MUSIC IN AN INTEGRATED CURRICULUM

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ABSTRACT

Music is important because it has a positive impact on our daily life. It can help to improve the academic performance of our children as well as aesthetically. Music also can give motivation and stimulation to children of today in their lives physically as well as emotionally. This article aims to discuss about the benefit of music in the teaching and learning in the classroom. It also explains how music can be integrated in teaching other subjects such as Art, Science, Mathematics, Physical Education, language and social science. Music should be maintained in the school curriculum in order to achieve a well – rounded education for the students. In order to improve the overall quality education, integrating different curricula in school is necessary. Music can be used to teach other subjects in the curriculum and content from other subjects can be included in the study of music. Evidence has shown that through the strategic use of music, educators can achieve greater success in teaching.

Keywords: Music, education, integrated, different curricula, academically.

INTRODUCTION

Music is a universal language which is very important in every culture of the world. It has a positive effect on our life. Music can also give motivation and stimulation to children of today in their lives. Music should be maintained in the school curriculum in order to achieve a well – rounded education for the students. Music involves many areas which relate to different types of music such as concert bands, marching bands, Jazz and rock bands, orchestra and choirs. Hence, music educators should focus more on the education of students instead of performance. They need to know how music can influence greatly on the education of our children academically as well as aesthetically.

Arts actually develop the intellect in humans. Case studies conducted in high schools to assess academic success on music students and non-music students had revealed that the cumulative GPAs of music students were significantly higher than those of non-music students. When arts are included in the curriculum, the students' achievement in reading, writing and math also improved (Mickela, 1990). The conclusion was that it was proven that music major students reach higher academic achievement levels in academic studies than non-music major students. Dickinson (1993) in his report reveals that schools which produced the highest academic achievement in the United States today are spending 20 percent to 30 percent of the day on the arts, with special emphasize on music.

Music education contributes importantly to cognitive achievement by improving intellectual, motor, social abilities and skills. Studies had proven that musical training facilitates cognitive skills, including reading, abstract spatial abilities and creativity. Students involve in music activities can improve their coordination, academic achievement, creative abilities, listening skills, self-disciple and personal expression (Mickela). Starting in the 1990's, research studies have reported that students who achieve higher spartial scores on intelligence tests are those who listen to music (Rauseher et al., 1994).

The latest research has shown evidence that sequential and skill building instruction in arts and music, integrated with the rest of the curriculum, can greatly improve children's performance in reading and mathematics. Some studies have shown that music instruction can help to improve certain mathematical abilities of the children. Researcher compared the proportional reasoning scores of two groups of children, one group received only computer-generated spatial-temporal training and another group with piano keyboard instruction also received the same spatial-temporal training. The group with piano training scored higher than the group that did not have piano instruction (Graziano et al., 1999). Skills developed in music are skills such as a sense of rhythm, critical thinking, motor skills, physical coordination, memory recall, listening skill and reasoning and all these skills can be applied to other areas. Besides, music can also help to develop reading skills in slow learners (Dlyden, 1992).

Music and arts are essential in the development and expanse of intellect in human. It has been proven by brain and evolutionary psychology that arts play an important role in the development of the cognitive and motor skills (Sylwester, 1998). Research by Hodges (2000) showed that in order for optimal cognitive development, music was used to stimulate the development of nerve connections among brain cells during the first three years in a child's life.

Music education is more than just playing an instrument or singing and it is also more than entertaining or a pleasant recreation. Music is an academic subject which has a mathematical foundation. Music is an art, science, a mental disciple, language and physical activity. Playing in the band and orchestra or singing in choir can develop the concepts of teamwork and cooperation.

Music makes learning easy and more fun. Evidence has shown that through the strategic use of music, educators can achieve greater success in teaching the children. It has been found that music students can out-perform non-music students on achievement tests in reading and math (Friedman, 1959). In order to improve the overall quality education, integrating different curricula in school is necessary. In the school curriculum, music can be meaningfully related to science, art, physical education, dance, language, mathematics, as well as the social studies. It also helps to expand and enrich the vocabulary, memorization, speaking and listening skills of children (Nye, 1975). Nye (1975) also stated that the subject matter of other areas can make music activities more interesting, meaningful and enjoyable.

Musical intelligence needs to be developed and nurtured. According to Gardner that musical intelligence probably stressed more on emotion, spirituality and culture than other intelligences. But perhaps most important is that music helps people to organize the way they think and work and by doing so it helps them to develop in other areas, such as math, language and spatial reasoning (Harvey, 2007). Music can be used to teach other subjects in the curriculum and content from other subjects can be included in music studies. Reading music increases skills for memory recall, concentration, speed-reading, listening and memory just as the subject of reading in school. Learning time's tables and math formulas are easier with music incorporated. Playing music can develop hand-eye coordination which benefits writing skills (Mickela, 1990).

MUSIC AND LANGUAGE

As a mean of expression, music is related to language. Song is one of the best tool for training the babies to recognize the tones that added up to spoken language. Most of a young child's early communication is non-verbal, and music and dance provide a means by which he/she can exercise this normal communication process. Research supports the belief that active physical involvement helps the very young child to develop language skills. As stated by Choale et al. (1970):

> Music activities provide one of the most powerful tools in developing language use, as music places language in an enjoyable and satisfying context. For children whose language development is retarded and who lack verbal skills to articulate well in a discussion, music offers an opportunity to participate with the group without embarrassment while gaining proficiency.

Integrated musical experiences provide excitement for learning and improve students' reading, writing and thinking skills. Music can be used as an effective way of teaching reading to children. Teaching reading through songs improved the children's accuracy, phrasing and fluency in reading. The same way a song sticks in the memory long after facts have faded, the words connected to melodies stayed with the young readers. Children get satisfaction and enjoyment in playing or singing a piece of music. The experiences gained in music can help develop and reinforce abilities in beginning reading.

According to Winston (1982), learning to read music enhances the children's ability to perform the necessary for reading, listening, anticipating, forecasting, memory training, recall skills, concentration techniques and speed reading. Through author observation, learning music is in many ways like learning to read. These activities help to build reading skills. Learning music and learning to read closely parallel each other. Both depend on the child's ability to perceive likeness and differences in sounds and in the shapes of symbols. Music is read from left to right and top to bottom, the same as reading words. Music activities can help to develop and reinforce specific abilities for reading, for example, listening to and understanding songs and performing musical activities are related to abilities to listening and understanding spoken language. Students should be able to understand the lyrics after listening to a folk song. Sheets with the lyrics with some blank spaces throughout are handed out to the students. After listening to the song a second time, the students would try to fill in the blanks. Next, the teacher would write the answers on the board and students can make corrections. The students would try to sing along when the song is played again. They are actually practicing pronunciation and stress while singing along.

There is a close relationship between the literary arts and music. When performed, both are arts of time and sound. Words too have many musical elements such as rhythm, pitch and accent. Children can write poetry, and then set it to music. Alternatively children can also listen to music designed to tell a story and write their own imagined story based on the music. One of the best ways to help to develop auditory discrimination is to listen to various musical styles and writing down the types of instrumentation used.

MUSIC AND PHYSICAL EDUCATION

There is a close relationship between music and physical education and dance (Sevanson, 1969). Sevanson stated that expressive movement, as an activity in music, is related to the program in physical education and creative dramatics. In physical education the objectives of expressive movement are physical development, health and poise whereby music assists by helping to make the movement rhythmic. Folk dances are often considered part of the physical education program (Nye, 1975). Through movement, rhythm and dance, children learn to control their muscles and the action of their body with precision and skill. Since music can involve a physical as well as cognitive and affective response it is of great assistance to the child in developing the muscles for control and coordination of body movements. Music assists physical education programs in achieving the objectives of bodily balance and coordination. Through songs a child can be taught to recognize and name the parts of his/her body and to imitate body movements.

Below is an example of teaching music together with physical movement to first grade pupils. When a piece of music is played, the children create their own movement according to their interpretation. They are asked to adjust their movements to what they hear. Since running and walking are the movements in which most young children have the greatest facility, these should be used first. Gradually skipping and galloping rhythm can be added. Certain music may suggest several movements and children should be encouraged to try out these possibilities in order to judge which seems the most appropriate. Frost (1976) supported the idea of the correlation of music and play movement by saying:

> Free movement with music as a stimulus and involving children in a room, helps the child learn how to cope with changes in space, to seek alternatives to problems, and to gain skill and agility in moving safely around obstacles.

Another example is that children can express musical form with bodily movement. A child works with a partner to interpret the contrasting sections of an AB form in a piece of music. One becomes a and the other one is B and they face each other and act as a mirror to their partner. During the A section of the music is played partner A gets to lead while B imitates. When the B section occurs, switch leaders (Campbell, 2006).

Besides musical forms which can be incorporated with body movement, here are some of the examples that music can also be correlated with movement such as explore musical terms (crescendo, diminuendo, fugue) through movement,

use rhythm instruments to accompany movement and create movements to a familiar song.

When movement is incorporated with music the children can express themselves more creatively through movement. Through their experience with music and movement the children can learn the musical concepts as well as gain coordination skills with music.

MUSIC AND ART

Music is aural while art is visual, yet it is believed that there are some genuine relationships between these dissimilar arts. Teachers utilize pictures to add interest to songs and selected songs can add interest to drawing, pictures and painting. A musical composition is an expression of musical ideas within a design. The association of color and design in visual arts with these characteristic in music is meaningful to children and gives them a new and challenging reason for listening to music. In visual arts we have colours that are 'cool', 'warm', 'restful', or 'active'. Similarly in music the composer has a whole palette of tone colours with which to work. Rhythm and the flow of melody in music easily find their parallels in the rhythm and dynamics of colour, line and design in art.

The teacher helps children to experience art together with music. First of all, two contrasting musical compositions are used. The teacher would tell the class the plan of action and then play both numbers consecutively so that the contrast is quite evident. The title is not given, for children are free in their interpretation when they work from the impressions they receive directly from the music. After the initial hearing, each composition should be played several times as the children make their colour design for it. The essential process is to hear the music, notice the characteristics of the melody and rhythm, and recreate the design as lines and colours on the paper. The procedure should not be explained directly to young children, they must discover it through expressions of the music heard. When the two designs are finished, the children can hold them up in pairs to see the difference in design and colour.

Loudness and softness in music can be reflected in children's finger painting, with long swirls for loud music and small swirls for soft music (Nye, 1975). The advantage is that children can see in their own painting the difference between the effect of loud and soft music. Short and long lines in painting have the same parallel in music notes of short or long durations. Melody contours of songs can be drawn too.

Children can use lines, shapes, colours and patterns to illustrate different musical events as they occur in a piece of music. For example, listen to a two-part song, use different coloured lines to show the shape of the two melodies in the song. Use the same patterns to show where the repetition occurs. Then discuss similarities and differences between those and what the children have drawn.

MUSIC AND SCIENCE

Music is a specialized science which deals with the qualities of sound, acoustics and timbre. A study of the scientific principles of tone production and resonance can be part of elementary projects in science at different grade levels (Sevanson, 1969). Children can investigate the different ways in which a tone is produced. For example, get the children to pour different amounts of water into bottles of the same size. Blowing into each bottle they will find out it produces a different pitch. Get the children to create a scale by arranging the bottles in a line from lowest sound to highest sound. They should consider the source of the tone (the vibrating object) and the amplifier effect of the tone (the resonating body). For example, place a few nails on the head of a large drum or tambourine, then tap gently on the edge of the skin and the nails will be moved by the vibrations. After the children have learnt these principles and can relate them to several kinds of musical instruments, they can begin to understand why an instrument produces a tone with particular characteristics of loudness and timbre. For young children, the study of sound involves observation of all sounds in their environment, sounds made with paper, stone, metal, wood and other common materials; sounds made by object intended to be or which are musical instruments; sounds made by people and sounds made by machines and by nature. Children learn to identify sounds, learn that vibration produces sounds and learn to differentiate between music and noise (Nye, 1975). Here is an example that the students can learn to identify the sound. Record the various sounds you hear in the park, later, in class ask the students whether they can identify the sounds.

Here are a few examples to show the correlation of music in a science class, such as listening to 'Hungarian Dance No 6' by Brahms, children can create an Animal Party with fast animals moving during fast sections and slow animals moving during slow sections. Listening to Carnival of the Animal by Camille Saint-Saens, the children can explore the characteristics of different animals through dramatic movement.

MUSIC AND MATHEMATIC

Music has been associated with mathematics and astronomy since the days of Aristotle with respect to rhythm (Sevanson, 1969). For example, two quarter notes are similar to a half note and four quarter notes are equal to a whole note. The notes are named as fractions: quarter, half, and eighth. The division of the beat is the same as doing mathematics. We work with double, triple and quadruple beats. Nye (1975) also states that music can help children of nursery age in the learning and understanding of the counting process through a generous use of number songs, rhymes, stories and finger plays using digits. By using the above-mentioned means children can experience counting and sequencing and learn about the concepts of 'more' and 'less' in mathematics through music. Gardiner (1996) found that the number of years of music and arts training was positively correlated with mathematics achievement.

MUSIC AND SOCIAL SCIENCE

Music is important in the teaching of the social sciences. It can add meaning to an event or period of history, such as listening to musical works that convey historical events, for example, 1812 Overture which was composed by Tchaikovsky for the commemoration of the Russian victory over Napoleon in the war of 1812. Music also can reveal mankind's common likeness and concerns. Music aids in the understanding of ideas, religion and traditions of contemporary and past civilizations, cultures, nations and times. Folk music from the various cultures of the world is valuable and relevant to the development of social concepts and values. Music also helps in the teaching of history through the study of appropriate music and composers. Children can make musical instruments and costumes of people of other cultures or period to portray the life of peoples of the past and present, and can study these people through songs and recorded music.

CONCLUSION

From a review of some of the statements made by researchers and musicians, the author can conclude that the correlation of music with other subjects brings more advantages rather than disadvantages to the learners. Therefore, the teaching of the music in other curricular areas should be encouraged. Music enriches other areas of studies. Reading and singing words of songs can be an experience in the process of improving comprehension, pronunciation and enunciation. Music

appreciation material may serve as written language practice. A child learns to sing in the same way that he learns to speak as both music and language are concerned with listening, performing, reading and writing. Besides music can help a child to learn to read, speak and write, it also helps him/her in physical training. The Greeks long ago understood the need for music in physical training. Folk dances in physical education class can help to develop basic motor, skills and physical fitness. It is easy to learn about the people of other countries through their music, dance, art and musical literature.

The implementation of the three R's which has correlated the teaching of music with other subjects is indeed a great help to the slow learners. Music helps children to learn through experience. At the same time, it accelerates the learning process in a more enjoyable way. Through many years of experience as a music educator, the writer finds this correlative method a big help to the slow learners experiencing reading problems. Children are creatures of action and they do not want to remain as the role of spectators, so teachers must find ways to help them to learn quickly and easily. As everyone knows, nearly all children respond to the combination of music and movement. The shy and conservative children should be encouraged to express themselves through music and movement. In conclusion, the author advocates and agrees that music can be used to assist and enhance all types of learning in other curricular areas in schools.

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