



Creative Teachers, Creative Students: Arts-Infused Learning Experiences for Early Childhood Educators

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We live in New York, one of the world's greatest art centers. Attendance to arts events, in the performing arts and in museums, is at record levels. Besides this public appreciation of the arts, a growing body of research documents that engagement in the arts stimulates crucial avenues of the cognitive and emotional development of children. Despite this, the arts continue to be cut from school budgets. Art specialists are

becoming increasingly rare, almost a luxury, as school administrators focus on providing resources for remediation and test preparation.

The No Child Left Behind Act of 2001 (NCLB), the most significant case of the federal government micromanaging schools in U.S. history, does not actually support education in the arts, in spite of naming it as a core academic subject (Chapman, 2005). In exchange for federal funds, NCLB requires that schools make annual progress in reading,

Photo Above: Kindergarten student explores painting during a visual arts coaching session.

math and science scores. Since implementation of NCLB, the Council of Chief State School Officers (CCSSO, 2002, in Chapman, 2005), a nonpartisan, nationwide, nonprofit organization of public officials who, among other services, provide leadership and advocacy on major educational issues, referred to the subjects that are not required to provide scores (art, foreign language, humanities and social studies) as the “lost curriculum.” In a survey just completed, the Council for Basic Education, funded by the Carnegie Corporation of New York, found that of all subjects included in their survey, the arts seem at greatest risk, especially in schools that serve mostly minority students (NAEA News, 2004, p.1). Yet, we look to public education to help young people find meaning and commitment through learning.

This misunderstanding about the importance of the arts in human development is widespread. It is a simple fact that the arts have not been a priority on the American educational scene. For many elementary school children, the only place they will encounter education in the visual arts, dance, drama and music is with their classroom teachers; almost half of our nation’s elementary schools lack a specialist art teacher. Today in America, a student can graduate from high school meeting the requirement of zero to two credit hours of arts education. In Japan, students must take five credit hours, and in Germany, students must take seven to nine credit hours (Fowler, 1996, p. 19).

Current research reveals that there is a positive relationship between learning in the arts and other disciplines. Important characteristics of the learning process, such as elaboration, fluency, originality, the capacity to take multiple perspectives and to comprehend layered relationships are stimulated by learning in the arts and other subjects (Burton, Horowitz & Abeles, 2000; Singley & Anderson, 1989; Greeno et al., 1992).

Hofstra University supported the administration of a two-year arts program in three high-needs Long Island school districts as well as at the Diane Lindner-Goldberg Child Care Institute

on the Hofstra campus. My role was to guide teachers in artistic development in particular domains (the visual arts, music, dance, and drama) and to provide specific methods for curriculum integration. Cognitive capacities and dispositions in these four art forms, such as creativity, imagination and the ability to think critically, have been found to enhance learning in other subjects (Catterall, 1998). Numerous research studies conducted in the past 10 years, including the following, support this view (Burton et al., 2000):

- **Improvement in writing, reading comprehension and verbal expression has been found in elementary school age children following artistic experiences in the visual arts and music (Catterall, 1998; Moore and Caldwell, 1993).**
- **Improved ability in elementary and middle school age children to think speculatively, analytically, and critically after experiences in drama, dance and the visual arts (Fineberg, 1991; Wolf, 1994).**
- **Improved brain function, specifically spatial-temporal reasoning (required for mathematics), following music education (Rauscher et al., 1993).**

Transfer has typically been viewed as an all too simplistic flow of information and effects from the arts to other subjects (Eisner, 1998; Burton et al., 2000). Transfer is perhaps only one component of a complex set of learning relationships. More than simply regarding transfer of learning as a one-way movement from arts learning to academic achievement, this process involves a dynamic relationship between subjects that enhance student learning. For example, when drama is taught together with literature, each subject illuminates the other.

This program provided hands-on teacher workshops and in-class coaching sessions for early childhood teachers and their preK to first grade students (children ages 3 to 6 years). The intent was

to provide rich experiences for both teachers and children in the visual arts, music, dance and drama. The grant provided funds for specialists in each area, curriculum materials, art supplies, musical instruments, and a culminating DVD.

A basic premise guiding this work is that art should be central to the curriculum of all children. We attempted to bring the arts into the classrooms of as many children as possible, particularly to those children whose schools are impacted by restricted budgeting for arts education. Besides the academic boosts noted above, research additionally demonstrates that children exposed to rich arts programs, in and out of schools, demonstrate, over time, pride in their work and empathy toward peers, families and communities. It appears to be common sense to say that arts integration helps young children to connect academic learning to personal experience, thereby assisting them to make sense of their world. The expressive and constructivist nature of artistic activity enables students to grasp complex concepts through the lens of their own experience and perceptions.

Arts-Infused Workshops: Visual Arts, Drama, Dance and Music

The arts specialists, university professors selected for their arts education expertise, first ran workshops for teachers. Following these hands-on experiences, the specialists joined teachers in their classrooms to provide support. The specialists were: Anita Feldman, adjunct assistant professor of dance education at Hofstra; Dr. Lori Custodero, assistant professor of music education at Columbia University; Dr. Milton Polsky, consultant, author and adjunct assistant professor of drama education; and me, Susan Goetz Zwirn, assistant professor of art education at Hofstra.

In the workshops, teachers assumed a dual existence; learning to think like teachers of the arts, they were also proxies for young students experiencing the learning methods being taught. The duality of these teachers’ roles revealed a basic challenge: how to connect abstract

ideas to the students' experience. The workshops were a constant weaving of two strands of experience: how to think like a teacher and how to experience learning like a young child.

Expression and Spatial Reasoning Explored Through the Visual Arts

In the visual arts workshops, teachers developed fluency in the media of painting, collage and sculpture. Philosopher Suzanne Langer (1924/1971) maintains that visual forms of thinking are more efficacious for certain types of expression, as some ideas are too subtle for speech. For children who are early language and second language learners, this subtlety makes the visual arts a brilliant media for the conveyance of ideas. To assist children to express ideas in visual forms, the teachers studied approaches to teaching painting and drawing.

The workshop walls were covered with art prints and examples of children's artwork. The teachers examined prints from diverse cultures to explore how art reveals history and the values and rituals of culture. They developed ways to question children about their art, stimulating them to think more deeply about the subject under review. Most significantly, teachers created art that both related to other subjects and had personal meaning in each medium.

To provide learning in spatial development, critical in both mathematics and the visual arts, the workshops presented teachers with many approaches to master mathematical or spatial concepts in 2D and 3D projects. They created sculptures, called constructions, that demonstrated an understanding of the three dimensions, balance, types of

angles, intersection and simultaneity. Working clay with their hands, the teachers learned about form (mass, shape, height, structure and balance), so that they could pass on to children a language of hands (Kolbe, 2001). They created collages that reinforced learning about negative space, patterns, measurement, fractions and numeration.

They studied Howard Gardner's theory of multiple intelligences, specifically spatial, bodily-kinesthetic and mathematical intelligences (1983). According to Gardner's theory, spatial intelligence relates to one's ability to accurately perceive the visual world and perform transformations of perceptions; musical intelligence, one's ability to appreciate and produce forms of musical expression; and bodily-kinesthetic, one's capacity to understand concepts or solve problems through the body. They studied the aesthetic and spatial qualities that both mathematics and the visual arts have in

and its application in the classroom, the teachers witnessed their students' mastery of mathematical concepts, such as the three dimensions, and the expression of complex ideas, such as metamorphosis, through the creation of art.

Language Development, Problem Solving and Social Emotional Development Nurtured Through Drama

During the drama workshops, the teachers developed a sense of community as they engaged in dramatic enactments. These workshops focused on three key areas: language development, problem solving and social emotional development. Drawing on a large body of research that demonstrates the documented impact that drama in the classroom has on literacy (Ackroyd & Boulton, 2001; McCaslin, 2004), Dr.

Polsky emphasized curriculum that focused on the interrelated strands of literacy: listening, speaking, reading and preparation for writing. He guided the teachers to use children's dramatization of stories, particularly traditional fables, as a means to understand characterization and thematic development. Several teachers commented on how participating in creative drama helped them to convey an understanding of characterization. One boy said, "We get to

think like the people in the story." Research reveals that through dramatic reenactments of stories heard, young children demonstrate enhanced story sequencing, use of language and story comprehension (Williamson & Silvern, 1986).

Through these methods, teachers learned the differences between varying dramatic approaches: creative drama,



Children participate in shadow theater with the drama specialist and their teacher.

common, and how sculpture is an ideal art form to embody these abstract ideas. After studying children's perceptual stages of development to examine how children develop in their ability to understand and create art (Lowenfeld & Brittain, 1987), teachers explored the underlying principles of the materials, design, compositional elements and color theory. As a result of their studies



Teachers from the Diane Lindner-Goldberg Child Care Institute at Hofstra experiment with traditional clay techniques in a Saturday workshop.

dramatic play and children's theater. A constellation of literacy competencies was encouraged: story structure, vocabulary building, and comprehension of characters. As with the other art forms, the teachers learned through creating and dramatizing themselves. For example, the teachers participated in the ancient art of Shadow Theater, which integrates drama (enacting the story), art (making the shadow puppets), music (Stravinsky's *Rites of Spring*), and movement (movement of the puppets). The connections to science, making shadows and understanding light sources were apparent to all the teachers. Moore and Caldwell (1993) found that when drama was combined with other art forms, such as drawing, children demonstrated greater accomplishments in language arts than when only traditional discussion was planned.

A unique benefit of drama in the classroom is its stimulation of a sense of community. Howard Gardner notes that the highly interpersonal nature of drama requires engagement with universal human traits, and verbal and nonverbal interaction with cast and audience. Building a sense of trust and cooperation is integral to developing a sense of community in the classroom.

Learning Becomes Concrete and Physical Through Dance

Howard Gardner (1983) states that movement can be a form of bodily-kinesthetic intelligence, in which ideas are expressed and problems are solved through the body. Nikitina (2003) describes the "... inherent tendency of the arts to transcend the boundary of body with the mind. ..." (2003, p. 55.).

The goal of the workshops was to provide avenues to integrate movement into other curricular areas as a means to make learning concrete, physical and active. Movement exercise can stimulate learning in many areas: it can reveal meaning in literature, facilitate understanding of concepts in social studies, and make abstract mathematical and scientific concepts concrete (Lazaroff, 2001).

Learning is enhanced for children when they have additional understanding through dance activities because basic components of dance (pattern, form, shape, time, space, energy and relationship) are pivotal concepts in other curricular areas (Fowler, 1978). The teachers created dances alone and in groups, discovering ways to use movement to *dance* a story or idea. They explored a variety of connections to academic curriculum. For English enhance-

ment, young children can assume the shapes of the letters, order themselves into sentences, create movements to embody long and short vowel sounds, punctuation marks, syllabication and rhyming, and interpret stories through dance. For mathematics, shapes, dimensions and sequencing are all joyously explored with and without music.

The teachers learned how to teach number and pattern sequences through movement during drumbeats, isolating and responding with different body parts. They explored ways to teach science concepts through movement such as the rotation of the planets around the sun and the cycle of rain and plant growth. The teachers noted that combining the teaching of cognitive functions with the physical as well as the artistic and academic stimulated an integration of ideas. "Physical experiences help personalize abstract ideas and emotions (Lazaroff, 2001)."

The Generative Power of Music

Musical concepts such as rhythm, tempo, dynamics, style, range, inflection, and pitch can be explored and further developed through improvised singing, chanting stories, and games. In the workshops, the teachers learned ways to help children musically engage with their voices, their bodies and musi-

cal instruments. The teachers experimented with vocal range and songs through improvisation, telling stories through the representative sounds of characters and events. They created music with their voices and with instruments. Such improvisation provides opportunities for children to express the *musical grammar* of their culture. It also encourages a creative interplay of music and language (Wright, 2003). Music in the workshops was not about teachers directing songs or instrumentation, but about stimulating children to create their own music.

As the teachers turned from the voice to the body as the focus of musical engagement, they noted that many mathematical ideas, such as counting and sequencing, are most easily grasped by children through music. The teachers studied recordings with a clearly distinguished formal structure, highlighting pattern and repetition. They engaged in several strategies for multidisciplinary teaching, weaving songs, movement, and instrument playing into reading and writing. Teachers were introduced to an extensive selection of children's literature with stories that emphasize the power of sound and offer wonderful reading opportunities. Several teachers noted that infusing music into literature is a natural way to highlight the lyricism of language.

Teachers reported that the communal nature of music makes for a pleasurable atmosphere. By responding, creating and moving to music, the relationship between sound and the expression of emotion was clearly evident. As with the other art forms, the teachers noted that music should be basic to the education of young children, not only for the sense of community that it encouraged, but because through music basic skills of reading, writing and mathematics are enhanced; problem solving and higher order thinking are developed (Lehman, 1993).

For Transformative Learning Through the Arts, Integrated Curriculum Must Be Developed in Actual Classrooms

What happens after the workshops? Newly acquired artistic skills and approaches need to be integrated into classroom activities. In order to assist participating teachers in the actual integration of these artistic approaches and techniques, specialists need to work with classroom teachers and their students in actual classrooms. For the first coaching session, the specialist and teacher worked in tandem in the classroom, with the specialist leading where needed and assisting when appropriate.



Teachers celebrate their creative accomplishments.

The specialist may demonstrate, direct and/or clarify the activity. In this way, the arts specialists model the creative process and the problem solving skills and perseverance that go with it (Lazaroff, 2001). For the second coaching session, a collaborative approach was employed to encourage the teacher to assume more or full control over the arts activity, with the specialist playing a supportive role. This is necessary in order to facilitate the teachers' mastery of the actual implementation of an arts-integrated curriculum.

One notable difference between the pre- and post-workshop/coaching interviews was the self-description of the teachers. Prior to the workshops, they did not consider themselves to be *artistic*; after, they all considered themselves *creative*. Several attributed this to the time allowed for the free exploration of materials and the open-ended nature of the art projects. "... (F)or optimum facilitation of learning, curriculum design must focus on the delivery of intrinsically meaningful material that is open-ended enough to be transformed by the children (Custodero, 1999, p. 19)." Therefore, it is not surprising that the teachers found that this type of curriculum allowed "... us to find deeper meanings," "... a window of exploration for the children." A teacher explained that the "rigidity" of the current school curriculum, governed by the NCLB mandates that encourage "teaching to the texts," discouraged this type of engagement with materials. By integrating art into their classrooms, teachers claimed that they were freed to explore creative ideas with their students.

In fact, teaching with the arts proved to be so powerful that, although addressing students with special needs was not a stated goal of the grant, there was notable engagement by some of these children. During a coaching session, for example, Dr. Polsky noticed the vigorous participation of one first

grade girl challenged by cerebral palsy, who he found to be particularly bright, expressive and creative. After the session, her teacher remarked, "*She opened up like a rose petal to participate in activities for the first time since she arrived.*" As a result of this work, plans to put this child in a contained classroom were being reconsidered. The sole ESL (English as a Second Language) teacher was very excited by the positive effects on her kindergarten students of the nonverbal and verbal dramatic exercises. "*The students owned the stories they acted.*" The teacher recognized that the receptive skill of listening was powerfully linked to the expressive drama skill of speaking clearly and loudly enough to be heard by their peers.

Workshop participants said ...

- ***"My creativity had slowed, was buried within. The juices are flowing again after this experience and discussion with colleagues."***
- ***"I particularly liked using the African American and Hispanic art prints as inspiration; the children could see how people from their own cultures expressed their thoughts through art. They would feel unique, special. Our principal has hung one of the prints in the lobby."***
- ***"I actually felt that I had support. Extensive discussion with peers and specialists gave me confidence to try my ideas in the classroom coaching sessions."***
- ***"I practiced the techniques in drama, music and movement, at circle time. The children were so excited. This makes it personal, holds their attention because through the art form it has meaning. It thrills me that they took so much away with them."***

'Staying Alive'

Current government policies ignore the critical role of the arts in the education of young children. In her discussion of the effects of the No Child Left Behind Act, Laura Chapman, renowned leader in arts education, states that, "... in the high-stakes climate of 'test-em-til-they-drop,' extraordinary leadership will be necessary. Traditions of teaching and learning in the arts (visual, music, dance and drama) are contrary to the prevailing

ethos of national policy" (2005). Since they are not part of NCLB's testing regime, the arts are on the firing line, vulnerable to disappearance, particularly in high-needs school districts. The status of arts education, in any school, is based on the financial resources of its community (Chapman, 2005).

This program enabled the University faculty to provide support, in the form of teaching workshops and in-class coaching, as well as curriculum materials for the arts in high-needs school districts. It is our goal, through the Art Education division of the School of Education and Allied Human Services, to maintain a close alliance with schools on Long Island to support teachers in furthering artistic development and curriculum integration in the education of young children. The survival of the arts in today's educational environment depends on a concerted effort by the teachers of young children.

Please contact Susan Goetz Zwirn at CATSGZ@hofstra.edu if you wish to view the DVD that helps to bring this project to life. All teachers and their school administrators who participated in the grant have received this DVD.

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Susan Goetz Zwirn has been integrating art and education for more than 25 years. For the past 15 years, Dr. Zwirn has been teaching this practice to graduate and undergraduate students at Hofstra. Currently, she is director of the Art Education Program at Hofstra. In this

capacity, Dr. Zwirn advises graduate students, teaches art education courses, and plans and implements curriculum development. Additionally, she advises and teaches art education courses to undergraduate students.

Her work integrating art into academic curricula has included designing educational programs that integrate art for museums, serving as a consultant and supervisor for New York City's Project Arts Program, an interdisciplinary, citywide public school program, and directing an educational program for an outpatient drug rehabilitation program. Dr. Zwirn's other research interests include role and identity issues of artists and teachers, the creative production of art teachers, the marginalization of the arts in public education, and the role of the arts in the education of young children. Dr. Zwirn earned a B.A. from Clark University, an M.A.T. from Rhode Island School of Design, and an Ed.D. from Columbia University.

Dr. Zwirn has given numerous presentations on topics relating to her research at national and local professional organizations and schools. She recently presented the results

of the research described in the accompanying article at the National Association for the Education of Young Children (NAEYC) in Anaheim. From the results of this work, she also created an educational DVD, which can be viewed by contacting Dr. Zwirn at Susan.Zwirn@hofstra.edu. She has published articles on her research topics in numerous journals, such as *Art Education*, *American Educational Research Association's Arts and Learning Journal* and the *Journal for Creative Behavior*. An article on arts integration, titled "Schools That Teachers and Children Deserve," will appear in a special annual issue of the journal *Childhood Education* in June 2005.

In the midst of her teaching and research, Dr. Zwirn continues to work actively as an artist. Recently, she held a solo exhibition of her paintings at the Port Washington Library Gallery. Titled "Landscape Boundaries," this exhibit presented her abstract interpretations of landscape completed during the past 10 years.