The Theory of Music

In hard economic times, such as the present era, state legislators, council members, and other appointees are seeking ways to reduce monetary expenditures in the United States. Thus, citizens, especially in California, are seeing and experiencing higher unemployment rates, furloughs, increased prices on commodities, cuts to their health care plan, and cuts in education. Is it not interesting and somewhat questionable that when difficult times come, the first thing that is removed to “save the country” from more economic debt, will in the long run ruin our nation? Presently, the “Baby Boomers” are running the country, and my generation is here to eventually replace them, and the following generation to take over after that. However, how can a proud, developed nation, such as the United States, continue to be a leader in the global economy, government, and trade if the following generations are subject to a faltering education? A cut supposedly to save the economy today, will lead to economic ruin; rest assured that the cuts in children’s and higher education are not depriving them of the basic math, reading and writing skills; they are, however, taking away the arts – dance, art, and music. Some may argue that investing money and time into the arts is a waste of time that could be better spent in studying or other academic expenses, but I beg to differ. Music is not only the key to creating better leaders, but also increasing reading comprehension and other academics.

Although its effects may be invisible to the naked eye, music plays a vital role in the development of the brain. Playing an instrument has been proven to “enhance spatial-temporal
reasoning,” which is used to “think and reason” a problem and then form and visualize a solution, thus helping students to better grasp concepts in both math and sciences (Shaw 273, 274). This is in part due to the makeup of music; music is math. Most everything in music is linear or symmetric where rhythms and note values are merely mathematical formulations; a quarter note is half the value of a half note, which, in turn, is half the value of a whole note, and a whole note is eight times the value of an eighth note, et cetera. Students who can play music have a solid understanding of fractions and are able to use their previous knowledge to understand more complex rhythms or mathematical equations.

Music not only helps students better understand math, but helps in reading comprehension as well. More specifically, it creates a thicker and stronger corpus callosum, which connects the right and left hemispheres of the brain (Music 6). What is so significant about this? The corpus callosum transfers sensory and motor information from one hemisphere of the brain to the other, allowing the brain to simultaneously react or respond to an event (sensory images received are responded by motor actions). Additionally, it “plays an important role in higher cognitive processes,” or the thinking process, and sends out signals to engage other parts of the brain to process information (Reuter). The “thicker and more fully developed” corpus callosum in musicians shows that music “enlarges existing neural pathways and stimulates learning and creativity” (Campbell 192). Thus, music helps people see alternative ways to thinking and seeing material in a different light.

Besides the increase and development of the corpus callosum, there is also a differentiation in the planum temporal of musicians and non-musicians. The planum temporal, located in the temporal lobe, is related to some reading skills—language processing—as well as
categorizing sounds—music processing—thereby proving that music and language are closely associated (Campbell 192, “Brain”).

In addition to these parts of the brain involved, there are other aspects of music that contributes to increased reading comprehension, the aesthetics and calming effect of music. It has been suggested that music is a way to “warm up the brain” allowing one to concentrate more on the task at hand (Campbell 15). Not only that, but “listening to music is further assumed to produce changes in the listener’s emotional state and thereby affect his or her behavior” (Psychology 501). After a stressful day in school, at work, etc. music can help calm the mind, and allow people to concentrate on the task at hand. In relation to reading, music can be used to “raise performance levels and productivity by reducing stress and tension, masking irritating sounds, and contributing to a sense of privacy” (Campbell 199). Our brain is just like the rest of our body; it tires after long usages. After a certain amount of time working or studying, it becomes increasingly harder to concentrate and function on the task at hand. This is why breaks are necessary; they allow the brain to take a breather and come back refreshed. Taking a break and playing some music, or even just listening to some, can drastically improve performance; it not only allows part of your brain to relax, but also initiates other parts and allows one’s subconscious mind to uncover solutions. For example, whenever Einstein “felt that he had come to the end of the road or into a difficult situation in his work…he would take refuge in music, and that would usually resolve all his difficulties” (Shaw 7).

Some may claim, however, that music is a distracting noise and should not be listened to while working, studying, or reading. They argue that subjects listening to the radio or pop music, that is “fast, familiar, vocal music,” draws their attention away from tasks (Furnham and Strbac). It is crucial, therefore, to first define what genre of music people listen. Familiar words and
phrases distract people who are concentrating on other matters, yet classical music has a different effect; its long, detailed harmonies and rhythms provide complex yet linear motion rarely, if ever, present in pop music, and there are no familiar words to drag people away from their work or task at hand.

As increasingly apparent, music participation in schools is rapidly declining as more and more public schools are cutting their music programs. Many school boards and educators, however, fail to realize the importance of such a program. While it may be an expensive program, it has the ability to bring in money, and not only that, but encompass many of the subjects taught in school. As already previously mentioned, music helps with the brain’s thinking process and conceptualizing the maths and sciences. And on top of that, music encompasses skills and lessons that are not always taught within the core curriculum, such as communication skills, cooperative learning, leadership skills, and learning to sit still and listen. It brings with it joy, self-fulfillment, and self-confidence that is not taught to other students; how can students without a musical background feel the same sense of accomplishment of mastering “Hot Cross Buns” and playing it in front of their peers and family? Or playing your first solo and having the audience roar with applause? It’s a feeling that will never leave, no matter your age. This feeling, the skills, the education, all of music helps create better people in the world who can lead, think, and analyze. So why again is music being cut?
Works Cited


