

REVIEW ARTICLE



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TO INTEGRATE MUSIC AS A TOOL IN CLASSROOM TEACHING AND LEARNING

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ABSTRACT

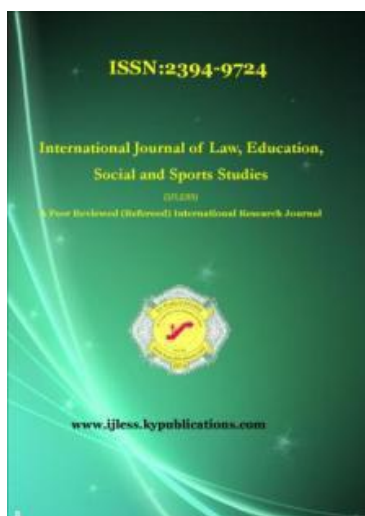
Music is so imperative in our lives, but not much prominence is laid on its importance specifically at our workplace. Students enjoy learning with music in the early ages, but the musical forms are long forgotten through their education voyage. A school is regarded as their second home and a place of learning but overlooks its charm because of the cascading musical influence. This paper has tried to explore on how music can enhance the performance in classroom teaching and learning. Based on the primary and secondary study, paper has led to a significant outcomes which can have a progressive effect on student's attainment, personal and social development.

This paper discusses the implications of music as a tool in classroom teaching and learning which enable students to cultivate culture that enhance their learning. The paper focuses on existing cases from the literature emphasizing that music has a great impact in classroom teaching and learning. Thus, this paper gives a message to integrate music as a tool in classroom.

Keywords: Music, Classroom Teaching and Learning



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INTRODUCTION

"Music is the electrical soil in which the spirit lives, thinks and invents." --Ludwig van Beethoven

Since so much is talked about music and how human beings are associated with music before they are born. The proposal wishes to identify if music as a tool used in classroom teaching and learning would enhance the students' performance and attainment level. The proposal is trying to investigate on the benefits of music in classrooms and the diminishing use from early age to the higher grades. In the 21st century education stacks of tools and support material is been used to improve the quality of teaching and learning but music as a tool is mostly overlooked. The proposal has tried to explore the benefits of music as a tool in classrooms. This tool can be a complement to the basic fundamentals in education which will add a value to the educational process.

MUSIC AND THE BRAIN

There are a million of researches done on the topic of brain. The key interest here is on knowing how music is processed in student's brains to make learning easier. This study covers: Core intelligence of musical, triune brain, left and right hemispheres, brain wave frequencies and music brain

Core Intelligence: Among Gardner's multiple intelligence, musical is one of the core intelligence in every student's brain (Gardner 1983, 1993, 1999, 2005; Gardner and Hatch 1989; Marks-Tarlow 1995; Williams, Blythe, White, Li, Sternberg, and Gardner 1996) which involves recognizing and appreciating music, keeping time, performing, composing, signing and recognizing rhythm. According to Gardner's theory, every student has intelligence, it being part of the distinctive profile of weak and strong intelligence that every student acquires. A research done by Neuroscientists has confirmed that there are physical differences in the neuronal networks of each students brain (Zull, 2002). Teachers can only work with what each student brings to the class. Goleman's (1998) emotional intelligence is closely related to music in fact the Gardner's interpersonal and intrapersonal intelligences are very similar to Goleman's emotional intelligence. Music induce emotional reactions of disliking or liking and arousal or excitement (North and Hargreaves 1997; Robazza, Macaluso, and D'Urso 1994). Music as a tool can be used to communicate with learners at a deeper level of understanding by simply touching their emotions.

Left and Right Hemisphere: There are two hemisphere of brain related to ways of thinking: verbal and non-verbal (Gazzaniga, 1992; Sperry, 1973). The left hemisphere is predominately the analytical and logical side referred to as the verbal side which is factual, rational, controlled, organized, structured and planned (Miller, 1997). On the other hand, the right hemisphere is nonverbal and creative side which is emotional, disorganized, spontaneous, empathetic, experimental and in search of relationships. It emphasises more on color, pictures, art and music (Jourdain 1997; Polk and Kertesz, 1993). Recently, there has been a great appreciation that music taps left as well as right hemispheres. The left hemisphere processes lyrics and rhythm whereas the right side listens for sounds, melodies and harmonic relationships (Bever and hiarello 1974; Hébert and Peretz 1997; Schlaug et al. 1995). Music is an effective tool for engaging both hemispheres.

Triune Brain: A cross section of brain has 3 layers: (1) the stem/ reptilian brain (5%), which is in charge for basic functions such as blood pressure, breathing, heartbeat and decide the essence of sound- its volume, directions and potential threat; (2) the inner layer/ limbic brain (10%), center of emotions and reacts to music with appropriate emotions (3) the outer layer/ cerebral cortex brain (85%) which controls vision, hearing, language and responds to music sophisticatedly (MacLean, 1990). The triune concept facilitates understanding and creation of music.

Brain Wave Frequencies: There are four types of waves: delta, theta, alpha and beta. They are related to different level of consciousness, the beta and alpha have specific inference for music. Delta waves illustrate deep sleep, when waves are least like it is then when we are fully awake. Theta waves illustrate deep contemplations and allow creativity. Alpha waves appear when the students are in a relaxed state of mind. The right hemisphere is occupied in the alpha state when students are busy studying, reading or reflecting, it is then when emotions are dominant and on the other side the left hemisphere rationality drops out of sight for some time, slowly music fosters alpha waves which relaxes brain and is useful while studying as it passes the content into long term memory (Millbower, 2000).

Music Influence Brain Development: Norton, Winner, Cronin, Lee, and Schlaug (2005) in their study found out that music influence brain development in 5-7 year old children. Two groups were part of this study, one group had children who were given music lessons and other group didn't receive any music class. Norton et al. (2005) found differences in brain structure scanned by MRI and also found that children who excelled in music ability differed in visual-spatial, motor as well as verbal skills. In a similar study by Hyde, Lerch, Norton, Forgeard, Winner, Evans and Schlaug (2009) on age group 5-7 years old found that children who participated in music showed a number of benefits such as improvements in motor- finger dexterity and in auditory melodic skills.



Music Influences Language and Linguistic Development: Anvari, Trainor, Woodside, and Levy (2002) in their study found that there exists a relationship between music and linguistic development. They investigated phonological awareness and reading skills of children between the ages of 4-5 years. They were given experiences with a set of musical tasks that focused on melody, rhythm and chord progression after which they were tested on reading skills and phonological awareness. Anvari et al. (2002) found that music skills are directly correlated with phonological awareness and early reading skills.

Music influences Language: As children get older, they begin to expand their vocabulary and start to make connections with words and their meanings. Forgeard (2008) in his study concluded that music enhance auditory discrimination, vocabulary and non-verbal reasoning skills. Gromko (2005) concluded from his study that children who receive music training show a greater phonemic fluency than the children who didn't receive musical training.

The Effect of Music on Learning

Music is one of the most important tool for teaching students basic academic and life skills. The lyrics are full of content which help the students to grasp arithmetic's, letters, numbers, words, cognitive processes and classification. Music creates arousal and keep their concentration while slipping content into long term memory. Researches have quoted that when the music has been stopped the children stopped lost their attention and focus (Fisch and Truglio, 2001). The children of 21th century have less patience's with content requirements and the attention span is also very low (Berk, 2008). They can devote hour of hours playing games on i-pads, laptops, they prefer to participate in activities in which they are interested rather than studying boring subjects (Prensky, 2006). These characteristics of today's generations suggests that teachers should consider music a formula for their student's in order to make the boring subjects as an interesting one. Rauscher, Shaw, Levine, Wright, Dennis, and Newcomb (1997) in their study on students who studied piano found out that children performed notably better in temporal and spatial reasoning ability than those who spent the same amount of time learning to use computers. This study was further, carried out by Graziano, Peterson and Shaw (1999) they used both piano keyboard training and math software. It was found out that children notably scored higher in math's and fractions than the control group, which had no piano keyboard training. This finding concluded that spatial-temporal approach can be used to each science and math concepts at school level. The same study was confirmed by different researchers as well Rideout and Laubach (1996), Rideout and Taylor (1997), and Sarnthein, Stein, Rappelsberger, Petsche, Rauscher, and Shaw (1997).

In 1960, Bulgarian psychiatrist Lozanov explored techniques to use music to increase learning and memory. He developed what is now known as accelerated learning (Lozanov, 1978). The basic foundation of his techniques is use of background music. He created two effective learning environment/concerts: active and passive. An active concert initiate the learning process physically, mentally and emotionally by playing music, this has helped to produce high memory retention. An active concert during activities increase productivity of students, create positive atmosphere, grab student's attention, and energize students and make learning fun. A passive concert on other hand involves slower, music helps to relax the student's alpha brain waves and maintain balance between mental, physical and emotional rhythms to increase information absorption. Students enter a relaxed state of mind which opens their mind for incoming information. The music helps students to maintain focused. Lozanov in his study found out that students could learn language skills at least 4 times faster via this approach known as "accelerated learning". Brewer 1995 suggested through his study that music played in background help students to study, read or write to increase the level of concentration and improve memory, extend focused learning time. Music can be used as one of the most powerful technique during reviews and tests. Lozanov in his study also concluded that it is important to promote a positive learning environment which can be done by playing music as students enter and leaves the classroom and during break time, playing music this way can help to enhance the mood for the entire day (Sousou 1997; Stratton and Zalanowski, 1994). Butzlaff (2000) in his study conducted a meta-analysis of twenty-four studies of music and

reading, and further, concluded that there exist a strong association between music and performance on reading/verbal tests.

Hypothesis

- Why music should be used in Classroom Teaching and Learning
- Why music should be used at all levels and subjects from K to 12th Grade

DISCUSSION

If so much is talked about music and is important part of the overall development of the child, the question arises why music is not given importance in the classrooms. It has been found out that in the early years of learning children enjoy learning with music. Evidences show that music is extensively used in classroom at the early stages. But later on the as the child reaches the higher grades the use of music in classroom diminishes. Thus the question arises why are we not using musical forms in learning at all levels? Does it have a negative effect? Does it disturbs the teaching and learning process? Just to frame a generalized hypothesis question if music is used in classroom teaching and learning can have to effects a positive and negative. As research shows that music has been effective in classroom teaching and learning at early ages why can't it be implemented at all stages. What I need to stress here is music can be used as a tool in the teaching and learning at all levels and by all subjects. That does not mean that the entire lesson must be musical. As we use ICT and other tools to enhance classroom performance music can be used as a tool to enhance learning. As the student go to their higher grades more emphasis is placed on teaching and the concept of traditional lecture method still exits where more teaching and less learning takes place. The literature review states that there are various forms of music used in classrooms. Musical forms can be used in the classrooms by any subject teacher but not with the traditional lecture methods. If you are going to use differential learning, learning by doing and having many activities in your classroom teaching then music aids in your teaching and learning process. Activities help to strengthen peer relationship which is very important for a positive climate of learning. Music as a tool helps to enrich those activities. If music is used in classrooms the potential outcomes would be to energize or relax students for learning exercise. It will explore the creativity and imagination of the child. Music also helps to build a rapport among students and improve attitudes toward content and learning repetitive tasks. The literature review has given us enough evidences of the benefits of music for learners. But no much effort is been made to uses music in classrooms. We are dealing with the students of 21st century who are digital natives who spend more time on their i-pad, i-phones and laptops playing games and listening to music. Thus is music one of their likes is introduced in their learning environment will definitely motivate them to concentrate and make the subject interesting. Students enjoy the class because it is a relaxing class after studying the complex concept oriented subjects where more of teaching and less of learning takes place. It makes them feel that they have less burden. The subject becomes more interesting and that is been reflected in the students attainment and progress. At times music can create a distraction when the music is too loud so the child focuses on the music rather than the concept taught. Some of the students enjoy the activity in class when the background music is been played. This helps them to concentrate and gives them a sense of motivation and make the activity more interesting. Students feel that music must be used in all subject especially math's because it helps them to concentrate. All children are musical until and unless if you don't have a sense of rhythm. Use of musical forms in classroom teaching and learning will help some students to discover their hidden talents.

• Student's feedback on music as a tool in teaching and learning

It's very useful as it keeps them active during classes and actually create a learning ambiance for the students. It actually acts like an energizer which makes them do work, especially when the students are given some activity. Music has helped them a lot to concentrate on the material they study. People might find music distracting, but honestly, you don't get distracted even with other things at all when you listen to music. It has helped me in improving their focus and concentration. It's very helpful especially if you're solving a numerical. The influence of music is so great that no matter what subjects they learn they can't proceed without some



instrumental music in the background. Music is a fine way to optimize the boring it helps one focus and be attentive. Classical music has been proven to help people focus while they study. Instrumental solos are especially great because they lack the complexity and drama of a full orchestra, which means the music will be less likely to distract when they are learning.

- **Teacher's feedback on the CPD conducted to integrate music in classroom teaching and learning**

It's nice to get to know that we can use music in the classroom specially changing the moods and atmosphere in the classroom. Teachers tried playing inspiring and slow piano music in the class and found it more effective when individual work is going on. They found bit difficult to use music when the continuous discussions were going on while writing. Other than that music can make the students calm and focused at work. They used fast music to break the monotony in the class between the periods and that also worked well. Incorporating music whenever possible, in classrooms is having a positive impact on the students' learning.

Recommendation

There must be an action research on use of music as a tool in teaching and learning .The action research has to be conducted at all levels and all subjects and in different forms . The results need to be compared with classroom teaching without music. There must be a feedback from the students and the teachers on the lesson outcome using music as a tool. If possible defects arise they need to be analyzed and rectified.

Limitations

With regard to the literature review, limited literature seems to exist on music as a tool in classroom teaching and learning. Till date, there is a scarcity of research and studies in all subjects, mainly at the middle school and high school levels. The evidence gathered at the preschool and elementary school grades recommends that music used as a systematic teaching tool can have a great positive impact on learning, reading and mathematics. Further controlled, well-executed studies with adequate sample sizes are still compulsory to confirm that suggestion and furnish a body of evidence at the secondary level to explain the pedagogical value of music.

CONCLUSION

Since music is processed in student's brains, and one of the core intelligence certainly helps to make learning easier. Emotional intelligence is closely related to music that will induce emotional reactions of disliking or liking and arousal or excitement. Music as a tool can be used to communicate with learners and have a deeper level of understanding by just touching their emotions. The musical effect on the brain wave frequencies will create a relaxed state of students mind while they are studying, reading or reflecting, it is then when emotions are dominant and relaxes the brain that helps to pass the content into long-term memory. Music related activities assist in improving the motor- finger dexterity and auditory melodic skills. It helps in linguistic development skills and phonological awareness. As children get older, they begin to expand their vocabulary and start to make connections with words and their meanings. Thus, music helps to enhance auditory discrimination, vocabulary, and non-verbal reasoning skills. Music creates arousal and keeps their concentration while sliding content into long-term memory. Teaches can imitate with background music which can create two effective learning environments active and passive. An active concert during activities increase the productivity of students, create a positive atmosphere, grab student's attention, and energize students. A passive show on other hand helps to relax the student's alpha brain waves and maintain a balance between mental, physical and emotional rhythms to increase information absorption. Students enter a relaxed state of mind which opens their mind for incoming information Music can be used as one of the most powerful technique for reviews and tests. To create a more positive learning environment that can be done by playing music as students enter and leave the classroom and during break time. At the later stage, music can be incorporated based on the type of lessons and its objectives. The proposal is at the infant stage and needs much action research to make classroom teaching-learning more enjoyable.



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