Regional School District \#4
Chester - Deep River - Essex - Region 4 Joint Board of Education Sub-Committee Meeting

Date: January 16, 2020 @ 4:00 PM/JWMS Library
Committee: JOINT BOE CURRICULUM COMMITTEE

| John Stack* (R4) | X | Tracy Dickson (DR) | X | Kristina Martineau | X |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jane Cavanaugh (R4) | X | Lenore Grunko (DR) |  | Matthew Espinosa, JWMS <br> Principal | X |
| Robert Bibbiani (C) |  | Nancy Johnston (E) | X | Kevin Lam, JWMS/VRHS <br> Music Teacher | X |
| Charlene Fearon (C Alt) | X | Cassandra Sweet (E) |  | Laura Traver, JWMS Music <br> Teacher | X |

$\mathrm{X}=$ present $\quad *=$ Chair

## Items/Discussion:

1. JWMS Music Program presentation (presentation attached):

Mr. Stack shared research on the importance of music programs and the role of music as a core subject with a significant, positive impact on student success (research included with these minutes). Mr. Stack shared observations and questions about enrollment and retention of band students.

Ms. Traver and Mr. Lam presented an overview of the JWMS Band Program. This presentation Included an overview of standards, curriculum, and instructional practices. Ms. Traver and Mr. Lam discussed student enrollment and retention from grades 7 to 8 and then grades 8 to 9 . Discussion also included information about lessons, JWMS schedule and conflicts, and shared staffing.
2. March 2020 meeting

Next meetings: March 12 @ 4:00 p.m. VRHS Library Media Center
Topic: VRHS Advisory Program
Social and Emotional Learning
May 14 @ 4:00 p.m. VRHS Library Media Center
Topic: College and Career Pathways
Meeting adjourned: $\quad$ 5:10 PM
Next Curriculum Committee Meeting on March 12, 2020, 4:00 PM in VRHS Library Media Center
Future Agenda Items: VRHS Advisory Program
College and Career Pathways
Submitted by Kristina Martineau, Ed.D.

| Category | Content | Fact or Quote | Source |
| :---: | :---: | :---: | :---: |
| Educational | Research reveals strong connections between rhythm skills and pre-reading abilities in toddlers. | Fact | Woodruff Carr K, W.-S.T., Tierney A, Strait D, Kraus N. , Beat synchronization and speech encoding in preschoolers: <br> A neural synchrony framework for language development. , in Association for Research in Otolaryngology <br> Symposium. 2014: San Diego, CA. |
| Cognitive | Music enhances fine motor skills, or the ability to use small, acute muscle movements to write, use a computer, and perform other physical tasks. | Fact | Forgeard, 2008; Hyde, 2009; Schlaug et al. 2005, "The Effects of Musical Training on Structural Brain Development A Longitudinal Study," The Neurosciences and Music III: Disorders and Plasticity: Ann. N.Y. Acad. Sci. 1169: 182-186 (2009). |
| Educational | Music education enhances fine motor skills. | Fact | Arts Education Partnership, 2011 |
| Cognitive | Research reveals strong connections between rhythm skills and pre-reading abilities in toddlers. | Fact | Woodruff Carr K, W.-S.T., Tierney A, Strait D, Kraus N. , Beat synchronization and speech encoding in preschoolers: <br> A neural synchrony framework for language development., in Association for Research in Otolaryngology <br> Symposium. 2014: San Diego, CA. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | Infants recognize the melody of a song long before they understand the words. They often try to mimic sounds and start moving to the music as soon as they are physically able. | Fact | © 2015 Program for Early Parent Support (PEPS), a 501 (C)(3) nonprofit organization |
| :---: | :---: | :---: | :---: |
| Cognitive | Toddlers love to dance and move to music. The key to toddler music is the repetition of songs which encourages the use of words and memorization. Silly songs make them laugh. Try singing a familiar song and inserting a silly word in the place of the correct word, like "Mary had a little spider" instead of lamb. Let them reproduce rhythms by clapping or tapping objects. | Fact | © 2015 Program for Early Parent Support (PEPS), a 501 (C) (3) nonprofit organization |
| Cognitive | Students who take music in middle school score signifcantly higher on algebra assignments in 9th grade than their non-music counterparts. | Fact | Helmrich. B. H. (2010). Window of opportunity? Adolescence, music, and algebra. Journal of Adolescent Research. 25 (4). - See more at: http://www.artsedsearch.org/summaries/window-of-opportunity-adolescence-music-andalgebra\#sthash.BvSORoHP.dpuf |
| Social | "Our school has created a culture that considers the music education part of our programming, as a real partner in the full development and academic achievement for our students." | Quote | Dinorah Marquez, Program Director, Latino Arts Strings Program |
| Educational | "[In the Latino Arts Strings Program] I had a wide range of ages to talk to, to play music with, to laugh with. Even though we were in a strict musical setting, they helped me find parts of myself that are not musical." | Quote | Fatima Gomez, BGCS/Latino Arts Strings Program Alumnus |
| Social | "Music is my life. It's a safe haven." | Quote | Student @ Skaneateles High School |
| Social | In the past, secondary students who participated in a music group at school reported the lowest lifetime and current use of all substances (tobacco, alcohol, and illicit drugs). | Fact | 5 VHI : Save the Music. "The Benefits of Music Education." VHI: Save the Music. Accessed February 24, 2015. . |
| Educational | Schools with music programs have an estimated 90.2\% graduation rate and $93.9 \%$ attendance rate compared to schools without music education, which average $72.9 \%$ graduation and $84.9 \%$ attendance. | Fact | The National Association for Music Education. "Music Makes the Grade." The National Association for Music Education. Accessed February 24, 2015. |
| Educational | U.S. Department of Education data on more than 25,000 secondary school students found that students who report consistent high levels of involvement in instrumental music over the middle and high school years show "significantly higher levels of mathematics | Fact | U.S. Department of Education NELLS88 Database |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Educational | Nearly $100 \%$ of past winners in the prestigious Siemens Westinghouse Competition in Math, Science and Technology (for high school students) play one or more musical instruments. This led the Siemens Foundation to host a recital at Carnegie Hall in 2004, featuring some of these young people, after which a panel of experts debated the nature of the apparent science/music link. | Fact | The Midland Chemist (American Chemical Society) Vol. 42, No.l, Feb. 2005 |
| :---: | :---: | :---: | :---: |
| Educational | Music education improves average SAT scores. | Fact | Arts Education Partnership, 2011 |
| Educational | Majorities of parents and teachers believe music education should be required in both middle and high schools. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Cognitive | It's also notable that both teachers ( 89 percent) and parents ( 82 percent) rate music education highly as a source for greater student creativity, a 21 st century skill that's highly likely to help young people stand out in an increasling compepetive global economy. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 <br> Music Education in the United States: 2015. |
| Cognitive | Adolescent-centered studies show that even very basic rhythm abilities, such as tapping to a beat, relate with reading skills, and we have provided initial evidence for how both abilities may rely on common underlying neural mechanisms of sound processing. | Fact | Tierney, A.T. and N. Kraus, The ability to tap to a beat relates to cognitive, linguistic, and perceptual skills. Brain and Language, 2013. 124(3): p. 225-231. |
| Social | Secondary students who participated in band or orchestra reported the lowest lifetime and current use of all substances (alcohol, tobacco, drug abuse). | Fact | Texas Commission on Drug and Alcohol Abuse Report. Reported in Houston Chronicle, January 1998 |
| Educational | According to The Harmony Project's website, since 2008, 93 percent of Harmony Project seniors have gone on to college, despite a dropout rate of 50 percent or more in their neighborhoods. | Fact | © 2015 The Harmony Project |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | 43 high-school students from impoverished <br> neighborhoods in Chicago randomly assigned to band <br> or choir lessons showed significant increases in their <br> ability to process sounds, while those in a control group, <br> who were enrolled in a junior ROTC program, didn't. | Fact |
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| Social | Teens indicate making music provides the freedom for <br> teens to just be themselves; to be <br> different; to be something they thought they could never <br> be; to be comfortable and <br> relaxed in school and elsewhere in their lives. | Fact |
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| Presentation to U.S. Congress, 2007, Washington D.C. <br> (Invited and arranged by the National Association of <br> Music Merchants/NAMM, on "The Impact of Music on <br> the Lives of Children and Adolescents"). |  |  |
|  | Teens long for more variety and options for making music <br> in school, including the expansion to instruments and <br> technology used in popular music. | Fact |


| Educational | Teens described their music teachers as encouraging, <br> motivating and acting as both role models and friends <br> that can be trusted for listening and giving advice. | Presentation to U.S. Congress, 2007, Washington D.C. <br> (Invited and arranged by the National Association of <br> Music Merchants/NAMM, on "The Impact of Music on <br> the Lives of Children and Adolescents"). |
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| Cognitive | Playing an instrument as a kid leads to a sharper mind in <br> old age, according to a new study conducted by <br> Brenda Hanna-Pladdy, a clinical neuropsychologist in <br> Emory's Department of neurology, and her colleagues. <br> The researchers gave 70 people between the ages of 60 <br> and 83 a battery of tests to measure memory and other <br> cognitive abilities. The researchers found that those who <br> had played an instrument for a decade or longer scored <br> significantly higher on the tests than those with no <br> musical background. | Fact |


| Cognitive | Research shows that music activities (both music listening and music making) can influence older adults' perceptions about the quality of their lives. Some research has examined the effects of music listening on biological markers of health and subjective perceptions of wellbeing. Other studies on the psychological and social benefits associated with music making activities have demonstrated that participants often place considerable value on these "nonmusical" benefits of music activity. | Fact | Coffman, D. D. (2002). Music and quality of life in older adults. Psychomusicology, 18(1-2), 76-88 |
| :---: | :---: | :---: | :---: |
| Cognitive | Music keeps your ears young. Older musicians don't experience typical aging in the part of the brain (the auditory cortex) that often leads to hearing troubles. It's never too late to start taking piano lessons and prevent these age-related changes. | Fact | (The Record.com - Michael Roizen, MD and Mehme† Oz, MD) |
| Health | Music has been found to stimulate parts of the brain, and studies have demonstrated that music enhances the memory of Alzheimer's and dementia patients, including a study conducted at UC Irvine, which showed that scores on memory tests of Alzheimer's patients improved when they listened to classical music. | Fact | Cheri Lucas, Education.com, "Boost Memory and Learning with Music," pbs.org. |
| Health | Adults age 60 to 85 without previous musical experience exhibited improved processing speed and memory after just three months of weekly 30 -minute piano lessons and three hours a week of practice, whereas the control group showed no changes in these abilities. | Fact | Nina Kraus, Samira Anderson, "Music Training: An Antidote for Aging?" Hearing Journal, Vol. 66, No. 3, March 2013. |
| Cognitive | Everyday listening skills are stronger in musically-trained children than in those without music training. Significantly, listening skills are closely tied to the ability to: perceive speech in a noisy background, pay attention, and keep sounds in memory. | Fact | Strait, D.L. and N. Kraus, Biological impact of auditory expertise across the life span: musicians as a model of auditory learning. Hearing Research, 2013. |
| Social | One of the biggest kicks is to see a child come into the music program as an introvert and leave as a student leader. That's a tremendous process. | Quote | Dick Zentner, 2013 Patrick John Hughes Parent/Booster Award Recipient |
| Cognitive | Music training in childhood "fundamentally alters the nervous system such that neural changes persist in adulthood after auditory training has ceased." | Fact | Skoe, E. \& N. Kraus. (2012). A little goes a long way: How the Adult Brain Is Shaped by Musical Training in Childhood. The Journal of Neuroscience, 32(34):1150711510. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | Studies have shown that young children who take keyboard lessons have greater abstract reasoning abilities than their peers, and that these abilities improve over time with sustained training in music. | Fact | Rauscher, F.H. , \& Zupan, M., "Classroom keyboard instruction improves kindergarten children's spatialtemporal performance: A field experiment" Early Childhood Research Quarterly, 15, 215-228.2000. |
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| Social | "We have this holistic opportunity to teach children the benefits of direct participatory music education." | Quote | Linda Edelstein, Milwaukee youth symphony orchestra |
| Educational | Children who study music tend to have larger vocabularies and more advanced reading skills than their peers who do not participate in music lessons. | Fact | Arete Music Academy. "Statistical benefits of music in education." Arete Music Academy. Accessed July 17, 2014. . |
| Cognitive | Children with learning disabilities or dyslexia who tend to lose focus with more noise could benefit greatly from music lessons. | Fact | Arete Music Academy. "Statistical benefits of music in education." Arete Music Academy. Accessed July 17, 2014. |
| Social | Children who study a musical instrument are more likely to excel in all of their studies, work better in teams, have enhanced critical thinking skills, stay in school, and pursue further education. | Fact | Arte Music Academy. "Statistical benefits of music in education." Statistical-Benefits-Of-Music-In-Education. Accessed July 17, 2014. |
| Educational | Regardless of socioeconomic status or school district, students (3rd graders) who participate in high-quality music programs score higher on reading and spelling tests. | Fact | Hille, Katrin, et al. "Associations between music education, intelligence, and spelling ability in elementary school." Adv Cogn Psychol 7 (2011): 1-6. Web. Accessed February 24, 2015. |
| Cognitive | Young children who take music lessons show different brain development and improved memory over the course of a year, compared to children who do not receive musical training. | Fact | National Association for Music Education. "The Benefits of the Study of Music." National Association for Music Education. Accessed July 17, 2014. . |
| Educational | Schools that have music programs have an attendance rate of $93.3 \%$ compared to $84.9 \%$ in schools without music programs. | Fact | The National Association for Music Education. "Music Makes the Grade." The National Association for Music Education. Accessed February 24, 2015. |


| Social | "At this time when you are making critical and farreaching budget and program decisions...l write to bring to your attention the importance of the arts as a core academic subject and part of a complete education for all students. The Elementary and Secondary Education Act defines the arts as a core subject, and the arts play a significant role in children's development and learning process. The arts can help students become tenacious, team-oriented problem solvers who are confident and able to think creatively." | Quote | Arne Duncan, Secretary of Education, Letter to Schools and Community Leaders, 2009. |
| :---: | :---: | :---: | :---: |
| Educational | Students in high-quality school music education programs score higher on standardized tests compared to students in schools with deficient music education programs, regardless of the socioeconomic level of community. | Fact | Nature Neuroscience, April 2007 |
| Educational | Students in all regions with lower-quality instrumental programs scored higher in English and mathematics than students who had no music at all. | Fact | Journal for Research in Music Education, June 2007; Dr. Christopher Johnson, Jenny Memmott |
| Educational | Students at schools with excellent music programs had higher English test scores across the country thanstudents in schools with low-quality music programs; this was also true when considering mathematics. | Fact | Journal for Research in Music Education, June 2007; Dr. Christopher Johnson, Jenny Memmott |
| Educational | Students in top-quality instrumental programs scored $17 \%$ higher in mathematics than children in schools without a music program, and $33 \%$ higher in mathematics than students in a deficient choral program. | Fact | Journal for Research in Music Education, June 2007; Dr. Christopher Johnson, Jenny Memmott |
| Educational | Students in top-quality instrumental programs scored $19 \%$ higher in English than students in schools without a music program, and 32\% higher in English than students in a deficient choral program. | Fact | Journal for Research in Music Education, June 2007; Dr. Christopher Johnson, Jenny Memmott |
| Cognitive | Young Children who take music lessons show different brain development and improved memory over the course of a year, compared to children who do not receive musical training. | Fact | Dr. Laurel Trainor, Prof. of Psychology, Neuroscience, and Behavior at McMaster University, 2006 |


| Cognitive | Musically trained children performed better in a memory test that is correlated with general intelligence skills such as literacy, verbal memory, visiospatial processing, mathematics, and IQ. | Fact | Dr. Laurel Trainor, Prof. of Psychology, Neuroscience, and Behavior at McMaster University, 2006 |
| :---: | :---: | :---: | :---: |
| Cognitive | Music education sharpens student attentiveness. | Fact | Arts Education Partnership, 2011 |
| Cognitive | Music education equips students to be creative. | Fact | Arts Education Partnership, 2011 |
| Social | Music education supports better study habits and selfesteem. | Fact | Arts Education Partnership, 2011 |
| Educational | Substantial majorities of both teachers and parents view student access to music and arts education as "extremely" or "very" important. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | Both parents and teachers have high standards and expectations for quality music programs, especially the importance of competent, certified teachers | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | On average, students have had only about three years of in-school music education, according to parents; more than a third have had one year or less, with one in six of all students having had no music instruction at all. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Social | Hispanic and African-American parents generally feel music provides more benefits to children than other parents do. Like their urban counterparts, however, they feel they're being shortchanged in a number of ways-though they're taking steps to overcome these deficits that could model solutions for other groups. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |


| Social | Majorities of both parents and teachers <br> see a myriad of social-emotional, <br> academic, 2lst century skill, community, <br> and physical and health benefits <br> from music education-especially <br> social-emotional benefits | Fact |
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| Educational | Eight in 10 teachers and more than seven in 10 parents believe the number of minutes of music education required every week is an important quality component. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| :---: | :---: | :---: | :---: |
| Educational | The number and quality of musical instruments, along with materials, are high on parents' lists of "must haves" for a quality program. But many teachers report that these essentials are in short supply. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | Fewer than half of teachers (42 percent) and parents ( 46 percent) say their schools have the musical instruments they need for all students who want to learn to play. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 <br> Music Education in <br> the United States: 2015. |
| Educational | Just 41 percent of teachers and 46 percent of parents say their schools have enough sheet music for every participating child. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | Teachers in urban schools are more likely to consider music and arts education as core to the curriculum ( 38 percent) and value access to it ( 81 percent), compared to teachers in rural areas ( 30 percent of whom consider music and arts education as core to the curriculum and 70 percent of whom value access to it). | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | Urban teachers also believe more strongly that music education can build 21 st century skills, such as communication, critical thinking, problem-solving and innovation skills. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |

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\begin{array}{|lll|}\hline \text { Educational } & \begin{array}{l}\text { African-American parents (76 percent) } \\
\text { and Hispanic parents (75 percent) are } \\
\text { significantly more likely than Caucasian } \\
\text { parents (67 percent) to enroll their } \\
\text { children in school music classes where } \\
\text { opportunities exist, and they are more } \\
\text { interested in their children participating in } \\
\text { virtually every type of music class in or out } \\
\text { of school. }\end{array} & \begin{array}{l}\text { NAMM Foundation and Grunwald Associates LLC } \\
(2015) .\end{array}
$$ <br>
Striking a Chord: The Public's Hopes and Beliefs for K-12 <br>
Music Education in <br>

the United States: 2015 .\end{array}\right]\)| NAMM Foundation and Grunwald Associates LLC |
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| Social | Four of the top five benefits <br> teachers see in <br> the potential of music education to <br> help students express themselves (cited <br> by 92 percent of <br> teachers), become <br> more confident <br> (90 percent), and <br> develop better <br> practice habits (89 <br> percent) and more <br> self-discipline (88 <br> percent). | NAMM Foundation and Grunwald Associates LLC <br> (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 <br> Music Education in <br> the United States: 2015. |
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|  | ths striking <br> that both teachers (87 percent) and parents <br> (79 percent) strongly believe music <br> education has a positive impact on overall <br> academic performance. | Fact |


| Educational | On average, both teachers and parents would be more willing to cut spending in 12 of 15 other programs before they'd cut funding for music and arts education. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| :---: | :---: | :---: | :---: |
| Educational | Teachers in Title I schools are more likely to report that their schools have no music program at all. In Title I schools that do offer music programs, teacher responses suggest that they have fewer full-time music teachersand teachers in these schools are more likely to report there are no professional development opportunities for the music teachers they do have. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Educational | Federal education policy specifically authorizes the use Title I funds for music and arts education. But few teacherseven the majority who know what Title I is-are aware of this significant opportunity to provide or improve music programs in the country. Even fewer parents are familiar with Title I, let alone the fact that Title I funds can be used for music education | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Social | Parents <br> who are highly involved in supporting their school's music and other programs (including substantial numbers of parents who do not have high incomes) have higher expectations for music programs in their schools-and they're significantly more likely to see these demands for quality met. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |
| Cognitive | Everyday listening skills are stronger in musically-trained children than in those without music training 4, 7. Significantly, listening skills are closely tied to the ability to: perceive speech in a noisy background, pay attention, and keep sounds in memory. | Fact | Strait, D.L. and N. Kraus, Biological impact of auditory expertise across the life span: musicians as a model of auditory learning. <br> Hearing Research, 2013. |


| Cognitive | According to research published in a 2014 article in Parents magazine, learning how to play percussion instruments helps children develop coordination and motor skills, because they require movement of the hands, arms, and feet. | Fact | Kwan, A. (2013), "6 Benefits of Music Lessons," Parents. |
| :---: | :---: | :---: | :---: |
| Social | Taking music lessons offers a space where kids learn how to accept and give constructive criticism, according to research published in The Wall Street Journal in 2014. | Fact | Joanne Lipman, "A Musical Fix for American Schools," The Wall Street Journal, October 10, 2014. |
| Educational | The College Board identifies the arts as one of the six basic academic subject areas students should study in order to succeed in college. | Fact | Academic Preparation for College: What Students Need to Know and Be Able to Do, 1983 [still in use], The College Board, New York |
| Cognitive | Music and math are highly intertwined. By understanding beat, rhythm, and scales, children are learning how to divide, create fractions, and recognize patterns. | Fact | Lynn Kleiner, founder of Music Rhapsody in Redondo Beach, CA |
| Cognitive | Certain instruments, such as percussion, help children develop coordination and motor skills; they require movement of the hands, arms, and feet. | Fact | Kristen Regester, Early Childhood Program Manager at Sherwood Community Music School at Columbia College Chicago. Copyright © 2013 Meredith Corporation. |
| Social | Group classes require peer interaction and communication, which encourage teamwork, as children must collaborate to create a crescendo or an accelerando. | Fact | Kristen Regester, Early Childhood Program Manager at Sherwood Community Music School at Columbia College Chicago. Copyright © 2013 Meredith Corporation. |
| Social | Playing an instrument teaches kids to persevere through hours, months, and sometimes years of practice before they reach specific goals, such as performing with a band or memorizing a solo piece. | Fact | Mary Larew, Suzuki violin teacher at the Neighborhood Music School in New Haven, Connecticut. Copyright © 2013 Meredith Corporation. |
| Social | Lessons offer a forum where children can learn to accept and give constructive criticism. Turning negative feedback into positive change helps build selfconfidence, Regester says. Group lessons, in particular, may help children understand that nobody, including themselves or their peers, is perfect, | Fact | Mary Larew, Suzuki violin teacher at the Neighborhood Music School in New Haven, Connecticut. Copyright © 2013 Meredith Corporation. |
| Cognitive | In order to fully reap the cognitive benefits of a music class, kids can't just sit there and let the sound of music wash over them. They have to be actively engaged in the music and participate in the class. | Fact | Dr. Nina Kraus, director of Northwestern's Auditory Neuroscience Laboratory. |

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| Cognitive | Researchers found that after two years, children who not <br> only regularly attended music classes, but also actively <br> participated in the class, showed larger improvements in <br> how the brain processes speech and reading scores <br> than their less-involved peers. | Nina Kraus, director of Northwestern's Auditory <br> Neuroscience Laboratory, quoted in Melissa Locker, |
| :--- | :--- | :--- |
|  | "Early sustained music learning is actually the frame upon |  |
| which education itself can be built for low-income kids." |  |  |
| Educational | "This Is How Music Can Change Your Brain," Time, |  |
| December 16, 2014. |  |  |


| Cognitive | In a 2009 study in the Journal of Neuroscience, researchers used an MRI to study the brains of 316 -yearold children, before and after they took lessons on musical instrument for 15 months. They found that the music students' brains grew larger in the areas that control fine motor skills and hearing-and that students' abilities in both those areas also improved. The corpus callosum, which connects the left and right sides of the brain, grew as well. | Fact | Joanne Lipman, "A Musical Fix for American Schools," The Wall Street Journal, October 10, 2014. |
| :---: | :---: | :---: | :---: |
| Cognitive | Exposing children to music during early development helps them learn the sounds and meanings of words. Dancing to music helps children build motor skills while allowing them to practice self-expression. For children and adults, music helps strengthen memory skills. | Fact | © 2015 Program for Early Parent Support (PEPS), a 501 (C)(3) nonprofit organization |
| Social | Making music together, children learn to work as a team while they each contribute to the song in their own way. At the same time, music helps children learn that together they can make something larger than the sum of its parts. | Fact | © 2015 Program for Early Parent Support (PEPS), a 501 (C)(3) nonprofit organization |
| Social | More benefits of music for children include learning cooperation, sharing, compromise, creativity, and concentration - skills that become invaluable as they enter school, face new challenges, and begin to form new friendships and develop social skills. | Fact | © 2015 Program for Early Parent Support (PEPS), a 501 (C)(3) nonprofit organization |
| Cognitive | A study at the University of California at Irvine demonstrated that young kids who participated in music instruction showed dramatic enhancements in abstract reasoning skills. In fact, researchers have found neural firing patterns that suggest that music may hold the key to higher brain function. | Fact | Rauscher, Shaw, Levine, Ky and Wright, "Music and Spatial Task Performance: A Causal Relationship," University of California, Irvine, 1994 |
| Educational | Research at McGill University in Montreal, Canada showed that grade-school kids who took music lessons scored higher on tests of general and spatial cognitive development, the abilities that form the basis for performance in math and engineering. | Fact | http://nisom.com/index.php/instruction/health-benefits |
| Social | Kids who make music have been shown to get along better with classmates and have fewer discipline problems. More of them get into their preferred colleges, too. | Fact | http://nisom.com/index.php/instruction/health-benefits |


| Cognitive | Playing a musical instrument strengthens eye-hand coordination and fine motor skills, and kids who study an instrument learn a lot about discipline, dedication and the rewards of hard work. | Fact | http://nisom.com/index.php/instruction/health-benefits |
| :---: | :---: | :---: | :---: |
| Educational | A study of 8 to 11-year-olds found that, those who had extra-curricular music classes, developed higher verbal IQ, and visual abilities, in comparison to those with no musical training. | Fact | Forgeard et al., "Practicing a Musical Instrument in Childhood is Associated with Enhanced Verbal Ability and Nonverbal Reasoning," PLOS One, 2008. |
| Educational | A study of almost one thousand Finnish pupils who took part in extended music classes, found they reported higher satisfaction at school in almost every area, even those not related to the music classes themselves. | Fact | Eerola \& Eerola, "Extended music education enhances the quality of school life," Music Education Research, 2013. |
| Cognitive | Music training not only helps children develop fine motor skills, but aids emotional and behavioral maturation as well, according to a new study, one of the largest to investigate the effects of playing an instrument on brain development. | Fact | Amy Ellis Nutt, "Music lessons spur emotional and behavioral growth in children, new study says," The Washington Post, January 7, 2015. |
| Cognitive | "A kid with a music degree isn'† limited to a performance or teaching career. Musicians are everywhere. We are project managers, marketers, Finance folks, IT people and engineers. In my twenty-some years as a corporate HR person, I was always impressed by the way musical people excelled at logic and non-linear thinking, both." | Quote | Liz Ryan, "Let the kids study music, already!" Forbes, September 3, 2014. |
| Educational | "Being able to think on your feet, approach tasks from different perspectives and think 'outside of the box' will distinguish your child from others. In an arts program, your child will be asked to recite a monologue in 6 different ways, create a painting that represents a memory, or compose a new rhythm to enhance a piece of music. If children have practice thinking creatively, it will come naturally to them now and in their future career." | Quote | Lisa Phillips, "The artistic edge: 7 skills children need to succeed in an increasingly right brain world," ARTSblog, Americans for the Arts, 2013. |
| Cognitive | "When a child picks up a violin for the first time, she/he knows that playing Bach right away is not an option; however, when that child practices, learns the skills and techniques and doesn't give up, that Bach concerto is that much closer. In an increasingly competitive world, where people are being asked to continually develop new skills, perseverance is essential to achieving success." | Quote | Lisa Phillips, "The artistic edge: 7 skills children need to succeed in an increasingly right brain world," ARTSblog, Americans for the Arts, 2013. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | "The ability to focus is a key skill developed through |
| :--- | :--- | :--- | :--- |
| ensemble work. Keeping a balance between listening |  |
| and contributing involves a great deal of concentration |  |
| and focus. It requires each participant to not only think |  |
| about their role, but how their role contributes to the big |  |
| picture of what is being created. Recent research has |  |
| shown that participation in the arts improves children's |  |
| abilities to concentrate and focus in other aspects of |  |
| their lives." |  |$\quad$| Quote |
| :--- |


| Cognitive | Music training leads to greater gains in auditory and motor function when begun in young childhood; by adolescence, the plasticity that characterizes childhood has begun to decline. Nevertheless, our results establish that music training impacts the auditory system even when it is begun in adolescence, suggesting that a modest amount of training begun later in life can affect neural function. | Fact | Adam T. Tierney, Jennifer Krizman, Nina Kraus, "Music training alters the course of adolescent auditory development," Proceedings of the National Academy of Sciences, 2015. |
| :---: | :---: | :---: | :---: |
| Social | 95 percent of Americans consider music to be part of a well-rounded education, and 93 percent feel that schools should offer music education as part of the regular curriculum. Nearly four in five ( 79 percent) even say that music education should be mandated for every student in school. | Fact | 2003 Gallup Poll conducted for NAMM. |
| Educational | "A broad education in the arts helps give children a better understanding of their world... We need students who are culturally literate as well as math and science literate." | Quote | Paul Ostergard, Vice President, Citicorp. |
| Educational | "Arts education aids students in skills needed in the workplace: flexibility, the ability to solve problems and communicate, the ability to learn new skills, to be creative and innovative, and to strive for excellence." | Quote | Joseph M. Calahan, Director of Cooperate Communications, Xerox Corporation. |
| Educational | Learning a musical language could have cognitive benefits similar to those evident in bilingual children. Although this view has intuitive appeal because music and language are both auditory communication systems, the positive effects of bilingualism are evident for fluid intelligence (i.e., executive control) but not for crystallized intelligence (e.g., knowledge acquired through experience, such as vocabulary), whereas the effects of music lessons appear to extend to both domains. | Fact | E. Glenn Schellenberg, "Music and Cognitive Abilities," Current Directions in Psychological Science Journal, Vol. 14, No. 6, December 2005. |
| Social | The hope of our music, the entire future of our music, unquestionably lies in our children. | Quote | Aubertine Woodward Moore, "Our Children, The Hope of Music: Building a Musical America," The Art World, Vol. 2, No. 6, pp. 512-514, September 1917. |


| Health | Research indicates the brain of a musician, even a young one, works differently than that of a nonmusician. "There's some good neuroscience research that children involved in music have larger growth of neural activity than people not in music training. When you're a musician and you're playing an instrument, you have to be using more of your brain." | Quote | Dr. Eric Rasmussen, chair of the Early Childhood Music Department at the Peabody Preparatory of The John Hopkins University, quoted in "The Benefits of Music Education," pbs.org, Laura Lewis Brown. |
| :---: | :---: | :---: | :---: |
| Educational | Nine in ten adults believe students benefit from having music included in their curriculum (89 percent)... | Fact | "Public Schools are Improving Their Grades, but Private Schools Remain at the Head of the Class," Harris Poll, September 29, 2015. |
| Educational | "I would teach children music, physics, and philosophy; but most importantly music, for the patterns in music and all the arts are the keys to learning." | Quote | Plato. |
| Cognitive | Musicians are found to have superior working memory compared to non-musicians. | Fact | Berti, et al., 2006; Pallesen et al., "Cognitive Control in Auditory Working Memory Is Enhanced in Musicians," PLOS One, June 15, 2010. |
| Social | "To you beautiful wonderful students, you lifted us all up this morning. That's what music does, it lifts you up." | Quote | Larry Morton, former NAMM Board Chairman \& President of Hal Leonard Corporation |
| Social | "Music is a tool for social justice." | Quote | Dinorah Marquez, Program Director, Latino Arts Strings Program |
| Social | "Music became my voice and it became the bridge to a larger culture." | Quote | Dinorah Marquez, Program Director, Latino Arts Strings Program |
| Educational | Music programs are constantly in danger of being cut from shrinking school budgets even though they're proven to improve academics. | Fact | National Center for Education Statistics. "Arts Education in Public Elementary and Secondary Schools, 1999-2000 and 2009-2010." National Center for Education Statistics. Accessed February 24, 2015. . |
| Cognitive | A Stanford study shows that music engages areas of the brain which are involved with paying attention, making predictions and updating events in our memory. | Fact | Baker, Mitzi. "Music moves brain to pay attention, Stanford study finds." Stanford Medicine. Accessed February 24, 2015. |
| Cognitive | Much like expert technical skills, mastery in arts and humanities is closely correlated to a greater understanding of language components. | Fact | Trei, Lisa. "Musical training helps language processing, studies show." Stanford News. Accessed February 24, 2015. |
| Educational | Students in high-quality school music education programs score higher on standardized tests compared to students in schools with deficient music education programs, regardless of the socioeconomic level of community. | Fact | Nature Neuroscience, April 2007 |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | Early childhood training in instrumental music improves the ability to pay attention--visual focus, active listening, and staying on task. | Fact | Neville, H., et al. (2008). Effects of Music Training on Brain and Cognitive Development in Under-privileged 3- to 5-year-old Children: Preliminary Results. In C. Asbury \& B. Rich (Eds.), Learning, Arts, and the Brain: The Dana Consortium Report on Arts and Cognition (pp. 105-116). New York, NY: Dana Press. |
| :---: | :---: | :---: | :---: |
| Social | Perserverance is developed and strengthened through music education. | Fact | Scott, L. (1992). Attention and Perseverance Behaviors of Preschool Children Enrolled in Suzuki Violin Lessons and Other Activities. Journal of Research in Music Education, 40(3), 225-235. |
| Social | Music education helps develop originality and flexibility, which are key components of creativity and innovation. | Fact | Craft, A. (2001). An Analysis of Research and Literature on Creativity and Education. Report Prepared for the Qualifications and Curriculum Authority. Coventry, England. Strategic National Arts Alumni Project (SNAAP). (2010). Forks in the Road: The Many Paths of Arts Alumni: Strategic National Arts Alumni Project 2010 Findings. Bloomington, IN. |
| Educational | Music education prepares the brain for achievement. | Fact | Arts Education Partnership, 2011 |
| Educational | Music educatin fosters superior working memory. | Fact | Arts Education Partnership, 2011 |
| Educational | Music education cultivates better thinking skills. | Fact | Arts Education Partnership, 2011 |
| Educational | Music education improves recall and retention of verbal information. | Fact | Arts Education Partnership, 2011 |
| Educational | Music education advances math achievment. | Fact | Arts Education Partnership, 2011 |
| Educational | Music educaiton boosts reading and English language skills. | Fact | Arts Education Partnership, 2011 |
| Social | Music educaiton strengthens perserverance. | Fact | Arts Education Partnership, 2011 |
| Educational | Fewer than half of school music programs have the musical instruments or even sheet music they need for all participating students, both teachers and parents say. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 Music Education in the United States: 2015. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Educational | Parents and teachers in urban schools are clamoring for expansion of programs to match the access to and attributes of programs in suburban schools. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 <br> Music Education in the United States: 2015. |
| :---: | :---: | :---: | :---: |
| Social | Parents and teachers in Western states report that schools trail their counterparts in other regions on a number of measures; they feel more strongly than those in other regions that music should be a core subject. Parents and teachers in the West are the least satisfied about the status of their music programs. | Fact | NAMM Foundation and Grunwald Associates LLC (2015). <br> Striking a Chord: The Public's Hopes and Beliefs for K-12 <br> Music Education in <br> the United States: 2015. |
| Cognitive | Musical experience strengthens many of the same aspects of brain function that are impaired in individuals with language and learning difficulties, such as the neural timing precision which allows differentiation between speech syllables. | Fact | Kraus, N. and B. Chandrasekaran, Music training for the development of auditory skills. Nature Reviews Neuroscience, 2010. $11 \text { (8): p. 599-605. }$ |
| Cognitive | Musical expertise is associated with distinctive enhancements in how the nervous system encodes sound (such as stronger representation of harmonic information and greater resilience to noise) that emerge with musical training, even in early childhood. | Fact | Strait, D.L., et al., Musical training during early childhood enhances the neural encoding of speech in noise. <br> Brain Lang, 2012. 123(3): p. 191-201. |
| Cognitive | Studies show that even a few years of musical training early in life improve how <br> the brain processes sound, and that the benefits of early exposure to music education last well into adulthood, years after the training has ceased | Fact | Skoe, E. and N. Kraus, A little goes a long way: how the adult brain is shaped by musical training in childhood. The Journal of Neuroscience, 2012. 32(34): p. 1150711510. |
| Social | "The arts are central to who we are as a people, and they are central to the success of our kids. This is not an afterthought. This is not something you do because it's nice to do. It is necessary for these young people to succeed that we promote the arts." | Quote | President Barack Obama |



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| Social | "Music is like a dialogue because we can play a certain thing - let's say the violins can play something back -it could be the same melody different notes and it's like a conversation talking back and forth." | Quote | VIANEY CALIXTO, student and Harmony Project Participant quoted in PBS NEWS HOUR. http://www.pbs.org/newshour/bb/education-jan-junel4-harmony_01-04/ |
| :---: | :---: | :---: | :---: |
| Cognitive | "People who had musical training are better at hearing speech in noise. And it's not that different from what you're asking your nervous system to do when you're listening for a teacher's voice in a noisy classroom. And so we just simply know that if we ask people to repeat back sentences that are presented to them in background noise that if you have musical training, that you are better at repeating back the sentences accurately than if you did not have that musical training." | Quote | Dr. Nina Kraus, director of Northwestern's Auditory Neuroscience Laboratory quoted PBS NEWS HOUR, http://www.pbs.org/newshour/bb/education-jan-junel4-harmony_01-04/ |
| Health | Music can meaningfully reduce the perceived intensity of pain, especially in geriatric care, intensive care, or palliative medicine (an area of healthcare that focuses on preventing and relieving the suffering of patients). | Fact | Scott Christ, " 20 surprising, science-backed health benefits of music," USA Today, December 17, 2013. |
| Health | One study found that listening to music after a workout can help the body recover faster. While slow music produced a greater relaxation effect post-exercise, it seems that any kind of music can help the physical recovery process. | Fact | Scott Christ, "20 surprising, science-backed health benefits of music," USA Today, December 17, 2013. |
| Health | One study found that playing soft music (and dimming the lights) during a meal can help people slow down while eating and ultimately consume less food in one sitting. | Fact | Scott Christ, "20 surprising, science-backed health benefits of music," USA Today, December 17, 2013. |
| Health | Scientists have found that the emotions patients experience while listening to music have a healthy effect on blood vessel function. Music both made study participants feel happier and resulted in increased blood flow in their blood vessels. | Fact | Scott Christ, "20 surprising, science-backed health benefits of music," USA Today, December 17, 2013. |


| Cognitive | Have you ever felt chills down your spine while listening to music? According to a study by Nusbaum and Silvia (2010), over $90 \%$ of us have. How powerful the effects of music, though, depends on your personality. People who are high in one of the five personality dimensions called 'openness to experience', are likely to feel the most chills while listening to music. | Fact | Nusbaum and Silvia, "Shivers and Timbres Personality and the Experience of Chills From Music," Social Psychology \& Personality Science, (2010). |
| :---: | :---: | :---: | :---: |
| Social | People high in openness to experience are more likely to play a musical instrument, and more likely to rate music as important to them. | Fact | Nusbaum and Silvia, "Shivers and Timbres Personality and the Experience of Chills From Music," Social Psychology \& Personality Science, (2010). |
| Social | In research by Ferguson and Sheldon (2013), participants who listened to upbeat classical compositions by Aaron Copland, while actively trying to feel happier, felt their moods lift more than those who passively listened to the music. This suggests that engaging with music, rather than allowing it to wash over us, gives the experience extra emotional power. | Fact | Ferguson and Sheldon, "Trying to be happier really can work: Two experimental studies," The Journal of Positive Psychology: Dedicated to furthering research and promoting good practice, (2013). |
| Social | A review of 23 studies covering almost 1,500 patients found that listening to music reduced heart rate, blood pressure and anxiety in heart disease patients. | Fact | Bradt \& Dileo, "Music for stress and anxiety reduction in coronary heart disease patients," PubMed.Gov, 2009 |
| Cognitive | According to a study by Kawakami et al. (2013), sad music is enjoyable because it creates an interesting mix of emotions; some negative, some positive. Crucially, we perceive the negative emotions in the music, but don't feel them strongly. | Fact | Kawakami et al., "Sad music induces pleasant emotion," Frontiers in Psychology, (2013). |
| Social | A study by Logeswaran et al. (2009) found that a quick blast of happy music made participants perceive other's faces as happier. The same was true for a snippet of sad music. The biggest effect was seen when people looked at faces with a neutral expression. <br> In other words: people projected the mood of the music they were listening to onto other people's faces. | Fact | Logeswaran et al., "Crossmodal transfer of emotion by music," Neuroscience Letters, (2009). |


| Social | In a study by Palmer et al. (2013), people from both Mexico and the US showed remarkable similarities in connecting duller, darker colors with sadder pieces of music and lighter, more vivid colors with happier music. A follow-up study showed that these music-to-color associations were seen because of the emotional content of the music. | Fact | Palmer et al., "Music-color associations are mediated by emotion," PNAS, (2013). |
| :---: | :---: | :---: | :---: |
| Cognitive | "Look carefully and you'll find musicians at the top of almost any industry. Woody Allen performs weekly with a jazz band. The television broadcaster Paula Zahn (cello) and the NBC chief White House correspondent Chuck Todd (French horn) attended college on music scholarships; NBC's Andrea Mitchell trained to become a professional violinist. Both Microsoft's Mr. Allen and the venture capitalist Roger McNamee have rock bands. Larry Page, a co-founder of Google, played saxophone in high school. Steven Spielberg is a clarinetist and son of a pianist. The former World Bank president James D. Wolfensohn has played cello at Carnegie Hall." | Quote | Joanne Lipman, "Is Music the Key to Success?" The New York Times, October 13, 2013. <br> http://www.nytimes.com/2013/10/13/opinion/sunday/is-music-the-key-to-success.html?_r=0 |
| Cognitive | "Music may not make you a genius, or rich, or even a better person. But it helps train you to think differently, to process different points of view - and most important, to take pleasure in listening." | Quote | Joanne Lipman, "Is Music the Key to Success?" The New York Times, October 13, 2013. <br> http://www.nytimes.com/2013/10/13/opinion/sunday/is-music-the-key-to-success.html?_r=0 |
| Cognitive | Researchers found that those who played an instrument for two years showed a stronger "neurophysiological distinction" between certain sounds than children who didn't get the instrumental training. For instance, the music-makers more easily could tell the difference between the words "bill" and "pill," a key skill in learning to read. | Fact | Skoe, E. \& Kraus, N. (2012). A Little Goes a Long Way: How the Adult Brain Is Shaped by Musical Training in Childhood, Journal of Neuroscience, 32 (34) <br> 11510. DOI: 10.1523/JNEUROSCI.1949-12.2012 |
| Cognitive | "When you play a musical instrument you have to learn about tone and about scores and your ability to store audio information becomes better. So not only does this make it easier to pick up other languages and have a better verbal memory in your own language, we have also seen that musicians are able to pick out exactly what others are feeling just on the tone of their voices. Empathy, disappointment, that kind of thing." | Quote | Quoted in ,"Playing a Musical Instrument Makes you Brainier," by Richard Alleyne, The Telegraph, 10/27/2009. |

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| Health | Studies show that music can trigger the brain to release <br> chemicals that distract the body from pain. When music <br> reaches the brain's auditory cortex, there's <br> communication between the cortex and the brain's <br> areas that control emotion, memory, and motor control. | Fact |
| :--- | :--- | :--- |


| Cognitive | "We need people who think with the creative side of their brains-people who have played in a band, who have painted...it enhances symbiotic thinking capabilities, not always thinking in the same paradigm, learning how to kick-start a new idea, or how to get a job done better, less expensively." | Quote | Annette Byrd, GlaxoSmithKline |
| :---: | :---: | :---: | :---: |
| Social | "I must study politics and war, that my sons may study mathematics and philosophy....in order to give their children the right to study painting, poetry, music and architecture." | Quote | John Q. Adams |
| Social | "Music is universal. It's a gabillion dollar industry, and it is omnipresent. How many hours in a row do you ever go without listening to music? Everywhere you go, everything you watch- music. Always music. We are surrounded in it, bathe in it, soak in it. Why would we not want to know more about something constantly present in our lives? Would you want to live in a world without music? Then why would you want to have a school without music?" | Quote | Peter Greene, "Stop 'defending' music education," The Huffington Post, June 11, 2015. |
| Social | "Music is freakin' magical. In 40-some years I have never gotten over it - you take some seemingly random marks on a page, you blow air through a carefully constructed tube, and what comes out the other side is a sound that can convey things that words cannot. And you just blow air through a tube. Or pull on a string. Or whack something. And while we can do a million random things with a million random objects, somehow, when we just blow some air through a tube, we create sounds that can move other human beings, can reach right into our brains and our hearts. That is freakin' magical." | Quote | Peter Greene, "Stop 'defending' music education," The Huffington Post, June 11, 2015. |
| Social | "Music is awesome. It's human. It's universal. It's big business precisely because it is something that everybody wants." | Quote | Peter Greene, "Stop 'defending' music education," The Huffington Post. |
| Health | Due to the overlap of brain circuits dedicated to speech and music, and the distributed network of cognitive, sensorimotor, and reward circuits engaged during music making, we believe that music training is a particularly potent driver of brain plasticity that influences the biological processes important for listening, language, and learning. | Fact | "Neuroeducation: From the Lab to the Classroom," School-Based Music Summary, Northwestern University. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Health | Musical training is thought to improve nervous system function by focusing attention on meaningful acoustic cues, and these improvements in auditory processing cascade to language and cognitive skills. | Fact | Nina Kraus, Jessica Slater, Elaine C. Thompson, Jane Hornickel, Dana L. Strait, Trent Nicol, Travis WhiteSchwoch, "Music Enrichment Programs Improve the Neural Encoding of Speech in At-Risk Children," Journal of Neuroscience, September 3, 2014. |
| :---: | :---: | :---: | :---: |
| Social | "Music is a higher revelation than all wisdom and philosophy." | Quote | Ludwig van Beethoven quoted in "Music Is a Potent Source of Meaning," Tom Jacobs, August 20, 2015. |
| Social | "Music is a more potent instrument than any other for education, because rhythm and harmony find their way into the inward places of the soul." | Quote | Plato. |
| Educational | "Music learning supports all learning. Not that Mozart makes you smarter, but it's a very integrating, stimulating pastime or activity." | Quote | Kenneth Guilmartin, cofounder of Music Together, quoted in "The Benefits of Music Education," PBS.org, Laura Lewis Brown. |
| Educational | "Students of all ages - that includes adults - generally find that music helps them focus more clearly on the task at hand and puts them in a better mood for learning." | Quote | Chris Brewer, founder of LifeSounds Educational Services, quoted in "Boost Memory and Learning with Music," pbs.org, Cheri Lucas. |
| Health | It is said that the state of mankind improves through music; music not only trains but educates individuals and makes them fit for a life of community. Music is spiritual and mental food, an edifying and educational power. In comparison with sports (the motion of bodies), music (the motion of sounds) belongs to a higher sphere. In extreme cases, one encounters the tenet that music actually elevates man into a higher realm, transforming him into a new form of the human species. | Fact | Albrecht Riethmüller, "Music Beyond Ethics," Archiv für Musikwissenschaft, p. 170, Volume 65, Issue 3, 2008. |
| Cognitive | Both music and language are complex communication systems, in which basic components are combined into high-order structures in accordance with rules. Whether music was an evolutionary precursor to language or merely a byproduct of cognitive faculties that developed to support language, music is pervavise across human cultures and throughout history... | Fact | Nina Kraus, Jessica Slater, "Music and language: relations and disconnections," The Human Auditory System: Fundamental Organization and Clinical Disorders, Vol. 29, 3rd Series, 2015. |


| Cognitive | Cross-sectional comparisons of musicians to nonmusicians have established a variety of musician enhancements in auditory skills and their neural substrates, extending from enhanced perception and neural encoding of speech, most notably in suboptimal listening conditions, to more proficient auditory working memory and auditory attention. | Fact | Nina Kraus, Dana L. Strait, "Emergence of biological markers of musicianship with school-based music instruction," Annals of the New York Academy of Sciences, 2015. |
| :---: | :---: | :---: | :---: |
| Educational | "Whoever has skill in music is of good temperament and fitted for all things. We must teach music in schools." | Quote | Martin Luther |
| Social | "Music expresses that which cannot be put into words and that which cannot remain silent." | Quote | Victor Hugo. |
| Social | "I would say that music is the easiest means in which to express, but since words are my talent, I must try to express clumsily in words what the pure music would have done better." | Quote | William Faulkner. |
| Social | "After silence, that which comes nearest to expressing the inexpressible is music." | Quote | Aldous Huxley. |
| Educational | "Music has impacted me... helping my ability to do math and to read, and to think critically." | Quote | Fatima Gomez, BGCS/Latino Arts Strings Program Alumnus |
| Educational | The College Entrance Examination Board found that students involved in public school music programs scored 107 points higher on the SAT's than students with no participation. | Fact | Profiles of SAT and Achievement Test Takers, The College Board, compiled by the Music Educators National Conference (2002) |
| Cognitive | Adults who receive formal music instruction as children have more robust brainstem responses to sound than peers who never participate in music lessons and that the magnitude of the response correlates with how recently training ceased. These results suggest that neural changes accompanying musical training during childhood are retained in adulthood. | Fact | Skoe, E. \& Kraus, N. (2012). A Little Goes a Long Way: How the Adult Brain Is Shaped by Musical Training in Childhood, Journal of Neuroscience, 32 (34) 11510. DOI: 10.1523/JNEUROSCI.1949-12.2012 |

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\begin{array}{|llll}\hline \text { Social } & \begin{array}{l}\text { Graduates from music programs report that creativity, } \\
\text { teamwork, communication, and critical thinking are skills } \\
\text { necessary in their work, regardless of whether they are } \\
\text { working in music or other fileds. }\end{array} & \begin{array}{l}\text { Craft, A. (2001). An Analysis of Research and Literature } \\
\text { on Creativity and Education. Report Prepared for the } \\
\text { Qualifications and Curriculum Authority. Coventry, } \\
\text { England. Strategic National Arts Alumni Project }\end{array}
$$ <br>
(SNAAP). (2010). Forks in the Road: The <br>
Many Paths of Arts Alumni: Strategic <br>

National Arts Alumni Project 2010\end{array}\right]\)| Findings. Bloomington, IN. |
| :--- |


| Educational | Soldiers of the 1700 s were required to function almost as automatons, to obey, smoothly and in formation, whatever commands were given by their superiors. With clouds of gunsmoke added to the din of combat, oral commands or personal example were not always reliable means of giving direction to an army. An order that was not heard - or worse, not understood - could be as dangerous as the enemy. Musically transmitted signals, however, could be heard above the crash of gunfire. The voice of the trumpet and the cadence of the drums were clear and unambiguous, making them vital to command and control. | Fact | HistoryNet Staff, "The Music of War," History.net, June 6, 2012. |
| :---: | :---: | :---: | :---: |
| Social | When the first American soldiers manual - compiled by Maj. Gen. Wilhelm von Steuben - was issued to the Continental Army in 1778, it contained a list of beats and signals modeled on those used in European armies. More quickly than in Europe, however, the bugle replaced the fife and drum ensemble in the American ranks. In 1867 bugle calls for the U.S. armed forces, mostly patterned after French models, were codified and standardized into a form that largely survives today. | Fact | HistoryNet Staff, "The Music of War," History.net, June 6, 2012. |
| Social | While burgeoning technology eclipsed the need for music to accompany movement on the battlefield by the mid-20th century, it remained an effective means by which states could manipulate the morale, energies and attitudes of armies and indeed entire populations. | Fact | HistoryNet Staff, "The Music of War," History.net, June 6, 2012. |
| Cognitive | "You have to understand what it means for a combat veteran to be agitated in the waiting room. Their pupils are dilated. They are angry or waiting for something to happen. But when we have live music that day, they come to me far more relaxed. It's like an amazing miracle, and I don't say that lightly.' | Quote | Dr. Hani Khouzam, quoted in, "Live music at Fresno's VA Hospital makes a big difference," by Diana Marcum, Los Angeles Times, January 16, 2013. |


| Educational | The formal discipline of music therapy has a rich, long history in providing services for our American heroes. It began after World Wars I and II, when community musicians performed in veterans' hospitals and medical professionals noticed patients' positive and emotional responses to music. In 1944, when it became evident that these hospital musicians required special training, the first music therapy degree program was founded. Currently, approximately 50 qualified music therapists work in VA hospitals throughout the U.S., according to Al Bumanis, director of communications at the American Music Therapy Association. | Fact | "Music Therapy and the Military," by Ronna Kaplan, Huffington Post, March 4, 2013. |
| :---: | :---: | :---: | :---: |
| Cognitive | Music therapy utilizing improvisation on hand drums helped veterans modulate their "often misdirected, exaggerated, and unrecognized emotions," with the goal being generalization of these skills to everyday life. Drumming provided an opportunity for the men to express and control their feelings and helped build a sense of connectedness and group mission. | Fact | Burt, J. W. (1995). Distant Thunder: Drumming with Vietnam Veterans. Music Therapy Perspectives, 13, 110112; quoted in, "Music Therapy and the Military," by Ronna Kaplan, Huffington Post, March 4, 2013. |
| Social | Since 2005, the VA has more than doubled the number of music therapists at its clinics. | Fact | Abbie Fenress Swanson, "Music helps vets control symptoms of PTSD," Time, March 8, 2010. |
| Educational | Schools with music programs have an estimated 90.2\% graduation rate and $93.9 \%$ attendence rate compared to schools without music education programs who average $72.9 \%$ graduation and $84.9 \%$ attendence. | Fact | (2017). Why Music Education; quoted in Sounds Academy, February 2, 2017. |
| Educational | "The value of music programs is immeasurable in the development of a young person's identity in being part of a community." | Quote | Colin Cripps, 2017, quoted in, "2017 MusiCounts Teacher of the Year Recipient," MusicCounts, February 6, 2017. |
| Educational | "Music isn'† optional. It needs to be given priority in schools as they're deciding what's important." | Quote | Jimi Westbrook, Little Big Town, quoted in "Little Big Town Surprises a High School Choir to Promote Music Education," by Steve Helling, People, January 21, 2017 |
| Educational | "Music education is so important for kids. Obviously, it helps them learn about music, but it also develops their creativity. The students learn to work together as a group. There are so many life lessons that can be taught through music." | Quote | Karen Fairchild, Little Big Town, quoted in "Little Big Town Surprises a High School Choir to Promote Music Education," by Steve Helling, People, January 21, 2017 |


| Cognitive | "Playing a musical instrument in a group engages more <br> regions of the brain simultaneously than any other <br> activity." | Quote | Bryan Tuk, quoted in "Creativity Works column: The <br> consequences of cutting music programs," by William <br> Childs, The Morning Call, January 19, 2017 |
| :--- | :--- | :--- | :--- |
| Educational | Research indicates that musicians perform significantly <br> better on tests of Spatial-Temporal Skills, Math Ability <br> Readking Skills, Vocabulary, Verbal Memory, and <br> Phonemic Awareness. | Fact | (2017). Why Music Education; quoted in Sounds <br> Academy, February 2, 2017. |
| Educational | 89\% of school principals surveyed believed a high-quality <br> music education program helps to their school achieving <br> higher graduation rates. | Fact | (2017). Why Music Education Matters; quoted in Mark |
|  | "I think every child deserves to learn music, just like every <br> child deserves to learn how to read and do math." | Quote | Wood Music Foundation, February 6, 2017. |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Educational | "The development of multicultural music teaching would help to make music education more appealing for all; support in overcoming barriers to participation such as providing transportation for inter-school activities and buddy systems would also help. We need to communicate the value of music education as a pathway to creative industries to parents, and also encourage partnerships between schools and musicians". | Quote | Professor Graham Welch, quoted in "Children still face barriers in accessing music education," UCL, April 20, 2016. |
| :---: | :---: | :---: | :---: |
| Educational | The researchers found that studying music alters teen brains in a way that makes them better able to focus and process sound - a development that's particularly important for learning. | Fact | (2017). Northwestern study finds music education changes the teen brain; quoted in The Chicago Crusader, February 6, 2017. |
| Educational | "While we're teaching them music skills, we're teaching them life skills, too - how to be self-disciplined, motivate themselves and get through the tasks that have been assigned to them and come back with a little bit of a product that we can work with next time." | Quote | Bryan Holbrook, quoted in "Hayward: Mariachi enlivens Winton music program," by Darin Moriki, East Bay Times, February 3, 2017. |
| Social | "Last year, there were a lot of women in the [mentor band] program; this year, there's a lot of ethnic diversity. It's important for kids to see people who look like them." | Quote | Katie Carroll, quoted in "Strings' Mozart Masters program begins in Steamboat Springs area schools," by Julia BenAsher, Steamboat Today, October 13, 2016 |
| Educational | Music teacher Gavriel Patterson said he has seen "an increased level of engagement and motivation when students are playing new instruments." | Quote | Gavriel Patterson, quoted in "Music teacher wants to give students 'joy of ensemble playing': Season of Sharing 2016," by Susan Green, Oregon Live, October 12, 2016 |
| Educational | "Being a part of a music department 'family' can change a kid's life. The skills that they learn and develop will help them succeed no matter where life leads them after high school." | Quote | Amy Rangel, quoted in "\$20k grant helps fulfill Glendale High's musical wish list," by Kelly Corrigan, Los Angeles Times, October 11, 2016 |

Facts and Quotes about Music Education I Compiled by The NAMM Foundation. Updated February 9, 2017.

| Cognitive | "When you think about the process of playing a wind instrument, there's a lot more than just moving your fingers and blowing air, because you're actually looking at a page and processing what you see on that page and converting that information into a whole array of fingers, air and using your tongue and everything else at the same time, and then you have to actually physically do that. It uses so much of your brain, and when you're a fifth-grader, that's a lot. You're using more parts of your brain simultaneously than you've ever done." | Quote | Joey Sam, quoted in "Despite obstacles, music education still thrives in county," by Chance Farmer, The Paris Post-Intelligencer, October 11, 2016 |
| :---: | :---: | :---: | :---: |
| Cognitive | Research shows that making music changes the brain, and that these brain changes have tangible impacts on listening skills, learning and cognition. | Fact | (2017). Music, hearing, and education: from the lab to the classroom; quoted in Northwestern University, September/October, 2017. |
| Cognitive | Individuals who took music lessons as children show stronger neural processing of sound: young adults and even older adults who have not played an instrument for up to 50 years show enhanced neural processing compared to their peers. | Fact | (2017). Music, hearing, and education: from the lab to the classroom; quoted in Northwestern University, September/October, 2017. |
| Social | "Music students are engaged, focused, happy, excited to come to school, and feel like they have a family that they can relate to in their school setting. We see a correlation between music participation and ACT scores and grade-point averages in graduation rates." | Quote | Laurie Schell, quoted in "Expanding Music Education: It's OK to be Iterative," by Talking Up Music Education, October 20, 2015 |
| Social | "Music education has given me the experience to know how music impacts people; and to see it at such a large scale, like Grand Nationals, it's really remarkable." - | Quote | Noah Burgess, quoted in "LIVE from Music for All-Bands of America: Band Kids Rock," by Talking Up Music Education, November 25, 2015 |
| Social | "The number-one challenge facing this generation is social isolation. Music and the arts create community, and they can end social isolation, they can create connection." - | Quote | David Brooks, quoted in "Be Bold! Music \& Arts Advocacy at the RNC," by Talking Up Music Education, August 18, 2016 |

# Music Program: Band 

John Winthrop Middle School

Grades 7 \& 8

## JW Band: Priority Standards

- 2014 National Music Standards (Ensemble): 11 Anchor Standards
- Creating, Performing, Responding, Connecting
- Select varied repertoire to study based on interest, music reading skills, an understanding of the structure of the music, context, and the technical skill of the individual or ensemble.
- Apply criteria to select music for specified purposes, supporting choices by citing characteristics found in the music and connections to interest, purpose, and context.
- Develop strategies to address technical and expressive challenges in a varied repertoire of music, and evaluate their success.
- Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life.


## JW Band: Program Focus

- Domain-specific vocabulary \& strong content knowledge
- Varied repertoire (culture, time period, style/genre)
- Becoming independent musicians
- Building confidence and taking ownership
- Ensemble experience, self and group discipline
- Community and creating art together


## 7th Grade Band: Priority Standards and Program Focus

- Intermediate: Demonstrate attention to technical accuracy and expressive qualities in prepared and improvised performances of a varied repertoire of music representing diverse cultures and styles.
- Key Signatures and Scales: Bb, Eb, F
- Introduction of Chromatic Scale
- Repertoire is Grade Level 1.5, 2, and 2.5

O Grade 2 (Intermediate) More advanced than Grade 1. Uses more interesting rhythms incorporating dotted-quarter-eighth-note figures, with more pitches used than in Grade 1.

- Rhythm Concepts: quarter, eighth, some dotted rhythms, some syncopation
- Assembly and regular care of instrument


## 8th Grade Band: Priority Standards and Program Focus

- Accomplished: Demonstrate mastery of the technical demands and an understanding of expressive qualities of the music in prepared and improvised performances of a varied repertoire representing diverse cultures, styles, genres, and historical periods.
- Key Signatures and Scales: Bb, Eb, F, Ab, C, Db, and others
- Mastery of Chromatic Scale
- Repertoire is Grade Level 2.5, 3, 3.5

O Grade 3 (Late Intermediate) Uses some sixteenth notes in addition to all other note values. Syncopation can be used. More key changes and accidentals are utilized, may call for full range of the instrument.

- Rhythm Concepts: addition of 16 th note combinations, extensive syncopation
- Assembly, care, and maintenance of instrument
- Chamber Ensembles and CCPS


# Instrumental Lessons-Grades 7 \& 8: <br> Priority Standards and Program Focus 

- Mr. Kevin Lam, VRHS Band Teacher
- Pull-out instrument-specific lessons meet once every 10 school days (approx.)
- Band students grouped by similar instruments at first then re-evaluated in January. After getting to know the students, they are then grouped according to their needs
- Enhances all standards from the ensemble class with particular focus on:
- Rhythm counting
- Scales, key signatures, specific note production
- Instrument-specific challenges
- Individual instrumental technique
- Individual assessment and feedback to evaluate progress
- Small group lessons allows students to feel comfortable making mistakes, taking chances, and receiving constructive feedback


## Band Grading System Explained

- https://www.bandworld.org/pdfs/GradingChart.pdf

EXCALIBUR
Overture for Band
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 Coda $\#$




"Main Title-Apollo 13"




242 Very Broad
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## Recording Comparison

- 7th Gr. Band

Bunker Hill Overture, Grade 1.5

- 8th Gr. Band

Argentum, Grade 3

## Participation \& Retention Data

- $30-40 \%$ of JWMS student population is involved in the music program (Band or Chorus).
- 25-35\% of 7th Gr. class is in 7th Gr. Band.
- $15-25 \%$ of 8 th Gr. class is in 8th Gr. Band.
- Retention from elementary schools varies greatly from year to year (avg. 65\%).
- On average, about $2 / 3$ of the students continue from 7 th to 8 th grade.
- On average, about $80 \%$ of the students continue from 8 th to 9 th grade.


## What Do You Like About Band?

- Being in a group where people are motivated to learn and work hard.
- Playing instruments with people who want to play.
- How we have the freedom of choosing our songs and the way we learn music.
- Being challenged.
- When we have band class it makes me enjoy school a little more.
- Being able to come in everyday and have a little fun and make music.


# Middle/Junior High School Band Directors' Views Regarding Reasons For Student Dropouts In Instrumental Music 

J. David Boyle, Nicholas J. DeCarbo, and Douglas M. Jordan<br>School of Music, University of Miami<br>Coral Gables, Florida<br>June 14, 1994 (Revised January 10, 1995)

## Abstract

The study examined middle/junior high school band directors' views regarding reasons for students dropping out of instrumental music. Fifty band directors responded to a survey instrument that was sent to public middle/junior high schools in Broward, Dade, and Palm Beach counties.

Some results were consistent with frequently cited "reasons" from previous research; loss of interest, scheduling conflicts, lack of parental support, and competing interests in sports were among the highest rated reasons for student dropout from instrumental music study. However, student "lack of commitment to work" was the most highly rated reason for student dropout.

## MIDDLE/JUNIOR HIGH SCHOOL BAND DIRECTORS' VIEWS REGARDING REASONS FOR STUDENT DROPOUTS IN INSTRUMENTAL MUSIC

The high dropout rate in instrumental music programs is a continuing concern for instrumental music teachers. Perhaps this was to be expected in previous years when many instrumental music programs began in the fourth or fifth grade of elementary school. Students in such programs often received only weekly lessons, either in "pull- out" programs from regular classroom instruction or before or after school. These weekly lessons may or may not have been supplemented with a weekly "band" experience. At best, these programs involved some disruption of children's, teacher's, and parents' schedules. Such a setting in combination with children's developmental levels, their changing interests, and other curricular pressures as they moved to middle or junior high school may have accounted for much of the high dropout rate in the past.

Today, however, most instrumental music instruction in Florida schools begins at the middle or junior high school level, and the above "reasons" may no longer apply. It appears that students who begin instrumental music in middle schools have elected to participate in instrumental music and thus have more than a passing interest in learning to play an instrument. Further, they usually begin instruction in the sixth or seventh grade and receive daily instruction. Yet, the high dropout rate seems to persist. A premise of this study is that many students drop out during their years in middle or junior high school, the years during which many other instrumental music students' musical skill development is great.

The purpose of this study, therefore, was to examine reasons for students dropping out of instrumental music. Specifically, band directors' views regarding reasons for student dropouts were solicited, because they have the perspective of working with many students over a number of years.

Research examining factors that affect the dropout rate of beginning instrumental music students is limited. Of the research that has been done, loss of interest by the students is the most cited factor that affects participation. Other major factors that have been reported include lack of communication, interest in participation in other activities and sports, and class scheduling conflicts. Financial concerns, although cited, generally was not a major factor in determining participation in instrumental music programs.

Duerksen (1972) summarizes several studies on instrumental music dropouts. One study reported that 34 percent of the students surveyed indicated that they dropped out of the instrumental program because their instrument was too difficult. Fifty-five percent of those surveyed reported loss of interest as the primary reason for students dropping out of their programs. Other reasons included lack of ability ( $27 \%$ ), illness ( $12 \%$ ), miscellaneous ( $4 \%$ ) and financial problems ( $2 \%$ ). Duerksen cites three other studies that report lack of interest as a major reason for student dropout. Only one study suggested that scheduling conflicts were a reason for student dropout, and only one study reported that students dropped out because of lack of time.

McCarthy (1980) studied individualized instruction, student achievement, and the dropout rate of fifth- and sixth-grade students in an urban school district. Specifically, the study reports the influence of group and individual instruction on music reading and student dropout. Parts of Colwell's Music Achievement Tests (MAT) were used as pretest and posttest measures of the individual's ability to read melodic notation accurately. The Watkins-Farnum Performance Scale, Form A, was used to measure sight reading ability. Of the 1,199 students who took the pretests, $23 \%$ were identified as dropouts. McCarthy reported that reading grade level, socioeconomic status, and gender were significant factors accounting for most of the dropout variance. Dropout prediction was significantly better for individually taught students with above- average reading achievement scores, although individual instruction had no significant impact on either of the music achievement measures. Gender contributed minimally to student dropout, and differences in teachers had no effect on the music performance measures or dropout rate.

Sandene (1994) sought to determine if certain personality variables could predict student dropout in middle school band programs. Subjects for the study included 55 dropout and 55 continuing students in grades six through eight. Subjects were given the Junior- Senior High Personality Questionnaire (HSPQ), the Intellectual Achievement Responsibility Questionnaire, and the Nowicki-Strickland Locus of Control Scale. Students in the dropout group had a greater external locus of control, but there was no statistically significant difference in the overall personality profiles of the two groups. The influence of such personality attributes as cheerfulness, conformity, boldness, and sensitivity was unclear from the data reported, and Sandene encourages further research relating to those traits.

Hartley (1991) investigated attitudes, enrollment, retention, and directors' opinions regarding the grade level at which students should begin instrumental music instruction. Hartley studied 2,249 seventh-grade students from 45 schools. Students attitude was measured on a research-developed survey instrument. High school directors were sent a questionnaire to obtain information about enrollment, retention, and opinions about student ability. Results of this study indicated that the grade at which an individual begins instrumental instruction has no effect on enrollment and

Klinedinst (1989) studied 205 fifth-grade beginning instrumental students to examine the ability of eleven selected variables to predict performance achievement, teacher rating, and retention. The eleven variables were categorized into academic abilities, music background, socioeconomic status, and attitudes toward music. Student performace achievement was evaluated by independent judges and teacher ratings. Results indicated that overall scholastic ability, reading achievement, and math achievement had the strongest relationships to performance achievement. Socioeconomic status, self-concept in music, reading achievement, math achievement, and overall scholastic ability were all significant predictors of student retention. These five variables accounted for $78 \%$ of the variance in the prediction of retention.

Solly (1986) investigated why students drop out of an instrumental program between grade levels. The purpose of the study was to compare the reasons given by students and parents for dropping out of the program and those given by other students for remaining in the program. Of 225 students who left the program during the summer months, 164 responded to a questionnaire and 100 parents of these individuals provided additional comments. Another 164 randomly selected continuing students comprised the comparison group. Results indicated that $73 \%$ of the dropout students and $70 \%$ of the continuing students were never contacted or encouraged by the high school teacher to continue in the program. Within the dropout group, $55 \%$ reported that they lost interest. Because this study requested data from students over a variety of grade levels (4-12), it was observed that $12 \%$ of the students dropped out after being in the program for at least six years. Junior high school parents and teachers indicated that transportation to and from after school rehearsals was a factor in determining participation in the instrumental program.

Brown (1985) summarized information gathered from a survey of 800 students and parents from throughout the United States. Views from 1,100 band directors who were members of the National Band Masters Association in 1984 and 202 music dealers who were members of the National Association of School Music Dealers, Inc. also were solicited. Brown's report includes sections about trends in instrumental music programs from 1981 to 1985 , benefits of band, beginning band recruiting dropout issues, influence of dropouts on high school band quality, beginning band recruitment, and retention in band. Brown identified 19 reasons in five broad areas why children drop out of band. The reasons included concerns about the program, conflicts, children, expenses, and parents. The most reported reasons for students dropping out of the instrumental program, listed in order of frequency reported, include (a) it's too time consuming, (b) conflicts with participation in sports, (c) conflicts with other school activities, and (d) fear of failure. Directors reported five reasons why students drop out of their programs: (a) lack of parental support, (b) class schedule conflicts, (c) conflicts with participation in sports, (d) conflicts with after school jobs, and (e) conflicts with other school activities.

## Procedures

During Spring 1994, questionnaires soliciting views regarding reasons for student dropouts in instrumental music were sent to 99 middle or junior high school band directors in three large urban counties of South Florida: Broward, Dade, and Palm Beach. Responses were received from 50 of the 99 directors; the response rates for the respective counties were Broward - 39\%, Dade - $63 \%$, and Palm Beach $-41 \%$. However, because the concern of the study was to make generalizations
regarding reasons for dropouts, data are reported for the 50 respondents as a group rather than by county.

The questionnaire asked respondents to rate on a 4-point continuum the extent to which they believed each of 19 possible reasons, most of which were suggested by the review of literature, was a factor in causing students to drop out of their instrumental music programs. A rating of " 1 " indicated that a listed "reason" was not considered a factor in student dropout; a rating of "4", however, indicated that a reason was considered a major factor in student dropout. A few possible reasons not drawn directly from the literature, but which were believed to be potentially relevant based on the investigators' experiences and perceptions of the problem, also were included in the questionnaire. Finally, directors were asked to rate the extent to which seven additional variables suggested by literature appeared to prevent their instrumental music programs from realizing the level of student participation and overall success that they might envision.

## Results

Table 1 summarizes in mean rank order the 50 responding directors' ratings of the 19 listed reasons for students dropping out of instrumental music programs. The table provides both the number and percent of respondents' ratings on a 4-point continuum and the means and standard deviations of their ratings for each reason.

The only "reason" with a mean rank greater than 3.0 on the 4-point continuum was "lack of commitment to work." Reasons with mean rankings between 3.0 and 2.5 were (a) loss of interest, (b) scheduling conflicts, and (c) lack of parental support. Reasons with mean rankings between 2.5 and 2.0 included (a) competing interest in sports, (b) lack of success on instrument, (c) lack of musical ability, (d) lack of communication and encouragement from senior high school band directors, (e) too little time, and (f) cost of instrument. The mean rankings for other reasons, which included (a) lack of time for individual needs, (b) student reactions to director/teacher, (c) band classes too big, (d) fear of failure, (e) peer pressure, (f) performance pressure, (g) student dislike of band music, (h) lack of recognition for accomplishments, and (i) after school jobs, were all below 2.0; the mean for after school jobs was below 1.25.

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insert Table 1 here
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Table 2 summarizes directors' ratings of the perceived deleterious effects of the seven additional variables on the level of student participation and the overall success they envision for their respective programs. The only variable yielding a mean rating greater than 2.5 was a perceived lack of adequate financial support. Five other variables, (a) socioeconomic level of student population, (b) lack of support for band program by schedule makers, (c) classroom management concerns affect instruction, (d) lack of overall administrative support, and (e) lack of planning and preparation time, yielded mean ratings between 2.5 and 2.0. The final additional variable, excessive number of required performances, was viewed as having little impact.
insert Table 2 here

## Discussion

Three of the four highest rated possible reasons for student dropout essentially support findings of previous research; "loss of interest," "scheduling conflicts," and "lack of parental support" apparently are perceived as continuing problems with respect to loss of students in instrumental music programs. However, the reason perceived by directors as the major contributor to student dropout, student "lack of commitment to work," had not emerged in previous research. Apparently this psychological variable, which reflects a strong affective component, dominates the other possible variables, at least from these directors' perspectives.

Obviously, the 19 reasons included in the questionnaire were not discrete, but the nature of the data elicited, which is essentially descriptive, does not allow for examination of relations among the variables or for any cause-and-effect analyses among them. However, "lack of parental support" may be a contributing factor to "lack of commitment to work." Whether "loss of interest" contributes to, or is a result of, "lack of commitment to work" is unclear.

Three possible reasons for which responses in the present study seem to substantiate previous research were "scheduling conflicts," "competing interest in sports," and "too little time." Both scheduling conflicts and interest in sports were among the highest rated reasons for student dropout both in previous research and in the present study. "Too little time," a mid-level concern in research cited by Deurksen (1972) and a high-level concern in Brown's (1985) study, was a mid-level concern for the respondents in this study. A reason for which the present data differed greatly from previous research, however, was "after school jobs," which directors did not consider a reason for student dropout. Perhaps the present study's concern with middle and junior high school dropouts, in contrast to previous research which also concerned senior high school dropouts, would account for this difference.

The rankings of several reasons by the directors also revealed quite different perceptions than some previous research which included students' views. For example, other studies have shown that, for students, "fear of failure" is perceived as a major contributing factor to dropouts, but the directors in the present study did not view this as a major problem.
"Lack of communication with and encouragement from the senior high school" was not considered as major a problem in this study as in Solly's (1986) study, but it was still viewed as a problem, as indicated by its ranking in the upper half of the list. Apparently, the lack of communication and encouragement from senior high school band directors is a continuing problem. Perhaps better articulation between middle/junior and senior high school programs could alleviate some of the dropout problem.

Cost associated with participation in instrumental music is viewed as a mid-level concern in both the present study and in Brown's (1985) study, although in an earlier study reported by Duersken (1972) it was not a problem.
"Lack of musical ability" and "lack of success on instrument" apparently are viewed as contributing
reasons for dropout. The similarity of the mean ratings for these two reasons (2.32 and 2.18) raises questions regarding whether there might be a relationship between the two variables.

Two reasons rated just below the median rating for the 19 reasons were "lack of time for individual needs" and "band classes too big." Most schools in the three counties surveyed provide beginning instrumental music instruction in band classes, and it was surprising to the investigators that these reasons were not rated more highly.

Neither "students reactions to the director/teacher" nor "student dislike of band music" were rated as major contributors to student dropout. Apparently these affective, yet situation-specific, variables were viewed as much less of a concern than the highest rated reason, "lack of commitment to work." The latter, which apparently was perceived more-or-less as a "trait" of today's middle/junior high school students, is viewed as overriding the variables related to the instructor and the music.

Other variables which were considered of minor importance by the directors surveyed were "peer pressure," "performance pressure," and "lack of recognition for accomplishments." Perhaps performance pressures is more a senior high school problem, and peer pressure and lack of recognition simply do not appear to be problems from the directors' perspectives.

Directors' ratings of the impact of the other variables that might have possible deleterious effects on student participation and the overall success of their programs did not reveal any surprising or overriding concerns. As might be expected, "lack of adequate financial support" was the highest rated concern. As the costs of instrumental music programs continue to increase, and when most instrumental music teachers are necessarily involved in fundraising to help support their programs, this is a major concern.

The second highest rated concern, "socioeconomic level of student population," perhaps reflects the sample bias, three large urban school districts, all of which have significant proportions of inner city areas. This finding is consistent with previous research by Klinedinst (1989).

The highest rated concern, "lack of support for band program from schedule makers," tends to corroborate the high rating of scheduling conflicts as a reason for student dropout. Also, two of the three counties surveyed are limited to a six-period school day, which compounds the scheduling of non-required courses such as band.

Variables related to classroom management, lack of overall administrative support, and lack of planning and preparation time apparently were not considered major problems for the sample as a whole. However, they must be concerns for some directors, since more than $40 \%$ of the respondents rated these variables as having negative impacts on student participation and on the overall success of their programs.

In summary, directors' ratings of the reasons for student dropout form instrumental music at the middle/junior high school level perhaps raise as many questions as they answer, but some generalizations seem warranted. Directors' concerns about student lack of commitment to work and lack of parental support seem to be the major issues. Scheduling conflicts and competing interest in sports also are continuing problems, and lack of communication with and encouragement from senior high school directors also is a concern.

Whether the relatively low ratings for some other reasons are reflections of the directors' lack of sensitivity to them or whether they really are not major problems is difficult to ascertain from descriptive data. Clearly, further research that examines the reasons from a broader perspective and that analyzes the data in more sophisticated ways is necessary.

Specifically, future research on the problem should (a) examine factors that will clarify the variables underlying students' lack of commitment to work, particularly as they pertain to study of instrumental music, (b) devise a procedure that will "tease out" the relative contributions of the major variables contributing to student dropout from instrumental music, and, perhaps most importantly, (c) once the relative contributions of the major variables are identified, develop and apply strategies that will alleviate them.

## Implications for Teachers

The respondents' predominating perception that students' "lack of commitment to work" is a primary cause for student dropout in middle/junior high school band programs both raises questions and presents challenges to middle and junior high school band directors. Perhaps the most obvious question is "Are the respondents' perceptions indeed accurate?" Is student lack of commitment to work really a predominate cause of dropout, or is this just a convenient way for directors to explain student dropout? What would parents, counselors, and students rate as the predominate cause of student dropout in band programs? Clearly, this perception needs to be examined from other perspectives.

Assuming, however, that band directors' perceptions are correct, then they face a special challenge in finding ways to motivate students. Traditionally, music teachers tend to believe that musical experience in and of itself should be sufficiently rewarding to motivate students to participate and achieve in music classes, but experienced teachers know that this is not sufficient for all students, particularly in the beginning and intermediate stages of instrumental music where skills are still being developed. So, the challenge remains: What can directors do to motivate students to work toward developing the skills necessary for successful and enjoyable pariticipation in middle and junior high school band programs? Is a sense of accomplishment in learning to play an instrument and the resultant band experience sufficient to maintain student interest? While we'd like to think so, this may not be the case. Directors may need to re-think their instructional and motivational strategies to meet this challenge.

Finally, researchers' examinations of the variables underlying student commitment (or lack thereof) may offer ideas that directors can draw upon to motivate students in band programs. Perhaps the combined efforts of researchers and directors will result in some answers to the dilemma of motivation in middle and junior high school bands.

## REFERENCES

Brown, J.D. (1985). The Gemeinhardt report 2. Elkhart, IN: Gemeinhardt Company, Inc.
Duerksen, G.L. (1972). Teaching instrumental music. Washington, D.C.: Music Educators National Conference.

Hartley, L.A. (1991). The relationship of student attitude, enrollment, and retention in instrumental music to beginning instruction grade and grade level organization. Dissertation Abstracts international, 52, 1247A.

Klinedinst, R.E. (1989). The ability of selected factors to predict performance achievement and retention of fifth-grade instrumental music students. Dissertation Abstracts International, 50, 3381A.

McCarthy, J.F. (1980). Individualized instruction, student achievement and dropout in an urban elementary instrumental music program. Journal of Research in Music Education, 26 (1), 59-69.

Sandene, B.A. (1994). Selected personality variables as predictors of attrition in instrumental music. Presented at the Music Educators National Conference convention, Cincinnati, OH.

Solly, B.J. (1986). A study of attrition from the instrumental music program in moving between grade levels in Cherry Hill, New Jersey. Dissertation Abstracts International, 47, 2877A.

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 where music teachers share real-world tips
## Retention in Band from Middle School to High School <br> May 28, 2019 <br> Stephanie M. Maletz

## Lhe Like 292

Sometimes I am amazed at where I ended up in music considering that I almost quit band after my eighth-grade year. This past fall, when it was time to pick a topic in my graduate research class, I knew exactly what I wanted to research: Retention in Band from Middle School to High School.

There has been plenty of research on the motivation to continue instrumental music after the first year of instruction and continuing instrumental music after high school. The recent studies in music retention have shown the decision to continue in instrumental music is highly influenced by the (a) social interactions, (b) life experiences, and (c) support systems that are accessible to students in the early stages of music making.

Even though researchers have found some elements related to retention in instrumental music after the first year of instruction, very little research focuses on
the student perspective to continue instrumental music from eighth grade into high school and how it correlates with the recruitment tactics of the high school teacher. In my study, I interviewed five high school band directors about their current recruitment practices and the relationships they maintained with their feeder schools. In addition, their freshmen students ( $N=148$ ) completed an online 19 item questionnaire on a 5-point Likert scale with open-ended responses.

## The Findings

Findings from this study found that freshmen band students were considerably involved in other programs including other music ensembles (41\%), AP classes (49\%), and extra-curricular activities (85\%) - particularly female students. This additional involvement was a powerful deciding factor on whether or not students signed up for band in high school.

Although students who excel academically are more likely to stay in band, internal scheduling conflicts could reinforce student drop out within school band programs with $91 \%$ of students indicating future AP coursework.

The social and life experiences were rated the highest in students' decision to join high school band. Students were more driven to sign up for band if they knew someone in band and if they had reoccurring interactions with the high school students. Marching band provided social opportunities for freshmen to create a vast network of friends before their first day of high school. Current band students attributed student drop out because of a lack of identity to music, or their life was moving in another direction.

View or download my TMEA research poster.

## What We Can Do as Directors

While some of these factors are beyond our control, many remain which we can influence. Here are some suggestions for ways we can help retain our band students into high school.

## Visibility in Feeder Programs

As soon as students enter our programs in beginning band, they need to have constant interactions with their future high school director. This helps to develop a level of comfort for students. I have been in situations where there has been very little to no interaction between the high school director and my middle school. It's an incredibly tough job to sell band in high school when students have not seen their future director. As tough as it may be (especially if you're a singleton high school director), make the effort to see your future students! Here are a few examples of these types of interactions:

- High school performing with different ensembles at their feeder schools (including elementary feeders)
- High school director leading middle school sectionals
- Have high school director conduct a piece with each middle school group for a concert
- Around contest time, have high school director judge and clinic groups


## Teacher Likeability

I hate to say it, but this does have an impact on whether or not our students continue in our elective classes. Enthusiasm is infectious and contagious! Our students need to know that we value them as individuals not only when they are in our class but also outside of our band halls. This is especially true for middle school directors. If we cannot hook them early in middle school, they might drop before they even get to high school.

- Be visible outside of the band hall
- Attend/work at sporting events, plays, concerts, etc.


## Collaborations

The more opportunities to collaborate with your feeder programs, the more likely students will continue band after middle school. This includes having high school students socialize more often with middle school students. By placing high school students in mentoring positions, they help take away the "fear" factor of high

- 8th grade (insert sporting event here) night
- All-city concerts/band-o-rama
- Joint concerts at the high school
- High school students mentoring middle school students with music
- Side-by-side rehearsals with middle school contest music


## 8th Grade Parent Night

The prospect of high school band can be overwhelming for new parents and students. To help, have a meeting (before the high school scheduling process begins) to inform students and parents about high school band.

- Discuss time commitments during and outside the school day along with financial obligations and concerns
- Provide mock four-year schedules for different career trajectories
- Provide opportunities for new parents to ask questions to the veteran band parents
- Have high school students give tours to middle school students as the parent meeting is happening


## Scheduling

Our students, like ourselves, are busy people involved in multiple organizations with varying responsibilities. Being flexible and accommodating is the key to keeping every student in band because it is a powerful deciding factor on whether they continue. Although students who excel academically are more likely to stay in band, internal scheduling conflicts could also reinforce student drop out within programs. It doesn't hurt to know the preferences and favorite foods/drinks of your scheduling department.

## Exit Interviews

Students should be required to have a conference and/or fill out a survey asking
them the reasons why they want to discontinue. This level of reflection could provide additional opportunities to be explored before students leave especially between eighth and ninth grades. We will never know if we do not ask.

## SmartMusic can help with student retention. Try it for free.

## Closing Thoughts

As much as we would love it if every student continues music year after year, drop out is inevitable. Remember to focus on the students that you did win over. Just like beginning band recruitment, recruitment for high school takes careful planning and collaboration between all parties because there is a direct correlation between director involvement and the numbers.

Every student deserves our best, every day.


Stephanie M. Maletz recently finished her master of music education degree from the University of Texas at San Antonio where she served as the graduate music research assistant under Dr. Kristen Pellegrino. Previously, Stephanie was a band director for five years in Wisconsin before moving to Texas to pursue her degree. She is currently the assistant director at Lake Travis Middle School located near Austin, TX. Additionally, Stephanie has also been recognized at her undergraduate alma mater as one of their Distinguished Young Alumni and has conducted the National Band Association: Wisconsin Chapter All-State Junior Honor Band.

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