of the ecosystem. In contrast to traditional knowledge-transmission models, contemporary educational paradigms emphasize the development of higher-order cognitive competencies, including creativity, critical thinking, problem-solving, and interdisciplinary understanding.

Creative learning environments typically integrate pedagogical approaches such as project-based learning, inquiry-based learning, STEM education, and interdisciplinary instruction, which encourage students to engage actively with real-world problems and construct knowledge collaboratively. These approaches align with competency-based educational reforms that emphasize the application of knowledge rather than rote memorization.

For primary schools in the Mekong Delta, curriculum content can be enriched by integrating regional ecological and cultural themes. Topics such as water resource management, sustainable agriculture, biodiversity conservation, and local cultural heritage provide opportunities for contextualized learning that connects academic knowledge with students' everyday experiences. Such contextualization not only enhances conceptual understanding but also fosters students' environmental awareness and social responsibility.

3.3 Educational Technology

Educational technology forms an essential infrastructural component of the learning ecosystem by enabling communication, collaboration, and access to diverse knowledge resources. Advances in digital technologies have expanded learning beyond traditional classroom boundaries, creating opportunities for blended learning, personalized learning, and networked knowledge creation.

Digital platforms, multimedia resources, interactive learning applications, and collaborative online tools allow students to engage with knowledge in more dynamic and flexible ways. Technology also supports collaboration among learners and educators, facilitating information sharing and collective problem-solving.

However, effective technology integration requires sensitivity to regional infrastructural conditions and digital accessibility. In the Mekong Delta, where technological resources may vary across schools, blended learning models that combine face-to-face instruction with digital support systems provide a practical pathway for gradually integrating technological innovation into educational practice.

3.4 Creative Learning Context

Creative learning contexts refer to the diverse physical, social, and environmental spaces in which learning activities take place. Research on innovative learning environments suggests that learning spaces significantly influence student engagement, collaboration, and creativity. Flexible learning environments that support exploration, experimentation, and group interaction can enhance students' motivation and active participation.

Such learning contexts include classrooms designed for collaborative learning, innovation laboratories or maker spaces, libraries and digital learning hubs, as well as outdoor educational environments. In the Mekong Delta, natural landscapes such as rivers, wetlands, farms, and ecological reserves provide particularly rich opportunities for experiential and place-based learning.

Integrating these local environments into the learning ecosystem allows students to observe natural processes, conduct field investigations, and connect scientific knowledge with real-life experiences. Experiential learning within authentic contexts thus strengthens both conceptual understanding and creative problem-solving abilities.

3.5 Creative Learning Culture

Creative learning culture represents the shared values, attitudes, and norms that sustain innovation within educational communities. Organizational culture plays a critical role in determining whether schools can successfully implement creative and learner-centered educational practices.

A strong creative learning culture encourages openness to new ideas, collaborative relationships among teachers and students, respect for diverse perspectives, and active participation in learning

processes. Within such environments, students feel empowered to express ideas, experiment with solutions, and engage in reflective learning.

For schools in the Mekong Delta, cultivating a creative learning culture also involves strengthening partnerships between schools and local communities, promoting democratic and participatory learning environments, and encouraging continuous professional development among teachers. When these cultural conditions are present, schools can evolve into innovative learning communities that nurture creativity, collaboration, and lifelong learning.



Figure. The Model of Creative Learning Ecosystem for Mekong Delta Primary Schools

In short, these five dimensions—learning actors, creative learning knowledge, educational technology, creative learning context, and creative learning culture—operate not as isolated elements but as interdependent components of a dynamic learning ecosystem. Their continuous interaction creates a supportive environment in which students can develop creativity, critical thinking, collaboration, and social responsibility.

By integrating international educational theories with the socio-ecological characteristics of the Mekong Delta, the proposed model provides a contextually grounded framework for fostering innovative and sustainable learning environments in Vietnamese primary school.

CONCLUSION

In the context of rapid technological change, knowledge-based economies, and increasing demands for creativity and innovation, education systems worldwide are gradually shifting from traditional knowledge transmission toward the development of competency-based, learner-centered, and innovation-oriented educational environments (OECD, 2018; Sawyer, 2012; Robinson, 2015). Within this transformation, the concept of a learning ecosystem has emerged as an important theoretical framework for understanding how diverse actors, environments, and resources interact to support meaningful and sustainable learning processes (Jackson, 2013; Siemens, 2005).

Drawing upon these theoretical perspectives, this study proposed a contextualized Learning and Creativity Ecosystem Model for primary schools in the Mekong Delta region of Vietnam. The model integrates five interrelated dimensions—learning actors, creative learning knowledge, educational technology, creative learning context, and creative learning culture—which collectively form a dynamic and interconnected system that supports creativity, collaboration, and holistic student development.

The proposed model contributes to the growing body of research on innovative learning environments and ecosystem-based education by highlighting the importance of integrating educational actors, technological infrastructures, learning environments, and cultural conditions within a unified framework. Consistent with previous studies on learning ecosystems and creative education (Brown & Thomas, 2011; Kangas, 2010; Fullan, 2014), the model emphasizes that sustainable educational innovation requires not only pedagogical change but also the coordinated interaction among institutional structures, community participation, and supportive learning cultures.

From a contextual perspective, the study also demonstrates how regional socio-ecological characteristics can be integrated into educational innovation. The Mekong Delta, with its distinctive river ecosystems, agricultural livelihoods, and strong community networks, offers valuable opportunities for experiential, place-based, and community-oriented learning. By incorporating these regional characteristics into curriculum content, learning environments, and community partnerships, schools can create more meaningful learning experiences that connect academic knowledge with students' everyday lives and local development challenges.

In practical terms, the proposed ecosystem model provides a conceptual framework for policymakers, school leaders, and educators seeking to promote creative learning and educational innovation in Vietnamese primary education. Implementing this ecosystem approach can help schools transition toward more flexible and collaborative learning environments, strengthen partnerships between

schools and communities, and support the development of key competencies such as creativity, critical thinking, collaboration, and social responsibility—competencies widely recognized as essential for the twenty-first century (Partnership for 21st Century Skills, 2019; UNESCO, 2017).

Nevertheless, this study is primarily conceptual in nature and therefore has certain limitations. The proposed model is based on theoretical synthesis and contextual analysis rather than empirical data. Future research should therefore focus on empirical validation of the model through qualitative and quantitative studies, including case studies of innovative schools, surveys of teachers and students, and experimental or quasi-experimental research designs that examine the impact of ecosystem-based learning environments on student creativity, engagement, and learning outcomes.

Further research may also explore the role of digital transformation, community-based learning networks, and interdisciplinary curriculum innovation in strengthening learning ecosystems in rural and developing regions. Such investigations would contribute to a deeper understanding of how educational ecosystems can support sustainable educational development in diverse socio-cultural contexts.

Overall, the Learning and Creativity Ecosystem Model proposed in this study offers a theoretically grounded and contextually relevant framework for advancing creative and holistic education in Mekong Delta primary schools. By integrating global educational theories with local cultural and environmental characteristics, the model contributes to ongoing efforts to build innovative, inclusive, and sustainable learning environments for the next generation of learners.

REFERENCES

- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(2), 39–43.
<https://doi.org/10.1080/00098650903505415>.
- Brown, J. S., & Thomas, D. (2011). *A new culture of learning: Cultivating the imagination for a world of constant change*. CreateSpace.
- Bruner, J. S. (1996). *The culture of education*. Harvard University Press.
- Fullan, M. (2014). *The principal: Three keys to maximizing impact*. Jossey-Bass.
- Gruenewald, D. A., & Smith, G. A. (2008). *Place-based education in the global age: Local diversity*. Lawrence Erlbaum Associates.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. Teachers College Press.

Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Jackson, N. J. (2013). The concept of a learning ecology. In N. J. Jackson & G. B. Cooper (Eds.), *Lifewide learning, education and personal development* (pp. 1–21). Lifewide Education.

Kangas, M. (2010). Creative and playful learning: Learning through game co-creation and games in a playful learning environment. *Thinking Skills and Creativity*, 5(1), 1–15.
<https://doi.org/10.1016/j.tsc.2009.11.001>

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.

Ministry of Education and Training. (2018). *General education curriculum (2018)*. Ministry of Education and Training, Vietnam.

Nguyen, T. H. (2020). Building innovative learning environments in Vietnamese schools. *Vietnam Journal of Educational Sciences*, 16(3), 45–52.

Nguyen, T. H., & Pham, M. T. (2021). Environmental education and sustainable learning in the Mekong Delta region. *Journal of Educational Research in Vietnam*, 17(2), 78–89.

Oblinger, D. G. (2006). *Learning spaces*. EDUCAUSE.

OECD. (2018). *The future of education and skills: Education 2030*. OECD Publishing.

Partnership for 21st Century Skills. (2019). *Framework for 21st century learning*. P21.

Piaget, J. (1972). *The psychology of the child*. Basic Books.

Robinson, K. (2015). *Creative schools: The grassroots revolution that's transforming education*. Viking.

Sawyer, R. K. (2012). *Explaining creativity: The science of human innovation* (2nd ed.). Oxford University Press.

Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). Jossey-Bass.

Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). Bloomsbury Academic.

Siemens, G. (2005). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2(1), 3–10.

Thomas, J. W. (2000). *A review of research on project-based learning*. Autodesk Foundation.

Tran, V. H. (2021). Developing creative learning culture in Vietnamese schools. *Journal of Educational Management*, 13(1), 34–42.

Tran, V. H., & Le, T. N. (2020). Community-based learning approaches in Mekong Delta primary education. *Vietnam Journal of Educational Development*, 12(4), 56–64.

UNESCO. (2017). *Education for sustainable development goals: Learning objectives*. UNESCO Publishing.

UNICEF Vietnam. (2022). *Digital transformation in education in Vietnam*. UNICEF Vietnam.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.