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## The Benefits of Music Education in Urban Education

### Abstract

In an attempt to show the benefits of music education in urban education, a student observer's own accounts are analyzed alongside empirical data. The studies of *Adrian Hille & Jürgen Schupp* (2015) and *Peter Miksza* (2012) are paired with her own anecdotes to create a full picture of music's effect on a child's education, especially those from lower income environments. Conclusively, it is found that urban education thrives in the presence of music education, and that the slow stripping away of music programs in American education is detrimental to these benefits, especially for those in impoverished areas where the benefits can be extremely useful.

### Introduction

Music education has always been an important aspect in children's lives, but it now finds itself in danger in many forms. The freedom of expression and encouragement to find oneself through music practice and performance can take a student that is having a more difficult time in school and transform them into a different student altogether. Through the education of music, it has been found through educational empirical studies that children's other skills, both social and academic, can improve by amounts not seen by their non-musical peers. In a study done by The University of Colorado at Boulder, a reevaluation of a longitudinal education study with a bioecological development model showed that the relationship between music participants was shown to have significant correlation to math improvements, being concerned about community ethics, and being more committed to their schoolwork, (Miksza, 2010).

In an urban environment, this can be an especially important aspect in a child's school environment, since, despite having much higher dropout rates than most, schools that fall in lower income neighborhoods have greatly benefited from the increases in positive personality traits and academic performance shown in students who pursue music. In a study done by the German Institute for Economic Research (DIW) Berlin, it was found that not only did learning a musical instrument place grades of children one sixth of a standard deviation above their peers, and were also found to be more conscientious and ambitious. More importantly, they found that these personality and grade improvements are much stronger in deviation among those who come from lower income families, (Hille & Schupp, 2015).

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Observations by a University at Buffalo undergraduate student echo these sentiments, as she stated that the general population of the high school that she interacted with, PS 206 South Park High School [South Park, South Park High School] in Buffalo, New York, were rowdy and not abiding by rules, such as staying in class and not leaving the building. In contrast, when she was interacting with students from the advanced choir<sup>1</sup> over the period of several weeks, they were passionate about making music, achieving academic excellence, and creating a positive environment for each other, (Mattulke, 2018).

### **Background Information**

The ability to participate in music making that strengthens students' social skills and academic abilities is a repeatedly observed important addition to any child's life, and the slow stripping of these programs from various school districts is a problem not only in the urban schools of New York State, but nationwide, proves to be a problematic threat on the horizon.

In 2015, the number of full-time music employees in the Buffalo Public Schools was only at 24.16, with 14.1 of them for all of the high schools, (Lowinger, 2016). Two of those employees are at South Park High School, and the value that the children place into the program and the benefits that it gives them is evident<sup>2</sup>. These employee numbers are spread across the rest of the Buffalo public schools, of which there are ten early education to elementary schools, twenty-nine combined elementary and middle schools, six combined middle and high schools, and fourteen high schools.

Music education in South Park is done through the band program, the orchestra program, the choir program, and the Music in Our Lives general music class. This is echoed in many other Buffalo Public schools which still have a music program, of which there are few left, due to this lack of staffing. In the logs kept by the student volunteer, she states that, according to the students of South Park High School, there has also been a fight to keep the school's music program there. As shown in the school's budget allotments<sup>3</sup>, the music program is highly undervalued and given little funding compared to programs such as physical education, reducing the possible number of employees and schools that can support this program.

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<sup>1</sup> Individuals which, she later states, are more musically involved and passionate than the students in the general choir.

<sup>2</sup> As stated by the student observer in her logs of her time working with the students.

<sup>3</sup> See Table 1.

Keeping the factors of a shrinking program and budget in mind, the student working at South Park sought to look for the true value of the music program to the school, and here, the comparison of this account to empirical data will be analyzed.

### **Methodology**

In order to get a proper contrast to the general population of South Park as compared to that of the music program, the student volunteer used both her general observations during the passing periods of students in the hallways, as well as her paper grading and organizing for the choir teacher's general music program<sup>4</sup>. In order to get a musical student's perspective, the student also assisted with the choirs' repertoire learning by singing along with them, and interviewed the students to get to know their personalities and opinions. She also spoke with the instructor, Brett Ransom, to gain more information on his musical programs and the Buffalo Public School musical education as a whole, (Mattulke, 2018).

The study done by the German Institute for Economic Research takes data from the German Socio-Economic Panel (SOEP). SOEP was a longitudinal study that contains over 3,000 pieces of survey data from students and their respective household throughout their development from elementary to high school. This study recorded factors such as the background characteristics of home life, the students' respective music activities, and a contrast to the effects of music education in the child's early life as compared to their later years. The study specifically quantified data from the controlled portion of the sample that played music at seventeen years old and had started to do so at around age eight, and had received extraneous music training, in order to weed out those who did not wish to continue with music or had dropped out before seventeen. The rest of the variables, such as economic status and family background, were used as the randomization of the sample.

These students were then tested on their cognitive skills with a standardized test, grades in their first and second language areas, and mathematics to assess their academic abilities. The test also assesses student personality using a Big Five personality trait<sup>5</sup> test, as well as a student's perceived control<sup>6</sup> and plans for their future. These results were compared alongside the

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<sup>4</sup> Although this is considered a music program, for many students taking this general music course, it is just a way to fulfill their art credit they need to graduate from school. Therefore, the student observer did not consider them serious music students who could receive any extra-musical benefits.

<sup>5</sup> A personality psychology theory that assesses the main aspects of an individual's personality as the five main traits of conscientiousness, openness, agreeableness, extraversion, and neuroticism. Other personality traits are said to derive from these in a sort of hierarchy fashion.

<sup>6</sup> A philosophy of personality psychology that an individual has the ability to control their own destiny. A high level of perceived control equates to an individual believing that they have more autonomy in their lives.

student's background information, as well as their musical career, and were analyzed for improvement or superiority to peers over the course of the study, (Hille & Schupp, 2015).

The study done by the University of Colorado at Boulder drew its data from the National Center for Education Statistics, Education Longitudinal Study of 2002 (ELS2002), which collected scores of 12,160 high school sophomores from 603 high schools across the United States, who responded to the inquiry of having participated in a musical ensemble. Of this sample, 30.5% of it was from urban high schools.

The study then analyses the students with and without musical education in terms of their academic performance in mathematics, community ethics consideration, and commitment to attending school consistently and on time as its outcome variables. These variables were then analyzed using several multi-level models, (Miksza, 2010).

## **Results**

The results of the experiment done by the German Institute for Economic Research showed that, without taking any factors of family characteristics, students who practiced a musical instrument scored one half of a standard deviation above their nonmusical peers, cognitively. Also, as stated before, students who practiced a musical instrument score one sixth of a standard deviation above their peers in terms of their school grades. In regards to personality, children who learn a musical instrument were found to be one fourth of a standard deviation more conscientious and open to experiences than their peers. They were also eight percent more likely to aspire to attend university. In addition to this, the study found that differences in cultural capital among students who played a musical instrument played a larger part in the magnitude of these outcomes. Students who came from lower income families were more likely to experience larger gaps in grade superiority and personality differences than their peers of similar income, and achieve grades closer to those who are from higher income families, who typically achieve higher academic scores. This supports the hypothesis made by Dr. DiMaggio in 1982, which stated that those students who come from lower income families and lack certain resources that students of higher income families have can have this gap supplemented by the learning of a musical instrument, (Hille & Schupp, 2015).

In the experiment conducted by the University of Colorado at Boulder found that music participation was a significant positive predictor of math achievement scores, community ethics, and commitment to their studies, even after controlling for students' socioeconomic status,

minority status, and peer influences. Music's positive effects were also not swayed by the variables of urbanicity, teacher's music certification, and number of music teachers. These factors display that socioeconomic backgrounds and urbanicity do not affect music's effectiveness at improving a student's career, even when they lack in properly certified music teachers, supporting the results of the German Institute for Economic Research in that urban environments can benefit just as much, if not more from the effect of music education, (Miksza, 2010).

This empirical data runs parallel to the experiences of the University at Buffalo undergraduate student. The city of Buffalo, which can be a highly impoverished area, was found to have children in the advanced choir were politer and more conscientious to the adults in their life, were more passionate about learning, and were kinder to their peers and genuinely concerned about their peers' well-being. Additionally, she states that these students were concerned about their academics, a few students even sharing distress over receiving a grade below a ninety percent in a class at the end of the marking period.

In contrast, the students who were not heavily involved in music lacked this ambition and discipline that seemed to be present in all of the musically involved students. Those who did not participate in the advanced choir tended to be louder, rowdy, and less well-behaved than those who did. She even comments about seeing a fight erupt right outside the choir room door when she was making her observations. Not only this, but they seemed less academically eager and less likely to do their work, which she noted seeing on the general music class assignments, which would either not be completed, have one to two words written on the page, or just have the child's name on it. The instructor even told her that some of the names that were written on the top of the blank assignments were done by him for the students, because they would just hand in a blank page (or not hand it in at all). This lack of conscientiousness and ambition, when put alongside the empirical data, seem to correlate well with the inclusion of a thorough music education in the children's lives, (Mattulke, 2018).

## **Discussion**

South Park High School, in comparison to other schools in the Buffalo Public School district and the state of New York, falls below the line in many educational marks. Out of the 827 students that are enrolled at the school, 33% have tested proficient in mathematics, and 67% have tested proficient in reading. Out of the 67% who did not test as proficient in mathematics,

39% of the students fail to meet common core expectations, and of the 33% who did not test as proficient in reading, 22% of those students fail to meet common core expectations. The district scores, in comparison, have a 52% proficiency in mathematics, and a 72% proficiency in reading. The state, to give an even further comparison, has a 60% student math proficiency, and an 80% student reading proficiency score. Their participation rate in Advanced Placement courses (AP courses) that will give them insight and credits into the college experience is 4%, and none of the students in this percentile pass the AP final exam. The school's graduation rate is 58%, and 66% of the students who attend the high school are economically disadvantaged<sup>7</sup> and 52% of the students are of minority status.

With these statistics in mind, the addition of music to the education of the typical South Park student would not only be beneficial, but crucial to certain elements of their academic success. The encouragement to keep coming back and practicing a musical instrument in an educational environment not only discourages dropout rates, but supplements the children in the areas which they could face larger obstacles in, such as academic gaps and desire for future ambition.

Many of the students from the advanced choir who spoke with the University at Buffalo undergraduate expressed a desire to want to attend a university and pursue a higher education, several even stating that they wanted to go to a school primarily for the pursuit of higher music education. The improvements that music education had brought about in terms of their personality and academics will help them achieve these higher goals, and their conscientiousness for others as well as their heightened sense of community values and ethics will help them go this extra distance.

### **Conclusion**

The observations done by the student of University at Buffalo are not only supported by the empirical articles that were reviewed here, but gave new depth and light into her own observations. The benefits she believed the music was having on the children were unrivaled in correlation to the observed peers, and even in a harder urban environment, with a higher rate for dropping out and academic apathy, the children persevered and showed a desire to succeed.

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<sup>7</sup> Measured by the number of recipients who receive free or reduced-price lunches from the cafeteria.

In relation to the earlier issue of the stripping away of urban music programs, the South Park High School music educators not only deserve to stay and keep sharing their knowledge with the students of the high school, they should be praised for doing so. Giving up music in early adolescence, according to the hypothesis posed by Dr. Switlick and Dr. Bullerjahn in 1999, stems from either a lack of motivation, a critical event in the student's life, or a dissatisfaction with the teacher. This lack of motivation, in the case of urban environments, can primarily stem from lack of opportunity.

In contrast to the budget cuts and financial disparities that the music department faces, this year, a grant has been given to the music department of South Park High School by Shay's Theater in the city of Buffalo, which not only pays for the scripts for the production, but also allots them the costume, script, and set budget for the production, as well as help from Shay's trained specialists. The students of South Park High School this year are thrilled to have been given this opportunity to work with Shay's Theater this year for their musical production of *Once on this Island Jr*, and cannot wait to have this experience.

This is a far cry from their normal theater budget and production which, according to the journal of the student volunteer, who watched footage of the production, last year had the costumes which students brought from home and a reader's theater style choreography and performance. This was mainly due, as explained to her by the instructor and director of the production, to the lack of rehearsal time allotted to the students by the school, as after school hours are limited by the building to only be so long and on certain days of the week. The performance was strong and the students' talent was evident, but they seemed not as familiar with the material as a larger budget and more rehearsal time could have made them.

Conclusively, the analysis of her time that the student provides, with the hypothesis put forward that the children she interacted with in the choir were so different from the peers she met throughout the rest of the school, can be supported by the empirical evidence put forth by both the German Institute for Economic Research and the University of Colorado at Boulder. The benefits of music education to students in an urban environment have been found to be immeasurable in terms of benefits to personality, academics, and ambition. For the students who can use a little extra help when they are impoverished in other areas, music education could be their saving grace, and to take that away is a shameful atrocity that should not be committed by any sane education program.

## **Acknowledgements**

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**Tables**

Table 1  
*Buffalo Public Schools' Budget Plans*

Department	Budget (2017 –2018)	Budget (2018 –2019)	Budget Difference
Vocal Music	\$72,450	\$80,034	+ \$7,584
Instrumental Music	\$57,741	\$86,580	+ \$28,839
Physical Education	\$666,039	\$617,342	- \$48,697

*Note:* These are the projected budgets for the current school year and the year before, and only display the budgets of three programs to show the contrast between music extracurriculars and physical education in terms of priorities in the school's budgeting of their funds.