

# What Is the Purpose of Primary School Music Education?

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## Abstract

Music education in primary school is necessary. Music education in primary schools is believed to bring benefits such as rounded personalities, expanded children's abilities, the development of future musicians, and increasing equality in society. Primary school music education is a way to develop the brain, a way to expand children's abilities, a way to train future musicians and a way to a better society. Music can tap the imagination of citizens. Music education has the power to witness and feel different lives, a strong engagement and a more sympathetic understanding of different individuals and cultures in the world. From the point of view of schools and teachers, the fundamental purpose of primary school music education is that it contributes to the development of human imagination and common morality. Music education fosters imagination, which is essential for citizens of the world. Art, represented by music education, cultivates judgment and sensitivity, which is reflected in the choice of civic behavior. The musical memory of a country and a people can be seen as part of the culture that shapes not only the overall goals in social life, but also the aspirations and aspirations of citizens in society.

**Keywords:** music education, primary school, benefit, citizen

## 1. Introduction

Why do we need music education in primary school? This question has been debated for a long history in modern society. It cannot deny the fact that people have the consensus on the beneficial impacts of music education in primary school. Primary school music education, is considered to bring about benefits such as roundness of personality, the expansion of children's abilities, development of future musicians as well as the increasing equality for society. But what is the fundamental purpose of primary school music education from the perspective of school and teachers? This essay attempts to explore the advantages of music education in primary school and tries to answer the question raised in the topic—what do we want from primary school music education and what schools and teachers do for the fundamental purpose of music education in primary school? These questions are able to help us identify the role of music education in modern society and locating these questions in education debates raises more fundamental discussion for development of human beings and improvement of society.

## 2. Music Education in Primary School as the Approach to Develop Brains

Schools are not only the place to develop students' ability to read and write. It is also the place for most students to come to know art and to learn how to appreciate beauty and find things in their lives. Different from other disciplines, music education is emotional. Benedict (2014) argued that humans are emotional beings and through music education, children are able to require an artist outlet. Our emotions and feelings during special events and certain time are important to humans since that is what makes us human beings. Music is special for every one of us since the emotions of joy, sadness, fear, expectation and anticipation can be delivered and reported by music (Bowman, 2004). Bentley (1980) argues that music affects and manipulates emotions tremendously. Music works as the mirror to reflect human's behaviours, needs and emotions. It reflects the imprint of present identity of human beings and the future identity which we are going to evolve. Just like the statement of Aristotle, "music

has the power of forming the character and should therefore be introduced into the education of the young” (Norman & et al, 1969, p186). Understanding the role of music and the impacts of music education is important for both students and educators.

In addition, music participation provides a good opportunity for literary preparation (Hargreaves, 2003). During the singing, playing or listening to music, children are guided by teachers to listen and hear in new manners which exercises their aural discrimination. Plato once stated that “music is a more potent instrument than any other for education” (Moore, 2007, p456). Most music teachers and educators would agree with this. To be specific, the music knowledge enables children to obtain the confidence in themselves, which are considered extremely important for their personal development in the future. For example, Bowman (2004) argued that singing can improve primary students’ health, confidence and social engagement. It has the power to change their personal lives and build stronger communities. That is why primary schools are asked to develop singing strategies to cultivate the interest of primary students to learn how to sing at the early age. And that is why most schools are required to have choirs to enable children to have the opportunity to engage in singing. Many studies have supported the connection between art education and other abilities in school and in social life. For example, Zimmerman and Lahav (2012) found that students who participate more in formal music education have higher academic achievement scores than those who have less opportunity to be engaged in music education. Playing music instrument requires students to have a complex skill set which depends on the brain ability to integrate information quality from various senses. Based on the combination research on psychological and physical fields, the research by Zimmerman and Lahav (2012) demonstrates that intensive music training alters brain structures and functions within the multi-sensory brain. And the research by Musacchia et al (2007) proved that long term musical practice enhances sensorimotor interactions as well as the integration of multi sensory inputs. The long-term experience in rich multi-sensory environment has been demonstrated to lead to the significant change in visual, tactile and auditory regions in human’s brain. And such impacts of music learning and participation have been applied widely in treatment of cerebral palsy. That is why many parents and schools realise the importance of music education in the process of brain development for children.

For my personal experience, as I have been an intern music teacher in primary school for half year. I have the opportunity to get acquaintance with many music learners. From my observation, the students who are more actively participating in music learning and musical instrument practice indeed performed better in other disciplines and subjects. And what is more, those music lovers in primary school, are found to be engaged in more positive relationship with their parents, classmates and teachers. They have the strong willingness to share their experience and emotions related with music to others. I think that music learning not only helps to develop their brain in the early age of their lives, but most importantly establish the channel for them to communicate with other persons in the world and reshape their perspectives to look at the world.

### **3. Music Education in Primary School as the Approach to Expand Children’s Abilities**

In order to understand the role of music education in modern society, it has to firstly comprehend the importance of education. What is the purpose of education and why humans need education? The growing importance of ideas such as knowledge society and knowledge economy cultivate the concept that the purpose of education is for better employment in the future society (Young & Muller, 2016). Education, based on this understanding, is the approach to meet the requirement of knowledge-based society and labor market. In responding to this problem, schools and educational sectors play increasing employment rate as the primary education objective in order to prove to parents and children that the education in school is effective and necessary. It is true that education itself has the practical objective to equip students with the basic ability to be engage in social life. It cannot say the school education is successful if students are not able to survive upon themselves in society after graduation.

Education provided by school equips students and children with the basic ability to live in society. They have to learn how to read and write, how to do the basic math, how to read the cultures and how to cope with personal relationship. All these abilities, can be acquired through school education. Despite of these practical purposes, some other scholars and educators argued that the purpose of education lies in helping students to have a flourishing life. Reiss and White (2014) stated that schools serve as the role to prepare students to become a more autonomous and whole-hearted people with active engagement in worthwhile relationships, activities and experience. Similarity, Brodie and Byrne (2012) provided the succinct identification of the characteristic of curriculum that provided by schools in order to flourish lives of students. They think that schools provide the flourishing lives for students through the programs in developing skills, offer opportunities and prepare for the workforce. Most people think that primary school is the place that empowers students with the useful knowledge. For example, Young argues that the purpose of education is to cultivate the students with powerful knowledge in subjects such as mathematics, physics, biology and chemistry (2014). From the above statement, it could be found that most people view school as the place to empower students with the ability to gain a better job in the

job market.

Learning literature at school enables students to develop their abilities in reading and writing; learning mathematics enables students to develop their logic thinking and learning science at school develops the students' abilities in finding and understanding the facts and rules of the world. But what exactly the abilities that will be developed through music learning and music education? Does music education in school only provide the courses on how to read scores? Is the purpose of music course at school only to teach students how to sing a song? Hargreaves (2003) argued that indeed music education equips students with the basic ability to participate in music activities such as how to use their voice to sing a beautiful song and how to cooperate with others in a choir. Music education also teaches students about the history and contribution of great musicians in human's history. However, these are not the fundamental abilities that music education aims to develop at school. School should put the purpose of developing creative skills and appreciation abilities on students through music participation. Even though that not every single student will develop career as musician in the future, school is the place to develop their all kinds of potentials in the music field.

As a music learner and educator, providing the powerful knowledge to children is not the only objective what I envisioned in music teaching. I think that there must be something which is more important than just getting a job in market. I choose to be a music educator and promoter since through music education, children are access to one of the most beautiful things in the world. I hope students are able to understand the nature of human beings and walk more close to their hearts through music learning. They are able to equip themselves with the ability to understand and share their emotions and feelings. Just like the statement by England (2011), the value of music as an academic subject lies in its contribution to enrichment and enjoyment, for those who engage in music both seriously or just for fun, for social benefits.

#### **4. Music Education in Primary School as the Approach to Develop Future Musicians**

Just like one of the purposes of science education is to develop future scientists for society, should the purpose of music education be the development of future musicians? In human's history, many philosophers have put the discussion on the pragmatism of education in the important role in society. For example, Durkheim (1953) was a proponent of the pragmatism in education. He was a writer at a time of great social upheaval in France and during that time, he has realised that education serves the role of linking to truth, which was able to lead to the consensus for society. Education, from his perspective, is the tool to establish moral values and constitute a new consensus based on knowledge. Knowledge is able to binds people together as members of a society. Without the consensus and moral role of knowledge and truth, social disorder cannot end. Consequently, it could be seen that Durkheim views education as the way to form a better and orderly society. It is with the intellectual basis of the curriculum and the nature of knowledge that social constructivism is possible. Durkheim argued that knowledge is undifferentiated from other human experience (1953). Education and knowledge cannot leave the social context. Humanness of knowledge can only be located in special society as the part of human experience. From the perspective of pragmatism, knowledge is true only when it satisfies a need in society. Consequently, the role of school is to provide the pragmatic education for students who are able to satisfy a need in society. Any kind of knowledge and discipline, is closely related with specific individual or social need.

However, such pragmatic argument has raised many opponents on the issue of education in society. Durkheim or pragmatism's insight only emphasises the limits of social needs for knowledge. Just as Maton puts it, "satisfying a need in society is a subjective criteria but never be adequate as the critic for truth (2014). Truth exists not for the purpose of satisfying social needs. Truth is truth." Durkheim seems to emphasis more on the shared values on which the objective of knowledge is based on the nature of knowledge itself. From the discussion, it could be found that learning knowledge has the moral basis for society. It is the responsibility of every citizen to have the education for themselves and it is the responsibility for school to implement the curriculum and courses to make knowledge accessible to students and pupils. However, that does not mean that the purpose of learning music is to become musician in the future. School education, just like the argument of Bereiter (1974), is to provide the all kinds of possibilities to develop children's potentials and possibilities. To become a musician, just as the expectation of parents and society, is of course one of the possibilities in school education. It is true that without school education in music, most children in primary period cannot have the chance to learn music and thus they have less possibilities to become musicians in the future. But such pragmatic purpose of educating them to become musicians in the future is not the only purpose of music education.

That does not mean that educating children to become musicians in not a good thing in school education. Just like the aim of science education is to develop future scientists for society, the practical objective of music education is to develop students' ability and provide them with the opportunities to become musicians in the future. Human beings have a long history and heritage of creating the great music to entertain ourselves (Bentley, 1980). In humans' history, many talented and excellent musicians have made their mark through impressive

works. However, we cannot scale such height of artistic greatness without the preeminence in music education. Just like the statement by Jorgensen (2003), much of credit for musicians' success goes to the highly committed and professional teachers and schools, as well as all kinds of educational resources in music education. Even in today's digital time in which music could be created by computers and click of mouse, primary school still serves the role of preserving the basic values and commission in music education, instills in young people the passion for music and the skills to perform and compose. In the value and system of education, music teaching is not only the approach to equip students with the basic ability to comprehend and appreciate music, but also the ability to understand the various forms of art and the impacts of art on humans. Great music education cannot be achieved without the highly professional teachers, specialist and educators. Most children have their first experience of contacting and knowing music at school. Thus it is important that primary schools are able to provide the high quality music education for as many students as possible (Johnston, 2015). It is true that everyone is able to enjoy and appreciate music, but to become a musician, one has to dedicate his big portion of life to the music learning and instrument practice.

During my teaching experience, I found that many primary school students have the dream to become professional musicians in the future. And the dream to become musicians in the future is one of the most important motivations for them to dedicate themselves in music learning and instrument practice. As a music teacher and educator, I tried to instill them the concept that through long term practice and insistent learning, everyone has the possibility to become musician. But they are also informed that learning music is not for the purpose of becoming musician in the future. There exist more important things in the process of learning music. They are able to appreciate the most beautiful and fine arts in the world and they have the opportunity to enjoy participating in music activities. All these experience and ability development, could be the treasure for their lives. I have to say that not each single student has the ability or resource to become musician, but learning music at primary school, provides them with the equal opportunity to develop their abilities to realize their musician dream in the future.

### **5. Music Education in Primary School as the Approach to Reach to a Better Society**

We human beings are still in the stage of mass education which aims to provide the basic ability and capabilities for children. Just as Floud and Halsey (1958) pointed out, mass education is the result of modernisation which aims to equip each signal individual to acquire the basic ability and knowledge to live in society. However, since the emergence, mass education is always facing the criticism about formal and universalising knowledge and standard curriculum provided by schools and educational sectors (Young & Muller, 2016). In the early stages of industrialisation, it is true that such uniform curriculum and mass education have successfully equipped with students and workers with the basic ability and knowledge to be employed in plants and factories. School served the role of preparing the majority of unskilled workers with the knowledge acquisition. No one can deny the fact that every student and child is unique in society, they have their different emotions, abilities, preferences and advantages in the process of growth. However, according to Young and Muller (2016), the mass education requires them to accept the same standard education discipline and curriculum which might at large extent kill their uniqueness and personal creativity. This really gives concern in current teaching and educational system in global world in which mass education is considered necessary for most places and countries. Based on the above analysis, it could be found that it is the disadvantage of mass education and standard and uniform curriculum that calls for the individual education and emotional cultivation through art education. Among all the art education disciplines, music is especially important to play the role of cultivating the unique emotion and personal aesthetic ability for children in primary school. Music education differs from science education in the feature of not providing the only one correct answer for students. Music education is more providing the channel, the appropriate approach for them to find the finest things in their inner world.

The vision of music education in primary school enables children from all backgrounds and social status to get access to music. This the primary education in music is the best vehicle for social equality (Formichella & London, 2013). Children come from different backgrounds and social status have the opportunity to learn music instrument, to learn how to sing and how to compose, to learn how to make music as well as to experience the progress to the next level of excellent in music learning. Music can be created, played and enjoyed by virtually anyone in the world. But without the accessibility to music, children would not have the chance to use the right to play and enjoy music (Johnston, 2015). Primary education in music starts in the early years of children, making them equal to have the same opportunity to be engaged in music learning and music education. In fact, many countries, especially the developed countries, have placed music education in the significant place in the educational system. For example, UK has initiated various programs and added national funding to the picture of music education so that all primary students have the equally opportunity to be provided with high quality music education at primary school (Department of Education, 2011). For most children and students, primary school is the first place they come to know about music and have the first interest in music. Such interest and habit might possibility lead to a lifelong participation and enjoyment for them.

Having the music education is the requirement to become the world citizen. Knowledge has undoubtedly become the major organising category in government policies in order to promote education. Education is important since it is the responsibility of world citizen to understand knowledge of history and social facts (Benedict, 2014). Like the statement by Plato, “music is a moral law. It gives soul the universe, wings to the mind, and life to everything. Without music, life would be an error.” (Moore, 2007). Such knowledge can be delivered by all kinds of curriculum in schools. However, people who know only the facts about society are still not fully equipped as the world citizen. They have to also understand the art of humans, the efforts of humans’ striving for aesthetics. Music is not only a discipline which should be provided in school, it is truly a narrator of what humans have experienced in history and are still evolving to become. Human’s ability to express their emotion will be limited without music and learning music is considered to be helpful for our mental and physical health.

## **6. What Should Be the Purpose of Primary School Music Education? A Final Discussion**

There are multiple purposes of music education. All the purposes make music education different from other disciplines and subjects. Learning is not only about producing understanding and expanding knowledge, it is more about to develop human being’s ability for sympathetic imagination which will enable humans to comprehend the behaviours and motivations of ourselves (Nussbaum, 1997). Through education, human beings are able to understand the differences among different ethnics, nations, religions, countries, regions and backgrounds. Education reshapes the way we are looking at the world. While among all the disciplines and courses, art education plays the important role in developing such imagination in human beings. According to the statement by Nussbaum (1997), it is art that cultivates powers of imagination which is essential to citizenship. Arts cultivate people’s capability of judgement and sensitivity which can and should be expressed in the choice of citizen such as vote. That is why Alexander Meiklejohn (1981), the constitutional scholar argued that art education has a close political relevance. Mark and Reimer (2002) argued that music education has the role of advancing visions for people. Through music education, people might get the larger vision for their personal life and their role in groups and society.

But among all the art education, why music education is extremely important and necessary in primary school education? Based on the above analysis, music can develop the citizens’ imagination. Music education has the power to make use witness and feel the lives of different, with the strong involvement and more sympathetic understanding towards different individuals and cultures in the world. The music memory in a country and an ethnic group of people, can be considered as the part of culture which not only shapes our general objectives and goals in social life, but also our aspirations and desires in society as citizens. Music teaches people how to love and love enables us to make more informed decisions and judgements on important issues.

But must we educate? It is the compulsory responsibility for us to be educated in order to live in the society? Bereiter (1974) has discussed the moral dilemma in school education. He argued that teachers in schools are every authoritarian godlike fathers. Such tyrant type of education cannot guarantee the good development of personality of our children. Why teachers have the right the impose their willingness on children. Why teachers and schools cannot respect the natural development of children themselves? I have to say that Bereiter indeed pointed out the philosophical dilemma of modern education which requires schools and teachers to impose a single view of future on the child. However, as a music learner and teacher, I have to say that I am not much agree with the statement by Bereiter, who only focuses on the negative impacts of mass education. From my personal experience and perspective, I found that most children and parents are satisfied to have multiple educational choices made for them. Educational freedom and religious freedom are parallel cases in this regard. Providing the same opportunity for children to get access to music learning does not mean that each child in primary school is forced to learn music, neither mean that every primary student is asked to become musician in the future. The decision of leaving children in the hands of primary schools and primary teachers is that they believe these schools and teachers have the ability to provide the multiple opportunities for children to get access to all kinds of teaching resources which parents are unable to provide. Thus the reasonable purpose of education is to make it possible for all children, regardless of their backgrounds, races, and abilities, to acquire the adequate level of skill in reading writing and arts appreciation. It is true that people have the right to make choices by themselves. But for primary students who have not developed their ability in making reasonable choices, primary school is the best place for them to be educated and get informed about the required skills and abilities in their future life.

Why should be discussed about the topic of music education in primary school? The main reason lies in the role of music education in people’s life, which needs to be addressed both in policy decisions and in educational practice. When a child begins to listen to music, the child is actually acquiring the experience of distinguishing what is beauty and what is not (Zimmerman & Lahav, 2012). Children begin to wonder about the different voices and sounds. They being to learn how to attribute life, thought and emotion inside themselves. Schools favour the inclusion of music in the curriculum on the equality with other subjects such as math and science.

This is because schools, especially primary schools believe that the growing complexity of civilisation requires more attention on the art, and music provides the possibilities for students to develop their appreciation of the beautiful things in life. In 2001, the No Child Left Behind Act initiated by the United States government identified music as the core subject in primary schools. In addition, based on the report from the U.S Department of Education, the music education in the United States has universally available in public elementary schools (Hirschfeld, 2015).

Hargreaves (2003) analysed the purpose of musical education from the relationship between developmental psychology and music education. They found that the mid 1980s could be considered as the point for the different strands of music psychology, cognitive, developmental and social. Since that time, according to Hargreaves et al (2003), music education has experienced a major change through incorporating the social perspective. They stated that music education has four basic impacts, individual impacts, interpersonal impacts, the institutional impacts and cultural impacts.

More importantly, music education is the requirement of being a world citizen in the global world. Learning is not only about amassing knowledge, it is more about cultivating ourselves to have the ability and capacity for sympathetic imagination which enables us to comprehend and understand the motivations and behaviours of human beings (Nussbaum, 1997). Izushima and Ramirez (2010) argued that through participating in music learning, students are able to understand that we human beings are sharing the similar experience, emotion and feelings, we have the common characteristics and responses to specific events and circumstance. In front of music, human beings have no boundaries in races, regions, countries and cultures. In addition, music education provides the opportunity for children to respect their inner world. As children grow older, such inner world becomes increasingly important and full of distinction. They gradually learn how to ascribe to others and recognize themselves in social life. They know how to use music to express themselves and how to read others' emotions through their music. Such imagination is also possibly leading to the high level of compassion which involves with the recognition and respect to others. From the perspective of ethnics and philosophy, compassion requires one people to realize his own vulnerability to misfortune. People who have the compassion is able to realize that this suffering person might also be me. Such compassion, promotes a precise awareness of our common vulnerability and mutual understanding about human beings.

In terms of my personal experience, I have been an intern music teacher in primary school teaching music for children. This experience inspired me to look in-depth into the nature of music education. During my teaching experience, I found that those children who have actively participated in music learning performed higher level of sympathetic responses. I think that in the process of learning music, children have more soft heart and responsive mind to feel sympathetic to others. Music education, not only inspires their imagination and intense concern with the life of other, but also helps to define the character which might lead to a rich inner life.

## 7. Conclusion

In conclusion, education plays the significant role in modern society. Among all the subjects and disciplines, music education is especially important. Music education brings many benefits for students and society. It cultivates the appreciation ability for students, helps them develop their personalities and abilities, and equips them with the ability to get involved in future social life. And music education contributes to social equality by providing the opportunity to every single child to get access to music. But the most important purpose of music education is that it serves to develop the imagination and common ethnics among human beings. Music education cultivates powers of imagination which is essential for world citizenship. Arts, which could be represented by the music education, cultivates the abilities of judgement and sensitivity which can be expressed in the choice of citizen behaviours.

## References

- Benedict, C., (2014). The social contract and music education: the emergence of political authority. *Acta Morphologica Neerlandica-Scandinavica*, 9(2), 85–100.
- Bentley, A., (1980). A basis for music education. *British Journal of Educational Studies*, 28(3), 13–25.
- Bowman, W., (2004). Cognition and the Body: Perspectives from Music Education. *Knowing Bodies, Moving Minds*. Springer Netherlands.
- Brodie, M. and Byrne, E., (2012). *Cross Curricular Teaching and Learning in the Secondary School: Science*. Oxon: Routledge.
- Biasutti, M., (2010). Investigating trainee music teachers' beliefs on musical abilities and learning: a quantitative study. *Music Education Research*, 12(1), 47–69.
- Bereiter C., (1974). *Must We Educate?* Prentice Hall.
- Department of Education, (2011). The importance of music, a national plan for music education. Retrieved from

- [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/180973/DFE-00086-2011.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/180973/DFE-00086-2011.pdf).
- Durkheim, E., (1953). *Philosophy of Social Science*. Boston, MA: MIT Press.
- Formichella, M. M., & London, S., (2013). Employability, education, and social equality. *Revista De Estudios Sociales*, 37(47), 79–91.
- Hargreaves, D. J., (2003). Music education in the twenty-first century: a psychological perspective. *British Journal of Music Education*, 20(20), 147–163.
- Hirschfeld D., (2015). President Obama Signs into Law a Rewrite of No Child Left Behind. *The New York Times*. Retrieved from <https://www.nytimes.com/2015/12/11/us/politics/president-obama-signs-into-law-a-rewrite-of-no-child-left-behind.html>.
- Johnston G., (2015). Why music education actually matters. Retrieved from <https://www.linkedin.com/pulse/why-music-education-actually-matters-grant-johnston/>.
- Jorgensen, E. R., (2003). Transforming music education. *Music Educators Journal*, 90(2), 208.
- Izushima, A. & Ramirez, A., (2010). The Future and Role of Music in Modern Society. Retrieved from <http://www.savvymusician.com/blog/2010/04/the-future-and-role-of-music-in-modern-society/>.
- Mark, M. L., & Reimer, B., (2002). A philosophy of music education: advancing the vision. *Music Educators Journal*, 90(90), 133–142.
- Maton, K., (2014). *Knowledge and Knowers: Towards a Realist Sociology of Education*. London, Routledge.
- Moore, E., (2007). *Plato*. Philosophy Insights Series. Tirril, Humanities.
- Meiklejohnian A., (1981). *Teacher of Freedom*, MCLI.
- Nussbaum, M.C., (1997). *Narrative Imagination in Cultivating Humanity: A Classical Defense of Reform in Liberal Education*, Harvard University Press: Cambridge, Mass.; London.
- Norman F. & Klein, L., (1969). *Ancient Thought: Plato and Aristotle*. Monuments of Western Thought. Waltham, Mass: Blaisdell Publishing Co.
- Reiss, M. J. and White, J., (2014). An aims-based curriculum illustrated by the teaching of science in schools, *The Curriculum Journal*, 25(1), 76–89.
- Skelton A., (2012). Value conflicts in higher education teaching, *Teaching in Higher Education*, 17(3), 257–268.
- Young M. & Muller J., (2016). *Curriculum and the Specialisation of Knowledge, Studies in the Sociology of Education*, London and New York, Routledge.
- Zimmerman E., & Lahav, A., (2012). The multisensory brain and its ability to learn music. *Annals of the New York Academy of Sciences*, 1252(1), 179–184.

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