

## Fast Facts About Music and Students

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Music education has been proven in study after study to improve academic achievement, build communication skills, develop team work skills, foster creativity, and increase engagement in school. Key studies and comments from education and government leaders reinforce this conclusion:

- Students involved in music have significantly higher standardized test scores than their peers, regardless of their socioeconomic background.<sup>1</sup>
- Music activities can improve attention span and memory and increase vocabulary.<sup>2</sup>
- Music education fosters language arts skills, because both use symbols and ideas.<sup>3</sup>
- Music training improves scores in spatial-temporal reasoning used in higher levels of science and math.<sup>4</sup>
- Students in high-quality school music programs score higher on standardized tests compared to students in schools with deficient music education programs, regardless of the socioeconomic level of the school or school district.<sup>5</sup>
- Playing an instrument may help youngsters better process speech in noisy classrooms and more accurately interpret the nuances of language that are conveyed by subtle changes in the human voice.<sup>6</sup>
- Even engineering students are required to take humanities courses. It's not just what you know in a technical sense, it's your ability to work with other people."<sup>7</sup>
- (there is) a correlation between the amount of music training and the amount of improvement in reading fluency in children.<sup>8</sup>
- Music activities engage both the left and right hemisphere of the brain. In fact, studying music involves more right- and left-brain functions than any other activity measured.<sup>9</sup>
- There is growing evidence that musicians have structurally and functionally different brains compared with non-musicians. In particular, the areas of the brain used to process music are larger or more active in musicians. Even just starting to learn a musical instrument changes the neurophysiology of the brain.<sup>10</sup>
- Students who report consistent high levels of involvement in instrumental music over the middle and high school years show significantly higher levels of mathematics proficiency by grade 12.<sup>11</sup>
- The musician is constantly adjusting decisions on tempo, tone, style, rhythm, phrasing, and feeling -- training the brain to become incredibly good at organizing and conducting numerous activities at once. Dedicated practice of this orchestration can have a great payoff for lifelong attentional skills, intelligence, and an ability for self-knowledge and expression.<sup>12</sup>
- 93% of Americans agree the arts are vital to providing a well-rounded education for children.<sup>13</sup>
- Nationally, the nonprofit arts and culture industry generates \$166.2 billion in economic activity annually — \$166.5 million in Silicon Valley alone.<sup>14</sup>

## More About Music and Students

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*It is the sense of the Congress that music education grounded in rigorous instruction is an important component of a well-rounded academic curriculum and should be available to every student in every school —*  
Congressional Resolution 380

*Ah, music. A magic beyond all we do here! —* J.K. Rowling, Harry Potter and the Sorcerer's Stone

*The term 'core academic subjects' means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, ARTS, history, and geography. —* No Child Left Behind Act, Section 9101

*If I were not a physicist, I would probably be a musician ... I get most joy in life out of music. —* Albert Einstein

*Music enhances the education of our children by helping them make connections and broadening the depth with which they think and feel. —* Yo Yo Ma

*I despise a world which does not feel that **music** is a higher revelation than all wisdom and philosophy —*  
Ludwig van Beethoven

*The arts can help students become tenacious, team-oriented problem solvers who are confident and able to think creatively. These qualities can be especially important in improving learning among students from economically disadvantaged circumstances. —* Arne Duncan, U.S. Secretary of Education

*Music is a world within itself, with a language we all understand. —* Stevie Wonder

*Well, I guess you can cut the arts as much as you want. Sooner or later, these kids aren't going to have anything to read or write about. —* Mr. Holland's Opus

*Without music to decorate it, time is just a bunch of boring production deadlines or dates by which bills must be paid. —* Frank Zappa

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