Purpose

This Effective Practices Brief summarizes select research and focuses on two perspectives on the arts in education: (1) the arts as a vehicle for differentiating instruction and offering multiple pathways to learning, and (2) the arts as a discipline within general education. This brief summarizes issues related to researching the arts as well as policy shifts mandating the arts in education.

Overview

The “No Child Left Behind” Act (2002) federally mandated fine arts as a core academic subject. It requires that everything taught in our schools be built on evidence-based practices, and the arts are included under this umbrella. Researching the arts requires capturing both the implicit and explicit benefits of the arts across many disciplines and areas of assessment.

Explicit learning, from the outside – in, is what we see, read, write and talk about, and is more easily assessed than implicit learning, from the inside-out, which begins as an internal process, experiential learning, trial and error, and life experience learning. The arts naturally lend themselves to inside-out qualitative, anecdotal research. However, important studies have been done which tie the arts to explicit qualitative and quantitative outcomes. These studies help link the vastness of the arts with more narrowly defined categories of academic success and test-based assessments. Keep in mind that quantitative evaluation measures do not isolate the value of implicit learning in units. Yet the arts teach qualitative values to students, such as compassion, social and emotional fluency, joy, and creativity, which contribute to a rich and successful life. Therefore, both quantitative and qualitative research will give us the fullest picture of the contribution the arts make.

Studies of explicit learning outcomes reported in the Arts Education Partnership publication Critical Links: Learning in the Arts and Student Academic and Social Development (2002) describe:

- Visual arts/drawing: Linking directly to the development of writing ability in terms of content and organization, sophisticated reading skills, and reasoning about scientific images;
- Music/early childhood music training: Linking to cognitive development;
- Music/listening: Linking to spatial reasoning, spatial temporal reasoning, quality of writing, and prolixity of writing;
- Dance: Linking to self confidence, reading skills, nonverbal reasoning, expression, persistence, and creative thinking skills;
- Drama: Linking to writing proficiency, oral and written story comprehension, reading skills, character identification, peer interaction, conflict resolution skills, concentration, social understanding, engagement, and problem-solving strategies;
A multimodal approach, integrating arts into academic curriculum: Linking to reading, verbal, and mathematics skills, creative thinking, achievement, motivation and cognitive engagement, as well as improving the overall climate of the school and community.

Hawai’i’s legislative Act section 306.01 supports the federal policy shift with the acceptance of a six year strategic plan addressing art in education through advocacy, research, teacher training, and standards based curriculum... ARTS in Hawai’i schools. In response to teacher training and standards, six partners have developed Arts First: An Essential Arts Toolkit for arts-based education practices in the four major disciplines of Dance, Drama, Visual Arts, and Music. The tool kit, designed for grades K-5, and the DOE art curriculum for grades 6-12, demonstrate ways to integrate art into education and are being released in schools throughout Hawai’i. To obtain a copy, contact the Hawai’i Alliance for Arts Education at (808) 941-2787.

Research shows that art based programs help students develop a positive work ethic and pride in a job well done. They offer troubled youth positive alternatives to destructive behavior by showing another way to approach learning. (Business Circle for Arts Education in Oklahoma as cited in The Facts, 2003).

The Arts, Multiple Intelligences and Curriculum

Let’s look at how the arts provide multiple avenues to curriculum for students who learn differently by drawing on a multiple intelligence approach to differentiating curriculum. Multiple Intelligence theory has identified eight ways in which people learn, think, and perceive the world. They are: spatial, kinesthetic, musical, interpersonal, intrapersonal, naturalistic, linguistic, and mathematic (Gardner, 1993). When we truly understand and apply multiple intelligence theory, we plan for learning opportunities that include the arts, the body, nature, and social and emotional fluency to engage the full academic potential of all students.

Students at all levels of academic engagement, from delayed to gifted, benefit from art based curriculum. Creative leeway is offered to those students who need more challenge and freedom and provides diverse ways to understand and tier curriculum for students that require greater supports and differentiation. At-risk youth respond particularly well to arts based curriculum. Many such students are primarily visual, kinesthetic, and interpersonally intelligent and find an opportunity to succeed through art.

Sensory preferences for learning in today’s students are 46% visual, 35% kinesthetic-tactile, and 19% auditory, yet in many classrooms, the main mode of instruction is auditory with low stimulation and dull visual supports. (Sousa, 2001)
Education that involves the arts can enhance a student’s attention, cognitive, and emotional development. It can positively affect a student’s ability to think alternatively, their willingness to explore opposing ideas, to see multiple perspectives and examine unexpected points of view (Jensen, 2001); ultimately developing their higher order thinking skills and cultural awareness (Deasy, 2002).

Success in today’s school is often tied to mastering two out of seven multiple intelligences – linguistic and mathematic – which use abstract languages such as terminology, mathematic problems, concepts, and spoken words. For many students this abstract world has never been fully connected with their more concrete or “real” world experiences. Their closest tie to the concrete world is through and in their own bodies. “The most effective techniques for cultivating intelligence is aimed at uniting (not divorcing) mind and body.” (Wilson, as cited in Jensen, 2001). “Teachers must remember that until you get it, really get it, in your concrete world that 6 x 6 = 36, it is a meaningless memorization that applies to nothing except a test for most students,” (Jensen, 2001). Curriculum that engages the body creates a context for intellectual learning in the physical world, making lessons real and understandable.

The arts work across disciplines, creating a more cohesive curriculum by expanding awareness and higher order thinking skills that help students to see and experience interconnections between subjects (Fowler, 1994). “The arts are a natural linker to all subjects. They give students a better and broader connection to the world. The arts pull all content design together, contributing to stronger decision making skills, stimulating broad learning styles, and making learning fun,” Superintendent Pat Hamamoto (Personal Communications, March 8, 2003). Art can create learning experiences that touch a wide range of learning preferences and abilities and engage students with learning differences, disabilities, and emotional and behavioral challenges.

**Arts Education**

The arts, taught for the sake of learning the specific art form, develop motivated, compassionate, self-disciplined students who love lifelong learning. As a component to working with at-risk youth, the arts have a measurable impact on deterring delinquent behavior and truancy problems while increasing overall academic performance among participants engaged in after school and summer arts programs. (Americans for the Arts).

The Maui Arts & Cultural Center is one of four national partners that included students from area schools in a recent study looking at arts-based professional development for teachers. Findings of the Ohio research report was mirrored by all four of the national partners and show significant results:

- 84.9% of the participating teachers reported that their “students’ enjoyment of learning was increased.”
- 83.6% indicated that students’ classroom participation was greater.
- 82.2% saw students improving their “problem-solving, communication, motor, and/or social skills.”
- 80.8% of the teachers noted that these techniques enabled them to address students’ different learning styles;
Professional development that helps teachers incorporate arts into education not only increases student participation, but also stimulates teachers to feel more creative, innovative and involved in their classrooms (QED, 2003).

The Maui Arts & Cultural Center provides opportunities for professional development in the arts throughout the year. All workshops are aligned with the Hawaii Content and Performance Standards and are approved by the Department of Education for professional development credits. For a full listing of classes being offered visit their web site at http://mauiarts.org/artsed_teachers.html

“The arts teach divergent rather than convergent thinking; they ask students to come up with different rather than similar solutions.” (Fowler, 1994) This skill set is most reflective of the real world, where people are faced with problems that have many possible solutions. Critical thinking skills are often times not rewarded in education where students are taught that there is one right answer. In the current work world people are required to integrate both creative problem solving skills and factual knowledge in decision making. As we move further into the information age, it is impossible to know everything we need to know. A primary skill related to factual knowledge is the ability to access information from a variety of sources which is in and of itself critical thinking and creative problem solving.

Looking at brain research helps us to understand the brain as a complex system of neurons that changes structurally and functionally with learning and experiences. This information tells us that engaging students in positive nurturing environments that encourage action, interaction, and stimulation can have real effects on learning (Dickenson, 2002). The arts provide this kind of learning environment. New neural connections form throughout life, building most intensely through adolescence. These neural pathways form to support activities that teens are involved with on a regular basis, such as participation in sports or learning to play a musical instrument. The brain perceives these activities as critical for survival and builds strong neural branches to ensure a life long ability in these activities (Penland, 2001). So, if teens are involved in drugs, dropping out and being bored, these are the skill sets the brain develops as critical for survival. On the other hand, if teens are exposed to exciting learning opportunities they can succeed in and even master; through the arts, their brains will develop those skill sets that lead to higher levels of functioning throughout their lives.

Let’s look at some examples of how to practically apply what the research says about arts in education. Consider building neural pathways and branches based on activities practiced during adolescents... you might want to try this suggestion from Jensen (2001):

When there is a compelling event – either positive or negative – at school, ask students to express themselves in a drawing. This is especially good for students at the middle and secondary levels. Events could include a big game coming up, a student who commits suicide, an auto accident, the death of a friend, even a community event. After students draw, let them share their work and feelings with the class as they feel comfortable.” (p. 61).
Easy ways to bring the arts into your classroom

Teach young children to physically represent sounds by making shapes with their bodies to represent letters and letter combinations. An experimental study was conducted through the Basic Reading through Dance (BRD) program that compared students in their program to control schools. They found that both groups of students improved significantly in reading ability, however, the students in the BRD group improved significantly more on all measures assessed by the Read America Phono-Graphix Test. The students also improved on their ability to relate written letters to sounds and phonemes as a result of engaging both their minds and their bodies through physical movement.

**Integration Tip:** This practice may be particularly beneficial for students with dyslexia, just as forming letters with clay has been found to have positive effects on letter identification and reading (Davis & Braun, 1994). The BRD program takes this technique one step further by teaching students to form letters with their bodies, which incorporates the educational benefits of experiential learning, kinesthetic movement and spatial orientation.

Use music to enhance literacy instruction (the study of story line, characters, mood, and elements of a story). Pick a story that has an auditory supplement, such as Peter and the Wolf, or create a musical montage with pieces that communicate different emotions. Discuss the music, elements, tone, melody and instruments used to convey each emotion or character. Play the music and see if students can identify each character’s music, or the emotion the musician is trying to convey. Students can then work in groups to select music that matches the characters, mood, and situations of assigned segments from stories the class has studied. Students will be applying listening skills and auditory recall, while comparing music and giving logical explanations for their interpretations.

Compliment a science lesson with dance (suggested by The Hawaii Alliance for Arts Education). Students can act out the way energy or heat is transferred from one object to another by standing in a circle. One movement starts everyone else moving as each person “heats up” in order around the circle. It is also easy to illustrate different and changing energy by using different movements. This activity can be transferred to a number of areas in science, including a study of how nerve synapses fire!

**Integration Tip:** This activity can be especially helpful in reaching out to kinesthetic learners. Data shows that using the body actually activates more areas of the brain than are typically used for seatwork. Stimulating these neural systems enhance the learning process and bring the lesson to life (Jensen, 2001).

Play music to your students during transition times before you begin a lesson. This not only readies a student for learning but also acts as a way to change the energy in the classroom from calming to stimulating. Playing music will also help students that have a difficult time making transitions, especially those with behavioral disorders.

- Research shows that student motivation and interest increase when a musical listening period is provided prior to spelling lessons, indicating that music has a facilitative effect upon learning.
• Students show the greatest gains when listening to classical music. Studies have shown that classical music is more conducive to learning than baroque melodies or symphonic remakes of Disney songs (ERIC/ChESS, 1999).

Play music during individual work times:

• Listening to music while doing a task can actually accelerate learning, facilitate higher levels of brain function, optimize memory and enhance cognitive processes.

• Faster, allegro tempo pieces activate the most alert brain state – the beta brain wave state – enabling you to work, study, think, and exercise with optimal energy and productivity. Bright tempos and tonal qualities of the instruments can help maintain a positive mental attitude (LIND institute).

• A study of eighth and ninth graders revealed that students that studied with music showed significantly more gains in reading comprehension than students that studied without music (Harvey, 1997).

Use drama to improve story comprehension and language development. It has been shown that students who complement listening to stories with active dramatization show significant gains in story comprehension over students who only listen to an adult read a similar story. Children are more engaged during dramatizations than when just listening. Also, key elements of a story, such as character identification, character motivation and main idea are better communicated through drama. These elements of comprehension contributed to better recall of story sequence, story details and story vocabulary (Deasy, 2002).

Integration Tip: This technique can be used with both young children and adolescents. For an older generation, devote specific class time to teaching the techniques of drama: stage presence, nonverbal communication of emotions, and oral presentation. Allow the students time to create their own sets and props, lending their knowledge of the setting shine through creative means. Drama can also be used to teach social skills that are necessary for positive peer-to-peer relations and conflict resolution, such as empathy, courtesy and oral expressive language skills.

Have students supplement their own written work with creative expression. When written work is supplemented with creative writing, poetry, or even research reviews, creative expression will improve comprehension skills and enhance clarity. This concept also applies to the utilization of illustrations, paintings, photography and multimedia images to illustrate stories the students are reading.

• Visual arts are a tool for expression and complement the process of thinking and writing. “Of all the effects on cognition, visual arts seem to be the strongest when used as tool for academic learning. Studies report strong links between visual learning and improvement in reading and creativity.” (Jensen, 2001).

Allow students to begin with a visual model or Mind Map® of their projects. Rather than requiring a standard outline to organize thinking, students might give a presentation to demonstrate their learning. The presentation could replace a written report. This would provide alternative experiences for learning different and learning disabled students to increase satisfaction and success for their efforts. This method affords all students the opportunity to creatively conceptualize their academic work which can lead to expanded ideas and considerations for their reports, projects, or studies.
Summary

Arts in education can enrich learning experiences for both students and teachers, and improve the outcomes for all students. The benefits of the arts spread across disciplines engender wide range benefits over time by developing neural pathways for complex thinking and creative problem solving skills. This assists all kids to succeed at higher levels of thinking and questioning. Research shows that the arts are an investment in the long haul development which position students for life-long learning and continued rich social, emotional, intellectual, physical, imaginative, and creative development. The arts in education make good sense.

National and State Resources:

Americans for the Arts http://www.americansforthearts.org
Apple Learning Interchange http://www.apple.com/ali
Arts Education Partnership http://aep-arts.org
The Kennedy Center ARTSEDGE http://artsedge.kennedy-center.org
Arthur Harvey’s music tapes for learning and brain function, aharvey@hawaii.edu
Arts First: An Essential Arts Toolkit contact: www.arts-hawaii.org, (808) 941-2787


References

Americans for the Arts http://www.americansforthearts.org


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