Effects Of Music Training on Verbal Memory in Children – Dr. T. MYTHILY Ph. D

Introduction

Charles Darwin in his Autobiography reveals his inner wish and musical bent of mind that, "If I had my life to live over again, I would have made it a rule to …… , listen to some music at least once every week; for perhaps the parts of my brain now atrophied would thus have been kept active through use". Even now, this can be of good applicability with everybody's life from the childhood days.

The selected topic is based on neuro psychology and cognition. The psychological experience in learning and retaining and reproducing the learned material effectively. There is a wealth of literature on the health and healing effects of music, its influence on emotions, physiology, cognitive skills and other aspects and numerous approaches and theories have been proposed to explain these concepts.

In the present day scenario it is our duty and responsibility toward our younger generation to guide them in proper channel of activities. But this responsibility commences very early in life . As parents our responsibility lies in all aspects of individual developments like speech, reading, writing, conversation, walking, climbing the staircase, running riding the bicycle and other motor activities.

Every child when reaches the age of 10 months normally, commences speech by babbling , cooing using word like sounds two letter syllables by using lips, touching lips with tongue, folding tongue a bit, and the like. The repetitive nature of human being helps to coin more new words with regard to child's behavior establishes and the same tendency is also reinforced for further learning.

In this period of developments, the pre operative periods of life, language finds the most important place in the formative years. During the first two years of life and between 3 to 5 years, the cue for verbal instinctive ought to be instilled in child. Naturally all normal children will be a chatter box, like speaking whatever comes to their mind, in their immediate environment, whatever the elders in the family speaks they will repeat with out comprehending the meaning of the words. Very natural way of the child like behavior. Few children will remember these words and repeat at a later point, as late as a fortnight to everybody's amazement. Then, we as elders praise the child for the presence of mind in utilizing the words.

Music training changes the left brain activities and further helps other left brain related actions and operations and enhances the language/ words using capacity to a better level.

Aim of the study

Music training enhances verbal memory in children. Aids toward better retaining of learned materials.

Discussion:

In the first group children are studying in third or fourth standard. The verbal exposure has been given according to their vocabulary strength and the class they are studying. But the music training was same for both the graders. Girls are more interested in the new form of spending the time and eagerly waited for the next session . Two girls have showed disinterest in learning to play the new instrument. Though the classes are a welcoming change in the monotonous routine, few children finds it very difficult to accept. Almost every child enjoyed the sessions and shown interest in the exposure. Slowly the progress were perceived in all quarters of activities of children. In this group, two or three weeks later , both boys and girls enjoyed the sessions and eagerly participated in every session. The formative years, in learning new concepts , has played a very vital role in this new music sessions. The verbal utility – usage of words has increased enormously during these weeks. The children were able to retain the learnt materials very well and utilized the same also appropriately. They were able to reproduce more words than other children, those who do not have the exposure to music training.

In the second group children are studying in fifth or sixth standard. The verbal exposure has been given according to the grades they are studying. But training in music was the same for both the graders. In this group boys were shown more inclination to learn the music. The uniformity in music training as a group evinced interest in children and wanted to show their memory impact on the learned material. In this group of sixteen children, every child has individual willingness to participate in the music training sessions. Both girls and boys have equally shown interest in the training sessions from the first week onwards. The duration of training sessions has also an impact on the individual's ability to reproduce the learned materials. The learning curve for the words, rather verbal enhancement was excellent in these children. This was very much evident when compared to other children who do not have this music training exposure.

In the third group children in the age group of 13 to 15 years have participated. These children were studying in the ninth and tenth standard. For these children music training has helped enormously in writing their examinations. The reproduction of learned materials during examinations, either pertaining to language or number related, it was more of appreciative type only. The liveliness of the memory, very fresh in writing are all experienced by these children after the training in music. Each student in this group were showed willingness in the training sessions. The twelve weeks training in music were rated in between, at the end of fourth and eighth weeks to assess the students' gain in memory. Both boys and girls were equally poised in the positive trend of music training. In this group also the students showed interest from the very first session onwards. The children themselves enquiring about their improvement in the verbal memory and the ratings they are gaining, in every music training sessions.

For all these three group of children ,those dreaded piano/ music lessons pay off in unexpected ways: According to this new study, children with music training had significantly better verbal memory than their counterparts without such training. Plus, the longer the training, the better the verbal memory. These findings underscore how, when experience changes a specific brain region, other skills that region supports may also benefit –- a kind of cognitive side effect that could help people recovering from brain

injury as well as healthy children. The verbal memory was very good with children who have training in music. The instrumental music which the children were trained had given enormous scope for further learning. The recalling ability for words, was rated more in the higher level than other children, who have not exposed themselves to musical training. This result gives clear evidence that musical training, either instrumental or voice, helps to rise in proportion verbal learning performance with regard to the duration of musical training. The more the years of training in music the gain in verbal memory was also enormous. The results for the Verbal Memory after the training sessions were gradual and moved in the positive trend only.

Even if the musical training is continuous it can boost verbal memory. More training, they add, may be even better because of a "greater extent of cortical reorganization in the left temporal region." In other words, the more that music training stimulates the left brain, the better that side can handle other assigned functions, such as verbal learning. It's like cross training for the brain, comparable perhaps to how runners find that stronger legs help them play tennis better – even though they began wanting only to run. Similarly, "Students with better verbal memory probably will find it easier to learn in school."

In the present study all the three groups find out the advantage of musical training in the early stages of life. In the first group children are very young and the proposed music training during childhood is a kind of sensory stimulation that "somehow contributes to the reorganization-better development of the left temporal lobe in individuals, which in turn facilitates cognitive processing mediated by that specific brain area, that is, verbal memory.", At the same time, that it's too simplistic to divide brain functions (such as music) strictly into left or right, because "our brain works like a network system, it is interconnected, very co-operative and amazing."

Most important, the present findings suggest that specific experience might affect the development of memory in a predictable way in accordance with the localization of brain functions. Experience might affect the development of cognitive functions in a systematic fashion. More continued research at least for six years is needed to ascertain the effects of music on the brain, both right and left side and its impact on individuals.

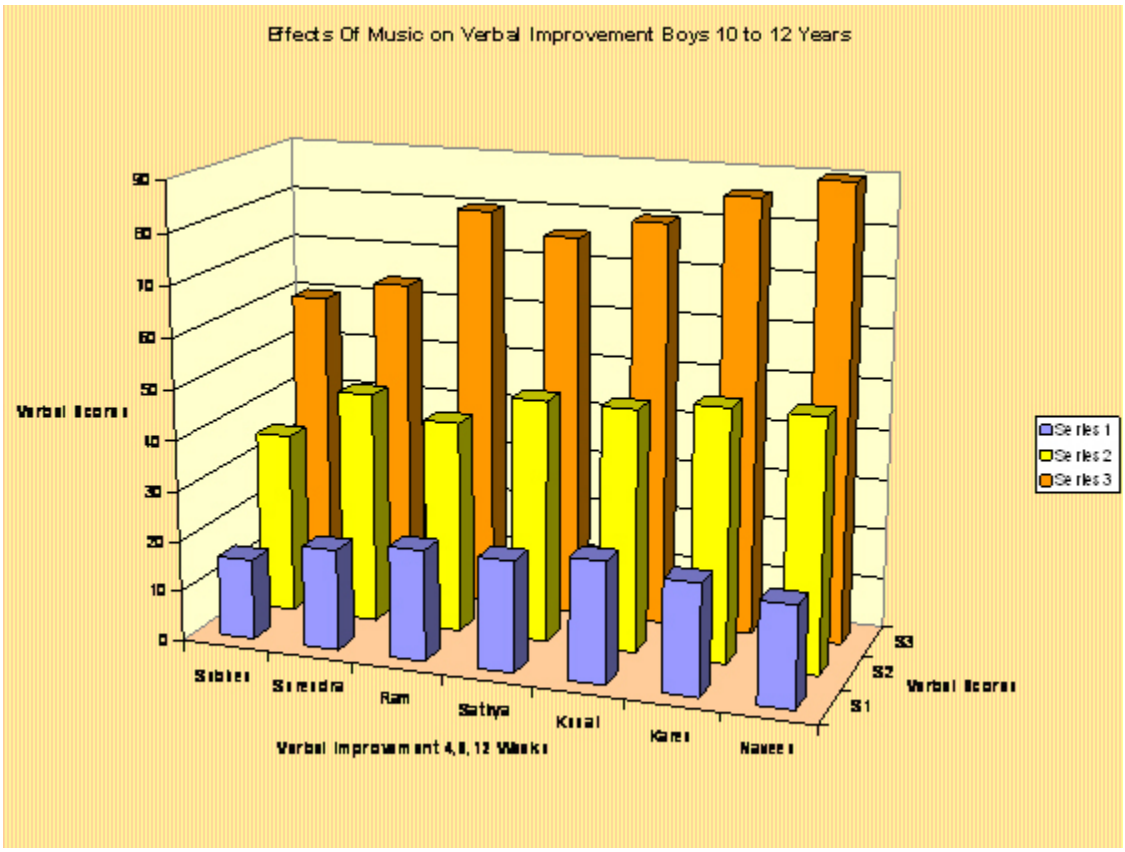
But the mechanism behind this knowledge helps us to learn the concept and can stimulate , further investigation into ways to enhance human brain functioning and to develop a blueprint for cognitive rehabilitation, such as using music training to enhance verbal memory."

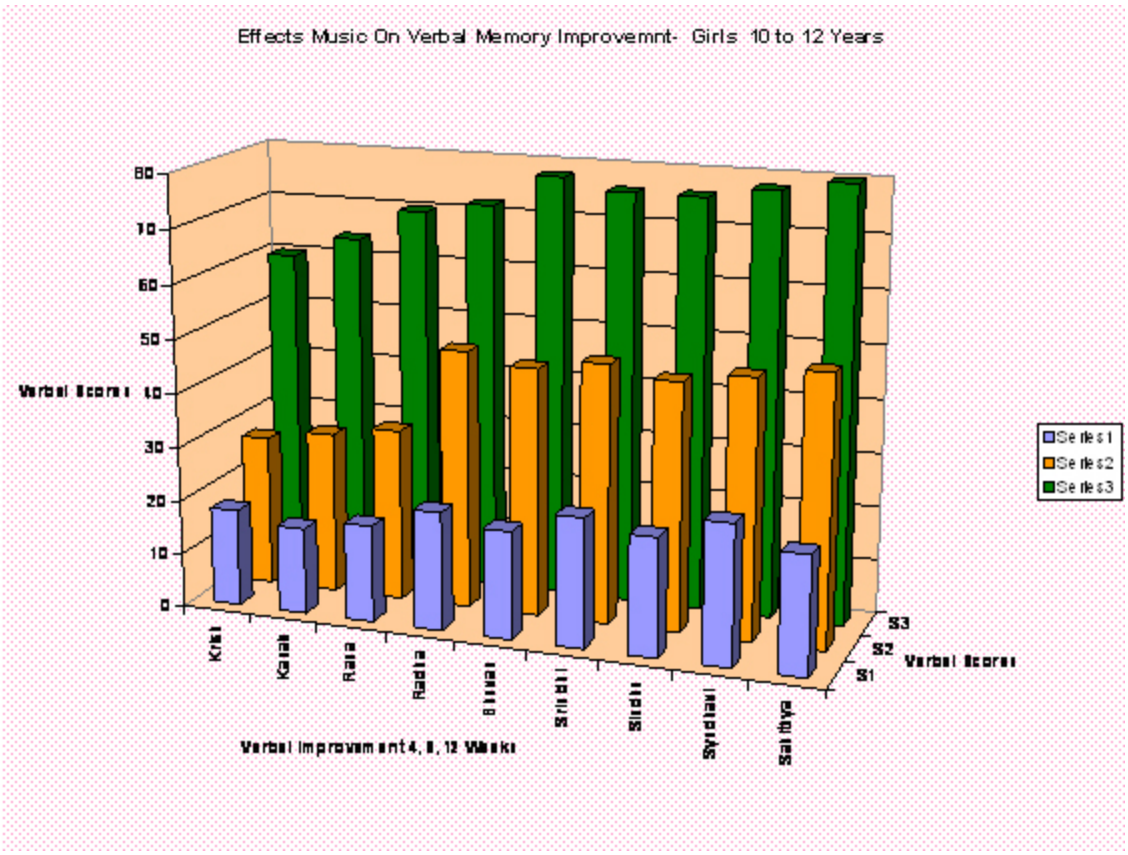
In this regard, we can ascertain, that music training during childhood is a kind of sensory stimulation that "somehow contributes to the reorganization-better development of the left temporal lobe in individuals, which in turn facilitates cognitive processing mediated by that specific brain area, that is, verbal memory." .

Since this music training in enhancing the verbal memory for children have resulted in positive improvement, the participants in this study were advised to continue their music training further for few more years. Which may help them suitably to achieve more heights in the later years of education.

CONCLUSIONS

- The improvement in Verbal Memory is gradual and in the positive trend.
- The level of participation in the music training class was normal with regard to the age of children.
- Few children showed exceptional interest in these music training sessions.
- For the three groups. Music training enhanced the verbal memory in children.
- Both boys and girls have showed equal passion for these training sessions.
- There is no sex difference in this study with regard to expression of verbal memory through music training.
- There are individual differences available in this group with regard to participation in the group music training, expressing interest in the sessions and attaining the level of verbal memory enhancement.




Effects Music On Verbal Memory Improvemnt- Girls 10 to 12 Years
Verbal Scores
80
70
60
50
40
30
20
10
0
Krish
Kanak
Rana
Radha
Bharat
Srishti
Sindu
Shyamlavi
Sahithya
Verbal Improvement 4, 8, 12 Weeks
S3
S2
S1
Verbal Scores
Series1
Series2
Series3