

INSTRUMENTAL MUSIC AND CHILDREN: THE POSITIVE BENEFITS

BACKGROUND: With increasing emphasis, the public school system is depending on student achievement on mandated standardized tests to demonstrate student learning, teacher competency and overall school performance.¹ School curricula, particularly in language arts and mathematics, are constantly being revised so as to improve student performance on these tests.² Millions of dollars are being spent each year on remediation in these subject areas as students are placed in special “support” classes to make up for their deficient math and reading scores on standardized tests³. More money still is spent on teacher training, staff development and the overall implementation of elaborate testing schedules, which reduces the overall budget for instructional materials, equipment, textbooks and supplies, field trips and arts programs.

As school funding priorities have shifted, instrumental music programs throughout the state and the nation have seen a dramatic decline in enrollment.⁴ Many students are denied access to school music programs as their class schedules are filled with extra reading and math support classes. In some school districts, instrumental music programs are being cut back or even eliminated due to the re-allocation of resources to language arts and mathematics, with the ultimate goal of increasing standardized test scores.

Although no one can argue that language and math skills aren’t fundamental and the basis of all other learning, one has to be concerned when they become the sole focus of a student’s education, at the expense of everything else: especially the arts.⁵ Arts programs, and particularly instrumental music programs, have historically been the first on the “chopping block” when it comes to budget cuts in the public schools. But, is cutting a school music program in favor of adding additional math or reading classes really the best solution to raising test scores? Researchers have been studying the effects of music on cognition for many years.^{6,7,8,9} Could the very thing we have been cutting out of our school curriculum hold the solution we have been looking for?

Attached is a list of the positive “collateral” benefits students receive as a result of studying instrumental music, particularly at a young age. This information is all supported by clinical research studies, which have been conducted over the past 30 years.

¹ U.S. Department of Education, “*No Child Left Behind Act*,” Public Law 107-110, accessed through the website www.ed.gov/nclb

² *ibid.*

³ *ibid.*

⁴ Music For All Foundation, “*The Sound of Silence*,” Los Angeles, September 9, 2004 accessed through the website <http://music-for-all.org/sosrelease.html>

⁵ Assembly of State Arts Agencies and the President’s Committee on the Arts, “*Eloquent Evidence: Arts at the Core of Learning*,” Washington, D.C., Published by the National Endowment for the Arts as part of the Goals 2000 Arts Education Leadership Fund, 2000

⁶ Temple Grandin, and Mathew Peterson, and Gordon L. Shaw, “*Spatial-Temporal Versus Language-Analytical Reasoning: The Role of Music Training*,” *Arts Education Policy Review*, July/Aug, 1998, Vol. 99, Issue 6; pp.11-14

⁷ Gary Kliever, “*The Mozart Effect*,” *New Scientist*, November 6, 1999, Issue 1; pp. 828-831

⁸ Harold M. Best, “*Arts, Words, Intellect, Education Part 1: Cultural and Intellectual Contexts*,” *Arts Education Policy Review*, Heldref Publications, Washington, D.C., July/August 2000, Vol. 101, Issue 6; pp. 3-11

⁹ Clifford K. Madsen, and Katia Madsen, “*Perception and Cognition in Music: Musically Trained and Untrained Adults Compared to Sixth-Grade and Eighth-Grade Children*,” *Journal of Research in Music Education*, Vol. 50, No. 2, MENC, Summer 2002, pp. 111-130

1. **Studying instrumental music in early childhood has a positive effect on the human central nervous system.** There is a direct correlation between developing music skills and other categories of competence. (Drs. F. Rauscher and G. Shaw, UC Irvine, 1993)
2. **Children who receive musical training benefit from enhanced development in their abilities to read, their spatial reasoning and their creativity.** (Dr. N. Weinberger, UC Irvine, 1975-1994, *Musica Research Archives*)
3. **Music is not just a product of culture, but has a strong biological foundation. Music performance engages all of the major components of the human brain:**
 - a. Sensory and perceptual
 - b. Cognitive
 - c. Planning movements
 - d. Motor
 - e. Feedback and evaluation of behaviors
 - f. Motivational
 - g. Learning
 - h. Memory*(Musica Research Archives)*
4. **Music instruction can enhance the ‘hardware’ in the brain for spatial-temporal reasoning, which is used in learning certain math and science concepts.** “Music education (should) be present in our schools... to develop the higher brain functions needed to learn higher level math and science concepts.” (Drs. Shaw-UC Irvine, Grandin-UC Berkeley and Peterson-Colorado State University, 1998)
5. **Instrumental music students outperformed non-instrumental music students on the California High School Exit Exam (CAHSEE) by a 22.47% margin.** All high school sophomores and juniors were tested in the SUHSD in 2005.
6. **Music students scored 59 points higher on the verbal portion of the SAT and 44 points higher on the math portion of the SAT than non-music students.** *(The College Board, 1995)*
7. **Observable influences on children’s behavior who study music include:** reduced truancy/better attendance, calmer, more self-directed behavior, increased respect for people, increased ability to stick with a task, improved self-esteem, and a decrease in playground problems. *(Calif. Arts Council)*
8. **Music is recognized as a core, academic subject.** *(National Standards for Arts Education, 1996)*
9. **President Bill Clinton:** “Music, to me, is representative of everything I like most in life. It’s beautiful and fun, but very rigorous. If you want to be good, you have to work like crazy. It is a real relationship between effort and reward. My musical life experiences were just as important to me, in terms of forming my development, as my political experiences or my academic life. (1994)
10. **California State Board of Education:** “Arts education is an essential part of basic education for all students, kindergarten through grade twelve, to provide for balanced learning and to develop the full potential of their minds.” (1995 Proclamation)