
Equality in Music Education: An Analysis and a Model Program

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This paper offers a review of the literature concerning how music is taught to school-aged children in America, in terms of frequency and content of instruction. It then outlines how music should be taught to children to optimize both the musical and the extra-musical benefits of music education, according to current research. A number of music education programs that successfully incorporate some elements of these research findings are then discussed. Finally, a model that incorporates the best elements of these programs is presented, along with guidelines for implementation. Throughout, the discrepancy between how music is taught and how it should be taught is presented as a matter of inequality. A lack of teaching standards in music leads to highly variable music programs by state and indeed by districts within a single state. This variability inherently generates inequality, for some programs adhere closely, either by design or coincidence, to the guidelines of how music should be taught, while others fail to meet these guidelines in any meaningful fashion.

The access to a quality music education in America is unequal across students from various regions, demographic groups, and income levels. The lack of national or state standards regarding how this subject should be taught has resulted in a system of education with great variance in both quantity and quality of instruction. Some districts offer a comprehensive music education program, while others do not. Among those that do offer a music program, children participate in a myriad of different activities, regardless of what is developmentally appropriate or most educational. Children enrolled in such programs engage in differing amounts of composing, singing, history, theory, ear-training, instrumental instruction, and ensemble participation, resulting in no two children from two different school districts having the same musical education. Most alarmingly, those children who often experience the most substandard musical education may often be those who are similarly disadvantaged in other domains. In these cases, those children for whom a music education might be the most beneficial are those most likely to be denied such an education (NCES, 1998).

How music is taught

Currently, 43% of students receive musical instruction 3 or 4 times a week, 38% receive it once or twice a week, 10% receive it once a week, and 9% receive no musical instruction (NCES, 1999, 4:3). Even these statistics may be overly optimistic in terms of how they translate into musical knowledge - an NCES survey found that students receiving musical instruction three to four times a week did not perform significantly better than those students receiving no musical instruction (NCES, 1999, 4:1). In addition to frequency of instruction, the content of students' musical instruction varies greatly. At grade eight, the majority of

students reported musical classroom activities that included listening to music, singing, playing an instrument, and composing. Smaller numbers of students reported an in-school ensemble experience, such as band, orchestra, or chorus. Only a quarter of students reported regular concert attendance (NCES, 1998, Arts Report Card). Music appreciation courses, the combination of theory, history, and analysis, is offered in only 50% of high schools, and is offered in very few schools below this grade level (Fowler, 1988).

How music should be taught

These are not the hallmarks of an adequate music program. Contrary to current practice, music instruction should start very early, as children are already very familiar with the concepts of music at a young age (Landis & Carter, 1972). Long before they are of school age, children have developed a large repertory of standard tunes (Hargreaves, 1986), are able to discriminate between pitches of 12Hz difference (a smaller interval than is found in any western musical idiom) (Hargreaves, 1986), and are able to make simple same - different discriminations between melodies (Nelson & Barresi, 1989). In the domain of rhythmic abilities, children will commonly rock and bounce in regular rhythm with a piece of music (Hargreaves, 1986; Swanwick, 1988), and are able to produce regular beat patterns vocally or through some movement (Hargreaves, 1986). Children of pre-school age are able to discriminate between basic harmonies (Costa-Giomi, 1994), demonstrate gradients of tempo (Ellis, 1992; Flowers, Wapnick, & Ramsey, 1997), have a rudimentary understanding of form (Kantorski & DeNardo, 1996), and can produce melodies of different dynamic (volume) levels (Flowers, Wapnick, & Ramsey, 1997).

Currently in schools instrumental instruction does not normally begin until the children

are of middle school age (NCES, 1998). However, children are ready for this instruction when they are of elementary school age. Piano instruction can begin at age two, string instruction at age four, and some wind instruments at age six (NEA, 2000). Many leading musical educators feel that instruction on an instrument is the best way to grasp the fundamentals of music (Keene, 1982; Landis & Carter, 1972). In addition, participation in an ensemble can be critical to learning fundamentals of music and maintaining interest (Colwell & Goolsby, 1992; Kuhn, 1962).

A thorough grounding in the academic areas of music, absent from half of all music programs, is also necessary. This material focuses on knowledge about music; the understanding of music history, theory, and aesthetics, and musical skill, which contribute to the development of the ability to perform, create, and interpret music. The goal of this framework is not to turn every child into a professional musician, but rather for every child to "experience the discipline, the challenge, and the joy of musical creation and to understand intimately the human significance of all the arts." (NCES, 1998). The NEA recommends grade level goals for art instruction, citing grades 1 - 3 as a time for a child to enjoy and explore the arts, and grades 4 - 6 as the time for formal instruction and ensemble participation to begin (NEA, 2000).

Finally, a system of musical instruction that maximizes the benefits of music education in areas beyond music is critical. It is believed that music may help children develop positive beliefs and experiences regarding learning (Nadon-Gabrion, 1984), improve spatial ability through keyboard instruction, (Rauscher, 1993; Rauscher, Shaw, Levine, Wright, Dennis, & Newcomb, 1997), and increase performance IQ scores through song play (Gromko & Poorman, 1998). Music instruction also seems to facilitate mathematical ability (Cheek, 1999;

Gardiner, Fox, & Knowles, 1996; Martin, 1995; Rayl, 1995), as well as language acquisition and retention (Chan, Ho, & Cheung, 1998). In the social domain, music educators provide good role models for students (Hamann & Walker, 1993), and increase knowledge or self-awareness for that ethnic group (Housewright, 1967).

Model programs

A program that incorporated all of these guidelines in offering a musical education could not be found, and hence there exists no comprehensive model for a complete musical education. However, numerous programs do exist that offer some elements of a complete music program. By outlining these programs and then integrating the best portions of each, a comprehensive music education model can be developed.

Instrumental Instruction

One of the excellent music education programs currently in existence is the Instrumental Connection Program run by students of Yale University in New Haven, Connecticut. This program provides free private lessons to public school students of elementary and middle school ages. Each student receives one half hour lesson every week, in an individual or small group format. The students either use an instrument owned by their school, or, failing that, an instrument is purchased by the instrumental connection program and loaned to the student.

This program provides a number of crucial elements to a sound musical education. First, it has been demonstrated that musical achievement is directly linked to private musical instruction (NCES, 1998). This instruction would likely not be available to these students otherwise. For most families involved in the program, such lessons would be prohibitively expensive. In addition, there is no way in which a single music teacher hired by the school

could provide private lessons to so many students.

Providing an instrument to the students is also critical. This also has been linked to musical achievement as assessed by the National Center for Educational Statistics (NCES, 1998). Numerous pedagogical theories of music education make the argument that while classroom instruction in the academic areas of music is important, the most crucial element of music education is the experience of personally making music (Keene, 1982; Landis & Carder, 1972). Certainly having one's own instrument, even if on loan, is a determining factor in enjoying and continuing study in music.

Due to the low student to teacher ratio in this program, the relationship between the student and the teacher often becomes one of a caring mentorship. The benefits of such a relationship, particularly for minority or disadvantaged youth, have been clearly demonstrated (Freedman, 1993; Royse, 1998). In addition, for an as of yet undiscovered reason, teachers of music seem to make particularly identifiable role models (Hamann & Walker, 1993). Finally, the quality of music education offered to these students by their teachers is nothing short of superb. With one in three Yale students having studied an instrument for ten or more years, these students bring a level of expertise to their instruction that benefits and inspires their students (<http://www.yale.edu/banner>).

Similar programs exist at many universities, colleges, and conservatories across the country. Among the most successful are those offered by the Curtis Institute of Music in Philadelphia (<http://www.curtis.edu>), the Peabody Institute in Baltimore (<http://www.peabody.jhu.edu>), and the Juilliard School in New York City (<http://www.juilliard.edu>).

Concert Attendance

Another vital area of musical education is the regular attendance of concerts. It has been demonstrated that such experience is linked with musical achievement (NCES, 1998). More importantly however, concert attendance can be a motivating factor in the study of music. When student ensembles are comprised mostly of beginners, a large cause of program attrition is the simple fact that the ensembles do not sound very good (Walker, 1989). Attending a concert by a professional group can serve to reinforce to the student how good an ensemble can sound, and motivate the student to work towards that goal.

In many areas, attending concerts is difficult for many individuals, due to cost and lack of transportation. However, some professional ensembles have made tremendous efforts to ensure that quality music performances are available to everyone. One such group is the St. Louis Symphony Orchestra's Community Partnership Program.

This program is designed to bring quality musical performances to everyone, particularly those demographic groups under-represented in the typical orchestral audience. The orchestra has offered certain concerts at a very reduced rate. Other concerts (over 300 a year) have been moved to venues in the downtown and metropolitan areas of the cities; most successful among these is the weekly "Tunes at Noon" midday concert series (<http://www.slo.org/cpp/cppHistory.htm>).

The St. Louis Symphony is also active in education programs similar to the ones outlined above offered by institutions of higher learning. These programs involve master classes and individual lessons provided by members of the orchestra. The chance for public school students to receive private instruction from professional musicians of such caliber is a monumental learning opportunity, for the same reasons noted for those children learning

from university students.

The St. Louis Symphony is hardly alone in offering such outreach programs designed to make concerts more accessible. In New York City, the Orchestra of St. Luke's offers free concerts in Central Park throughout the spring and summer every year. In addition, in a partnership with the Graduate School of Education of Columbia University, St. Luke's participates in educational activities similar to those offered by the St. Louis Symphony (<http://www.stlukes.cc/index.htm>).

One of the most unique programs of outreach combines the opportunity for education and concert attendance. Offered by the New York Philharmonic, this program is called the Young Composer's Forum. Students are invited to submit a sample of their work or a statement of interest to the Philharmonic's Department of Education. If accepted, the student is offered free tickets to concerts featuring work by contemporary composers. In addition, the student is invited to meet with the composer prior to the concert to discuss the works to be performed on that evening's concerts.

The most comprehensive musical education offered by a symphony orchestra is also provided by the New York Philharmonic (<http://www.nyphilharmonic.org/>) School day concerts are offered at reduced rates to entire school classes. Supplementing this is the "Musical Encounters" program - for \$3.50 per student, students attend a forty-five minute workshop on the fundamentals of music, sit in with the orchestra, and then attend a concert. Entire schools can become involved with the Philharmonic through its School Partnership Program, which includes professional development seminars for teachers, workshops on children's musical development for parents, the presence of a New York Philharmonic teaching artist in the school, visits by New York Philharmonic personnel to the school,

multiple concert passes, instruments, and supplementary materials, both print and audio.

Academic Instruction

Many organizations, primarily conservatories and professional orchestras, offer instruction in the academic areas of music through precollege programs. In many ways these programs are models of how these areas of music should be taught. Two such programs are the Peabody Institute Preparatory Program and the St. Louis Symphony Community Music School.

The Peabody Institute Preparatory Program is divided into a number of facets, including those that focus on performance and those that focus on the academic areas of music. The Music Certificate Program offers a solid foundation in the fundamental academic components of music, including a minimum of four years of music theory (<http://www.peabody.jhu.edu/>). The program offered by the St. Louis Symphony Community Music School is so rich that it can only be outlined here. The principal component of the program is a four-hour class every Saturday morning, which offers instruction in music theory, ear training, and music history. Part and parcel with this is instruction on an instrument by a member of the orchestra, and free concert passes (<http://www.symphonymusicschool.org/>).

Early Education

As noted above, a vast window of learning occurs between the ages of six months and six years, long before students are of school age. If instruction only starts when children enter school, an opportunity for instruction is missed. Fortunately, some programs do exist for early music education.

The Music Educator's National Conference has published guidelines on how children

should be educated in music before they reach school age. These guidelines state that "A music curriculum for young children should include many opportunities to explore sound through singing, moving, listening, and playing instruments, as well as introductory experiences with verbalization and visualization of musical ideas." The guidelines place an emphasis on the exploration of music through movement, listening, and playing instruments (<http://www.menc.org/publication/books/prek12st.html>).

One program that comes very close to achieving these goals is Kindermusik of St. Louis, subsidized by the St. Louis Symphony Orchestra. Kindermusik is an international effort at a comprehensive early music education involving the parent. Classes meet for fifteen weeks, involve the parent at every stage, and range in size from eight to twelve students. Children from newborns to seven years of age are involved (<http://www.symphonymusicsschool.org/curriculum/youngYears.htm>).

The first stage of the program, called Kindermusik Village, is conducted in weekly forty-five minute classes, and includes children from newborn to eighteen months of age. This stage of the program focuses primarily on singing and speech, taking advantage of infants' tendency to babble and vocalize. Kindermusik Our Time encompasses children from eighteen months to three and a half years. This stage introduces basic musical concepts, such as pitch and rhythm, and the use of the rudimentary percussion instruments. It also involves the linking of language acquisition with song acquisition.

Growing with Kindermusik, which includes children from ages three to five years, involves the concept of critical listening, and introduces basic string instruments. The final stage, Kindermusik for the Young Child, focuses on learning music notation, both through reading and writing. In addition, the Young Child program focuses on honing fine motor skills

through instrumental instruction. Many of these programs supplement these lessons with private instruction on an instrument.

Ensemble Participation

Participation in musical ensembles has been clearly outlined as being of primary importance in musical education. Some of the best ensembles for young children are affiliated with professional orchestras. These include the youth ensembles affiliated with the St. Louis Symphony Orchestra, the Harlem Boys Choir, and the Philadelphia Youth Orchestra.

The St. Louis Symphony Orchestra runs a number of ensembles, including The Saint Louis Symphony Youth Orchestra, The Young People's Symphonic Orchestra, The Young People's Concert Orchestra, The Wind Ensemble, The Percussion Ensemble, The String Orchestra, The String Training Ensemble, and The Middle School Wind Ensemble. These groups encompass young instrumentalists of different levels of ability, or age seven to twenty-two. The groups are sponsored in full by the St. Louis Symphony Orchestra, and the youth ensembles actually share the St. Louis Orchestra's concert hall with them. Members of the St. Louis Orchestra regularly provide coaching sessions for members of the youth ensembles, and each group is run by a professional conductor

(<http://www.symphonymusicschool.org/curriculum/orchEnsem.htm>).

In addition to these instrumental ensembles, the St. Louis Orchestra offers a series of choirs for children as well. These choirs are open for children from ages six to eighteen, and are subdivided according to age and ability level. These choirs often tour internationally, and even participate in joint concerts with the St. Louis Orchestra itself

(<http://www.symphonymusicschool.org/curriculum/orchEnsem.htm>).

A performing ensemble that incorporates a full preparatory experience is the storied Boys Choir of Harlem. Operating in conjunction with the New York City Department of Education, the program involves a full day of activities. Classes in core academic subjects begin at 8:30 a.m., and entail studies in English, math, science, social studies and foreign language. Course work also includes instruction in the academic areas of music (such as theory and history), ensemble voice, solo voice, dance, piano skills, recorder, hand bells, and percussion. Music history and theory courses focus on all Western Art Music periods, as well as profiles of specific composers. At 2:30, rehearsals of the ensemble begin; younger students study 1 hour a day, while older students study 3 hours a day. The ensemble performs over 125 concerts in a given year (<http://www.boyschoirofharlem.org/>).

In a particularly interesting twist, this semi-professional organization has begun outreach of its own. As a recipient of a NEA Millennial Grant, The Boys Choir of Harlem has initiated similar choirs in Kentucky, Texas, Detroit, and Washington, D.C. These choirs are replicant choirs of the Boys Choir of Harlem; in time, they will provide all of the same resources that the Boys Choir of Harlem provides.

Since 1939 the Philadelphia Youth Orchestra has provided a professional musical experience for youth ages ten to twenty-one. Maestro Joseph Primavera, the director of the orchestra since 1954, is an important source of stability in the lives of the young musicians in his charge. The program meets once a week, and deals with music of serious composers (<http://www.pyos.org/>).

Integration and implementation

As can be plainly seen, none of these model programs occur in schools, but outside of

schools. Because of this, these programs do foster additional inequity in the music educational system. Students enrolling in youth orchestras and precollege programs are likely to be from affluent backgrounds. And being enrolled in one of the outreach programs offered by orchestras and universities is in many ways a function of good fortune. If there is an orchestra or university in your area that is interested in participating in such a program, then perhaps your school will be selected for participation, or perhaps your instructor will have the ambition to affiliate your school with the program. However, for every student that is being helped by one of these programs, dozens are being overlooked. There is one possible solution: a partnership between universities, schools, and orchestras, supported by foundations and state governments, which would be beneficial to all parties involved.

For orchestras, educating children about music provide ensembles with future audiences. For conservatories and universities, teaching children music ensures that some will want to study music in the future. For schools, partnering with these organizations provides access to resources and expertise that would otherwise be beyond their means. Perhaps most importantly, for our collective society and culture, quality music education programs ensure that one of the longest traditions in the history of the world will be maintained. According to many writers in the arts, classical music is dying. The graying of classical audiences is a fact that has been recognized for some time in musical circles. For sheer shock value, volume, and saturation, classical music cannot compete with popular music. Its strength to endure lies in its depth, but this is a depth that can be difficult to appreciate. This is not to say that one needs to be a professional musician in order to appreciate a Beethoven symphony. However, some understanding of music can greatly enhance one's appreciation of such a work of art. Such an appreciation comes through participating in music at a young age; it is quite clear not every

child is going to be a concert pianist, but every child can be taught to appreciate good music.

Implementation of this model would require a shift in the responsibilities of public school music teachers. Each school would need a full-time music teacher, who would instruct students in the academic areas of music. No new curriculum would need to be developed; such a curriculum already exists in precollege programs, and could easily be adapted to the public school classroom. Instrumental instruction, currently the province of the teacher (Walker, 1989), would fall to the members of the partner orchestra or university, who would be more capable on their particular instrument than the educator could ever be expected to be on all instruments. Concert attendance would also be provided by the affiliated organization, subsidized by trust monies, as would the creation of a youth ensemble(s) for the students to participate in. Finally, early education could be provided by the principal music teacher using Kindermusik techniques and materials, again subsidized by the funding organization.

Within this broad outline of the music education given to students over their school years, a curriculum graduated by grade level would need to be developed. At the youngest ages - Pre-Kindergarten - this curriculum would consist of Kindermusik instruction, administered by the music teacher. Once the students entered Kindergarten, ensemble, instrumental, and academic instruction would begin, all contained in one class session. For the earliest instruction on an instrument, each student could be given a small pitched percussion instrument, such as the miniature sets of bells common in many early music classrooms, which are both affordable and easy to learn. "Ensemble" would consist of playing these instruments in a group setting, with some rudimentary division of parts added as students progressed. Academic instruction would consist largely of learning note names and rhythms, as well as familiarizing the students with the great composers. It must be stressed that all students would be involved in music

education at this age level, and that all the students would be engaged in the same activities: rudimentary instrumental, theoretical, and historical instruction. This lays the foundation for more diverse and advanced instruction at the next stage, which would begin around grade four, and would last through grade eight.

Here the ensemble becomes an ensemble in earnest - a chorus, orchestra, or band, rather than an ensemble of one type of instrument. Here also enter the instrumental specialists, who, due to instruction the students have been given previously, do not have to teach the children how to read music or count, but rather can begin addressing the techniques of playing the students' chosen instrument. Ideally students in grades four to eight to participate in both instrumental and vocal ensembles, even though individual instruction would likely be limited to one or the other. Classroom instruction would move on to more advanced aspects of theory and history, such as intervals and chords, or studying individual composers in some depth. At this age the students would begin to attend concerts as well. Again, at this age all students would be involved in all activities.

In grades nine through twelve the students would be given some choice in their activities. Those students who wished to participate exclusively in either instrumental ensemble or choral ensemble would be allowed to do so. Those students who wished to focus on the academic aspects of music instead would be accommodated as well, with instruction in this area progressing to basic tonal harmony and score study. What is important to note is that students are not chosen for music education - they are given it, throughout their primary schooling, just as they are given instruction in math, reading, or history.

In this program, the public school music teacher's role would change significantly from that of the individual instructor to that of the ensemble leader and classroom teacher,

supervising the individual instruction of the students by the instrumental specialists. Currently many ensembles are held after school, since the majority of the teacher's day is occupied with the individual instruction of students on their instruments. Two things occur by virtue of the fact that these ensembles are conducted outside normal school hours: first, students are often forced to choose between music and sports, and second, the ensemble is put on a par with sports programs, with the potential to be seen as secondary to the core curriculum of primary education. By freeing the music teacher from having to provide individual instruction, ample time would be available for the ensemble to be led by the music teacher during the school day. Individual instruction could be arranged by the specialist outside school; getting the specialist and student together without scheduling conflicts would logically be much less complicated than getting an entire ensemble together during after school hours.

Evaluation of any individual student would therefore require collaboration between the music teacher and the instrumental specialist. For this collaboration to be fruitful, the specialist would require some modicum of training. While some instrumentalists might be able to communicate their ideas easily, others may find this a challenge, particularly if their experience working with children is minimal. An instrumental specialist who gives a child a poor mark because the child is unable to grasp the concepts as articulated by the specialist is doing the child a disservice. Therefore, each instrumental specialist would be compensated for attending a short series of seminars which dealt with the most successful methods for imparting concepts to students of different ages, and how to evaluate their performance using a fair rubric.

Thus trained, the specialist would contribute a grade for the student's performance in private instruction for a given term. This grade would form a percentage portion of the

student's overall grade for the term. The remaining components of the grade - based in part on the student's performance in ensemble and the classroom (in which the academic areas of music would be covered) - would be assigned by the teacher.

All of this would require money, and for the program to cover all children, this money would have to come from state or federal sources. However, convincing legislators to allocate such monies would be difficult without conclusive proof that the program outlined above would be effective. Therefore, a pilot program should be conducted in one school. This school would have to have a full-time music teacher already in place, and the school would need to be sufficiently close to a willing partner orchestra or university. Since this partner organization might not have the resources to be to arrange lessons, concert attendance, and materials, initial funding could come from a foundation interested in education and the arts. Two such foundations, The Ford Foundation and the Pew Charitable Trusts, have a long history of participating in such ventures. The Pew Charitable Trusts are an ideal sponsor for any endeavor in improving music education. This organization has a particular commitment to the arts in general, and is also active in the field of education reform. The stated goals of the organization for educational reform - "enabl[ing] students to perform at high levels" and "strengthening standards-based reform" - are synchronous with the goals of a national music education curriculum (<http://www.pewtrusts.com/index.cfm>). The goal of the Ford Foundation in the area of education is similarly compatible with the goal of an equal music education: "to enhance educational opportunity, especially for low-income and chronically disadvantaged groups" (<http://www.fordfound.org/>).

This pilot program would run for a period of two to five years. At the beginning and end of the program students would be assessed for musical achievement using the NCES

guidelines. Hopefully, the program of instruction outlined above will improve scores over that period of time a significant degree. Ideally, scores in other areas associated with music as outlined above would also increase. Once this program was proven effective in raising competency scores on assessments of musical ability and knowledge, a strong case could be made for expanding the program to include ever more school districts and students, using government financial support and establishing a standard music education curriculum.

The greatest hurdle to establishing this program on a state or national level is funding, particularly with regard to the hiring of a full time music teacher. The last national survey found that 45% of school districts employed a music teacher on a full time basis, 39% did so on a part time basis, and 16% did not do so at all (CES, 1988). For the program to succeed, all districts will need a full time music teacher.

The situation is further complicated by the fact that only the students in the poorest of districts receive more educational resources, leaving those districts just above this cut-off point in particular need (NCES, 1998). However, other funding options are available for these districts. Numerous grants are awarded on an annual and semi-annual basis for the purchase of musical equipment. Parents groups have also been demonstrated to be incredibly effective fundraisers, often raising sufficient funds to match the fiscal commitment of the school district in terms of equipment purchases. Once the initial decision to salary a teacher is made, innovative budgeting can defray much of the expense of equipping a music program (Walker, 1989).

Ultimately, the most severe limitation for the model proposed herein may be location. For this program to succeed, a localization of instrumentalists and performing ensembles in such proximity as to be accessible to the students is needed. While such a concentration is found in

urban and suburban areas, districts that are truly rural may not be ideal for this program. Certainly these children have the same music education needs as students in urban and suburban settings, but while the content of instruction outlined herein would likely remain constant, given the similarity of needs for all children and the demonstrated benefits of meeting these needs, the method of meeting these needs would have to change. At present, it must be acknowledged that the plan outlined above would likely be feasible for those students in urban and suburban school districts.

The plan outlined above ensures a quality music education for all children that is informed by both psychological research and educational philosophy, while maximizing the extra-musical benefits of music. The investment of time and effort now ensures happier, healthier, and better educated children in the future.

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