



THE EDUCATIONAL  
**Forum**

# Research Links the Arts with Student Academic Gains

by *David E. Gullatt*

## **Abstract**

*State and national accountability initiatives are forcing educational administrators to seek curricular interventions that will yield the greatest improvement in students' academic performance in the least amount of time. Though volumes of documentation regarding the value of the arts in education line the shelves of professional libraries and support for the arts as part of a comprehensive educational program is the subject of articles, speeches, and symposia, when push comes to shove, when resources are precious, and when test results are published in newspapers, arts are the first to go (Tambucci 2006).*

*Ironically, the arts—disciplines that theorists, as well as teachers in the trenches, claim to improve higher-order thinking skills—are the very programs that typically are eliminated from the school district's budget when money is limited (Berube 1999). If the arts are responsible for helping to create strong thinkers, then why are school leaders hesitant to fund programs featuring the arts?*

## **The State of Affairs**

Two decades of efforts to raise standards with a focus on academic fundamentals and on closing the achievement gap have steadily eroded the arts' place in public education (Rabkin and Redmond 2006). The deterioration of arts is ironic because research findings show that the performing and visual arts challenge students to use reasoning skills—both concrete and abstract—to draw conclusions and formulate ideas. Arts encourage creativity and imagination from concept to process to completion. Moreover, in both large and small districts across the United States, arts have been found to enhance learning for students and adults alike (Sternberg 2006).

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Day (1998) and Perrin (1994) suggested that the arts stereotypically were considered frills and that these programs were offered only to the gifted and talented. Day (1998) further stated that parents tended to oppose the inclusion of arts programs because they, themselves, were not instructed in the arts; therefore, they did not deem these programs necessary. In many school districts, a sense exists that arts are leisure activities and entertainment. Some believe that arts provide poor preparation for a viable career. These perceptions are difficult to overcome (Dillon 2006)

A public awareness campaign survey (Davidson and Michener 2001) revealed that 73 percent of respondents felt that arts were important to children's development and that arts should be available to all students, not just the economically privileged. These results were based on 1,008 telephone interviews with individuals over the age of 18 from all geographic areas of the United States. Respondents also stated that arts provided children with a well-rounded education and promoted skills such as creativity, self-expression, and individualism.

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When asked whether the amount of arts instruction their children received in schools was adequate, 71 percent of respondents reported that they were satisfied with current levels (Davidson and Michener 2001). When such a high percentage of people feel that current arts education is acceptable, funding becomes difficult to acquire, according to Berube (1999). School board members, who represent the general public, assume that findings such as these reflect the thinking of their constituents and deny future requests for funding.

A national report concerning arts education in America's schools (Carey et al. 1995) revealed that arts education was lacking. Fifteen percent of the elementary education students in America received no visual arts instruction. Of the students who did receive visual arts instruction, 43 percent received art instruction from a certified visual arts teacher for an average of 77 minutes per week. Specialists teamed with classroom teachers delivered visual arts instruction in 29 percent of the cases for an average of 91 minutes per week. Twenty-eight percent of the students were taught visual arts by their classroom teachers only. These students received an average of 49 minutes of visual arts instruction per week.

Music fared better than visual arts in America. Only 3 percent of the elementary schools surveyed did not offer music programs to their students. Of those that offered music programs, 92 percent were taught, at least in part, by specialists. Ninety-seven

percent of the elementary schools surveyed stated that their students received an average of 75 minutes per week in music instruction (Carey et al. 1995).

The same report (Carey et al. 1995) revealed that drama, theater, and dance were less represented in elementary schools. Fifty-seven percent of schools surveyed reported that dance programs were not offered at their schools, while 20 percent of schools did not offer dramatic arts instruction. The remaining 80 percent of the schools surveyed had some degree of dramatic arts. Only 8 percent of dramatic arts programs offered were taught by drama specialists. Though 16 percent of the schools reported that dramatic arts were taught during the language arts curriculum, more than 50 percent of the schools reported that classroom teachers integrated dramatic arts into their curriculum in other subject areas to facilitate learning.

### *The Necessity of the Arts*

Theorists and teachers have been quick to defend the necessity of arts programs in education. Hamblen (1997) stated that arts are a means by which students become involved, active learners rather than passive, bored students. Another identified benefit of arts was that students are enabled to construct their own meaning because they are actively involved in learning (Catterall 1998). According to Burton, Horowitz, and Abeles (2000), arts promote the following outcomes in students:

- creative thinking;
- fluency in thought;
- originality;
- focused perception;
- imagination;
- risk taking;
- task persistence; and
- ownership in learning.

Hamblen (1997) added that in addition to creative behaviors, arts provide critical thinking and self-awareness. Arts also are considered a means of communication and expression (Grallert 1991; Eisner 1992; Berghoff et al. 1998; Hatfield 1998; Dillon 2006).

Research by the National Endowment for the Arts (1991, 25) identified five roles that arts play in academics:

- Arts can foster the development of students who are actively engaged in learning.
- Arts contribute to the development of a creative, committed, and exciting school culture of teachers, students, and parents.
- Arts can help generate a dynamic, coordinated, and cohesive curriculum.
- Arts can build bridges to the larger community, to the broader culture, and to other institutions.
- Arts can humanize the learning environment.

Other research studies found that arts help to develop listening and thinking skills which are essential in problem solving and decision making (Grallert 1991; Rabkin and

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Redmond 2006). According to Perrin (1994), arts provide students with the ability to become active and self-motivated learners, collaborative workers, and risk takers. Arts' studies promote creative behaviors, critical thinking, and self-awareness (Hamblen 1997) and promote imagination, task persistence, originality, and fluency (Burton et al. 2000).

Former United States Secretary of Education Rod Paige, one of the architects of the federal No Child Left Behind Act (NCLB), sent a letter to all U.S. superintendents of education advocating the reinstatement (or the preservation) of arts education. Though never the intent of NCLB, school districts throughout the country were abandoning arts to devote more time to standardized test preparation (Wesson 2006).

Officials in the Louisiana Department of Education (1997) noted that arts are an integral part of students' education. In the preface to the Louisiana Arts Content Standards (Louisiana Department of Education 2000), state education officials contended that arts (visual arts, dance, dramatics, and music) have a significant role to play in Louisiana students' education. Officials further noted that arts provide opportunities for students to feel successful because arts offer a variety of learning opportunities that meet a wide range of intelligences and learning styles. Curriculum developers for the Louisiana Arts Content Standards continued to attribute arts education to outcomes such as increased problem-solving abilities, improved communication skills in students, and strong self-discipline skills—all of which are skills desired in America's workplace.

### *The Role of the Arts*

Eisner (1998) stated that arts should not be included in the curriculum simply as a means of improving academic achievement. He (1998, 15) noted, "When such contributions [to other academic fields] become priorities, the arts become handmaidens to ends that are not distinctively artistic and, in the process, undermine the value of the arts' unique contributions to the education of the young."

Eisner purported that three hierarchical tiers exist in the outcomes of arts education. The first tier is comprised of outcomes directly related to the subject matter that the specific art program is designed to teach. In other words, students who participated in pull-out arts programs with certified teachers would be expected to meet certain criteria or standards within the arts program. The second tier is concerned with arts-related outcomes. These outcomes pertain to the perception and comprehension of aesthetic features in the general environment. The second tier would be aligned most closely with integrated arts programs included in classroom instruction. The final tier is the ancillary outcomes of arts education. These outcomes are those that Eisner (1998) viewed as skills within arts that are transferable to nonart tasks. Eisner was concerned that schools looking to the arts to boost academic achievement often mistake the third tier as the most important aspect of the arts.

Eisner (1998) did acknowledge the contributions that art classes make to the education of the whole child. First, students learn to transform their feelings and ideas into an art form that they can share with others to convey a message. Second, students become aware of aesthetic qualities in art as well as in life. Students come to appreciate beauty not only in

museums, but also in the world in which they live. Finally, the connection between content and form of an art piece parallels the art and culture in which it was created. Therefore, students are able to gain perspectives of historical time periods through arts.

Catterall (1998) recognized that representation is how people learn and how they express their understandings. Arts give people a way to express themselves through a visual, auditory, or kinesthetic form of representation. Catterall responded to Eisner's criticism of arts being used by schools only to promote academic success by pointing out that Eisner did not comment on studies which indicated that students enrolled in arts programs achieved a degree of academic success in other subject areas.

Catterall (1998) proposed two ways of using arts to promote academic success. The first was learning in the arts. Students exposed to discrete arts programs, such as music or art, develop skills that enable them to become literate in that particular art form. The second, learning through the arts, referred to the types of learning that take place when arts are integrated into other subject areas to enhance instruction. Students who learn through the arts are afforded the opportunity to learn subject matter with arts as an entry point. Teachers may use music, visual arts, or drama to introduce or strengthen an academic concept.

Catterall (1998) suggested that students who learn in the arts and those who learn through the arts experience an increase in academic success. He argued that the skills Eisner (1998) purported would be enhanced in the arts—imagination, recognition of multiple perspectives, and exploration—would transfer to a student's academic performance to some extent.

### **Historical Issues**

Throughout history, arts have held varying roles within schools. Though disciplines such as science, social studies, language arts, and mathematics have continually played a role in the academic development of students, arts have gained and lost popularity throughout history.

Berube (1999) reviewed the historical issues involving arts. At the onset of progressive education, Dewey (1910) proposed that learners should experience activities which promote intellect, moral sense, social awareness, and aesthetic sense. This theory gained popularity and was embraced by private schools serving affluent families, as well as by progressive educators who introduced arts programs into schools. However, the launch of the first Sputnik satellite in 1957 sent arts programs in schools back down to earth.

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Americans became consumed with mathematics and science education and saw arts simply as frills.

Unfortunately, that belief still exists today despite the voluminous research studies which have been conducted showing the value of arts. Even though school officials realize the importance of educating students to become active, self-motivated learners, collaborative workers, and risk takers (Aprill 2001) and encouraging students to have the conviction to stand up for what they believe (Perrin 1994; Luftig 2000), they have chosen to eliminate arts. If these outcomes are indeed important to the education of the future work force, then arts are needed in education because of their power to develop these skills.

### *Using the Arts Effectively*

Artists learn by doing. Conversely, traditional schools enable students to be passive learners who merely watch while their instructors demonstrate a concept (Perrin 1994; Hamblen 1997). Passivity leads to boredom and a sense of uselessness. If students are inundated with passive learning experiences, these practices will become serious obstacles to their academic success (Greene 1991). Surace (1992) reported that arts offer activities which motivate students, cause students to think in creative ways, and merge language and social skills, resulting in solutions to some problems created by passive learning.

Collins and Chandler (1993) reported that a difference exists between art infusion and art immersion. When educators learn the possibility that arts have in improving academic achievement, some want to infuse their classrooms with art. These teachers want to add quick, simplistic activities that they believe to be art, such as simple craft projects or songs into their daily routines. Collins and Chandler (1993) explained that this type of instruction trivializes arts and gives the perception that they are second-rate additions which can be eliminated quickly with no real damage to the remainder of the curriculum.

Instead, Collins and Chandler (1993) proposed arts immersion. In arts immersion, students experience arts that are interwoven into their daily studies. Art is not considered a product, but a holistic experience where arts are seamlessly integrated into the rest of the curriculum. Arts are used to give students a meaningful way to express their knowledge (Wilson 1997) and to offer multiple perspectives on a concept.

The Harvard University study (Winner and Hetland 2000) "Reviewing Education and the Arts Project (REAP)" examined articles that claimed to illustrate a relationship between arts and academic achievement. Of the 11,467 articles, conference papers, reports, theses, books, and unpublished papers and data examined, 188 reports were pulled for research purposes. These reports investigated the relationship between one or more art forms to one or more academic areas.

The researchers conducted a set of 10 meta-analyses on the selected reports. The purpose of these analyses was to ascertain the causal relationship of the arts to enhanced academic performance. The researchers concluded that three areas showed clear links to academic outcomes. First, a causal relationship was found to exist between listening to music and spatial-temporal reasoning. However, this relationship was found to be temporary.

Next, a relationship was found between learning to play music and spatial reasoning. The researchers noted that while this was a strong connection, educators should consider how spatial skills are fostered throughout the curriculum. If students' spatial skills are indeed enhanced, then how could teachers take advantage of these increased spatial skills within the curriculum? Finally, a causal link was found between classroom drama and verbal skills. This link not only involved a connection to the texts enacted by the students, but also to new reading material. Therefore, the researchers found that the verbal skills fostered by dramatic reenactments transferred to new material. As a result, a variety of suggestions for further research evolved.

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Based on the REAP findings, Winner and Hetland (2000) suggested that researchers should investigate the role of arts as successful entry points into academic disciplines. How does the academic achievement compare between students who have been taught the same subject matter with and without the entry points of arts?

### ***Intelligence and the Arts***

The correlation between exposure to the arts and student achievement within the academic disciplines such as mathematics, language arts, science, and social studies has been a subject of much debate (Winner and Hetland 2000). However, prominent theorists and practitioners such as Catterall (1998) and Gardner (1999) argued that arts are integral to the education of the whole child. These noted theorists recognized the lifelong benefits that arts have to offer students.

Gardner (1999, 30) proposed that all students have intelligence which registers in eight categories, though with varying degrees of proficiency:

- linguistic (words and language);
- logical-mathematical (numbers and reasoning);
- spatial (pictures);
- bodily-kinesthetic (the body);
- musical (notes and rhythm);
- interpersonal (people);
- intrapersonal (the self); and
- naturalist (nature).

Gardner (1999) further stated that educators are not meeting the learning needs of their students. He noted that school systems are quick to judge students' performance largely on standardized test scores, which typically assess only two of the multiple intelligences:

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linguistic and logical-mathematical. Because standardized tests drive the curriculum, educators are motivated to teach these two intelligences. If students are strong in these areas, they tend to test well and are deemed intelligent. Students who are strong in these

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traditional intelligences also are likely to fair well in schools, while those who demonstrate competencies in other intelligence areas are frustrated and deemed slow learners or less than intelligent.

The intelligences identified by Gardner (1999) should not be used to stereotype or to track students. Instead, they could be used as entry points to hook students into learning. Gardner's intelligences should be used to enhance the learning of the whole child, not simply to teach to the child's strength. Gardner suggested finding the intellectual strength of each student so that the appropriate aesthetic entry point can be used to foster the

introduction of a concept. Gardner trusted that if students were taught in ways that would strengthen all intelligences, they would have more success in academics. Because these intelligences are derived from arts, teaching through the intelligences parallels teaching through the arts.

Though Eisner (1998) agreed that arts are important components of schools, he was not convinced that the skills acquired in arts classes and desired by academicians transferred into other subject areas. He discouraged philosophers from touting this theory because he was concerned that educators would see arts only as a means of academic achievement. He suggested that arts should be seen as an end in themselves rather than as a means to an academic end. Though he did not deny that any transfer existed between arts and academics, he noted that in a hierarchy of importance, this relationship would be the lowest.

Catterall (1998) criticized Eisner for his lack of willingness to embrace the transfer of the skills learned in the arts to academic achievement. Though he admitted that more studies were needed to substantiate this relationship, he asserted that educators and theorists should be open to this possibility because it could be the link to academic success for students.

### Summary

NCLB identified arts as core academic content. Nevertheless, the core seems to be getting reduced to only those content areas that are tested, and the study of arts has become a victim of the present political environment. Though the intent of NCLB was not to



eliminate arts in our nation's schools, in many instances that is exactly what has happened as district budgets tighten and the heat of accountability increases for schools.

Research showed that arts play a variety of roles in schools today. Learning through the arts provides students the opportunity to construct meaning of content-related material through the use of the visual, dramatic, and musical arts, while learning in the arts gives students exposure to specific skills gained through instruction in art forms. Varying levels of art integration are found in schools that embrace arts as entry points to content material.

Students that are provided experiences in arts are more apt to employ higher-order thinking skills and risk-taking behaviors. Students that are actively involved with their education become more independent learners. Because arts offer the opportunity for active and meaningful involvement, student engagement is increased. Arts are also credited with students' enhanced creativity, imagination, listening, thinking, and problem-solving skills.

Though some researchers strive to find connections between arts and academic achievement, theorists such as Eisner (1998) and Aprill (2001) have discounted the comparison. According to Eisner and Aprill, arts should be taught for their own merit, not simply to enhance academics. These two theorists concurred that some academic benefit exists in exposing students to the arts; however, they suggested that these benefits are simply ancillary effects—not the purpose of art programs.

Both researchers and theorists have noted positive connections between arts and academic achievement. Berghoff (1998) suggested that arts can be used as a communication system for students. Gardner (1999) recognized eight intelligences housed in the brain. Because these intelligences are steeped in the arts, he, like Berghoff, noted the need for students to use the arts to communicate their knowledge.

The need for arts as a mechanism to enhance teaching and learning in the nation's schools has been trumpeted for a number of decades. The lack of movement in curriculum change to increase student exposure to arts has resulted from a lack of desire by the public for their children to have exposure in school. Boards of education reflect the sentiments of voters within their districts and are mindful of budget restrictions presently in place. Until parents and guardians demand that arts be reinstated as a major force within the curriculum, the nation's schools will continue to make token efforts to address the arts. Thus, teachers, school leaders, and researchers continually must bring

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the need for arts education before policy makers, boards of education, and school district superintendents.

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