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Music Shown to Help Students

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Nashua school involved in music foundation program

In America, children living below the poverty line are 1.3 times more likely to have developmental delays and learning disabilities than those who do not.

No child should be at a disadvantage in the educational world because of his or her socioeconomic background. These children deal with personal struggles and family stress every day, and academic ability should not be one of them.



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After spending my entire senior year researching how music education benefits cognitive development, I believe that adequate music education will be the link to closing the academic gap between high-income and low-income students across the nation.

Music is one of the only activities that use both hemispheres of the brain. Playing an instrument involves the auditory, visual, motor and emotional centers of the brain, which combined, essentially create more brain involvement than most other activities.

According to Dr. Aniruddh Patel, associate professor of psychology at Tufts University, a study compared the brains of adult musicians to non-musicians who began music training in early childhood. The results showed that the musicians had increased gray matter, which is involved with processing language. Further, the results demonstrated that musicians also had increased white matter, which is made up of connective fibers that link unlike parts of the brain.

In addition, the musicians tended to have a thicker corpus callosum, which is a band of nerve fibers that divide the brain into its two sides. The corpus callosum is essential to transferring information to both hemispheres and controls several bodily functions, such as eye movement, balance and attention. Because of the high brain activity involved with music, the brain has to work harder, which strengthens the development of its functions.

As children are introduced to musical training, their cognitive brain functions increase, which can be beneficial in an academic setting. In another study, Christopher Johnson, professor of music education and music therapy at the University of Kansas, found that elementary students with superior music programs scored about 22 percent higher in English and 20 percent higher in math on standardized tests compared with schools with inadequate music programs.

There is a clear link between academic performance and music training within young students. Research has revealed that by the end of fourth grade, children from low-income families are already two years behind grade level, and by 12th grade, they're four years behind. To explore more on how music can improve academic performance, I got involved with the Children's Music Foundation First Note program, whose mission is to "enrich young students' lives by creating and supporting a standards-based, turn-key music program that is easy to use and affordable enough for all schools to make music a central part of the elementary school curriculum."

Ledge Street Elementary School in Nashua is currently enrolled in this program after a grant from the Foundation's President, Rourke O'Brien. The music teacher at Ledge Street, Sylvie Stewart, believes that music "develops mindfulness, focus and self-awareness, qualities that aren't usually taught directly in the classroom, but which are integral to our development as human beings and members of society."

As seen in the previous studies, music education can help these children stay at the same level as their peers from high-income families. Unfortunately, many families cannot afford to put their child in music lessons and many low socioeconomic schools do not have the funds for an adequate music program.

Aside from the learning, music can affect children in poverty in a personal and emotional way as well. Adequate music education will affect children in poverty to overcome their struggles by making something worthwhile from music while at the same time increase cognitive development.

It is essential that as a community, we work to help school districts fund their music programs and look for new ways to incorporate music into the classroom. It takes one person to create a movement, but it takes a community to make a difference, and I strongly believe that as a whole, we can provide music for those in need.

Caroline Schagrin is a senior at Souhegan High School.

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