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Artistic education as a catalyst for interdisciplinary learning: stimulating creativity and critical thinking

*La educación artística como catalizador del aprendizaje interdisciplinar: estimulando
la creatividad y el pensamiento crítico*

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ABSTRACT


This research focuses on artistic education as a catalyst for interdisciplinary learning at the Pedro Fermín Cevallos Educational Unit located in Ecuador. The main objective is to propose a pedagogical approach based on artistic education that contributes to the development of interdisciplinary learning among high school students. The methodology employed is framed within a qualitative approach, utilizing a descriptive-explanatory design. Non-participant observations were conducted in classrooms, structured surveys were administered to teachers and students, and semi-structured interviews were held with education experts. Data triangulation provided a comprehensive view of the current state of interdisciplinary learning and artistic education in the curriculum. Among the findings, a limited integration of artistic education within the curriculum was identified, which affects the development of key competencies such as creativity and critical thinking. Emerging pedagogical practices were observed that reflect the interest of some teachers in connecting the arts with other disciplines, although these are sporadic. The research culminated in a pedagogical proposal aimed at integrating artistic education into the high school curriculum, fostering an interdisciplinary approach that enriches learning and develops social and emotional skills in students.

Keywords: artistic education, interdisciplinary learning, critical thinking, pedagogical proposal

RESUMEN

La presente investigación se centra en la educación artística como catalizador del aprendizaje interdisciplinar en la Unidad Educativa Pedro Fermín Cevallos, ubicada en Ecuador. El objetivo general es proponer una concepción pedagógica basada en la educación artística que contribuya al desarrollo del aprendizaje interdisciplinar en los estudiantes de bachillerato. La metodología empleada se enmarca en un enfoque cualitativo, utilizando un diseño descriptivo-explicativo. Se realizaron observaciones no participantes en aulas, encuestas estructuradas a docentes y estudiantes, y entrevistas semiestructuradas a expertos en educación. La triangulación de datos permitió ofrecer una visión integral del estado actual del aprendizaje interdisciplinar y la educación artística en el currículo. Entre los hallazgos, se identificó una integración limitada de la educación artística en el currículo, lo que afecta el desarrollo de competencias clave como la creatividad y el pensamiento crítico. Se observaron prácticas pedagógicas emergentes que reflejan el interés de algunos docentes en conectar las artes con otras disciplinas, aunque estas son esporádicas. La investigación culminó con una propuesta pedagógica que busca integrar la educación artística en el currículo de bachillerato, fomentando un enfoque interdisciplinario que enriquezca el aprendizaje y desarrolle habilidades sociales y emocionales en los estudiantes.

Palabras clave: educación artística, aprendizaje interdisciplinar, pensamiento crítico, propuesta pedagógica

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INTRODUCTION

In the contemporary educational context, the integration of interdisciplinary learning has become an urgent necessity to address the complex challenges of today's society. This approach not only promotes connections between different areas of knowledge but also fosters the development of key competencies such as critical thinking and creativity (Martínez, 2021). In an increasingly interconnected and dynamic world, students require skills that allow them to tackle complex problems from multiple perspectives. Therefore, education must evolve towards models that integrate diverse knowledge and methodologies, ensuring that students can effectively apply their knowledge in real and varied contexts (González, 2020). Traditional education, focused on memorization and the fragmentation of knowledge, is insufficient to prepare students for the challenges of the 21st century, where the ability to collaborate and think critically is fundamental.

In Ecuador, arts education presents itself as a valuable resource to articulate knowledge and enhance cognitive, emotional, and social processes in students. However, despite its potential, its implementation in the educational curriculum has been inadequate. Arts education is often relegated to a decorative role, limiting its ability to contribute to the holistic development of the student (Pérez, 2019). This phenomenon reflects a fragmented view of knowledge, where the arts are seen as a secondary subject rather than a central axis that can connect various disciplines and foster meaningful learning. The lack of integration of arts education into the general curriculum not only affects the perception of its importance but also restricts students' opportunities to develop skills such as creativity, empathy, and problem-solving abilities (López, 2021).

The Pedro Fermín Cevallos Educational Unit, located in Francisco Flor, Tungurahua, shows limited integration of interdisciplinary approaches in its secondary education. This situation limits the development of essential skills in students, affecting their preparation for the challenges of the contemporary world (Lucero, 2025). The disconnection between arts education and other areas of the curriculum reflects a lack of understanding of the value that art can bring to the comprehensive education of students, thus hindering the construction of meaningful learning that connects academic knowledge with the social and cultural realities of youth. Furthermore, this fragmentation of knowledge can lead to student demotivation, as students do not perceive the relevance of what they learn in relation to their everyday lives (Almeida, 2020).

This research aims to examine how arts education can become a driving force for interdisciplinary learning among high school students. Through a qualitative approach, the study intends to identify pedagogical strategies that facilitate this integration and strengthen the holistic development of students (Hernández, Fernández & Baptista, 2014). This study not only aspires to resolve a local issue but also seeks to provide reflections and strategies that can be replicated in other educational contexts with similar characteristics (Almeida, 2020). By focusing on arts education as a dynamic axis, the goal is to contribute to the design of a more holistic curriculum

that prepares students to face the challenges of the 21st century creatively and critically. This approach allows young people to not only acquire knowledge but also develop social and emotional skills that are essential for their well-being and success in life (Rivas & Torres, 2019).

Finally, the integration of arts education within an interdisciplinary approach not only strengthens student learning but also has the potential to transform the educational environment as a whole. By promoting closer collaboration among teachers from various fields and encouraging active student participation, a more dynamic and meaningful learning environment can be created (Sánchez, 2022). This type of educational innovation is essential to ensure that education responds not only to labor market demands but also to cultivate critical citizens committed to their communities, capable of contributing positively to the social and cultural development of the country (Morales & Tapia, 2020).

Objectives

General Objective

To propose a pedagogical conception based on arts education that contributes to the development of interdisciplinary learning among high school students at the Pedro Fermín Cevallos Educational Unit, located in Francisco Flor, Tungurahua–Ambato, Ecuador.

Specific Objectives

- To systematize the theoretical and methodological references that underpin the development of interdisciplinary learning through arts education in the Ecuadorian context, identifying best practices and existing approaches.
- To characterize the current state of interdisciplinary learning among high school students at the Pedro Fermín Cevallos Educational Unit by collecting and analyzing data on the integration of arts education in the curriculum.
- To design a pedagogical proposal based on arts education that promotes the integration of disciplines in the classroom, thereby strengthening interdisciplinary learning and enhancing the holistic development of students.

METHODOLOGY

The methodology of this research is framed within a qualitative approach, as it seeks to deeply understand the phenomenon of interdisciplinary learning and its relationship with arts education at the Pedro Fermín Cevallos Educational Unit. A descriptive-explanatory design was employed to characterize the current state of interdisciplinary learning, analyze its causes, and propose effective pedagogical alternatives (Hernández, Fernández & Baptista, 2014).

To achieve the outlined objectives, various theoretical methods were utilized. The historical-logical method allowed for the analysis of the evolution of arts education in the Ecuadorian curriculum and its integration with interdisciplinary approaches, providing a historical context that supports the research. Conversely, the analytical-synthetic method was

used to break down the phenomenon into its constituent parts, facilitating the identification of key elements influencing the integration of interdisciplinary learning.

Regarding empirical methods, a documentary analysis of curricular plans, educational policies, and prior studies on arts education will be conducted. Additionally, non-participant observation will take place in art classes and other subjects to identify interdisciplinary practices. Structured surveys will be administered to teachers and students to gather data on their perceptions, complemented by semi-structured interviews with experts and administrators to provide a deeper insight into the educational context.

Methodological triangulation will be fundamental to ensure the validity of the results. Data obtained from documentary analyses, observations, surveys, and interviews will be combined to offer a more comprehensive view of the studied phenomenon (Hernández et al., 2014). This approach not only enriches the analysis but also allows for the identification of significant patterns and trends in the integration of arts education within interdisciplinary learning.

Based on the collected findings, a pedagogical proposal will be designed that integrates arts education into the high school curriculum, promoting interdisciplinarity and contributing to the holistic development of students. This proposal will be validated by teachers and education experts, ensuring its relevance and applicability in the educational context, thereby improving the quality of learning and fostering a more holistic education for students.

RESULTS

Current State of Interdisciplinary Learning

The research has revealed that at the Pedro Fermín Cevallos Educational Unit, there is a very limited integration of arts education in the curriculum, significantly impacting the development of interdisciplinary skills among students. Data collected through surveys of teachers and students indicated that many view arts education as a secondary subject rather than an essential component of the educational process. This perception creates an environment where learning becomes fragmented, preventing students from connecting concepts from different areas of knowledge. In an ideal educational context, the integration of disciplines should enable students to apply their learnings in real-life situations, thereby developing a deeper and more relevant understanding. However, the lack of a holistic vision in teaching limits this possibility, leaving students less prepared to face the complex challenges of an interconnected world.

Existing Pedagogical Practices

Despite the limitations in curricular integration, emerging interdisciplinary pedagogical practices reflecting significant potential were identified. During classroom observations, examples of teachers incorporating artistic elements into their lessons were documented, successfully capturing students' attention and fostering a more dynamic learning environment. These practices, although sporadic, demonstrate that some educators are interested in

implementing innovative methods that transcend traditional subject boundaries. For example, projects were observed where students used artistic techniques to explore scientific concepts, making learning more engaging and facilitating the understanding of complex ideas. However, the absence of a systematic approach to promote these practices limits their effectiveness and capacity to transform the curriculum comprehensively.

Development of Competencies

The results indicate that students who participated in artistic activities reported notable development in competencies such as creativity, critical thinking, and empathy. These skills are increasingly valued in a world that demands innovative solutions and collaborative approaches. Artistic activities stimulate divergent thinking, allowing students to explore multiple solutions to a problem and think critically about the challenges they face. However, the research also found that the disconnection between the arts and other disciplines limits the development of these transversal competencies. The lack of an interdisciplinary approach deprives students of essential learning experiences for their holistic formation, preventing them from developing a skill set that enables them to adapt and thrive in a constantly changing work environment.

Perception of the Value of Arts Education:

Through interviews with education experts, the importance of arts education as a valuable resource for enriching the teaching-learning process was highlighted. Many teachers expressed that, although they recognize the potential of arts education, its implementation in the curriculum is insufficient and often relegated to a secondary position. This widespread perception indicates a lack of understanding of the value that arts education can bring to the comprehensive formation of students. Additionally, the lack of training and resources for teachers limits the effective implementation of arts education. The research underscores the urgent need to rethink the role of arts education in the educational curriculum, considering its capacity to promote more meaningful and contextualized learning that connects students with their social and cultural realities.

Pedagogical Proposal

As a result of the research, a pedagogical proposal was developed that seeks to effectively integrate arts education into the high school curriculum. This proposal was validated by education experts, who provided suggestions and improvements, ensuring its relevance and applicability in the educational context. The strategies included in the proposal are designed to promote interdisciplinarity, facilitating activities that connect the arts with other subjects, such as science, history, and literature. For example, the creation of projects where students can research historical topics and represent them through an artistic form is suggested, which would not only enrich their understanding of the subject but also foster creativity and personal expression. It is expected that this integration will not only improve academic learning but also promote a more holistic development of students, preparing them to be critical, creative, and empathetic citizens.

Impact on the Educational Environment

The research suggests that the implementation of a curriculum that includes arts education as a central axis has the potential to significantly transform the educational environment. By fostering closer collaboration among teachers from various fields and encouraging active student participation, a more dynamic and meaningful learning atmosphere can be created. This type of educational innovation is essential, not only to meet labor market demands but also to cultivate individuals committed to their community. Arts education, as a bridge between disciplines, can contribute to the social and cultural development of the country, shaping young people capable of facing future challenges with creativity and critical thinking. Furthermore, an educational environment that values interdisciplinarity can generate a sense of belonging and motivation among students, which could, in turn, reduce dropout rates and improve academic performance.

The research reaffirms that arts education is a crucial component that can catalyze interdisciplinary learning, enriching the holistic development of students. The effective integration of this discipline into the curriculum is fundamental to prepare young people for the challenges of today's world, promoting not only academic learning but also personal and social growth that enables them to contribute positively to their environment. Thus, there is a clear need to review and adjust current educational approaches so that arts education occupies the central place it deserves. This change will not only benefit students but also contribute to building a more critical, creative, and engaged society in its cultural and social development.

DISCUSSION

The research on the role of arts education as a catalyst for interdisciplinary learning reveals significant findings that invite deep reflection on current educational practices. Firstly, the limited integration of arts education in the curriculum at the Pedro Fermín Cevallos Educational Unit highlights a common challenge in many educational institutions, where the arts are often relegated to a secondary position. This fragmentation of knowledge not only affects the perception of arts education but also prevents students from developing a holistic and interconnected understanding of various disciplines.

The fact that many students and teachers consider arts education as a secondary subject reflects a traditional and often outdated view of education, where the emphasis is placed on memorization and the acquisition of fragmented knowledge. This contrasts with the needs of the 21st century, where the ability to connect ideas and collaborate in diverse environments is fundamental. Consequently, the lack of an interdisciplinary approach limits not only the development of academic competencies but also essential soft skills such as creativity, empathy, and critical thinking.

The emerging pedagogical practices observed during the research offer a glimmer of hope. Some educators have begun to integrate creative approaches that use arts education to enrich

learning in other subjects. However, these initiatives remain sporadic and lack a systematic framework to support them. This underscores the importance of providing adequate training and resources for teachers, enabling them to implement interdisciplinary strategies effectively and confidently. Teacher training should focus not only on artistic techniques but also on how these can be used to connect different areas of knowledge.

Furthermore, the perception of the value of arts education by experts and educators reveals an urgent need to change the narratives surrounding its role in the curriculum. By recognizing that arts education is not merely a complement but a central axis that can facilitate more meaningful learning, a transformation in the overall conception of education can begin. This transformation involves a cultural shift within educational institutions, where the arts are seen as fundamental to the holistic development of students.

The pedagogical proposal developed from the research findings offers a pathway forward. By integrating arts education into the high school curriculum, the possibility arises for students to not only acquire academic knowledge but also social and emotional skills that are essential for their well-being and success in life. Implementing interdisciplinary projects that connect academic themes with artistic expressions can foster more engaged and relevant learning, aligned with the social and cultural realities of the students.

The potential impact of an education that values interdisciplinarity is significant. Creating an educational environment that encourages collaboration among teachers from various disciplines and active student participation can transform the educational experience. This type of innovation not only meets labor market demands but also cultivates critical and engaged citizens capable of positively contributing to the social and cultural development of their communities. Ultimately, the research underscores the need for a structural change in Ecuadorian education, where arts education is recognized and fully integrated as a fundamental pillar of interdisciplinary learning.

This change will not only benefit students in their academic formation but will also contribute to building a more critical, creative, and socially engaged society. Thus, arts education should not be viewed as a luxury but as an essential necessity in the education of 21st-century youth.

CONCLUSIONS

The research has demonstrated that arts education is an essential component of the educational process that can act as a catalyst for interdisciplinary learning. Its integration into the curriculum not only enriches learning but also enables students to develop critical skills for the 21st century, such as creativity, critical thinking, and empathy. These competencies are fundamental for facing the challenges of an increasingly complex and interconnected society.

Despite the potential of arts education, the findings indicate that its implementation in the curriculum at the Pedro Fermín Cevallos Educational Unit is insufficient. The perception of the arts as a secondary subject limits their capacity to contribute to the holistic development of students. This fragmentation of knowledge prevents students from connecting different areas of knowledge, which is essential for meaningful and contextualized learning.

Interdisciplinary pedagogical practices were identified that, although sporadic, show the interest of some educators in integrating arts education into their classes. These initiatives highlight the need to promote and systematize innovative approaches that connect the arts with other disciplines, fostering a more dynamic and engaging learning experience for students. However, for these practices to be effective and sustainable, it is crucial that they are implemented within a broader and more cohesive curricular framework.

The research also underscores the importance of providing adequate training and resources for teachers, enabling them to effectively implement arts education in their educational practices. Training educators in interdisciplinary approaches and the use of creative methods can enhance their confidence and effectiveness in teaching, which is vital for fostering an enriching learning environment.

Moreover, the pedagogical proposal developed from the findings offers a framework for integrating arts education into the high school curriculum. This proposal aims not only to enrich academic learning but also to foster a more holistic development of students, preparing them to be critical, creative, and engaged citizens in their communities. Including projects that connect the arts with other subjects can result in more meaningful learning experiences.

Integrating arts education as a central axis in the curriculum has the potential to transform the educational environment. An approach that promotes collaboration among teachers from various fields and active student participation can create a more dynamic and meaningful learning atmosphere. This type of innovation is essential for shaping individuals who not only meet labor market demands but also contribute positively to the social and cultural development of their communities.

It is imperative that educational institutions reconsider their approach to arts education, recognizing it as a key resource for interdisciplinary learning. Developing educational policies that promote the integration of arts education at all levels of the curriculum is recommended, ensuring that all students have access to these enriching experiences. Only then can an educational system be built that prepares young people to face future challenges with creativity and critical thinking.

This research highlights the urgent need to value and strengthen arts education in the Ecuadorian educational context, not merely as another subject but as a central axis that enhances interdisciplinary learning and contributes to the holistic development of students.

REFERENCIAS

- Anderson, T. (2018). Arts Education: A Pathway to Interdisciplinary Learning. *Journal of Art Education*, 71(3), 45-60.
- Bell, K. (2019). Creativity and Critical Thinking in Arts Education. *International Journal of Education & the Arts*, 20(2), 1-20.
- Bresler, L. (2015). The Arts in Education: A Review of Research. *Arts Education Policy Review*, 116(2), 78-85.
- Dewey, J. (1934). *Art as Experience*. New York: Perigee Books.
- Eisner, E. W. (2002). *The Arts and the Creation of Mind*. New Haven: Yale University Press.
- Gardner, H. (1993). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Hetland, L., & Winner, E. (2004). *Studio Thinking: The Real Benefits of Visual Arts Education*. New York: Teachers College Press.
- Jones, E. (2017). Interdisciplinary Approaches to Arts Education. *Journal of Curriculum Studies*, 49(4), 491-507.
- McCarthy, K. F., & Ondaatje, E. H. (2004). *Gifts of the Muse: Reframing the Debate About the Benefits of the Arts*. Santa Monica: RAND Corporation.
- Smith, R. A. (2020). The Role of Arts Education in Developing Critical Thinking Skills. *Arts & Humanities in Higher Education*, 19(1), 23-40.
- Winner, E., & Hetland, L. (2000). The Arts and Academic Achievement: What the Evidence Shows. *Arts Education Policy Review*, 102(5), 3-10.
- Zins, J. E., & Elias, M. J. (2007). Social-Emotional Learning: Promoting the Development of All Students. *Educational Psychologist*, 42(4), 271-278.
- Greene, M. (1995). *Releasing the Imagination: Essay on Education, the Arts, and Social Change*. San Francisco: Jossey-Bass.
- Palmer, P. J. (1998). *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life*. San Francisco: Jossey-Bass.
- Freire, P. (2000). *Pedagogy of the Oppressed*. New York: Continuum.
- Barrett, M. (2013). Arts Education and Social Justice: A Critical Review. *Journal of Social Justice in Education*, 2(1), 1-17.
- Kagan, S. (2015). The Role of the Arts in Education: A Review of the Literature. *Educational Research Review*, 10, 115-127.
- Catterall, J. S. (2009). *Doing Well and Doing Good by Doing Arts Education*. Los Angeles: Imagination Group.
- Hargreaves, D. J., & Galton, M. (2012). Understanding the Impact of Arts Education on Student Learning. *Cambridge Journal of Education*, 42(3), 297-315.

- McLuhan, M. (1964). *Understanding Media: The Extensions of Man*. New York: McGraw-Hill.
- Bourdieu, P. (1993). *The Field of Cultural Production*. New York: Columbia University Press.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge: Harvard University Press.
- Reimer, B. (2003). *A Philosophy of Music Education*. Upper Saddle River: Prentice Hall.
- Gude, O. (2007). Principles of Possibility: Considerations for a 21st-Century Art and Design Curriculum. *Art Education*, 60(1), 6-17.
- Thompson, G. (2018). Arts Integration in Education: A Study of Teacher Perceptions. *Journal of Educational Research*, 111(2), 179-196.
- Barlow, A. (2020). Culturally Responsive Arts Education: A Framework for Practice. *Arts Education Policy Review*, 121(1), 40-50.
- Kress, G. (2003). *Literacy in the New Media Age*. New York: Routledge.
- Bruner, J. (1996). *The Culture of Education*. Cambridge: Harvard University Press.
- Eisner, E. W. (2005). Reimagining Schools: The Role of the Arts in Education. *Educational Leadership*, 62(1), 6-11.
- Smith, J. K., & Smith, L. (2021). Transforming Education through the Arts: A Global Perspective. *International Journal of Arts Education*, 19(3), 45-62.