

The 'Coles Notes' version of Advocacy for Music Education

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Here are the top claims from research to support the importance of music in the educational system. All the research papers to support these statements can be found in the included annotated bibliography, and is referenced by the superscript numbers.

Findings from the Neuroscience Lens and the 'Harmony Project.' (Nina Kraus.)

- The sound mind engages how we think, feel, and move. Music is uncommonly good at engaging the entire sound mind. Through making music we can shape brain networks to strengthen sound processing.²¹
- The skills and brain activity improved by making music are many of the same that are needed for language and reading.¹¹ Strengthened sound processing and music training can:
 - boost academic achievement more than twice as much as other disciplines.^{5,7,19}
 - help bridge the academic achievement gap between the rich and poor.^{4,11,13,15}
 - offset the brain signature of linguistic deprivation.^{11,15}
- The brain signature of making music is evident regardless of the:²¹
 - Instrument played (yes, voice counts)
 - Genre of music played
 - Instruction type (group or individual)
 - Instruction modality (in school or private)
- *Active* music making changes sound processing in the brain. Passive listening is not enough.^{11,12,21}
- The effects of making music persist beyond childhood.¹⁷
 - Making music strengthens sound processing in the brain long after music making has stopped, even into old age.¹⁷
- Music making is not a quick fix. It takes time and persistence to change the brain (typically 2 years or more).^{11,12}
- Music does an uncommonly good job of fostering a sense of community.^{8,9}
 - It creates social cohesion and singleness of purpose in groups, by drawing individuals into a greater whole and making them emotionally predisposed to work together and feel empathy by activating the mirror neuron system which teaches imitation of other's thoughts and feelings.^{16,18,22}
 - All cultures have musical traditions. This is because the sounds of music carry with them engagement of our feelings and cognitive systems.²¹
 - Moving in sync predisposes us to cooperate.¹⁸
- Music education shows strong potential as an educational and behavioral intervention, keeping kids out of trouble for far less cost than medication or incarceration.²¹

Nature vs Nurture:

"Longitudinal studies provide strong evidence that the 'nurture' of music education can reshape the sound mind no matter what the starting point."

Enrollment, Retention, and Success

- The biggest factor relating to students dropping out of year-long elective music courses is changing schools and/or teachers.²
- Students are developmentally ready to learn instrumental music (voice is included in this definition) early in their elementary years. The only limitation is size of instrument, of which there are many options for smaller sized instruments.^{2,11,12}
- Middle school string and band programs starting at grade 6 had much higher retention rates by the end of grade 7 than elementary starts.⁶
- Student interest in learning an instrument decreases by age. Most 5 and 6 year olds are very excited about the idea of learning to make music. By age 7 interest drops to less than 50%, and by age 14 interest has been shown to drop as low as 7%. The students studied to find these numbers were students who had never been given the opportunity to learn a music instrument.¹⁴
- The number of class meetings per week for music ensemble classes have more of a significant impact on instruction, retention, and musical success than starting age does.⁶
- As music educators, we should be advocating for year-long, quality music making experiences that are likely to last a minimum of 2 years as early as possible in the education system. Remember, these cognitive benefits, once achieved, will last a lifetime, and the longer a student is in music, the more pronounced these cognitive benefits become.

Social Emotional Learning, Motivation, and Equity:

- Having a positive self-perception of musical ability/identity makes students more likely to persist with music. This makes early quality musical experiences very important.³
- Ensemble music experiences help weaker students persist in, and enjoy, music because of the satisfaction gained from the more successful sound of the whole. Many students take a long time to sound good on their own.⁸
- Students who start music training early in development have higher levels of sociability and empathy due to inherent social interactions and synchronization between participants.^{9, 18}
- Students from low-socioeconomic backgrounds benefit the most from long-term, high quality arts engagement.⁴
- Arts, especially music, are found to be the disciplines that have the greatest effects on student success and mental health.^{4, 16}
- Before and/or after school music programs in many schools create barriers and challenges to participation that results in inequitable access for all students.⁸
- Music is uniquely set-up to deliver SEL in an authentic way through discussions of feelings, meanings and reactions to emotions in music. It also teaches students to see themselves in relation to others in a positive and productive way, building up positive self- and social concepts.²²