



The Brain Loves a Song (Creating Confident, Competent Children)

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BRAIN FACT

It appears that a curriculum having limited arts exerts a negative effect on the development of critical cognitive competencies and personal dispositions. Burton, 90



I love variety!

Morning Strut (Songs for a Great Day!/Hip Hop Mob)

One song can do many things:

- *Stimulate both sides of brain; produce endorphins
- *Affect attitude
- *Language - new vocab word "strut"
- *Dancing (proper touch) Children don't know manners-imitate them;
- *Cross mid-section - need this skill to read/write
- *"Whew!" oxygen - brain runs on oxygen and water
- *Bouncing keeps steady beat
- *Vestibular system must be activated to learn

"The 8th cranial nerve is the vestibulo-cochlear which comes from the inner ear mechanism. These connect through the Vestibular system to all the muscles of the body." Dr. Carla Hannaford

Smart Moves: Why Learning is Not All in the Head

Moving the head activates vestibular system. This carries impulses to other parts of the brain. When we don't move, we do not take in information. This is why children love to spin. (As adults, it takes longer to get back to a state of equilibrium because of thicker fluid in ear canals.)

What we provide in childhood, are the tools children will use into adulthood. We must find ways to provide the following:

1. A healthy attitude;
2. A strong value system;
3. The basic skills needed for life;
4. Communication abilities
5. The ability to love and be loved;
6. Acceptance of others;
7. The ability to laugh; and
8. A sense of safety

Music is a wonderful way to give these gifts to our children.

Elementary educators **do not 'teach music' but 'use music to teach'**

"If I could choose the music children listen to, I could tell you what kind of society we will have"

Plato

Using music to teach with "E"ase

Music can: Enhance
Educate
Entertain
Evaluate

Vestibular system must be activated to learn!
Children have to move! You, too!

Music/movement activities are non-stressful ways to evaluate abilities.

- *Good communication skills is the number one correlation to success
- *Aggressive behavior linked to inability to express oneself-frustration
- *Can develop language skills in early years by playing with sound

Mr. Froggy (Bk + 4) Use of any puppet is helpful in getting children to speak out
Mr. Froggy came out one day. Said "Hi Miss Mar. Would you like to play?"
Miss Mar. said "Hi, frog. How do you do? Yes. I'd like to play with you."

If class is small enough, sit in a circle. You hold the frog (or any puppet) first and everyone sings first line to the child to your right. Just that child sings back and everyone says "Yay!". The frog is then passed to that person who turns to the person to their right. The song continues around the circle.

- *Personality is developed by age 8
- *Children need opportunities before 8 to build confidence
- *Letting children be leaders is important
- *Singing out in a safe environment builds confidence
- *Vowel Sounds
- *Release of endorphins - importance of laughter
- *Can use various languages

ZYXs (Hear Me Sing)

- *Step dancing is fun - no right way - just move
- *Sequencing backwards

I Like Apples (Tunes for Tiny Tots)

- *We have four voices - whisper, talk, sing, shout. This drills on all four.
- *It is more difficult to whisper than talk. It uses more muscles.
- *Children must practice it.

Have children clap as well as say words. May use rhythm sticks.

I like apples; I like peas;	(use whisper voice)
I like lentils; I like cheese.	(Use talking voice)
When I eat them, my tummy says, "Yum!"	(Use singing voice)
So everyday, I eat some!	(Use shouting voice)

We all make mistakes. But to commit a wrong, to lower the dignity of a child and not be aware that the dignity has been impaired, is much more serious than the child's skipping words during reading.

Clark E Moustakas
The Authentic Teacher

Mr. Froggy's Friends' ABCs (Mr. Froggy's Friends' ABCs)

- *Indirect way to teach sentence structure
- *Each letter has a subject, verb and object or adjective
- *Have children make up own for their names or friend's names
- *Make your own ABC book

Five Hip Hoppy Frogs (Mr. Froggy's Friends ABCs)

- *Gets brain engaged and happy (or - HOPPY!)
- *Croak for each frog. Awareness of number value
- *Croaking for 5 takes longer than croaking for 1. (5 larger than 1)

Wide-mouthed Bullfrog (WMBF /Frog Glove) book by Keith Faulkner

- *Children love interacting with story.
- *If you don't have the book, use pictures or puppets.
- *Stay in one place or you become a moving target that is hard to follow.
- *Children say with you "Hi. I'm a wide-mouthed bullfrog. I eat bugs."
- *For mouse, "Eek". High pitch sounds energize the brain.
- *For 'hop, hop, hopped', slap thigh 3 times. Vestibular system activated.
- *Show the page where he makes his mouth small; help them understand the lesson by saying, "He didn't want to be a wide-mouthed bullfrog anymore."
- *Open the last page and have everyone throw up their arms and yell "Splash!"

So, when do we teach reading?

0 - 8 years of age:

- * Frontal lobe is dominant - mostly emotions
- Motivation to behave developed in first 3 yrs-
- creation of dopamine -reward center
- Frontal lobe - stimulated through
 1. touch
 2. positive verbal reinforcement
- Learning is all through emotion - (me-focused)
Reading should NOT be taught here!

6 - 8 years of age: (keep in mind, some children arrive at 4 and others not until 10)

- starting to refine what has been learned; (This is the data collector)
- time to teach reading and other 'codework' activities;
- Reading taught before this time is taught to the emotional brain. The brain must go and find it and 'reprogram' it to learn it in the logical part of the brain;
- Eye muscles are not strong enough for 'reading'.

Reading readiness is not reading. It is teaching skills to be ready to read.

"Postponing codework until age 8 will insure that most children have the neurologic capability to grasp the reasoning behind symbol systems. The emphasis on early acquisition of reading, writing, math and other symbol systems may actually cause children to develop awkward and inappropriate methods of understandingencourages meaningless memorization of facts....may force code skills to be developed in the rear associative areas, which is not as beneficial to future cognitive developments as involving the frontal lobe structures in the process." "Children can benefit from active play with code systems between the ages of six and eight."

Rhythms of Learning Chris Brewer/Don Campbell

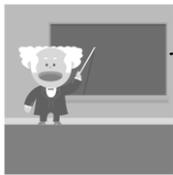
11 through teen years:

- Brain is myelinating to the front - logic with emotion - mouthy teens!
- Self-assessment
- Peers very important
- Application of knowledge

Children learn differently (Howard Gardner -Harvard:Multiple Intelligences)

Differences between boys/girls:

1. Boys more focused one side; girls work from both sides
2. Girls count concrete (use fingers); boys count in head;
3. Boys look for role (competition)
4. Girls look to cooperate
5. Boys take longer to acclimate to new school (give task)



It becomes boring and ineffective when the same teaching pattern extends for a long period of time. Teachers need to switch things up to keep everyone involved. Different children learn different ways, but all children need to move!

Come and Go Around with Me

- *Teaches environment
- *Prepares for story writing



Move. Then, Stay Still

- *Children cannot sit still until they practice
- They're still babies! FUN should be part of the curriculum

PROCESS
PRODUCT



So, if you can't teach that day, don't criticize. You - who you give them - is more important!

Having fun makes it easier to learn!
Helps the brain understand the rhythm of language!
Dance with your children!



BRAIN FACT

People who dance once a week decrease their chance of Alzheimer's and dementia by 79%. (Verghese, 2003). Playing a musical instrument decreases it by 69%. (Churchill, 2002).

Dancing Disco Dogs (Singing in a Different Key)

- *Children need to develop their motor skills.
- *Social Interaction and Proper Touch
- *Patterns

How Can I Move There? (Singing in a Different Key) - understanding positional words

- *Explore different ways to move - forward, backward, upwards, around
- *Associate movement with an action or animal for a mental picture
- *Exposure to Latin music



BRAIN FACT

Afro Cuban / Salsa beats can benefit the brain by about 20% more than Mozart! (Parsons, 2006).

Up On Your Feet (Music Makes Me Wanna Move)

- *Uses style children hear / like
- *Counting, spelling
- *Moving



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Green, Yellow, Red (Mr. Froggy's Friends' ABCs) - understanding of community / laws

- *Learning about environment and how to follow community rules
- *Identify color with action
- *Use color on word with action - Reading Readiness



BRAIN FACT

Although test scores of use of music and no music may exhibit equal results, when memory of knowledge is compared later on, the students who learned through music and movement had better retention. (Altenmuller et al 1999).

The Wheels on the Bus

- *Keeps children actively involved in story with movement and sound

"When reading stories to young children, it is possible to replace the visual element by the pictures, upon which we now rely so heavily, with physical and verbal imitation." Robert Munsch

Basic skills put in place through music and use of fingerplays (visual) CCSS number awareness

What Animal's Missing? (Mr. Froggy's Friends' ABCs/Barn Glove)

- *Sequencing
- *What is missing from sequence

Visuals and labeling are excellent for children learning a new language.



Monkeys Swinging in a Tree (Mr. Froggy's Friends' ABCs/Monkey Glove)

- *New version with better choices

Tell Me The Word (Mr. Froggy's Friends' ABCs)

- *Basic things in the sky and their function
- *Engaging music - positive statements

Going on a Shape Hunt (Mr. Froggy's Friends' ABCs)

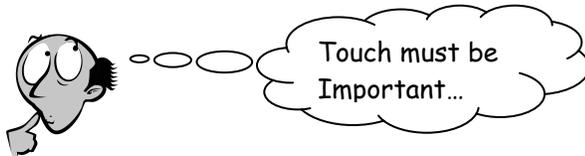
- *Instead of a bear hunt, look for shapes
 - ~Can also do this with numbers, letters
- *Making it fun engages frontal lobes, producing endorphins and oxytocin
- *Use of music, movement and fun enhances ability to learn and retain



BRAIN FACT

Make that 3 Brain Facts ☺

Touch is 10 times more important than verbal or emotional contact. (Ackerman, 1990). Humans can survive without seeing, smelling, tasting or hearing but will die from touch deprivation. (Chapin, 1920). Children who lack play and touch have 20 - 50% smaller brains. (Perry, 1998).



Will You Hug Me?

- *Proper touch
- *Positional words



BRAIN FACT

Music helps children explore emotions. The more emotions we expose them to (including uncomfortable ones ie fear, sadness), the more capable they are of dealing with them when they happen. Peter Alsop calls this "putting tools in their toolbox".

It's Early CHILDhood - FUN is part of the curriculum

Think ~ Not teaching the skill

Putting the tools in place to learn the skill

Little Bunny Foo Foo (New, improved version) Traditional song - fun, but nothing valuable taught.

1. Tell rabbit "Look. The mouse is crying. You hit the mouse. Hitting hurts. You may not hit
2. Instruct the rabbit to say, "You're crying because I hit you. Hitting hurts. I will not hit hit you again.
3. Allow mouse to decide if she wants to play w/rabbit. (Teaches consequence to negative behavior and allows mouse to feel safe and in charge of choices.)

You Gotta Laugh (Start the Music)

- *Vowel Sounds
- *Release of endorphins - importance of laughter

In and Out the Window (unFROgettable)

- *Spatial temporal reasoning - the ability to understand your body in space and time
 - ~~ must be in place to understand numbers.
- *Patterns and patterns with variation
- *Following directions; listening
- *Pre-planning; Working together

Bunny Hop Jump

- *Patterns for math
- *Language
- *Can be successful without understanding words
- *Complete circle pattern

Nothing Else (Start the Music)

- *Scaffolding
- *Sequencing and adding onto the sequence
- *Body control

Cookie Mouth Sounds



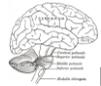
- *The six basic mouth sounds
- *Use visuals
- *Can make cookies and with "When the Doorbell Rang" by Pat Hutchins

DISTURbing FaCts

- Problem with childhood obesity and diabetes
- 30% of US schoolchildren are overweight
- Only 6% of High Schools offer daily PE in the US
- Many schools have cut recess out of elementary school schedules

I Like to Jump

- *Body control
- *Feeling internal rhythm
- *opposites



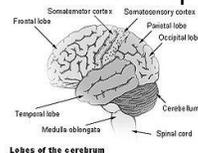
BRAIN FACT Moving activates muscle memory, which is helpful for students who can only learn by moving. (Hannaford, 2005)

Maerobics (Keep Safety RooTeen/Safety Quad Box)

- *Use of cross-lateral movement and brain gym (Dr. Paul Dennison)
- *Brain gym - activities using movement to stimulate both sides of brain
- *Must be able to control body and understand they have the power to do that

These activities can be done to any music with a good 4/4 beat

Music uses more regions of the brain than any other activity. It only makes sense to use music to aid in memory/retention of important facts and concepts, including nutrition.



This can be done through activities that include:

- *Music (songs, rhythm activities); or
- *Movement (dance, drama, game).



BRAIN FACT

Music creates positive state for learning. It helps to reduce stress levels, heighten attention, enhance concentration, reinforce memory and stimulate motivation. Campbell, 97; Jensen, 2000

Balls of Energy (Songs at My Fingertips)

- *We are all made of energy.
- *Our brains are electrical. They run on water and oxygen.
- *Teaches children control of body - how fast/slow; loud/soft
- *Teaches sequencing and scaffolding

Energy, Energy. We're balls of energy. (loud and then soft)



BRAIN FACT

Music is helpful when doing chores because it can reduce stress levels, heighten attention, enhance concentration, reinforce memory and stimulate motivation. (Campbell, 1997; Jensen, 2000)
Stress produces cortisol which in turn increases appetite. It can move fat from storage depots and relocate it to fat cell deposits deep in the abdomen. Cortisol also aids adipocytes (baby fat cells) to grow up into mature fat cells.



Depression is linked to poor eating habits.

Children who feel loved are less depressed.

Hugs produce endorphins and growth hormones.

Hugs feel Good!!!

It ALL ties together!

Body, Heart and Mind create a Sound Person



BRAIN FACT

During the first year of life, rhythm is the element of music that has the greatest effect. (Dr. John Ortiz). The human brain is innately responsive to highly rhythmic music and the only mammal that will tap its toe because of automatic tendency.

Nutrition

- *Children must learn to make good life style choices
- *Meet NAEYC, Head Start, NASPE requirements
- *Combine moving with visuals and sound

I Know a Smart Woman Use doll to feed foods from different groups. (Old Lady Swallowed Fly)

Today is Monday Merengue

- *Use familiar "Today is Monday" with a Latin Flavor

Dance For the Food Groups (A Musical MARathon)

- *Review food groups
- *Each group has its own dance
- *Children hear all groups and then must remember from sound and do dance





Basic Facts

1. For a typical brain in relaxed, calm states without undo stress, it takes 21 days to create new neural pathways or habits of thought;
2. Seven stressors can reduce IQ by 20%;
3. Ninety-nine percent of learning is unconscious;
4. Humans learn 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 70% of what is discussed, 80% of what is experienced and 95% of what they actively teach;
5. Eighty-five percent of people are kinesthetic learners (Einstein) The vestibular system must be activated for learning to take place;
6. Number one common denominator between success and any other ability is between success and language ability;
7. The more senses involved, the better the learning experience;
8. The ability to perform cross-lateral movement is necessary to be able to read;
9. The brain needs water and oxygen to run effectively;
10. During the first 6 - 8 years learning is centered mostly around emotion and memory. The next phase of learning is collecting data (symbols for reading/math). Through the teen years, the back of the brain myelinates to the front, combining emotion with logical thought processes.
11. In the 1950s, the average fourteen-year-old had a vocabulary of 25,000 words; In 1999, that number was down to 10,000;
12. Inner voice (the process through which we hear ourselves think and listen internally) is necessary for critical, higher-level thinking. Should be in place by age 7 or 8;
13. Classical music played in hallways - aggression reduced by 90%
14. Should not play music more than 22 minutes an hour. It becomes too familiar.
15. Singing activates the semi-circular canals, involved in vestibular sensation.
16. Children who can differentiate between pitch have better phonemic awareness.
17. By adult, $\frac{1}{2}$ synapses discarded; if used repeatedly, they stay—**Music needs to be constant.**
18. Latin and African music provide the brain with up to 30% more benefits than Mozart's music.

Compiled by Maryann Harman

LIST OF RELATED CITATIONS
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