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ENG 225

PSYCH 322

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Empowering Our Future Through Music Education

Music creates a window into the soul and a pathway into the heart. It does not find its home in a certain race, gender, or culture; instead it tells a story that creates a change in every person it encounters. At twenty years old, music has been a vital piece of my life for as long as I can remember. What started as enjoyable background sounds evolved into a passionate adoration when implemented into my education. Music has a profound psychological effect on the minds of children and can completely alter their future. Studies have shown the exponential benefits of music education for students. Yet our society's view of the importance of music has diminished and has become reflected in the legislative policies that result in the removal of music from our schools. Our nation has the opportunity to reverse the trend before this problem causes a catastrophic deprivation in our future generations. The integration of music into a child's education is essential to our nation's future due to the psychological and physical adaptations created in the brain.

As students work their way through the American education system, they become molded by societal expectations and norms. Today that results in the belief that the "core" classes such as math and science are the classes that matter in life. Students are often told that in order to succeed in the future, it is fundamental that they do well in these core classes. Not once is a student told that the information learned in "extra" classes, such as music, can give them the opportunity to enhance their education to the extent that it will take

them to a higher level of intellectual functioning. Yet this stigma on non-core classes leaves children believing that classes such as music are there just to fill the space between the “real” classes. By ingraining this thought process into the minds of our future generations the possibilities of our society become infinitely diminished.

The main purpose of a child’s education is to give students the cognitive abilities to be members of society who contribute to the betterment of our nation. Cognitive functioning includes all of the intellectual processes that are perceived such as thoughts, actions, reasoning and remembering. In our current society intellectual functioning such as IQ, numerical abilities, and scientific reasoning are seen as the most important skills in a child’s development and our education system attempts to foster those skills by emphasizing the core classes. Yet in a study conducted at the University of Oregon it was found that “there were strong and significant improvements in non-verbal IQ and numeracy and spatial cognition within...children who received music training”(Neville et al. 106). This psychological study shows that the essential cognitive abilities of children can be enhanced when music is integrated into a child’s education and can then be measured as seen in the improvement of IQ.

But in the eyes of our society, what’s even more important than IQ is how mathematical skills are infinitely improved in a child. The application of music education is vital for mathematical skills because in order to understand rhythms and musical patterns, math skills such as recognition, proportion, ratio, and fractions are essential (Schlaug, Norton, Overy, and Winner 226). These psychological studies prove that the current stigma on music education has become skewed. When music is integrated with a core education, intellectual functions and mathematical abilities are improved. Without music education, cognitive function will be lost and the potential of innovative and creative minds that can work their way through our structured society will never propel into the future.

The cognitive abilities that are gained through music education are further enhanced by the physical changes that are made in the brain. When a child is developing, the area of the body that is most rapidly emerging is the brain. If implemented at a young age,

the impact of music education can be even more profound upon a child's future. By changing regions of the brain, our society has the opportunity to enhance abilities that would be otherwise very difficult to enhance. In a study conducted at McMaster University in Canada it was "found that the corpus callosum, which reflects interhemispheric communication, develops differently in 5- to 7-year old children taking music lessons compared to children not taking lessons" (Gerry, Unrau, and Trainor 398). They then found that the development in the students who took music classes allowed faster comprehension and better coordination of their thoughts.

The development of the corpus callosum is essential in the abilities of brain areas included in the premotor cortex, which is responsible for voluntary movements, the visual cortex, and the parietal lobe. This development of the parietal lobe includes areas that control spatial recognition, areas of speech and mathematical processing (Martini, Timmons, and Tallitsch 1). Music education has the possibility to physically change the development of a child's brain. Combined with the cognitive abilities that are gained with music education, a child is provided with an intellectual advantage over their peers. This is the type of mind our society is looking for and one that will create an innovative thought process to lead our future generations. There is only one way that this well-developed mind can be created: through music education. It takes no more than a one-hour class a few times a week, between math and science classes. When music education is presented to the minds of the young, it can become embedded into the soul of the student so that it evolves into more than just a class—instead an hour of freedom from the constraints and pressures of society.

When I was six years old I walked into my first music class with Mrs. Engle, a sweet woman with gray hair and rounded glasses. She closed the door and put us into groups of four and had us sit in a circle. Each group was given a simple pattern of sound, such as "clap clap stomp" or "snap snap snap snap." She put it all together and by the end of my first music class I had participated in the creation of my first song. This exercise alone helped enhance my auditory skills, pattern recognition, and rule following abilities. In one hour I became

addicted to the art of music, one that would become a passion that would lead me to a successful future with endless possibilities.

As I grew older I progressed within my classes, learning how to memorize with every piece of music sung, enhancing my pattern recognition, which became useful in algebra, geometry, and even calculus. But in addition to the cognitive abilities that were painted by my choral director, I learned how to work in groups, how to be a leader when needed, how to lead a song, and how to follow the commands of one person. And more importantly than anything, I learned how important life is. My music education gave me the opportunity to see the beauty in this world and that there is more to learning and living than just equations and steps. My senior year of high school we sang Bach's Requiem, and I will never forget looking out past my director to see the audience frozen in time with tears in their eyes from the sound that my choir made. Music education gives more than social and intellectual skills; it gives students the ability to learn how to connect with strangers. This skill alone can change the entire demeanor of our society to create a more harmonious future.

Yet it seems our government does not want this type of future. In the past ten years there have been several legislative acts passed to reduce the amount of music education in a child's life. The public's responses to the laws are some of the most controversial topics discussed in the past 15 years. Many agree with the psychological research shown above that music education is essential, but some others disagree and believe that music education is not worth the time. A common opinion against music education is "If a subject is not tested, why teach it?" (Dillon 2). This mindset embodies what many believe and this is why our society allows legislative policies that indirectly reduce or remove music education.

The most influential of these laws is the No Child Left Behind Act, which was passed in 2002 by President Bush. The goal of this law was to address the nationwide crisis in education by creating a higher level of accountability by the states. This was done by requiring annual testing, report cards, higher teacher qualifications, and raising students' scores to a proficient level by the year 2014 (Editorial Projects in Education Research Center 1). The intentions

of this program were to improve the quality of education and intellectual ability of students across the nation.

Unfortunately, the final requirement of this law, scores at a proficient level, was a long road for most schools across our nation. States responded to this requirement by using more money and time in core classes such as science and math, which in turn meant the removal of other academic programs. Music education programs were always the first to be cut from the curriculum, despite all of the positive research for child development. *The New York Times* justifies the No Child Left Behind Act by showing its success: “since the passage of the federal law, 71 percent of the nation’s 15,000 school districts had reduced the hours spent on music and other subjects to open up more time for reading and math” (Dillon 1). This means that 10,650 school districts, thus approximately 106,500 schools, have reduced or removed their music education programs. The number of children that have been deprived of the proven physical brain growth and cognitive advantages from music education could possibly be in the millions. Already the majority of our future generations will not acquire the mathematical, spatial, and intellectual abilities that are attributed to music education. Dillon is correct that this law has been successful in its implementation, and it is true that the intentions of this program have been achieved. But many fail to see that the negative consequences from the removal of music programs, such as the loss of cognitive and social abilities for a child, outweigh the gains in core-curriculum areas.

The No Child Left Behind Act argues that by removing extracurricular classes, students’ achievements in core classes will be improved. The mentality of our society has become extremely narrow-minded. It follows the thought process that cognitive improvement can only be achieved by the complete removal of any classes that are not considered core classes. But one student’s mother took a very different view on this issue. She tried to convince a school board to bring back their music programs: “music education provides students with intrinsic knowledge, teamwork, and problem solving. Music education can also help boost the low proficiency scores No Child Left Behind has left you all so concerned with” (Bell

1). Bell proposes a simple solution to this enormous problem: the combination of music education classes with a vigorous and intense core curriculum. By combining these two types of education, students will have the opportunity to improve their test scores and acquire the other cognitive abilities proven above. This solution combines the legislative desire to improve our national education and achieve innovative abilities. If arts education is added into the new rigorous No Child Left Behind Act, the cognitive abilities of children can be exponentially increased. Why do we have to pick one or the other when we could take the best from both and create a program that will benefit future generations?

We as a society have the opportunity to make a change to reverse the damage that has already been imposed upon the children of our nation. By allowing these legislative acts to be passed we have allowed our desire to compete with other nations to outweigh what is best for our future generations. The research shows that music education aids in the physical development of the brain, which can enhance the cognitive functioning of a child's brain. Despite the intentions of the law "it is clear that music is good for children's cognitive development and that music should be part of the preschool and primary school curriculum" (Oxford University Press 1). Music education is beneficial to all students but it is most impactful upon young children because of the plasticity of their brains. Brain development is most rapidly changing during the preschool and elementary years. The improvement of IQ, mathematical abilities, spatial reasoning, and interhemispheric development can be exponentially enhanced when implemented at a young age. But in addition, there is a relationship between brain structure and function of children and the number of years of musical training has been proved to have a positive correlation (Penhune 1129). The longer amount of time that we can expose a child to music education, the better chance they have to receive all of the positive outcomes that result.

There is little to no research to show that the removal of music programs has any benefit, but there are copious amounts of research to prove that music education will actually make our children smarter and better prepared for the future. By offering

a child the opportunity to learn in a different environment, their brain will be physically better prepared to actively participate in their education. Their cognitive functioning will be at a higher level of development thus allowing these children to achieve the standards of education that our government is looking for. Most importantly, our future generations will be given the opportunity to work within art, creating an entirely new perspective for them to develop from. Music education, in addition to the cognitive advantages, gives children an opportunity to become a piece of a larger picture.

Music provides an escape into a world filled with passion. Without passion, our society will evolve into nothing more than a mirror of the numbers that dominate our society. But if we take action and work to reinstate music programs across the nation, the future of America can be improved both intellectually and interpersonally. Music education creates a window of opportunity that can bring children into a world of higher-level thinking and an intellectually stimulating life. The need for this type of future is much greater than the need to test well, and if reinstated correctly, music education can provide a bridge into both futures that our society envisions and requires.

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