

## As Seen In:



### **Music: More Than Meets The Ear**

By Jody R. Katz

“Music has been the best thing in my daughter’s life!” a parent declares.

“It’s vitally important to development,” adds another.

A third chimes in “It plays a big part in our family life.”

Parents in the Washington area are passionate about music education and they go to great lengths to provide the best for their children. They begin by sharing music at home, listening to the radio and cds, and playing with rattles and musical toys. Next, they register for parent/toddler classes teaching music and movement, and between ages 4 and 7, many enroll their children in private instrument instruction. Elementary school children fill choral groups, orchestras, and bands at their schools and often pursue higher level auditioned ensembles outside of schools.

But in the hectic times of the 21<sup>st</sup> century, some ask if we can afford to keep music a priority in education. Certain preschools are shaving music down to 20 minutes a week or less, trimming costs to pay for computers. Elementary schools re-evaluate whether they should continue to teach band and orchestra classes during the school day, and the poor urban areas often do cut these programs. As one mother said to me, “I really don’t think my child is going to be a professional musician, so why bother.”

What is the value of a good music education? How much time, effort and money is it worth? To answer these questions, let’s compare the anecdotes with hard facts and see what a music education really has to offer.

#### *Music for Music’s Sake*

Purists argue that music is important to study for its own sake, regardless of its impact on other realms of learning and living. Children can learn about music at a very early age, even in the womb. Multiple studies prove that babies recognize the songs they heard in the womb during the last month of pregnancy, and an amazing recent study at University of Leicester reveals that even one-year olds remember and show distinct preference for the exact same songs that they heard in utero. The babies showed the same level of preference whether the mother had chosen to listen to a song from hard rock, classical, or any other genre. Introducing babies and young children to the music you love can shape their taste in music for the rest of their lives.

Early childhood is the time of greatest brain plasticity, when neuron circuits for perceptual and sensory discrimination are developing, and is considered the best time to teach children how to detect pitch or maintain a steady beat. People with limited exposure to music in their youth often complain they can’t sing or dance, and it is harder for them because they didn’t have the exposure when their nervous system was most capable of learning the skills. The same phenomenon can

be seen in songbirds that are separated from their species for the first six months of life – they never learn their call well enough to be recognized by members of their own species.

### *Music and Cognitive Skills*

“I think listening to music helps children learn to read faster and develop math skills earlier,” says parent Michele Thomas.

Music "helps improve children's ability to reason abstractly," confirms Dr. Frances Rauscher of the University of Wisconsin.

Many different kinds of studies have been done on preschoolers through college students to study the relationship between music education and cognitive abilities. Some studies test the areas of brain activity while listening to music or measure the size of the brain. Others compare intelligence test scores of students with musical training with non-musicians. Prospective studies look for causal relationships between a specific program of music instruction and a specific set of skills. Through all of these studies, there exists plenty of evidence to support the theory that music instruction enhances mathematical reasoning, language and reading skills, concentration, attention, memory and motor coordination in the general and special needs populations.

### *Music and Academic Achievement*

Students with strong music backgrounds score significantly higher on the SAT than their counterparts who lack music training. Those who describe themselves as having coursework and/or experience in music performance or music appreciation are scoring 8 – 12 % higher than students without this training on both the math and verbal sections of the test in recent years.

In addition, music is inextricably linked to the study of history. Questions about composers and their music have appeared on History or Humanities sections of the Virginia Standards of Learning, ACT, SAT and AP tests. Allowing students to learn about the great masters through music education gives them an intimate understanding of their place in history.

### *Music for Family Bonding*

Margaret Schwartz knew that the boys she adopted were deprived of exposure to music in the Ukrainian orphanage, and was determined to give them this opportunity as soon as she brought them home. She began by signing up for a parent/toddler program of music, movement and stories, and started a routine of reading and singing stories at bedtime. “Nowadays,” she reports “each boy gets to pick three short songs and the topics range from describing events that occurred that day ...to objects or animals they are infatuated with (little red car, ponies, etc.) The boys have recently started performing for me, replete with costumes and dancing.”

You don't have to be the Von Trapp family (from “The Sound of Music” film) to enjoy music with your children! Sharing music at special occasions like weddings and quinceañeras creates an atmosphere of celebration. Music at religious gatherings like baptisms and bar mitzvahs help us feel more spiritual. Listening to music or singing songs in a car calms unhappy babies, and lullabies at bedtime coax children gently into slumber.

### *Music and Socialization*

“Most of my friends are in orchestra,” says Rebecca, age 16.

It’s no wonder that teenagers form close bonds with their fellow musicians. Not only do they share a love of the same kind of music, but orchestra (and band) students spend a lot of time together! They usually meet each other in elementary school, and continue to share classes through high school rehearsing, performing, traveling and competing as a team. Hard rock lovers and rap music fans also develop friendships along the lines of their musical tastes, some form their own bands and others attend concerts together.

Orchestra and band students enjoy a reputation for being among the least likely to indulge in illegal substances, and this reputation was substantiated by a recent study by The Texas Commission on Alcohol and Drug Abuse. Their 1999 study found that orchestra and band students reported the lowest lifetime and current use of alcohol, tobacco, and other drugs of all the groups studied.

### *Music and Wellness*

“I need some music to cheer me up” four-year old George announces. It’s amazing that a child can be so self-aware at such a young age, but George’s instincts are borne out by research. Music has beneficial effects on both emotional and physical wellness.

In a joint study performed by Dr. Valerie N. Stratton, PhD, and Annette H. Zalanowski, of Penn State University, Altoona, college students were asked to track their emotions when they were listening to music and when they were not. According to their research, after listening to music, college students reported feeling more optimistic, joyful, friendly, relaxed and calm.

Music has been found to be extremely important in acute medical situations, like during surgical recovery. Listening to music reduces anxiety levels and pain awareness of surgical patients, and is linked to quicker recovery times. This provides us with a low cost non-invasive way to improve medical care.

Prevention and general wellness can also be promoted through the use of music. Studies show that even passive listening to music causes an increase in the level of Immunoglobulin A, improving the response of the immune system. Singing or playing an instrument produces increased levels of melatonin, reducing levels of stress. Singing, like other forms of exercise, also releases mood-improving endorphins, and lowers blood pressure. Playing an instrument increases levels of human growth hormone, which is a factor in osteoporosis, muscle mass, energy levels, and aches and pains.

### *Music and Cultural Identity*

From the Greek bouzouki to the pan pipes of Peru, from the wailing clarinet of Eastern European Klezmer to the djembe drums of Africa, music conjures up images of people and cultures from around the world. Children discover their own cultural identity by listening, singing, playing

instruments and dancing to the music their family enjoys. Exposure to music from other cultures gives us a way to connect with others in our ethnically diverse communities.

### *Music and Self-Discipline*

“Musicianship teaches teamwork, discipline and commitment, and these are lessons you can apply to any pursuit throughout your life,” says parent Cheryl Sourbeer. “The kids in the music programs are focused on healthy activities.”

Music, defined as the arrangement of sound in an aesthetically pleasing manner, promotes a sense of discipline and order, even in the youngest students. Sound that is chaotic or random isn't music, its noise. When toddlers learn to move responsively to music, to speed up and slow down in response to changes in tempo, to maintain a steady beat, they are already practicing the basics of self-control, teamwork and cooperation. It takes self-discipline to be a good listener in an audience, and even more self-discipline to practice and develop mastery of an instrument.

### *Music as the Universal Language*

Aldous Huxley says, “After silence that which comes nearest to expressing the inexpressible is music.”

In my personal experience, music has been a language for communication when all other communication failed. My mother was never able to speak to her grandchildren, due to paralysis from Multiple Sclerosis. When we visited her, the children would sing and play their instruments for her, and we often wondered if she knew who they were. Then, one day, my son said to her, “I just want to thank the person who made this possible, and that's you Grandma Gert. If you hadn't given my mom the love of music, she couldn't have given it to us.”

Grandma Gert turned bright red and started to cry. She knew exactly who we were, and we knew what our music meant to her.

So sing, dance, and beat your drums one and all! Raise your voices and exercise your creativity! Music is good for your mind, your body and soul. Enjoy the precious gift that has been given to you and pass it lovingly on to the next generation.

Jody R. Katz is the Founding Director of Classic Tales 'n Tunes™, a highly acclaimed multi-sensory program integrating music and movement into early childhood education. For information on classes, or specific recommendations for music and books, check the website at [www.classictnt.com](http://www.classictnt.com).