

# Learning Through the Arts

by Dee Dickinson, *New Horizons for Learning*

Contributors:

Barbara McKean, *University of Washington*  
Eric Oddleifson, *Center for the Arts in the Basic Curriculum*

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## What Do We Mean by Arts Education?

*If human beings are to survive, we need all the symbolic forms at our command because they permit us not only to preserve and pass along our accumulated wisdom but also to give voice to the invention of new visions. We need all these ways of viewing the world because no one way can say it all.* **Charles Fowler Former Director, National Cultural Resources Washington, DC**

*The arts are essential parts of the human experience, they are not a frill. We recommend that all students study the arts to discover how human beings communicate not only with words, but through music, dance, and the visual arts. During our visits (to schools) we found the arts to be shamefully neglected. Courses in the arts were the last to come and the first to go.* **Dr. Ernest Boyer, The Carnegie Foundation for the Advancement of Teaching**

The term arts education has had various meanings throughout the years. Following the lead of both the national standards and the Washington State Essential Learnings, the term arts includes music, dance, drama and visual art. The visual arts and music have traditionally received the lion's share of attention in education. This report takes the position that all four art disciplines are essential to education and does not favor any one discipline over another.

Since the beginning of a common curriculum for public schools, arts educators have struggled to have the arts taken seriously. Over the years, the arts have assumed the role of promoter of good citizens, accessory to academic subjects, special programs for the gifted or extracurricular activity. In *Becoming Knowledge: The Evolution of Art Education Curriculum*, Denny Palmer Wolf writes that, "research in arts education has consistently shown that the arts are a distinct form of knowledge requiring sustained and demanding work and yielding kinds of empathy, understanding, and skill both equal to and distinctive from those available in chemistry, civics, or shop."

Just as the image of the arts as school subject has changed so has our notion of what an educated student in the arts looks like. This image has undergone an historical change from craftsman to artist to symbol user and thinker. Today, a student educated in the arts is a much more composite and fully dimensional figure, as Wolfe suggests, "the painter informed by art history or the concert goer whose hearing is informed by the risk and demands of playing an instrument."

This report presents a synthesis of the research on the contribution of arts education to learning. It presents information on Seattle schools and others that have incorporated the arts successfully. The report discusses the relationship between the arts and cognition and the ways each art form promotes unique ways of knowing. Research on what the arts offer to the preparation of students for the world of work is also presented.

Our students deserve and need the arts. Research is consistent in their findings as to the benefits of the arts. The aim of this report is to make this research visible and accessible to those who are committed to providing arts education in our public schools and to those who are still skeptical about the role of the arts as basic to every child's education.

### **Academic Achievement and the Arts**

Fortunately the arts are alive and well in many Seattle schools, and new arts programs are on the way. One example is Green Lake Elementary School which is dedicated to the successful academic excellence of all students. It is a place where students "acquire a positive learning attitude for a lifetime, celebrate the uniqueness of all, understand similarities and differences, develop an appreciation, respect, and understanding of the physical environment, have fun, laugh, and enjoy learning." One need only to enter the school

with its bright murals, student-created rain forests, and enthusiastic dramatic performances to know that something special is alive in this school.

Much of Green Lake's mission is fostered not only through a rich curriculum supported by diverse activities, but through a schoolwide, multi-arts program with a full-time arts specialist. Professional artists and performers work on different art-related activities with the entire student population, and a growing number of teachers are integrating the arts into the curriculum.

Principal Harvey Deutsch notes that "students who might not have otherwise been successful are flourishing. Discipline problems have nearly disappeared, and academic achievement is constantly rising as a result of the rich arts program."

At Concord Elementary School, in one of the less affluent areas of Seattle, every student from kindergarten through fifth grade takes part in a dramatic performance each year. Current plays focus on cultural diversity and nonviolence, and include performances of *Beauty and the Beast*, *The Wizard of Oz*, *The Phantom Toll Booth*, and Shakespeare's *The Tempest*. Upstairs in the school is The Attic Theatre with four stages to accommodate the full schedule of rehearsals and performances. There one can walk through a set of "America's Hall of Fame" composed of historical scenes depicting the contributions American leaders such as Harriet Tubman and Rosa Parks. Also in the attic is the set for "Eco-News," an in-house television program produced by fourth and fifth grade students every day.

Principal Claudia Allen notes that she is seeing "incredible achievement especially in reading skills. Fourth and fifth grade students increased their reading scores by two levels on the Macmillan Reading Inventory from fall to winter quarter 1995-96, and California Test of Basic Skills scores have increased by twenty to twenty-five points.

In other parts of the country long-standing arts programs in the schools have also shown dramatic results. **The Center for the Arts in the Basic Curriculum**, directed by Eric Oddleifson in Massachusetts, has been keeping careful records of achievement. Some of their early records are shown in Table I. In more recent studies, the Center reports that:

The arts are strong at Thomas Jefferson High School for Science and Technology in Alexandria, Virginia, a magnet school that enjoys a national reputation for consistently high achievement. Its graduates are sought

consistently high achievement. Its graduates are sought by the most prestigious colleges and universities.

One sees students with sketchbooks on the front lawn. Hallways are lined with students' oil paintings and color photography. A man-sized poster announces the opening of their production of *To Kill a Mockingbird*. In the cafeteria a student reads Shakespeare. Senior projects include "Computer Arrangement of 12th Century Choral Music Through an Artificially Intelligent Knowledge-Based System.

Jefferson's principal, Jeffrey Jones, expresses the philosophy that informs the school: "In order to be a good scientist, one must also be a good humanist.: The arts and humanities are as richly evident as the sciences in this school."

In Needham, Massachusetts at the John Eliot school, the arts are fully integrated throughout the curriculum, and academic achievement is soaring. The Superintendent recently told Principal Miriam Kronish, "I am absolutely astonished--even dumbfounded--by your results." John Eliot does not cater to superior, talented students and many are economically disadvantaged, but nonetheless their 1992 MEAP (Massachusetts Educational Assessment Program) scores were the highest in the state.

Ron Berger, a sixth grade teacher in an arts-integrated school in Shutesbury, Massachusetts notes that "In my classroom, I have tried to build an environment where arts is more than a decoration or supplement for work, but rather a primary context in which most information is learned and shared. The infusion of arts has had, I believe, a profound effect on student understanding, investment, and standards." He suggests further that "The arts are an incredible tool for 'ratcheting up' the quality of work and standards in a school. It shows in the discipline kids develop and in their academic achievement." (more...)

Recently the College Entrance Examination Board announced that in 1993 students who studied arts and music scored significantly higher than the national average on the Scholastic Aptitude Test. Students who had participated in acting, play production, music performance and appreciation, drama appreciation, and art history, scored an average of 31 to 50 points higher for the math and verbal sections. The Board also stated that students with long-term arts study (four years or more) tend to score significantly higher on the SAT than those with less coursework in the arts.

In 1995, The United States Department of Education

reported in *Schools, Communities, and the Arts: A Research Compendium*, that "using arts processes to teach academic subjects results not only in improved understanding of content but it greatly improved self-regulatory behavior." Barry Oreck of ArtsConnection and Susan Baum from the College of New Rochelle observed integrated arts lessons in all major subject areas in fourteen New York City elementary and secondary public school classrooms. They found that "student behavior improved strikingly in such areas as taking risks, cooperating, solving problems, taking initiative for learning, and being prepared. Content-related achievement also rose."

Oreck notes "this answers our key question: whether skills from the arts transfer to other areas. But we also found that this transfer cannot occur unless teachers change their classroom's structure--their use of time, grouping, instructional strategies, active and participatory learning for all kids--to allow those skills and abilities to come out and be used."

The study also found that for students who struggle in schools with curriculum and instruction based primarily on verbal proficiency, arts processes are extremely powerful. "We saw huge changes for those with more kinesthetic, musical, and artistic tendencies," notes Oreck. His continuing research deals with developing arts assessments to evaluate learning in non-arts areas--using dance, for instance, to assess students' understanding of molecular bonding. "We have found that if you learn something through a theater game, you can still answer a straight test question," he says. "Does it work the other way around?"

What do the schools described above have in common? Their students are spending over 25% of their time in school studying the arts as separate subjects as well as integrated throughout the curriculum. It has been noted that through experiencing the arts they are developing the capacity for sound judgment, attention to purpose and ability to follow through on tasks, and the ability to consider differing viewpoints and defer judgment. They are exercising and developing mind, body, emotions,--and spirit!

### **The Human Brain**

Let us take a moment to consider the mental equipment that students are using to make such dramatic academic achievement as described above. The human brain is the most complex system on earth, yet it is too often used in schools primarily as a simple device for storage and retrieval of information. It is now known from the research of such

neuroscientists as **Marian Diamond at Berkeley**, that the human brain can change structurally and functionally as a result of learning and experience--for better or for worse. New neural connections that make it possible for us to learn and remember and problem-solve and create can continue to form throughout life, particularly when human beings are in environments that are positive, nurturing, stimulating and that encourage action and interaction. Such environments are opposite from dull, boring, rigid environments in which students are the passive recipients of information. Well designed arts programs provide just the kinds of environments that Diamond describes.

Not only can the brain be transformed, but it is itself a transformer. For example, one might take in the sight of a magnificent sunrise, and the experience might emerge in the form of a lyric poem or a joyful dance. One might take in an exhibit of paintings, and the experience might emerge in the form of music, such as Moussorgsky's "Pictures at an Exhibition." One might take in the experiences of a lifetime, and they might emerge in the form of historical plays, tragedies, and comedies, such as those written by Shakespeare. The arts provide the means for the human brain to function at its highest capacities.

### **Intelligence**

It is now well known that intelligence is not a static structure but an open dynamic system that can continue to develop throughout life, as **Reuven Feuerstein, Israeli psychologist** and director of the International Center for the Development of Learning Potential, has demonstrated in over a thousand research studies throughout the world. However, when human beings are cut off from their cultural roots, or deprived of using all their senses through which to learn and create and problem-solve, they may never develop their capacities to the fullest. According to Feuerstein, intelligence is developed through the mediation of experience by a sensitive, supportive teacher--or an orchestra conductor, or a theatre director, or a choreographer. The arts provide the means to know one's culture at a very deep level. They provide rich multisensory experiences that engage the whole mind-body-emotional system.

According to Roy Pea, Dean of Education at Northwestern University and a leader in the field of Distributed Cognitions (and contributor to the book by the same name edited by Gavriel Salamon), intelligence does not lie just in the minds of individuals. It exists in our interaction with other people; in the resources in our environment such as books and other

published materials, radio and television, art exhibits, concerts, and plays; and it exists and grows through the tools we use such as hammers and chisels, pens and paper, word processors and calculators, computers, paint brushes and musical instruments. Pea writes that "Our productive activities change the world, thereby changing the ways in which the world can change us. By shaping nature and how our interactions with it are mediated, we change ourselves."

## **Individual Differences**

The arts not only contribute richly to the development of human intelligence, but they offer the means to reach the great diversity of human beings in every school today. It would be easier to achieve significant educational achievements if everyone learned in the same way, but not everyone does. In all schools today there is a growing diversity of students with different cultural, social, and economic backgrounds that result in very different ways of thinking, learning, and behaving. In our Seattle schools, over a hundred different languages are spoken. Children with different kinds of abilities and disabilities are in the same classrooms. Children from disadvantaged families learn together with more economically privileged students. School systems that rely on teaching primarily through the spoken and written word simply do not reach all these kinds of students. Even students with similar backgrounds perceive and process information differently.

We have known for a long time that there are major perceptual differences in how people take in information. Some students can learn effectively by listening, and they do very well in traditional classrooms where most of the information is presented orally. Studies such as those done by Lynn O'Brien of Specific Diagnostic Studies, note that these students whose strongest learning channel is auditory comprise less than 15% of the population. On the other hand, students who demonstrate a visual learning style are about 40% of the population. It is important for them to have illustrations, charts, and diagrams along with words and numbers. There are also many students who must hold ideas in their hands before they can understand and learn. Abstractions presented in words and numbers may not be easily understood without manipulatives or concrete examples. These kinesthetic or haptic students form around 45% of the population. Understandably, many of them have difficulty learning in conventional classrooms since very little hands-on learning is available in most classes after early primary grades. (Special education programs are filled with such students.) The arts offer especially valuable tools to facilitate learning for those who are primarily visual and

facilitate learning for those who are primarily visual and kinesthetic, in addition to making it possible for all students to learn more effectively, retain what they have learned, know how to apply what they have learned in a variety of contexts, and feel more positive about learning.

There are also differences in world view, described by Herman Wittkin. Some students, called field independent, follow directions easily, are detail oriented, and think naturally in more linear, sequential, detail-oriented ways. They see individual trees, and come to the conclusion that they are viewing a forest. On the other hand field sensitive students, learn best when they have a map of the territory. They need to see the whole picture before they can attend to the details. They see the whole forest before they take note of individual trees. They are also especially affected by the emotional climate of the learning situation, and learn best actively and in groups. Field independent students usually can do well in a variety of contexts, but it is very difficult for field sensitive students to learn in ways that favor the field independent learner. Both kinds of thinking are needed for different situations in everyday life. The arts offer varieties of such learning opportunities that are appropriate for both kinds of learners, and can exercise and develop the ability to use both kinds of thinking.

Myers-Briggs assessments indicate personality differences based on the work of psychiatrist Carl Jung. A recent study of high school students shows that those with the highest grades are a personality combination of "introverted, intuitive, thinking, judging" types whereas those with the lowest grades are a combination of "extroverted, sensing, feeling, perceiving" types. The latter types of students, even though as intelligent as the former, suffer even more than the former types in classes where they are passive recipients of information, rather than in those where they can be actively involved in a variety of learning activities. The arts offer innumerable opportunities for experiential, sensory, learning that engages the emotions--essential to long-term memory.

**Dr. Howard Gardner, co-director of Project Zero at Harvard University's Graduate School of Education,** has developed a theory of multiple intelligences which suggests that our school systems which reflect our culture, teach, test, reinforce, and reward primarily two kinds of intelligence--verbal and logical-mathematical. Crucially important to functioning effectively in our North American culture, they are the foundations of the basic skills. He suggests, however, that there are at least five other kinds of intelligence that are equally important. They are "languages" with their own symbol systems that most people speak and



that reach a wide spectrum of individual differences. They include visual/spatial, bodily/kinesthetic, musical, interpersonal, and intrapersonal intelligences. These intelligences provide the foundations for the visual arts, music, dance, and drama, and through these art forms most students will not only find the means for communication and self-expression, but the tools to construct meaning and learn almost any subject effectively. This is especially true when the arts are not only taught as separate subjects but integrated throughout the curriculum at every level. Following are some examples of using the arts in education and the results that have been observed.

### **The Visual Arts**

Children today are growing up in a highly visual world, surrounded by the images of television, videos, advertising displays, and other media. The human brain has a visual cortex that is five times larger than the auditory cortex. Is it any wonder that students respond so positively when they have opportunities to learn through the visual arts? And is it any wonder that words alone do not reach all students? A picture is indeed worth a thousand words.

Mona Brookes, founder of Monart Drawing Schools and author of *Drawing with Children*, describes her work in training teachers through her methods. She says, "I had to develop a structured curriculum that taught enough basics for success and enough freedom for creative expression. It was a delight to find that the structured lessons did not interfere with the symbolic drawings that students did on their own."

Teachers who taught reading reported that children who learned to draw and see through her visual alphabet had dramatic increases in letter recognition and reading readiness. (Yaacov Agam, Israeli born artist, has found similar results with the visual alphabet he has developed and used in schools throughout the world.)

Brookes reports that "teachers also noticed that the motivation to read expanded when the children drew characters and subjects from their books. Drawing the content of science, geography, and social studies lessons resulted in noticeable differences in speed of learning and retention. When teachers used the abstract design lessons to teach math concepts, they witnessed children break through conceptual blocks with ease while having fun." Districts have reported as much as 20% increases in reading, writing, and math scores as a result of these visual arts experiences.

The discipline of understanding how to take an idea from its inception through the process of experimentation and refinement and into a final satisfying visual product is itself a worthwhile learning experience. Children today do not have many opportunities to experience processes from beginning to end, and too often see only end products on television or grocery shelves. The visual arts not only provide these experiences, but offer the means for helping students to understand and consolidate what they learn. Think of the other skills involved: learning to use the tools of the visual arts, learning to observe carefully, learning to express one's ideas visually, and learning that without discipline there is no real freedom.

Paul Ricoeur says, "The arts offer us models for the redescription of the world. They attach us to others, to our history, and to ourselves by providing a tapestry rich with threads of time, place, character, and even advice on what we might do with our lives."

Images of classroom practice in which the arts are taken seriously as modes of learning and methods of teaching cut across grade level and subject matter:

- In a high school English classroom, students studying Macbeth design settings of scenes in order to understand and convey the underlying atmosphere Shakespeare's words suggest. Interpretations are made using color, line, texture, and shape.
- In a sixth-grade social studies unit on Mexico, students "read" the work of Diego Rivera in order to understand the conditions and situations of life that cannot be expressed in other ways. Perceptions and interpretations of the symbols of visual arts employed by Rivera taught students the skills of "reading" the arts.
- In an elementary school, students create a colorful timeline illustrating important historic events posted on the walls of the hallway and growing in length throughout the year.
- In growing numbers of classrooms eye-catching posters created by students reinforce current learning.
- At all levels, children are producing multi-media reports that include drawings and paintings, photographs, and other illustrations.

## **Music**

We are all by nature musical, rhythmical people. We listen to our mother's heartbeat for nine months before we are born

and come into the world with our own rhythms of breathing and pulse. We are surrounded by music every day, enjoy it for relaxation, and may dance to it, yet many of us have not experienced music in our school lives beyond learning the alphabet through singing it. And many others have only experienced music in school during a weekly forty-five minute class period.

Recent research reported at the 1994 Annual Convention of the American Psychological Association suggests that music lessons, and even simply listening to music, can enhance spatial reasoning performance. The studies of Rauscher and Shaw confirm an unmistakable causal link between music and spatial intelligence. They note that "well-developed spatial intelligence is the ability to perceive the visual world accurately, to form mental images of physical objects, and to recognize variations of objects. The researchers theorize that spatial reasoning abilities are crucial for such higher brain functions as music, complex mathematics, and chess. As many of the problems in which scientists and engineers engage in cannot be described in verbal form, progress in science may, in fact, be closely linked to the development of certain spatial skills."

It is interesting to note in this context that the majority of the best engineers and technical designers in Silicon Valley are practicing musicians. Numbers of theorists suggest that the fact that the universities of India graduate so many brilliant mathematicians and physicists has something to do with the early (even prenatal) listening to ragas--music with complex rhythmical and tonal patterns. Eric Oddleifson reports that a renowned Japanese master mathematics teacher, whose nearly two million students have demonstrated incredible math ability beyond their years, was asked the following question. "What would you say is the most effective way of heightening children's mental ability at the earliest possible stages?" He answered, "The finest start for infants is to sing songs. This helps to elevate their powers of understanding, and they register astounding speed in learning math and languages."

Other related research:

- Studies by Diana Deutsch at the University of California/San Diego demonstrate that mental mechanisms that process music are deeply entwined with the brain's other basic functions, including perception, memory, and even language.
- In another University of California study, preschoolers who received daily group singing lessons and weekly

who received daily group singing lessons and weekly keyboard instruction for eight months performed much better on tests of spatial reasoning (which is the basis for mathematical thinking) than children who had no music lessons. The researchers suspect that when children exercise cortical neurons by listening to classical music, they are also strengthening circuits used for mathematics. (CAT and PET scans show that musical and spatial reasoning function in the same areas of the brain.)

- First-graders who were taught the rhythm and melodies of folk songs 40 minutes a day for seven months showed significantly higher reading scores than a control group.
- In a survey of science achievement in eight and ninth graders, Hungary ranked first and the U.S. 14th out of 17 nations. Researchers believe that this outcome is linked to the fact that Hungary has one of the most intensive school music programs in the world with instruction starting at the kindergarten level. Their Singing Schools are based on the methods of **Kodály**, and all children engage in singing every day. Both voice and instrument training twice a week are compulsory throughout the first eight years of schooling. Japan and Holland, the second and third highest achieving countries also incorporate music instruction throughout the school years.

Like many of the other arts, learning to play an instrument or compose music requires intense concentration and practice, discipline before freedom of expression can be meaningful, and the ability to persevere and see processes through from beginning to culmination in a performance or product. Making music together in an orchestra or choir exercises and develops collaborative skills that can be used throughout life. Watch carefully the eyes of musicians in a string quartet to see how they tune in to each other and combine efforts to achieve harmony.

Music may be integrated throughout the curriculum in a variety of ways:

- The Accelerated Learning techniques of Bulgarian educator Georgi Lozonov rely heavily on incorporating music into learning experiences. Music is often played to create a welcoming environment as students enter a class and as soft background music to improve focus of attention during quiet study times or to stimulate creative thinking. Not only schools but corporate training programs have been using his methods with

success.

- The Guggenheim Elementary School in Chicago uses music and rhythmical games to accelerate learning. Science and math concepts and other material to be memorized are frequently set and sung to music, with remarkable retention as a result.
- A teacher of a high school survey of English literature plays music of each period currently being studied as students enter the room.
- A middle school French teacher helps her students translate the story and songs of Hansel and Gretel into French and the project culminates in the performance of a shortened version of the opera complete with a French witch with a beauty mark and ostrich plumes in her hair.
- Dramatic music stimulates the writing of poetry or short stories in a creative writing class.
- In schools equipped with MIDI's (Musical Instrument Digital Interface) students are writing and orchestrating their own music even before they learn notation--which many are then inspired to do.

The U.S. National Child Welfare Association states, "Through music, a child enters a world of beauty, expresses his/her inmost self, tastes the joy of creating, widens his/her sympathies, develops the mind, soothes and refines the spirit, and adds grace to the body."

## **Dance**

Anne Green Gilbert, author of *Teaching the Three R's Through Movement* and director of Kaleidoscope, a modern dance company of young people, believes that movement is the key to learning. As a third grade teacher she had the children learn spelling words by forming letters with their bodies, forming punctuation marks and expressing the feeling of sentences through movement, learning multiplication by moving in sets of threes and fours, discovering the difference between lunar and solar eclipses through planet dances, and choreographing their way across the Oregon Trail.

Later on, during her training of teachers at the University of Washington she received a federally funded grant to conduct research in the Seattle Public Schools. She recorded the progress of 250 students from four elementary schools as they studied language arts concepts through movement and

they studied language arts concepts through movement and dance activities for twenty weeks. The third grade students increased their MAT scores by 13 percent from fall to spring, while the district-wide average showed a decrease of 2 percent. Most significant was the direct relationship the research showed between the amount of movement the classroom teacher used and the percentage increase of students' test scores.

It is perhaps relevant that physical movement is regulated by the cerebellum, which stores "skill or muscle memory." This kind of physical memory is noted for being especially long lasting--think for example of learning a complicated dance step and remembering how to do it years later. Using this capacity facilitates remembering what has been studied, and, closely related, learning through rhythmical movement and dance can make abstract ideas understandable.

Practicing and learning complex rhythmical patterns stimulates and energizes the whole mind-body system. Many kinesthetic students who literally need to move to learn find opportunities to do so in acceptable ways through dance. Dance creates strong, coordinated, well-disciplined bodies that can move with grace and individual style. Preparing to give a dance performance by memorizing the choreography, rehearsing, and collaborating with other dancers exercises and develops critical thinking skills along with persistence and perseverance.

In addition to Gilbert's examples of integrating dance throughout the curriculum, other examples include:

- The Northwest School in Seattle for many years produced an annual "Dance of the DNA" performed by a hundred students, teachers, and parents. The complexity of DNA became clearly understandable as the program unfolded and as participants learned with both mind and body.
- An elementary teacher takes her students to see an art exhibit, and has them choose music appropriate to each painting and create a dance to express its mood.
- A high school class gives a performance of "Oklahoma," with dances integrated into the production.
- A first grade class dances out the "water cycle."
- A fourth grade class choreographs a dance of the solar system to the music of Holst.
- An elementary school learns about different cultures as

each class learns and performs a dance of a different country.

- A high school class choreographs a dance in collaboration with projected images on a backdrop.

## **Drama**

Some years ago the University of Washington required Creative Dramatics courses for elementary teacher certification. It was well recognized that this highly effective teaching/learning strategy was invaluable in bringing almost any subject to life for students. Because of severe budget cuts, the Creative Dramatics Department no longer exists and teachers no longer have easy access to this training.

In a creative drama lesson, students listen to or read a story or poem, or hear a piece of music, or see a painting and plan how to interpret it dramatically. They review and if necessary develop a plot, choose characters, create an imaginary setting, then improvise dialogue and action. Together with their audience (of students not in the play) they critique the performance, decide what was good and what could be improved, then replay applying the suggested changes. The players and audience then trade roles.

Clearly this process is a highly collaborative one, develops quick-witted spontaneous thinking, problem-solving, poise and presence, concentration, and both conceptual and analytical thinking skills. Making a piece of theatre with students encourages, in fact demands cooperation, compromise and commitment--all skills necessary for any work environment.

Formal theatre demands additional skills including the coordination and creation of sets, costumes, props, lighting design, scripts or playwrights, and possibly musicians and dancers. Memorization of lines and action are essential to the process, and great dramatic literature may enrich the actor's memory throughout life. All of the arts are frequently represented, along with the skills to carry them out.

Numbers of studies attest to the value of integrating drama in the curriculum:

- Sherry DuPont's study "The Effectiveness of Creative Drama as an Instructional Strategy to Enhance the Reading Comprehension Skills of Fifth-grade Remedial Readers" demonstrated that the subjects in the control group scored consistently higher on the Metropolitan Reading Comprehension test.

- Lawrence Farrell's study of drama education found that drama techniques were an effective method for promoting facility in English as a second language among young children. The drama group exhibited significantly greater improvement than the control group in total verbal output.
- "Creative Drama and Young Children," a report by Patricia Pinciotti, states that "The creative drama process integrates mental and physical activity, engaging the whole child in improvisational and process-oriented experiences. These dramatic learning activities nurture and develop both individual and group skills and enhance the participants' abilities to communicate their ideas, images, and feelings in concert with others through dramatic action.

The goal of creative drama is to build the dramatic imagination in a social context and to develop the ability of children to connect imagination to action, not just in drama, but for every day. . . Under adult guidance, creative drama activities overtly build and enhance knowledge, skills, dispositions, and feelings through interaction and collaboration with others. Gradually these qualities become integrated into private thought, covert behaviors, and a shared consciousness. Creative drama becomes a partner in the development of abstract thought."

Creative drama and formal theatre may be integrated in the curriculum in innumerable ways:

- Early elementary school children play out nursery rhymes and learn to both memorize and improvise.
- Middle school students, who are often not ready for formal operations thinking and learning, have opportunities to learn by doing. They may act out great historical events, algebraic equations, and great literature. They may read about then "become" a well-known scientist, inventor, explorer, author, or artist.
- The highlight of many students' lives may be the opportunity to take part in a play, experiencing the process of rehearsing until the desired outcome is achieved, and often reliving the moment in memory throughout life.
- In many schools, students equipped with video cameras videotape performances of their plays and broadcast



them on in-house networks to other classes.

## **The Workplace**

The arts are also invaluable preparation for the world of work--along with providing continuing opportunities to sharpen workplace skills. The now legendary (and reinforced by more recent studies) SCANS Report (Secretary's Commission on Achieving Necessary Skills, published by the U.S. Department of Labor) suggests that there are five competencies that provide the skills and personal qualities needed for solid job performance. They include the following:

**Resources:** allocating time, money, materials, space, and staff;

(Consider how planning and producing a dramatic performance or concert, planning for and creating a large mural, or producing a multimedia report can develop these skills.)

**Interpersonal Skills:** working on teams, teaching others, serving customers, leading, negotiating, and working well with people from culturally diverse backgrounds;

(Consider how being a member of a theatrical cast or of a creative dramatics session or of an orchestra or of a cooperative visual arts project can develop these skills.)

**Information:** acquiring and evaluating data, organizing and maintaining files, interpreting and communicating, and using computers to process information;

(Consider how managing a theatrical or dance production, including creating costumes, sets, lighting, and staging or organizing multimedia exhibit, or keeping records of and assessing a variety of other arts projects can develop these skills.)

**Systems:** understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems;

(Consider the seamless connection between motivation, learning, assessment, and practical application leading to "deep understanding" and the development of "whole systems" perspectives.)

**Technology:** selecting equipment and tools, applying technology to specific tasks, and maintaining and troubleshooting technologies.

(Consider how choosing the right brushes, colors, and other materials for a visual arts project or knowing how to attend to technical problems during a rehearsal or performance of a play can develop these skills.

According to the SCANS report these competencies require:

**Basic Skills:** reading, writing, arithmetic and mathematics, speaking and listening;

(Consider that the arts are tools that can help all students at every ability level to master the basic skills faster and with greater retention. We learn best by doing. For many students, abstractions such as algebra, grammar, and reading comprehension can best be learned through concrete experiences that the arts provide.)

**Thinking Skills:** thinking creatively, making decisions, solving problems, seeing things in the mind's eye, knowing how to learn, and reasoning;

(Consider how in each of the arts, the above thinking skills are exercised and developed. All of the arts challenge and facilitate the development of higher order thinking skills.)

**Personal Qualities:** individual responsibility, self-esteem, sociability, self-management and integrity;

(Consider how the young actor or musician or painter or dancer develops these skills both as a member of a group and as an individual responsible for his/her contribution to the whole. Self-esteem comes from recognizing and using one's strengths to succeed.)

The report suggests that "a new kind of American worker is being ordered up. And this new worker will be expected to have a broad set of skills that were previously required only of supervisors and management."

### **Relation to Life Skills**

Active engagement with arts experiences offset the anesthetic, the mundane and the ordinary. A life without the arts is a life of seeing without feeling, hearing only what is offered to us secondhand, touching without real contact. It is a life devoid of insight into what it means to be human. In *Art as Experience*, John Dewey wrote of this unique ability of the arts to "break through the crust of conventionalized and routine consciousness." Artists, he felt, "have always been the real purveyors of news, for it is not the outward

the real purveyors of news, for it is not the outward happening in itself which is new, but the kindling by it of emotion, perception and appreciation" When we begin to create and respond to the arts ourselves, we kindle the fires of emotion, perception and appreciation. We look underneath the surface realities of the world. We release our imagination.

The arts have existed since the beginning of recorded time. Indeed, to "record time" implies some sort of representation of experience. From ancient drawings on caves in the Pyrennes mountains to "tagging" on urban walls in America's inner cities; from the Theatre of Dionysus of ancient Greece to concert halls in downtown Seattle, the arts are potent carriers of cultural meaning. In *Releasing the Imagination*, Maxine Greene writes that once we begin to imagine other possibilities, we begin to "feel those multiple realities that mark lived experience in the world." We cultivate a lively and honest curiosity for the world. We begin to ask why. There is always a why to be asked and in order to answer such questions, there must also be the capacity to imagine what we might yet know. The development of curiosity and wonder creates a personal and social consciousness that is necessary for living in our culturally diverse world. By setting students on a lifelong journey with the arts, we encourage ongoing, informed perception, appreciation and relationship with the people of the world.

For the first time in the history of public education in the United States, the arts have been officially recognized as one of the subject areas necessary for all children's basic education. If students are to fully embrace the rich and diverse cultures of the world; if they are to live up to their full cognitive potential; if they are to be prepared for living and working in a technologically driven world; and if they are to live a life alive and wide-awake to the possibilities yet to come, this promise of the arts as basic education must be realized. As this report has shown, research continues to affirm what anyone who has seen a child engrossed in the creation of his or her latest masterpiece has witnessed. The time has come for a true renaissance of the arts in education.

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**New Horizons for Learning  
P O Box 31876  
Seattle WA 98103 USA**

**<http://www.newhorizons.org>  
E-mail: [info@newhorizons.org](mailto:info@newhorizons.org)**

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