

Introduction to a Sampling of Arts Integration Research

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The ninth volume of the *Journal for Learning through the Arts* includes 12 articles highlighting a wide range of research and associated educational activities focused on integrating the arts with a wide variety of subject areas—architecture, geography, health sciences, language arts, mathematics, and science. As Maxine Greene (1995) suggested in *Releasing the Imagination*, “To conceive the arts in relation to curriculum is to think of a deepening and expanding mode of tuning-in.” Evidence of this type of “tuning-in” is provided through the utilization of a variety of creative methods for developing expression, cognitive skills, problem solving, critical thinking, collaboration, and empowerment.

The issue begins with an arts-integrated solution to the problem of the general lack of geographic understanding exhibited by young people in the United States.¹ Richardson and Brouillette report on the methods and results of a quasi-experimental study that was carried out to test the effectiveness of an eighth-grade version of *Mapping the Beat*, a series of music-focused workshops designed to supplement the American history curriculum. When students listened to or sang historical or ethnic music, the sensory experience reinforced the conceptual understanding derived from classroom lectures and texts, embedding the information more deeply in memory. The growth in the geographic knowledge of the treatment group (effect size=.854) indicated that an inquiry-based approach that draws upon historic and ethnic music to build an appreciation for the complex cultural geography of the United States is not only effective, but a pedagogical tool for enhancing cross-cultural understanding.

Next, Mary Kokkidou examines the literature associated with critical thinking and highlights the importance of promoting critical thinking in general education, also with a special emphasis on music. Since music, and the other arts, offer the repeated challenge of situations in which there is no standard or approved answer, Kokkidou believes they have extraordinary potential for promoting critical thinking. For example, an intellectual approach to processing works of art involves the recipients’ experiences, knowledge, and preferences, therefore facilitating students in delivering relevant feedback. Kokkidou proposes a framework of applications for teaching and learning music, within which critical thinking skills are developed that help learners explore, understand, accept, and use ambiguity and subjectivity.

An article by An, Caprero, and Tillman investigates the ways that teachers integrate music into mathematics lessons and identifies critical interdisciplinary lesson design elements for those developing curricula. The research team focused their quasi-experimental study on the effects of these interdisciplinary lessons on elementary school students’ mathematical abilities. The rubric assessed students’ ability levels in modeling, strategy, and application and found statistically significant improvements after the intervention. The researchers also noticed how the integration of music and math also facilitated student engagement and motivation.

In “The Scientific Method and the Creative Process,” Nichols and Stephens recommend teaching science and the arts simultaneously at the elementary school level to improve student engagement. They explore the intersections between scientific methods and the creative processes of the arts, then present examples of effective learning

activities. The authors encourage science and music, drama, or visual arts teachers to collaborate to create fully integrated lessons, since these can be so engaging for the students and teach them life lessons as well.

Poldberg, Trainin, and Andrzejczak suggest “Rocking Your Writing Program” by integrating art, literacy, and also science in the elementary level classroom. They provide an extensive literature review to show intersections among the disciplines and to support their pilot study in which they explored how the integration of the arts and sciences stimulates scientific thinking and artistic development, while supporting growth in domain specific literacy. Sample artifacts are shared, and the methods of analysis used are explained to show how students learn in the integrated unit. In the end, performance gaps were reduced, and students demonstrated increased performance across the three content domains.

The next two articles remind us of the great value of the arts and humanities when integrated with the health sciences. Lisa Kerr describes an approach to teaching Alice Walker’s essay, “Beauty: When the Other Dancer is the Self” in the literature-and-medicine classroom to promote better understanding of illness experiences and facilitate the development of narrative competence. Robin Winter’s article discusses a multimedia approach to residency training which utilizes Milne’s *Winnie-the-Pooh* classic children’s books, film clips, and music, as well as Hoff’s *Tao of Pooh* to describe four habits of mindfulness useful in medicine: attentive observation, critical curiosity, beginner’s mind, and presence. It is suggested that using literature and the arts to engage students and stimulate discussion about emotional and personal topics helps increase their awareness about using sensitivity in clinical settings. By fostering empathy and improving patient-provider communication, students may be better prepared to provide more compassionate, effective care tailored to individual patients.

In a contribution by Nicholas Paley intended to be provocative, he asks the question “Can Architects Help Transform Public Education?” and uses the example of the Sarasota County Civic School Building Program (1955-1960) to derive four key lessons from an intriguing collaboration between a School Board and a number of imaginative architects. Sarasota’s bold approaches and experimental designs, addressing important social and urban challenges, optimized the teaching and learning spaces. Paley asserts that school architecture can be a positive force in the teaching-learning process leading to transformative change. Although a renewal of this type of ambitious school architecture is unlikely, increasing awareness of how interactive learning spaces and the built environment can improve educational experiences is important. In addition, how such creativity/design acumen might be nurtured in K-12 schools is worthy of further consideration.

The article entitled “Can we use Creativity to Improve Generic Skills in our Higher Education Students?” by Rodriguez and Castilla suggests that movement is a dynamic process in which a person can express emotions, perceptions, motivations, and relationships. Detailed information is provided about a movement development program that has been applied to freshman students studying in different academic areas. Using qualitative methods, the researchers examined students' reflections and the results of a student questionnaire to uncover perceptions of the connections between general skills and developing body consciousness.

Similarly, “Poetic Praxis” by Sarah MacKenzie used artistic endeavors to engage college students, in this case, those enrolled in a *Social Foundations of Education* course. Collectively creating found poetry was the method used to create spaces for lively, communal engagement with theory in the classroom. Discussing a number of activities MacKenzie felt were effective, she explores the possibility of arts-informed pedagogical practices as tools of reflection that lead to agency and informed, social change. Through poetry, students were able to both enter into and step outside of, experience in a manner that was communal, offering an opportunity for a dialogue that engaged not only the mind, but senses and emotions. She also used poetry throughout her article, as a means to engage the reader and open their minds to new possibilities.

In “What is Really Happening in the Elementary Classroom?” Lisa LaJevic investigates the depth of primary school teachers’ understanding, implementation, and experiences with arts integration. Analyzing teacher interviews, focus group sessions, classroom observations, and written texts, LaJevic concludes that the visual arts are often diluted and devalued through the practice of arts integration. Addressing what can be done to attend to the problem of arts devaluation in the general classroom, she suggests promoting dynamic pathways of interdisciplinary teaching/learning that not only connect the arts to other academic subjects, but also explore the arts as a way to make meaning of students’/teachers’ lives and the world in general.

Dawn Baker’s qualitative pilot study examines and describes how the arts make unique contributions to intellectual growth in children when integrated with curriculum concepts in a school devoted to arts integration. The study’s goals were to identify behavioral correlates related to cognitive and intellectual functioning and to capture how state standards are integrated within arts-based instruction. Theme-driven and project-based learning often required students to use planning, researching, and imagination related to an overall instructional objective. Thematic units provided vehicles for cognitive development that promoted vocabulary development, reasoning, comparing/contrasting, abstraction, integration of concepts, and conceptual development. The use of context and culture across instructional units is recommended to promote intellectual development.

The authors of this issue of the *Journal for Learning through the Arts* are all asserting the importance of the aesthetic dimension in human experience, society, and especially, in schools. Such experimentation with arts integration, whether it uncovers positive effects or calls attention to the areas where more research and quality implementation is necessary, has the potential to create space for the arts in schools, from kindergarten through college. As James Catterall (2009) pointed out in *Doing Well and Doing Good by Doing Art*, “Our analysis of the NELS:88 survey established, for the first time in any comprehensive way, that students involved in the arts are demonstrably doing better in school than those who are not—for whatever constellation of reasons.” Therefore, we must continue to explore the possibilities, as this volume’s authors have done with their research and experimentation, to better pinpoint the implications of arts integration in terms of both students’ academic achievement and affective well-being. In this way, we strive to enable students to develop the fullest range of human capacities.

References

Catterall, James. (2009). *Doing well and doing good by doing art*. Los Angeles and London: Imagination Group/I-Group Books.

Greene, Maxine. (1995) *Releasing the imagination*. San Francisco: Jossey_bass Publishers.

1 For extended information about *Mapping the Beat* in this context, see Richardson's 2010 article "Implementing *Mapping the Beat* in the 8th Grade" in the *Journal for Learning through the Arts* at http://escholarship.org/uc/search?entity=class_lta;volume=6;issue=1. For links to a variety of *Mapping the Beat* projects, see <http://www.class.uci.edu/geo/hist>.