



Eloquent  
Evidence:  
**Arts at the  
Core of  
Learning**



*There is a growing consensus among policy makers and parents that the arts should be an integral part of education.*



The National Conference of State Legislatures emphasized the importance of the arts in all aspects of education in its 1992 comprehensive study, *Reinventing the Wheel: A Design for Student Achievement in the 21st Century*.

In *Goals 2000: Educate America Act*, the arts are recognized as part of the core curriculum, alongside other challenging subject matter like English, mathematics, science, foreign languages and history.

The *Improving America's School Act*, approved by Congress in 1994, reinforced the importance of the arts in relation to other subjects and as vital subjects in themselves.

Twenty-eight states now require some study of the arts for high school graduation, a dramatic increase since 1980 when only two states included the arts. In some states, study in the arts is a requirement for college entrance and graduation requirements.

*National Conference of State Legislatures, 1992*

Surveys show that a majority of parents think that the arts are as important as reading, writing, math, science, history or geography. More than half said they favored cuts in administration or sports in order to pay for arts classes. The vast majority of parents want their children to have more experience with the arts than they had when they were young.

*Americans and the Arts VI, by Louis Harris, 1992*



## ELOQUENT EVIDENCE Arts at the Core of Learning

A dramatic revolution in cognitive understanding began in the 1970's. Research now substantiates what some teachers and parents already knew intuitively — that the arts are critical to education and learning.

Most of the studies cited here are summarized in the recently completed *Schools, Communities and the Arts: A Research Compendium*, developed by the National Endowment for the Arts in cooperation with the Morrison Institute for Public Policy. Using set selection criteria, this compendium focuses on studies published since 1985 which employed sound methodologies.

*“During the past quarter century, literally thousands of school-based programs have demonstrated beyond question that the arts can not only bring coherence to our fragmented academic world, but through the arts, students’ performance in other academic disciplines can be enhanced as well.”* Ernest L. Boyer, president of the Carnegie Foundation for the Advancement of Teaching

More than a quarter million Americans serve on nearly 14,500 independent school boards and approximately 40,000 town, city and county councils across the country. The evidence presented here is addressed to this key audience. It is also addressed to anyone concerned about how children learn.

Although the arts remain undervalued in many school districts, this is changing as the connection between the arts and learning becomes clear and evident. Well-known and respected leaders now advocate the view put forth in 1984 by John I. Goodlad in *A Place Called School*, when he concluded that, “The arts are not an educational option; they are basic.”

The value of arts education is now firmly grounded in theory and research. Although the hard-nosed, scientific language used in studies is often lacking in literary eloquence, the evidence accumulated is eloquent testimony to the remarkable relationship between learning, knowing, and the arts.



**The arts are serious and rigorous academic subjects. They are an essential aspect of human knowing.**

*“Science will...produce the data..., but never the full meaning. For perceiving real significance, we shall need...most of all the brains of poets, [and] also those of artists, musicians, philosophers, historians, writers in general.”* Lewis Thomas, Scientist

The arts convey knowledge and meaning not learned through the study of other subjects. They represent a form of thinking and a way of knowing that is based in human imagination and judgment.

The arts delight students, but they are also intellectual disciplines of substance. Like language or mathematics, the arts involve the use of complex symbols to communicate. To attain competence in the arts, it is necessary to gain literacy with these symbol systems. Some, like music and painting, use non-verbal symbols; others, like poetry and song, use language in particular ways.

Arts teachers daily ask their students to engage in learning activities which require use of higher-order thinking skills like analysis, synthesis and evaluation. Arts education, then, is first of all an activity of the mind.

Creative activity is also a source of joy and wonder, while it bids its students to touch and taste and hear and see the world. Children are powerfully affected by storytelling, music, dance, and the visual arts. They often construct their understanding of the world around musical games, imaginative dramas and drawing.

This view of the arts as important ways of knowing and constructing knowledge finds its roots most notably in the philosophical work of Ernst Cassirer, Susanne Langer and Nelson Goodman and in the theories of many cognitive scientists.

*Theories and Research That Support Art Instruction for Instrumental Outcomes, by Karen A. Hamblen, 1993*



**The arts have far-reaching potential to help students achieve education goals.**

The groundbreaking theory of multiple intelligences, developed by Howard Gardner of Harvard University, broadens our view of how humans learn and realize their potentials. It shows that the arts can play a crucial role in improving students' ability to learn because they draw on a range of intelligences and learning styles, not just the linguistic and logical-mathematical intelligences upon which most schools are based.

Schools that incorporate music, art, drama, dance, and creative writing into the basic curriculum have found that teaching the arts has a significant effect on overall success in school. Because the arts are closely associated with important ideas and events in history, students who have a good background in the arts are likely to have a richer source of information and insight to draw upon, compared to those who do not study the arts.

For example, **students of the arts continue to outperform their non-arts peers on the Scholastic Assessment Test**, according to The College Entrance Examination Board. In 1995, SAT scores for students who studied the arts more than four years were 59 points **higher on the verbal** and 44 points **higher on the math** portion than students with no coursework or experience in the arts.

*The College Board, Profile of SAT and Achievement Test Takers, 1995*

It has also been documented that the arts have the potential to aid learning in specific areas, such as reading, writing, math and creativity. Each study has its own context and complexities that cannot be presented in this brief format. Readers are encouraged to seek more information.



## Reading, Writing and Math Skills Can Be Enhanced Through the Arts

Many studies document the role of the arts in improving basic skills, the 3’Rs. Because of the mounting evidence linking the arts to basic learning, some researchers refer to the arts as “The Fourth R.”

■ **Students improved an average of one to two months in reading for each month they participated in the “Learning to Read Through the Arts” program in New York City.** Students’ writing also improved, the study revealed. “Learning to Read Through the Arts,” an intensive, integrated arts curriculum, has been designated a model program by the National Diffusion Network and has been adopted by numerous schools and districts across the country.

*Chapter 1 Developer/Demonstration Program: Learning to Read Through the Arts, 1992-93; Office of Educational Research, New York City Board of Education, 1993, 1981, 1978*

■ **“Humanitas Program” students in Los Angeles high schools wrote higher quality essays, showed more conceptual understanding of history and made more interdisciplinary references than non-Humanitas students.** Low-achieving students made gains equivalent to those made by high-achieving students. The Humanitas program incorporates the arts into a broad humanities curriculum, drawing upon the relationship between literature, social studies and the arts. The program has reached 3,500 students in twenty high schools.

*The Humanitas Program Evaluation 1990-91, by Pamela Aschbacher and Joan Herman, 1991*

■ **The most gains in total reading, reading vocabulary and reading comprehension were made by elementary students in the “Spectra+” arts program in Ohio,** compared to the control group. The students also scored better in math comprehension.

*The Schooled Mind: Do the Arts Make a Difference? An Empirical Evaluation of the Hamilton Fairfield SPECTRA+ Program, 1992-93, by Richard L. Luftig, 1994*

■ **Vocabulary and reading comprehension were significantly improved for elementary students in the “Arts Alternatives” program in New Jersey.** A strong connection between drama skills and literacy was found in this program, which involved role-playing, improvisational techniques and story writing activities.

*The Impact of an Improvisational Dramatics Program on Student Attitudes and Achievement, by Annette F. Gourgey, Jason Bosseau, and Judith Delgado, 1985*

■ **The writing quality of elementary students was consistently and significantly improved by using drawing and drama techniques,** compared to the control group, which used only the discussion approach. Drama and drawing techniques allowed the student writer to test-out, evaluate, revise and integrate ideas before writing begins, thus significantly improving the results.

*Drama and Drawing for Narrative Writing in Primary Grades, by Blaine H. Moore and Helen Caldwell, 1993*

■ **Students made significant gains over the control group in language mechanics, total language and writing on the California Achievement Tests after participating in a special music and poetry program.**

*The Cognitive and Behavioral Consequences of Using Music and Poetry in a Fourth Grade Language Arts Classroom, by Carolyn Carter Hudspeth, 1986*





## Creativity Is Naturally Developed Through the Arts

Every child has the innate urge and capacity to be artistically expressive. Arts education requires students to draw upon their creative abilities and to deepen them, as well. The benefit is that creative thinking, once learned early, lasts for a lifetime and can be applied in other endeavors.

■ **Total creativity measures were four times higher for elementary students in an arts curriculum** than for the control groups in two Ohio school districts. Gains were maintained and continued to improve in a second year evaluation.

*The Schooled Mind: Do the Arts Make a Difference? An Empirical Evaluation of the Hamilton Fairfield SPECTRA+ Program, 1992-93, by Richard L. Luftig, 1994*

■ **Originality and imagination scores were significantly higher for preschool children with disabilities after participation in a dance program** than for those participating in the adapted physical education program.

*Effect of a Dance Program on the Creativity of Preschool Handicapped Children, by Danielle Jay, 1991*

*“Pyramids, cathedrals and rockets exist not because of geometry, theories of structures or thermodynamics, but because they were first a picture — literally a vision — in the minds of those who built them.”* Historian Eugene Ferguson



## Student Engagement and Persistence Improve with an Arts-Based Curriculum

The arts can transform the classroom environment, making learning a lively, invigorating experience. With their emphasis on creative discovery and their ability to stimulate a variety of learning styles, the arts engender enthusiasm and motivation for learning. The arts also teach discipline, the value of sustained effort to achieve excellence, and the

concrete rewards of hard work. All these factors can encourage higher attendance and decrease drop-out rates.

*“The process of studying and creating art in all of its distinct forms defines those qualities that are at the heart of education reform in the 1990’s — creativity, perseverance, a sense of standards, and above all, a striving for excellence.”*

U.S. Secretary of Education, Richard W. Riley

■ **Classes were more interactive, there were more student-initiated topics and discussions, more time was devoted to literacy activities and problem-solving activities in schools using the arts-based “Different Ways of Knowing” program.** The program also produced significant positive effects on student achievement, motivation and engagement in learning.

*Different Ways of Knowing: 1991-94 National Longitudinal Study Final Report, by James S. Catterall, 1995*

■ **Students see relationships, question and analyze material, and clearly articulate thoughts through the “Humanitas Program.”** These students also had significantly higher class attendance and were significantly less likely to drop out of school. They reported more positive perceptions about their academic abilities than did a comparison group. Teachers reported an overall new enthusiasm for teaching.

*The Humanitas Program Evaluation 1990-91, by Pamela Aschbacher and Joan Herman, 1991*

■ **The open and exploratory nature of the arts lessons in New York City’s “Arts Partners” program allowed students to explore their “regular” subject areas more actively.** The students drew upon their learning from the “core” disciplines for much of the content for their art works, thus reinforcing academic achievement.

*Arts and Cognition: A Study of the Relationship Between Arts Partners Programs and the Development of Higher Level Thinking Processes in Elementary and Junior High School Students, by Carol Fineberg, 1991*



## High-Risk Students Helped Through the Arts

*“When I examine myself and my method of thought, I come to the conclusion that the gift of fantasy has meant more to me than my talent for absorbing knowledge.”* Albert Einstein

Many students find that the arts help them master academic skills. Drawing helps writing. Song and poetry make facts memorable. Drama makes history more vivid and real. Creative movement makes processes understandable. This is doubly true for the high-risk student, who often excels for the first time in an arts program.

Sometimes, the student who is not doing well in traditional academics might have an artistic talent that has not yet flowered. As the writers of *The Fourth R* point out: “Imagine what might happen to Leonardo da Vinci today if he were placed in the average American public school. This illegitimate son of a poor woman, a left-handed writer who loved to draw and challenge conventional thought, would be labeled an at-risk special education candidate...” Schools with an integrated arts curriculum might be better able to address the needs of students like da Vinci.

■ **High-risk elementary students with one year in the “Different Ways of Knowing” program gained 8 percentile points on standardized language arts tests; students with two years in the program gained 16 percentile points.** Non-program students showed no percentile gain in language arts. Students with three years in the program outscored non-program students with significantly higher report card grades in the core subject areas of language arts, math, reading and social studies. Participants showed significantly higher levels of engagement and increased beliefs that there is value in personal effort for achievement. In total, 920 elementary students in 52 classrooms were studied in this national longitudinal study in Los Angeles, south Boston and Cambridge, Massachusetts.

*Different Ways of Knowing: 1991-94 National Longitudinal Study Final Report, by James S. Catterall, 1995*

■ **Seventy-five percent of Manchester Craftsmen’s Guild students go on to college.** An after-school program for at-risk high school students at a community arts center in Pittsburgh, the Guild’s extraordinary success shows how valuable community arts groups can be to school districts.

*Safe Havens, Portraits of Educational Effectiveness in Community Art Centers that Focus on Education in Economically Disadvantaged Communities, by Jessica Davis, 1993*

■ **Fifth grade remedial readers using creative drama as a learning strategy scored consistently higher on the Metropolitan Reading Comprehension Test.** The drama readers’ scores also showed a steady increase over the six-week period. The comparative group engaged in the same reading activities, followed by vocabulary lessons and discussion of the story.

*The Effectiveness of Creative Drama as an Instructional Strategy to Enhance the Reading Comprehension Skills of Fifth-Grade Remedial Readers, by Sherry DuPont, 1992*

■ **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.

*Enhancing the Practice of Drama in Education Through Research, by Lawrence O’Farrell, 1993*



## Understanding of One’s Self and Others Expands with Arts Education

Based on what we know, what do students need in order to do well in school? Belief that success in school is possible is one of the most important factors for students. Positive self-perceptions have been shown repeatedly to aid the development of skills and learning.

Related to self-concept is an understanding of others. Cultural studies challenge students to respond to the world, to look beyond themselves and to see the connectedness of human society. The arts foster understanding of other cultures, their histories, symbols, myths, values and beliefs.



Projections about the demographic composition of the United States in the next 40 years show that the “minority” population will soon be the majority population. These projections have profound implications for educators, as they prepare our children for tomorrow’s world.

■ **Students reported significantly improved attitudes relating to self-expression, trust, self-acceptance and acceptance of others in the “Arts Alternatives” program in New Jersey.**

*The Impact of an Improvisational Dramatics Program on Student Attitudes and Achievement, by Annette F. Gourgey, Jason Bosseau and Judith Delgado, 1985*

■ **Attitudes and perceptions toward Native Americans were changed through arts instruction.** In Arizona, music and cultural experiences were effective in diminishing fourth grade students’ stereotypical views toward minority cultures.

*North American Indian Music Instruction: Influences upon Attitudes, Cultural Perceptions, and Achievement, by Kay Louise Edwards, 1994*

■ **Self-concept is positively enhanced through the arts, according to a review of 57 studies,** as are language acquisition, cognitive development, critical-thinking ability and social skills. The authors examined studies of measurable results in the emotional and social development of children. The relationship between music participation and self-concept was strongly in evidence.

*The Effects of Arts and Music Education on Students’ Self-Concept, by Jerry Trusty and Giacomo M. Oliva, 1994*

■ **Fifth grade students derived satisfaction from their band experience regardless of their perception of their talents.** In a study of six elementary schools in a large suburban school district, students viewed their role as band members as part of their identity and benefited from both peer and adult recognition.

*The Elementary Band Experience as Viewed by Students, Parents, Teachers and Administrators, by Cynthia Anne Leblanc, 1990*

## The Arts Prepare Students for Jobs

Skill requirements for all workers are going up, including those in production and support jobs. In the modern business environment, the ability to communicate, adapt, diagnose problems and find creative solutions is more important than ever before. These attributes can be nurtured and honed through studying the arts.

Arts education also plays a role in improving and maintaining a community’s business climate. In a study of 142 businesses, most agreed that cultural amenities, including *arts education*, were important “quality of life” factors in their location decisions. Businesses say that schools are the most important vehicle for enhancing awareness of and interest in the arts.

*A Study of the Perceptions of Business and Community Leaders Regarding the Economic Importance of the Arts and Arts Education in Mississippi, by Jorja Pound Turnipseed, Giacomo M. Oliva, Charles A. Campbell and Steven C. Hardin, 1991*

■ **Communications skills were ranked as the second most important factor in hiring, a national employer study reveals.** Employers look at educational levels and certificates, but what is more important to employers is how the applicant presents himself or herself, in terms of attitude and communication skills.

*Educational Quality of the Workforce National Employer Survey: First Findings, by Lisa Lynch and Robert Zemsky, 1995*

■ **Arts education aids achievement of “core competencies”** needed for employment, according to a U.S. Labor Department’s report (Secretary’s Commission on Achieving Necessary Skills, SCANS). The arts are cited as important for certain “foundation” skills which include thinking creatively, problem solving, exercising individual responsibility, sociability and self-esteem.



## The \$36 Billion Nonprofit Arts Industry Is A Source of Future Employment for Students

There are jobs in the arts! It is an industry that provides substantial employment opportunities, about 1.3 million jobs per year, a fact sometimes overlooked by educators. The economic dimensions of the nonprofit arts sector are extensive at \$36 billion. It jumps to \$314 billion when the commercial arts sector is added.

*Arts in the Local Economy, National Assembly of Local Arts Agencies, 1994*  
*1992 State of the Arts Report, National Endowment for the Arts*

“Out of a classroom of 30 children, maybe 10 will be employed in an arts-related occupation someday,” says Rexford Brown of the Education Commission of the States. This factor alone shows the necessity of arts education in each and every one of our nation’s schools.



### Arts Education Partnership

The Arts Education Partnership is a private, nonprofit coalition of education, arts, business, philanthropic and government organizations that demonstrates and promotes the essential role of arts education in enabling all students to succeed in school, life and work.

The Partnership is administered by the Council of Chief State School Officers and the National Assembly of State Arts Agencies. It is supported by a cooperative agreement with the National Endowment for the Arts and the U.S. Department of Education, and by the contributions of its participating organizations.

For more information, contact the Arts Education Partnership, One Massachusetts Avenue, NW, Suite 700, Washington, DC 20001, 202-326-8693, or see its Web site at <http://aep-arts.org>.

## RESOURCES FOR EDUCATORS AND PARENTS

*Eloquent Evidence, Arts at the Core of Learning*, by Elizabeth Murfee. We encourage broad distribution of this guide. Feel free to reproduce it and make it available to anyone who would benefit from it. Each study has its own context and complexities that cannot be presented in this brief format. Readers are encouraged to seek more information. Additional copies can be obtained from the National Assembly of State Arts Agencies, 1029 Vermont Avenue NW, Second Floor, Washington, DC 20005. Tel: 202-347-6352; fax: 202-737-0526. Email: [nasaa@nasaa-arts.org](mailto:nasaa@nasaa-arts.org). Web: <http://www.nasaa-arts.org>.

*Schools, Communities, and the Arts: A Research Compendium*, developed by the National Endowment for the Arts in cooperation with the Morrison Institute for Public Policy, can be purchased in print and diskette versions by contacting the Kennedy Center Alliance for Arts Education Network, Education Department, the John F. Kennedy Center for the Performing Arts, Washington, DC 20566-0001, 202-416-8845.

*Arts Education in Public Elementary and Secondary Schools*, the most current survey of the conditions of arts education, can be obtained from the National Center for Education Statistics, U.S. Department of Education, Rm. 418, 555 New Jersey Avenue NW, Washington, DC 20208; or contact Judi Carpenter 202-219-1333.

*The Basic School, A Community for Learning*, by Ernest Boyer, in which the arts are considered an essential understanding for all elementary school students, can be purchased from California Princeton Fulfillment Services, 1445 Lower Ferry Road, Ewing, NJ 08618, 800-777-4726.

*Be Smart, Include Art: A Planning Kit for PTAs*, can be obtained from The National PTA, 330 North Wabash Avenue, Suite 2100, Chicago, IL 60611.

State and local arts agencies and state alliances for arts education are important, useful resources. They often have abundant materials, resources, and expertise in arts education.





---

## PRESIDENT'S COMMITTEE ON THE ARTS AND THE HUMANITIES

Hillary Rodham Clinton, *Honorary Chair*  
John Brademas, *Chairman*  
Peggy Cooper Cafritz, *Vice Chair*  
Terry Semel, *Vice Chair*  
Harriet Mayor Fulbright, *Executive Director*

---



NATIONAL  
ENDOWMENT  
FOR THE  
ARTS



This publication is a project of the President's Committee on the Arts and Humanities, the Arts Education Partnership and the National Assembly of State Arts Agencies, using material published by the National Endowment for the Arts.

It is made possible through the generosity of the General Electric Fund.

We gratefully acknowledge Ellen McCulloch-Lovell for her vision and guidance.



For additional copies, contact NASAA at 202-347-6352 or visit our Web site at  
<http://www.nasaa-arts.org>

Written by Elizabeth Murfee  
Design by Cummings Advertising/Art, Inc.  
Printed on recycled paper

First printing October 1995  
Second printing April 1996  
Third printing December 1998