“The evidence is clear: study of the arts contributes to student achievement and success. Research confirms that the arts make a significant contribution to helping all students achieve success in school, work and life.”

Sandra S. Ruppert, (Critical Evidence – How the ARTS Benefit Student Achievement)

A growing body of studies, including those in the research compendium Critical Links: Learning in the Arts and Student Academic and Social Development, presents compelling evidence connecting student learning in the arts to a wide spectrum of academic and social benefits. The compendium includes summaries of 62 arts education studies conducted in five major art form areas: dance, drama, visual arts, music and multi-arts. These studies and related essays document the habits of mind, social competencies and personal dispositions inherent to arts learning. More than 65 distinct relationships between the arts and academic and social outcomes are documented. Based on these findings, six major types of benefits associated with study of the arts and student achievement are identified:

1. **READING AND LANGUAGE DEVELOPMENT**
   Forms of arts instruction enhance and complement basic reading skills, language development and writing skills. Utilization of drama, dance, visual art and music assists students in achieving literacy goals by engaging them in their own learning process. Reading readiness, writing - (narrative, creative and topical), reading comprehension and communication proficiency are elements of literacy that are fostered through arts infusion.

2. **MATHEMATICS SKILLS**
   Certain music instruction develops abilities that are fundamental to understanding and using mathematical ideas and concepts. Spatial reasoning and spatial-temporal reasoning skills (the ability to understand the relationship of ideas and objects in space and time) are integral to the acquisition of mathematics skills – and inherent in the study of music.

3. **THINKING SKILLS**
   Learning in individual art forms and/or multi-arts experiences engages and strengthens such fundamental cognitive capacities as spatial reasoning (the capacity for organizing and sequencing ideas); conditional reasoning (theorizing about outcomes and consequences); problem solving; and the components of creative thinking (originality, elaboration, and flexibility). Additional thought processes associated with study of the arts are intuition, perception, imagination, inventiveness, critical thinking and conceptualization.
4. **SOCIAL SKILLS**
   Interpersonal skills important to social interaction are nurtured by the arts. Certain arts activities promote positive growth in social acuity - including conflict resolution, self-identity, collaboration, self-confidence, empathy, self-control, tolerance, and appreciation of cultural diversity.

5. **MOTIVATION TO LEARN AND TO ACHIEVE**
   Motivation and the attitudes and dispositions to pursue and sustain learning are essential to achievement. Learning in the arts cultivates these capacities – including disciplined and sustained attention, active engagement, risk-taking, and persistence – and improves attendance and educational aspirations.

6. **POSITIVE SCHOOL ENVIRONMENT**
   A positive context for learning is critical to student success. The arts help to create a learning environment that is conducive to teacher and student success by fostering teacher innovation, a positive professional culture, parent and community engagement, increased student attendance and retention, effective instructional practice, and school identity.

**HIGHLIGHTS OF SIGNIFICANT RESEARCH FINDINGS:**

**Improved SAT Scores:** Strong relationships between learning in the arts and fundamental cognitive skills and capacities are indicated. According to 2005 *College-Bound Seniors: Total Group Profile Report*, (The College Board 2005), arts participation and SAT scores co-vary - that is, they tend to increase linearly: the more arts classes, the higher the scores. Multiple independent studies have shown that increased years of enrollment in arts courses are positively correlated with higher SAT verbal and math scores. High school students who take arts classes have higher math and verbal SAT scores than students who take no arts classes. *Critical Evidence*, 2006, AEP

**Higher Achievement:** Dr. James Catterall, well-known researcher from the University of California, analyzed data from the National Educational Longitudinal Survey (NELS:88), a panel study that followed the progress of more than 25,000 students in American secondary schools for 10 years. The data showed that children with consistent and substantive involvement in the arts performed at significantly higher levels on all measures, whether academic or selected behaviors.

**Competencies for Academic Success:** The study, *Learning In and Through the Arts* by researchers Judith Burton, Robert Horowitz, and Hal Abeles of Teachers College, Columbia University, has found significant relationships between rich in-school arts programs and creative, cognitive, and personal competencies needed for academic success. The arts were found to add the kind of richness and depth to learning and instruction that is critical to healthy development only in schools where arts provision is thorough and continuous.

**Arts and At Risk Students:** “Students at risk of not successfully completing their high school educations cite their participation in the arts as reasons for staying in school. Factors related to the arts that positively affected the motivation of these students included a supportive environment that promotes constructive acceptance of criticism and one where it is safe to take risks.” N. Barry, J. Taylor, and K. Walls, “The Role of the Fine and Performing Arts in High School Dropout Prevention”, *Critical Links*, 2002 and *Critical Evidence*, 2006 (Arts Education Partnership)
Americans believe in the benefits of Arts Education: (93%) Ninety-three percent of Americans Believe That the Arts Are Vital to Providing a Well-Rounded Education for Children, according to a May 2005 Harris Poll on the attitudes of Americans toward arts education. (Commissioned by Americans for the Arts)

The No Child Left Behind Act of 2001 (NCLB) includes the arts as core subjects. However, the focus of accountability on reading and math has altered priorities. Administrators are often tempted to reduce arts education opportunities or eliminate arts programs in response to the challenges posed by the NCLB Act. In doing so, they may be eliminating critical links to academic success for many students and denying students the opportunity to develop the crucial cognitive skills and motivations they need to achieve at high levels. In some schools, on the other hand, NCLB has served as a catalyst for strengthening efforts to raise student achievement and improve student performance in other core subjects through integrating the arts.

The State of Maryland has achieved significant accomplishments in fine arts education, and many schools in the state benefit from strong arts programs. Students are required to earn one credit in the fine arts to receive the Maryland High School Diploma. The Maryland State Department of Education (MSDE) has established content and achievement standards for dance, music, theatre, and visual arts programs in the public schools. (Maryland Essential Learner Outcomes for the Fine Arts (ELOs)-) The MSDE has developed the Voluntary State Curriculum in the Fine Arts (VSC) based on the ELOs; has supported the development and implementation of Fine Arts Strategic Plans by local jurisdictions; and has created The Maryland Fine Arts Instructional Tool Kit linking assessment with the VSC and best instructional practices. Fine Arts assessments are under development.

Although these Maryland school reform initiatives have been enacted, arts curricula and arts programs have been cut in many local schools. Disparity in arts education quality and opportunity is consequential; it is often the most disadvantaged students who are most impacted by the reduction and elimination of programs. Advocacy is critical to ensure high quality arts education for all Maryland schoolchildren at all levels of education. The arts are essential for children to thrive in school and in life.

(Critical Evidence – How the ARTS Benefit Student Achievement, Sandra S. Ruppert, 2006)

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For more information, consult the Critical Links section of the Arts Education Partnership’s Web site at www.aep-arts.org through the Evaluation and Research toolbar or contact the AEMS Alliance office.