

Annotated Bibliography
Music Research and Advocacy
February 2022

1. Brasche, I., & Thorn, B. (2018). Addressing dimensions of “the great moral wrong”: How inequity in music education is polarizing the academic potential of Australian students. *Arts Education Policy Review*, 119(3), 124–136.
<https://doi-org.ezproxy.acadiu.ca:9443/10.1080/10632913.2016.1201029>

This article looks at the state of music education in public schools at the primary grade level in Australia. The research starts with a case study of one town, Armadale, that has strong community roots and resources available in the arts, yet their public schools struggle to provide meaningful music education classes to the students at the primary level. The researcher found that the music instruction being delivered was falling short of its potential despite national statements saying that the education of the whole child, including the child’s artistic development, was a priority in the public education sector. The article also refers to a wealth of research stating that music education has benefits cognitively, physically, socially, and emotionally to student development, and that these benefits should speak to the importance of elevating music instruction within public schools, both in Australia and other parts of the world. The researcher conducted surveys of preservice, in-service teachers and principals to see if they could discover why there were such discrepancies. The results indicated that preservice teachers do not get enough time in their education training (Universities in 2019 = 12-15 hours of music education training) to properly prepare them to teach music, therefore their confidence is reduced which prevents them from attempting quality music education. The schools prioritized numeracy and literacy (areas in which Australia has dropped in national standards) as key areas to focus on, and teachers and principals referred to lack of time, available funding, and space in the timetable as challenges for teaching music properly. The research reflects on Finland’s approach to education as they are ranked quite highly in numeracy and literacy standards, yet they prioritize music education as a compulsory component of their students training starting from age 7. The research also reflects on the discrepancies between public schools and private/independent schools in Australia, and how in a society that is supposed to be “classless,” those that are financially able to attend private schools are receiving higher levels of music education and gaining the cognitive, physical, social, and emotional benefits while the students who attend public school, who are typically of a less advantaged socioeconomic standing to begin with, are not able to access those benefits.

2. Delzell, J.K., & Doerksen, P.F. (1998). Reconsidering the grade level for beginning instrumental music. *Sage Publications*, 16(2), 17-22.
<https://doi.org/10.1177/875512339801600205>

This article discusses using research the consequences of changing the grade level at which students begin playing in a band or instrumental ensemble. It looks at

historical common starting grades, which are usually Grades 4 or 5. With middle school 6-8 configurations now common, it concludes that starting band at the grade 6 level instead of grade 4 or 5 has no drawbacks, because changing schools or teachers after one year of instruction actually leads to greater enrollment losses. Important to note is that the article considers a grade 6 start as a late start to instrumental ensemble music, and says this does “not have an adverse effect on performance achievement or percentage of students who participate.” (Page 21) “Each school district needs to give careful consideration to the advantages and disadvantages of proposed grade levels and then choose the grade level that seems best, given the district circumstances.” (page 22)

Previously to this study, In 1920, some thought that third grade was the best time to start instrumental music. In 1927 one research said grade 7 was the best time to start but 16 years later his recommendation changed to grade 4. In 1940 other researchers agreed that grade 4 or age 8-9 was the best time to start instrumental music. And in 1994 the MENC recommended that instrumental music begin “no later than grade 4, and instruction on wind and percussion instruments no later than grade 5.”

3. Evans, P., & McPherson, G.E. (2015). Identity and practice: The motivational benefits of a long-term musical identity. *Sage Publications*, 43(3), 407-422.
<https://doi.org/10.1177/0305735613514471>

This article reports on a 10-year longitudinal study of children’s musical identity, their instrumental practice, and subsequent achievement and motivation for playing music. Before commencing learning on their instrument, participants (N = 157) responded to questions relating to how long they thought they would continue playing their instruments. Once learning commenced, practice was measured using the parents’ estimates each year for the first 3 years of learning, and performance was measured using a standardized test. Ten years later, the participants were asked how long they had sustained music learning along with other questions related to their musical development. Those who expressed both a personal long-term view of playing an instrument before they began instruction, and who sustained high amounts of practice in the first 3 years, demonstrated higher achievement and a longer length of time spent in music learning compared to those with a short-term view and low levels of practice. Results suggest that while practice and self-regulation strategies are important, learners who possess a sense of where their future learning might take them and whose personal identity includes a long-term perspective of themselves as musicians are better positioned to succeed and sustain with their instrumental learning.

4. Fiske, E. B. (Ed). (2020). *Champions of Change: The Impact of the Arts on Learning. California Arts Council.*
arts.ca.gov/researchpage/champions-of-change-the-impact-of-the-arts-on-learning/.

This article makes the basic case that “through engagement with the arts, young people can better begin lifelong journeys of developing their abilities and contributing to

the world around them. The arts teach young people how to learn by giving them the first step: the desire to learn. ... The arts can play a vital role in learning how to learn, an essential ability for fostering achievement and growth through their lives.' - Secretary of Education letter, page VI

Poverty-high schools were studied as part of this paper, and it was found that students who engaged in high quality arts education vastly out-performed students from arts-poor schools. Arts were also found to be the disciplines that had the greatest impact on student success and overall mental and physical health. Students from low-socioeconomic backgrounds benefited the most from long term, high quality arts engagement.

5. Guhn, M., Emerson, S. D., & Gouzouasis, P. (2020). A population-level analysis of associations between school music participation and academic achievement. *Journal of Educational Psychology, 112*(2), 308–328.
<https://doi-org.ezproxy.acadiau.ca:9443/10.1037/edu0000376>

This study is currently the largest of its kind and was conducted to evaluate the impact of music participation on academic achievement while taking into consideration the type of music education students can be involved in (vocal music versus instrumental music). Unlike previous research of this nature, this study also considered confounding factors such as prior academic achievement, sex and socioeconomic status. They gathered data from public school records of over 110,000 students in British Columbia, Canada and found those that had participated in instrumental and vocal music in grades 10-12 had higher exam results in Math, Science and English compared to no music participation, and those who participated in instrumental music had higher rates than vocal music participation. The researchers also believe that this high correlation of academic achievement and music training is because of the regular, prolonged time in music (especially when learning an instrument) that increases areas of the brain that are associated with building cognitive pathways, executive functions, motor skills, motivation, discipline, self-efficacy and social personal development. All of these areas are related to higher levels of academic achievement. Another reason for instrumental marks being higher than vocal could be because to participate in a music class at the grade 10-12 level requires students to have had previous music instruction in earlier grades in order to achieve playing at this level. Therefore, students have had more exposure and time to develop the physical changes in their brains that are tied to academic achievement.

6. Hartley, L. A., & Porter, A. M. (2009). The influence of beginning instructional grade on string student enrollment, retention, and music performance. *Sage Publications, 56*(4), 370-384. <https://doi.org/10.1177/0022429408329134>

The results of this study indicated that 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 grade does. I would like to note that while this article states that starting age is a small factor, it is considering grade six a 'late' start. The

argument is also made that if a late start corresponds with the opportunity for more frequent, linear instruction inside the timetable (such as starting in middle school) that all students ultimately perform equally by the end of grade seven. 90.3% of string instruction in this study was held inside the timetable for participating programs. It was also suggested that when band and string programs are offered at the same school, both programs should start at the same grade to avoid attrition from the band program and a negative image of string students and band students towards each other. It is also important to note that only 31% of the fourth-grade starting programs were able to maintain retention rates of 60% or higher by grade 7. In contrast, 72% of the programs with fifth-grade starts and 94% of programs with sixth-grade starts were able to meet the minimum retention rate of 60% or higher. Based on these retention rates, this article provides a compelling rationale for starting band and string programs at the start of middle school. Since more class meetings per week also typically increases in middle school, more research needs to be done to see if that could be the salient factor for higher retention instead of developmental age or changing buildings or teachers.

7. Hille, A., & Schupp, J. (2015). How learning a musical instrument affects the development of skills. *Economics of Education Review*, 44(1), 56-82.
<https://doi.org/10.1016/j.econedurev.2014.10.007>

Despite numerous studies on skill development, we know little about the causal effects of music training on cognitive and non-cognitive skills. This study examines how long-term music training during childhood and youth affects the development of cognitive skills, school grades, personality, time use and ambition using representative data from the German Socio-Economic Panel (SOEP). Our findings suggest that adolescents with music training have better cognitive skills and school grades and are more conscientious, open and ambitious. These effects do not differ by socio-economic status. Music improves cognitive and non-cognitive skills more than twice as much as sports, theater or dance. In order to address the non-random selection into music training, we take into account detailed information on parents, which may determine both the decision to pursue music lessons and education outcomes: socio-economic background, personality, involvement with the child's school, and taste for the arts. In addition, we control for the predicted probability to give up music before age 17 as well as the adolescent's secondary school type. We provide evidence that our results are robust to both reverse causality and the existence of partly treated individuals in the control group.

8. Hopkins, M., Provenzano, A. M., & Spencer, M. S. (2017). Benefits, challenges, characteristics and instructional approaches in an El Sistema inspired after-school string program developed as a university-school partnership in the United States. *International Journal of Music Education*, 35(2), pp. 239-258.
<https://doi.org/10.1177.0255761416659509>

This article is a case study examining a new after-school ensemble string program inspired by El Sistema. It involved fifth grade students, the elementary school music teacher, and two graduate music students from the local university. Interviews concluded that there were several benefits to this program. One was that the students developed a deeper understanding of reading music than in the past, which set them up to become stronger musicians. The administrators observed that, through this program, that students were interested in what they were doing and were also engaged in positive behaviors. Parents and family members reported joy and excitement in the beauty of the student performances, to the point of evoking strong and positive emotional responses. The students themselves also reported high levels of satisfaction and pride in their accomplishments. A level of excitement in what was happening at the school from the surrounding community was also reported.

Some of the challenges that came up were largely centered around attendance and frustration levels over high expectations. Because of the after-school nature of the program, it became apparent that good attendance wasn't possible as the average attendance rate was 65%. This was due to other conflicting activities, weather and travel issues, and after-school math and science programs. This poor attendance started to create gaps in learning between students that attended more regularly and those that didn't. As for the high expectations, this did create some frustration in the students during the process, but after the performances, the students reported feeling good about themselves. The article also argued that the group ensemble experience does effectively address individual student needs well because of the satisfaction the group sound can provide to keep a student stimulated while facing their own individual performance challenges or weaknesses. Therefore, even weaker musicians are more likely to persist in their training than they would learning as a soloist.

9. Kawase, S., Ogawa, J., Obata, S., & Hirano, T. (2018). An investigation into the relationship between onset age of musical lessons and levels of sociability in childhood. *Frontiers in Psychology, 9*(2244), 1-11. <https://doi.org/10.3389/fpsyg.2018.02244>

This article evaluated the differences in children's sociability based on the age they started musical training. They conducted a study with survey questions of families of students who attended the private Yamaha Music School in Japan. They looked at four main ages of students starting music lessons: ages 1, 2, 4 and 6. They measured students on scale ratings for empathy, personality, social skills, and social adaptability to determine student sociability as well as looking at the personality traits and social skills of parents and their reasons for taking music lessons. They discovered that the students who started music training at age 1 had higher levels of sociability. This was attributed to the synchronization between participants, the great amounts of interactions with other participants during activities, and the fact that group performances required social skills related to sociability. There were also findings of higher cognition which has also been connected to sociability and the higher levels of empathy displayed in this onset group. There was one exception where students who started later, at age 7 onset, also

displayed high levels of sociability. The authors noted that the reason for taking music lessons in these late starters was because of student interest, which could demonstrate a high level of sociability prior to taking music, when the main reason for taking music lessons at the age of 1 was because parents thought it would be good for the child's development.

10. Kinney, D. W. (2019). Selected nonmusic predictors of urban students' decisions to enroll and persist in middle and high school music ensemble electives. *Journal of Research in Music Education*, 67(1), pp. 23-44. <https://doi.org/10.1177/0022429418809972>

Kinney's examination of factors involving enrolment and retention in ensemble programs used academic achievement, socioeconomic status (SES), ethnicity, number of parents at home, sex, and student mobility as possible variables to predict which students enroll in music. These findings are important because if music is to be considered an intervention in brain development and mental health, it is necessary to understand why some students engage with music, and others do not. This article found that in sixth and eighth grade, students from higher SES were more likely to enroll in band. The same was true for females and students with less school transience. Minorities, however, were less likely to enroll. However, for choir, only reading test scores, sex, and ethnicity turned out to significantly predict enrolment. In fact, aside from higher reading test scores, students enrolling in choir more closely resembled the non-music student population than their string or band counterparts. Perhaps the most interesting finding in this article is that SES did not predict choir enrollment at the sixth and eighth grade levels, and at the tenth grade, *lower SES* was a predictor of *higher* enrollment. This puts choir in a unique position to access a portion of the student population that instrumental ensembles do not.

The notion is also put forward that perhaps involvement in choir and music groups increases overall engagement in school, and thus higher academic achievement. Why only reading scores seem to be higher in choir is not explored but left as a question. This article does not examine how or if participation in music increases academic performance but explores how academic performance influences the choice to begin ensemble music.

11. Kraus, N., & Nicol, T. (2017). The power of sound for brain health. *Nature Human Behaviour*, 1(10), pp. 700-702. <https://doi.org/10.1038/s4152-017-0201-7>

This article explains how the frequency-following response (FFR) measure is used to learn how linguistic deprivation, especially in individuals from low-socioeconomic backgrounds, can have negative effects on the auditory brain. One study found that in students from low-SES backgrounds, the auditory brain did not respond consistently to repeated and identical sounds. These same students also had poor responses to frequencies that are necessary to proper identification of the syllable. This low consistency in brain response and poor harmonic interpretation in the brain are both

characteristics of the brains of poor readers. The article then described the results of a study comparing students in a rigorous music program and students in a Reserve Officers' Training Corps. The results clearly indicated that music students showed improvements in their auditory responses relating to linguistic deprivation. These gains, once again, took at least two years to materialize. The control groups, however, did not exhibit any improvements.

It is interesting to note that bilingualism in low-SES students did not result in as much, if any, linguistic deprivation. Therefore, both music and learning a second language seem to have positive effects on the neural processing of the brain, which can remediate and improve the literary cognitive abilities of linguistically deprived students. It is also important to note that students from low SES families often have 'markers' in their brain, and that music training as been shown to improve function in those areas of the brain to remove those markers.

12. Kraus, N., & White-Schwoch, T. (2020). The argument for music education. *American Scientist*, 108(4), pp. 210. <https://doi.org/10.1511/2020.108.4.210>

This article makes the argument that participation in year-long musical ensembles with trained teachers imparts cognitive gains for students across multiple areas of study. It focuses on three arguments: 1) The *indirect argument*, which puts forward the claim that music boosts both brain and cognitive function for learning, therefore improving success for students in school. 2) The *incentive argument*, which links educational outcomes, such as higher graduation rates, to music training. 3) The *intangible argument*, which states that the social aspects of music training, such as lasting friendships and perceived psychological benefits, are difficult to measure quantitatively.

In this article, the first year of data analysis showed that participants in the Harmony Project showed no significant cognitive gains in any area. However, after the second year of study, participants showed that the music student group had advanced beyond that of the groups of students without multi-year musical instruction. Specifically, music training enhanced students' abilities to process speech sounds and their auditory brain development had been accelerated. This once again makes the case that linear instrumental music has great potential as an intervention in schools to help improve student achievement, especially in regards to literacy.

13. Marmut, M., Sinclair, M., Darzi, A., Povey, J., Serota, N., Seccombe, I., Webster, R., Sackler, T., Perry, G., Okwanga, E., Selbie, D., & Layard, R. (2017). *Creative Health: The Arts for Health and Wellbeing*. All-Parliamentary Parliamentary Group on Arts, Health and Wellbeing.

This study points out the importance of supported arts engagement across the social gradient. It shows evidence that music and the arts can have great benefits to mental health, social care, academic achievement, and cultural and community involvement, and asks why the arts can often be so little appreciated and not acted upon

in society and in schools. In reference to music, it talks about the importance of receiving sustained musical practice over a period of time from a young age to develop the brain at developmentally appropriate times.

The 'Big Noise' project in Scotland is discussed to point out the significant social benefits students from disadvantaged backgrounds can receive through professional and quality instrumental music programs that do not require auditions to enter.

14. McPherson, Gary. (2006). *The child as musician: A handbook of musical development*. Oxford University Press.

This book makes many great conclusions from the current research. Evidence indicates that music lessons impart benefits that extend “broadly across the various subcomponents of intelligence and cognition - rather than limited to a specific subset of abilities.” Drama lessons, for example, may include benefits for social skills and community building, but do not appear to have similar intellectual benefits like music making does (pg 129). This book also examined a study on student interest levels for learning an instrument. Using a sample of students who had not yet received music training, those aged 5 and 6 expressed the most desire to learn an instrument. By age 7, the interest had dropped to less than 50%. Most startling, however, is that by age 14, only 4% of this same group still expressed an interest. It is important to note that this group of students never received musical instruction. (page 333)

15. Slater, J., Strait, D. L., Skoe, E., O'Connell, S., Thompson, E., & Kraus, N. (2014). Longitudinal effects of group music instruction on literacy skills in low-income children. *PloS One*, 9(11), E113383. <https://doi.org/10.1371/journal.pone.0113383>

This study investigated the impact one year of music training could have on students from low socioeconomic backgrounds with low literacy skills. The researchers partnered with a nonprofit organization called the Harmony Project in Los Angeles and offered music lessons to 42 Spanish-English speaking students between the ages of 6 and 9. All students were assessed for literacy skills and then half were offered music lessons through the Harmony Project schools. The other half were not allowed to engage in musical training but were promised a spot in the Harmony project one year later as the control group. At the end of the year when students were once again assessed for literacy skills, students who had engaged in musical training had maintained their grade level literacy skills while students who had not received music instruction had diminished. Similar smaller studies have shown positive correlations between music training and literacy skills, however in all these studies, time was the biggest factor in improvements and benefits are not typically seen until two years of training. With this study, even though there weren't huge improvements, the fact that those who engaged in music training maintained grade level skills in a situation where regression is typically expected demonstrates need for more research in this area to help facilitate appropriate interventions.

16. Stewart, N. A. J., & Lonsdale, A. J. (2016). It's better together: The psychological benefits of singing in a choir. *Psychology of Music*, 44(6), 1240-1254. <https://doi.org/10.1177/0305735615624976>

This article asserts that choral singing may have a greater effect on psychological well-being than solo singing or participation in other types of social groups. It seeks to examine how entitativity (the perception of how meaningful or 'real' a group is), autonomy, and self-determination theory (the perceived conditions needed for an individual to be motivated and psychologically healthy) work as possible factors in explaining previous studies where choral singing may have led to significant improvements in psychological well-being. The authors' method invited participants using email invitations and social media posts, dividing up the participants into three equal groups: choral singers, solo singers, and team sport players. The rationale of these groupings was to determine if the perceived benefits of choral singing were due to the nature of singing itself, the participation in a social group, or the combination of the two. The evidence seems to indicate that choral singers and team sports players reported the highest levels of well-being, and that choral singers reported higher levels of entitativity. The sports team participants, however, reported the highest levels of autonomy of the three groups, which indicates that well-being could be realized differently in the two group activities. These conclusions support the idea that choral singing may have significant use as an intervention in the school system to support student mental health.

17. White-Schwoch, T., Carr, K. W., Anderson, S., Strait, D. L., & Kraus, N. (2013). Older adults benefit from music training early in life: Biological evidence for long-term training-driven plasticity. *The Journal of Neuroscience*, 33(45), 17667-17674. <https://doi.org/10.1523/JNEUROSCI.2560-13.2013>

As people age, they experience declines in nervous system function including neural timing delays to rapid speech elements. These declines also lead to difficulty understanding speech in chaotic or loud sound environments. This study found that older adults who had continual music training throughout their lives did not exhibit neural timing delays, and wondered if even moderate amounts of music training in early life could reduce neural timing delays in old age. It was found that 4-14 years of music training early in life led to much quicker neural response timing in reference to speech in older age. This benefit lasted even if training had stopped for greater than 40 years. Therefore, the article states that early music training can improve all later interactions with sound, which in turn helps to sustain sharpened neural processing throughout and later in life.

18. Wu, X., & Lu, X. (2021). Musical training in the development of empathy and prosocial behaviors. *Frontiers in Psychology*, 12(661769), 1-7. <https://doi.org/10.3389/fpsyg.2021.661769>

This article starts by discussing the fact that adolescents with higher levels of empathy demonstrate lower aggressive or violent behaviors than students who struggle with lower levels of empathy. It discusses the areas of the brain that are physically changed and expanded through musical training and how these areas are similarly involved with understanding and experiencing empathy. Their studies showed that students who engaged in music training at an early age (starting at age 1) showed higher levels of empathy as well as cognitive and motor abilities than students who did not engage in active music activities. While there was no data collected prior to the start of their study on any structural brain differences in both music trained and non-music trained groups, two similar studies did show that prior to the start of their research, there were no brain structural, cognitive, motor, musical emotional or social behavior differences between either group. The article also looked at factors of how active music is delivered paying special attention to group music lessons involving singing, dancing and instrument playing. These group lessons require social interactions that activate the mirror neuron system which teaches imitation of other's thoughts and feelings which is a vital first step in developing empathetic responses. The article discusses possible uses for this information regarding interventions for students who experience issues surrounding empathy such as those with Autism, but realizes more research is needed to discover if music interventions are more practical/efficient interventions than other possibilities such as meditation, as well as what types of music activities (instrument playing, singing, etc.) are most beneficial to different situations.

19. Zhang, Q. (2018). Application of music education in brain cognition. *Educational Sciences: Theory & Practice*, 18(5), 1960–1967.
<https://doi-org.ezproxy.acadiau.ca:9443/10.12738/estp.2018.5.095>

This article discusses music education and its relationship and impact on neurological processes and learning. It starts by giving a brief overview of the different parts of the brain that are stimulated by musical experiences and how musical instruction can benefit and improve many neurological processes. It also mentions a critical period for development that requires both the proper age and duration of intense musical training to occur in order to develop these brain processes properly. The article then discusses the impact of these benefits and the potential this information has for overhauling the education system to be focused on the brain's cognitive development for a more holistic approach to education which improves cognitive processes, executive capacity, intelligence, self-control, and attention focusing. She calls the current educational system backwards as it does not allow for proper development of the brain according to neurological science. The article also suggests that with a new look at how students are taught, changes will need to be made to how they are assessed, and regarding assessing music education she recommends a self-evaluation process to allow for students to reflect on their own learning that fits with the processes that music training is building in the brain.

If I could own 1-4 books on my shelf, in this field, what are your top recommendations?

20. **Musician and Teacher: An Orientation to Music Education** by Patricia Shehan Campbell (2008) W.W. Norton & Company, New York, NY.

Some quotes from the book so you can see if reading in more detail is what you are looking for:

Children's enhanced musical development

- "By the end of their elementary years, children may have already begun to function as expressive and thoughtful independent musicians." (page 131)

The Middle Years

- "Early adolescents are in the process of figuring out who they are. They are changing in appearance and personality, in the way they relate to each other and to the adults they encounter." (page 173)
- "Moving into middle level music classes usually means that students move from the elementary school environment to a middle school or junior high school campus. It may also mean that they must make a transition from their regular elementary music teacher and beginning band or orchestra teacher ... to an unfamiliar teacher - one who possibly stands on a podium and wields a baton. It is at precisely these sorts of junctures ... that ensemble retention rates can drop precipitously." (page 173)
- "An ongoing task of the instrumental teacher is to smooth these transitions so that the next level of music making does not seem foreign or forbidding." (page 174)

Tradition and change in School Music

- "Communities have changed, and the music that is valued locally has diversified. Outside schools, within families, in the media, and in a host of neighborhood venues, there is a wide spectrum of possibilities for the music involvement of young people. ... Teachers can do much to open up the possibilities of musical study - all the rest of the music - to students in schools. Given that 10 percent of high school students typically enroll in school music classes, what would happen if there were more choices for the other 90 percent?" (pg 188)
- Options listed for other music options in a school, outside of concert band/orchestra:
 - Guitar, keyboard/piano class, drumming ensembles, gospel choir, handbell choir, jazz ensembles, mariachi, marimbas, recorder consort, rock band, samba, steel drum band, world vocal ensemble, western art music/world music cultures, popular music, AP music theory, composition-related training.

- “A word of advice for teachers interested in the courses described in this chapter: proceed with caution so as to develop courses that fit the interests and needs of the school population. It is wise to learn the history and traditions that have served students well, and that appear to be of continuing interest to them and the broader community. Gauge the interest of students, colleague-teachers, administrators, and parents, and move gradually into developing courses that balance both traditional and contemporary needs. Work toward fashioning something that honors the past as well as the musical diversity that continues to emerge globally.” (pg 210-211)

21. **Of Sound Mind: How Our Brain Constructs a Meaningful Sonic World** by Nina Kraus (2021) The MIT Press, Cambridge, Massachusetts.

This is an amazing book to read that summarizes ALL of the research work done by Nina Kraus. We read all the research she had done prior to this book being published in 2021, and this book synthesizes that data into easy to understand take-aways and conclusions. So, if you don't like academic writing because of all the jargon, this book is the best resource to get you fluent in the neuroscience angle for music advocacy. It would be a great book to give to your administrators as well.

22. **Music Education and Social Emotional Learning: The Heart of Teaching Music** by Scott N. Edgar. (2017). GIA.

The first half of this book talks about the research around social emotional learning and the rationale for why incorporating SEL into your classroom in an intentional way is incredibly important. The second half of this book provides lesson ideas, handouts, and practical suggestions for how to do this. Perhaps the best part of this book, however, is the fact that everything is designed to work with what we already do as music teachers. None of this is meant to be done 'in addition' to what is already happening in the music classroom. Rather, it will help teachers make our already planned music lessons more effective from an SEL standpoint.