

Use of songs and rhymes in teaching different subjects

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Childhood is a time when Mother Goose is on the loose, ducks wear frilly caps and cats are dressed up in boots and hats. This world of make-believe sways to the music of rhymes. But many people consider rhymes to be meaningless ditties that serve no purpose and many Indian schools have even gone as far as taking a conscious decision to not teach nursery rhymes in their schools because the stories of their origin are nowhere close to the innocence of childhood.

Rhymes are known to have originated sometime in the 1600s. It was a time when witchcraft hysteria was at an all-time high, and consequently, rhymes reflected the mood of the times. They were used to spread a rebellious message suitably camouflaged as seen in *Humpty Dumpty*, *Mary, Mary, Quite Contrary* and so on. *Ring a Ring a Roses* is thought to be a parody about the Bubonic Plague.

While we may have our reservations with the content of the rhymes for young children, we cannot deny the purpose they served. The element of music in them was at least on track and worked towards improving memory and cognition.

Learning and Music

It has happened to all of us— there is some silly tune or song (much like the recent *Kolaveri* rage) which we hear and keep repeating in our minds or hum to ourselves. Music has this striking quality which makes it stick to the memory part of the brain.

Howard Gardner, an education theorist and researcher on brain-functioning, has postulated this theory that every human brain has *multiple intelligences*. To put it in more technical terms, Gardner identified eight intelligences: *linguistic*, *logic-mathematical*, *musical*, *spatial*, *bodily/kinaesthetic*, *interpersonal*, *intrapersonal*, and *naturalistic*.

Pattern recognition is one of the primary purposes that music serves in the learning process. It also improves our bodily and kinaesthetic intelligences.

History of education and the use of songs

History of education tells us that music was an effective tool in child rearing, and even now, it continues to be a cultural bedrock for teaching many aspects of life to children.

In India, education during the Vedic period was accomplished through chanting and reciting. ‘Gurukuls’ of ancient times taught the principles of different disciplines of study in an oral format, whether it was poetry or drama, philosophy, religion, mathematics or science. Same is true of the ancient Greek and Roman civilizations, where emphasis was given on the teaching of music to their children. The Greeks believed that music has a significant role to play in influencing the will, character and conduct of human beings.

Music in the digital times

Technology has invaded our lives like never before and has brought with it hitherto unknown phenomena like stress to children which hinders their development and learning. Smart phones and hi-tech gadgets are the new age menaces across homes. Music can help release some of the childhood anxieties induced by over-influence of technology. Music causes a swell of suppressed emotions and children may experience a catharsis through crying or talking. Students drop their inhibitions as the music frees their vocal chords and lets them be more frank with their expressions. What they cannot put in words is sometimes conveyed in the school music class non-verbally.

Coming to present day classroom teaching, songs can be used to teach maths and science, apart from language. Songs come in handy when students have to memorize certain things.

Creative teachers can use songs to teach the subjects across the curriculum, as music makes classes interactive. Research done by Helen Neville and Annika Anderson tested the hypothesis that music training causes improvements in several diverse aspects of cognition by improving attention.

Songs for language development

Across various languages, songs help in practising intonation and stress patterns. Research has shown that pre-school children taught with an early exposure to music through games and songs showed an IQ advantage of 10 to 20 points over those taught without exposure to the songs.

Professor Hallie Yopp explains that the progression of phonemic awareness development in preschool, kindergarten, and early first grade includes the ability to hear rhymes or alliterate, blend sounds, count phonemes in words (how many sounds do you hear in *is*?), identify the beginning, middle, and final sounds in words, substitute one phoneme for another (change the /h/ in *hot* to /p/), and delete phonemes from words (omit the /c/ from *cat*). Thus children attain the ability to create rhyme and understand rhythm by listening to or singing songs.

Poems and science

Songs in general have a light hearted approach to life's more difficult challenges. This principle can be used to add a touch of fun to science teaching as well. The tough concepts can be put across through poems and then explained the usual way. This will enable children to understand concepts and remember them. The poem or song will aid recall and also make the learning process easier to assimilate.

Music and maths

We use our left brain for logic, science, maths, strategy, order, etc and the right brain for poetry, stories, patterns, music, imagination, etc. While these functions seem nicely segregated, the overlap happens in the case of maths and music. There is scale in music that proceeds from low to high just as there is a scale in numbers that proceeds from zero to infinity.

Learning music activates both hemispheres of the brain. When the brain studies mathematics, it requires the logical as well as the spatial-visual thinking. These processes happen in separate halves of the brain simultaneously. Thus learning both music and maths aids in obtaining active inputs from the two parts of the brain.

Many well known classical musicians including Mozart and Beethoven are known to have based their music compositions on the well known mathematical concept, the Fibonacci numbers.

Songs for character development

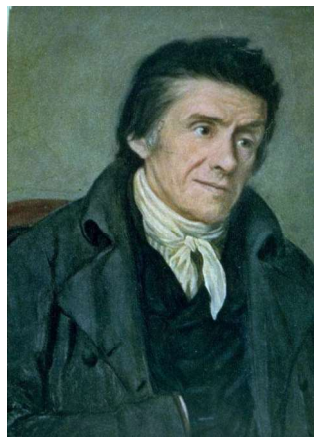
Music, Aristotle says not only improves our manners, but it also betters our soul. Across cultures, music and religion have gone hand in hand through the ages.

Moral values and life skills, patriotic messages, courage, confidence and empathy for fellow human beings are some of the values that can be easily instilled in children through songs.

Research done by Phillip Hash on *Character Development and Music Reconstruction at the Turn of the Twentieth Century* says that music arouses emotions, and musical sounds contain subliminal messages and disguised analogies that a listener will detect intuitively.

Hash has shown that in the 19th and early 20th centuries, school music's primary function was to help create moral, upright children, who would evolve into productive, loyal citizens.

There are many other educators throughout history who recommended the use of music in school curriculum. Pestolozzi was one such person. He was a Swiss pedagogue of the 18th century who advocated the use of music curriculum as a way of developing self discipline, and suggested that singing nationalistic songs inspire patriotism and kindred feeling.



Songs knit souls

Songs can assist in unobtrusively developing a conscience in the child without any monotonous preaching. Hurlock says that during late childhood when the learner might be initiated into music, this *internalised policeman* motivates a child to do what is right and thus avoid punishment.

Bryant puts it across more poetically when he says songs knit the souls of young scholars to form a loving community.

That music morphs emotion is universally acknowledged now, but that it can enhance and aid learning is also being fast accepted. The fact that music aids learning should be music to every

teacher's ears. Let's say hello to music and welcome a more rounded and enriched learning into our classrooms.

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