



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute  
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## **The Musical Learner: Rhythms and Reading**

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### **Introduction**

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Everyday, students present themselves in a classroom with various levels of readiness, and interest to learn new information. Everyday, teachers present themselves to students as the keepers of that information. It is in turn offered to help them grow in social, personal and educational abilities. Exploring and understanding how the brain shares and uses information offered daily to form the overall intelligence of the being is the ultimate quest for an educator. The classroom environment is much more than a rote learning experience for a student. Still, the challenge of stimulating the students to absorb and apply the information, in any discipline, is daunting. In a K-4 environment every basic that is taught and reviewed is a necessary component for further educational growth. Given this overwhelming challenge, the question is, With all of our different methods used why are there students that are not on grade level? As I have gone through the process of studying the various methods of measuring what the students have learned, (ESI, DRA, DRP, CMT etc.) is it no wonder why the debate goes on and on? To simplify how I would funnel this plethora of information into a functional descriptive unit, I found myself asking three simple questions:

- 1) What knowledge did I bring to the subject? I found that this knowledge came in two forms; knowledge I have retained from various classes or picked-up from professional books or journals, and knowledge I have garnered through hands on teaching experiences.
- 2) What knowledge did I want to know? This question brought more information than I thought. Every time I found what seemed to be a succinct answer, there was an opinion or study that negated what I thought was a bright light in the never ending quest for the "answer". So to side step this ocean of information, I specifically questioned, How can musical instruction be applied to reading instruction? Are there parts of the brain that could be stimulated by musical infusion. Thereby working in tandem to assist further progress for those students falling behind in grade level reading ability?
- 3) What have I learned? Well this question became; what have I learned that could be applied to the subject matter a hand? As an educator, I know "intelligence" represents itself in many forms. Some students can repeat and verbalize everything that is presented. Others need manipulatives to cement the educational process. While others can't apply the information until there is some form of game or activity that shows application. And, so as to not limit the profile of students,

there are some that need all and more.

Most educators will see this form of gathering information as the "KWL" strategy student's use to process a non-fiction book. This is broken down as follows; "K"= What do I know about the subject previous the reading? "W"= What information do I want to know about the subject at hand? "L"= What have I learned after the reading is complete? Well although simplistic in nature, hopefully it has helped me present this unit in an interesting and thought provoking manner.

## Theories

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As a K-4 General Music Teacher, I educate and see a variety of intelligence and social backgrounds. Everyday, I attempt to create a learning environment that will spark interest and curiosity for musical expression and appreciation. I am always amazed at the inherent ability of some students to process and nurture the information given. I have seen some students apply the information of meter and sound to other disciplines of education while others do not. So, it is the question; Is this an example of general higher intelligence or an example of Gardner's musical intelligence? Is it the naturally developed cognitive mind that is recalling and applying similar information, or a more developed part of the brain (i.e.; the musical brain) working for the student?

### Charles Spearman

It is believed that before entering Kindergarten, every student carries with them varied natural abilities to learn. In 1923, Charles Spearman, a British psychologist, identified this natural ability as their level of 'g', or their mental energy/ability to process and apply information. To explain it in a classroom setting, the student that exemplifies strong "g" processing is the student that has an overall functioning intellectual nature. This student shows the same control and interest no matter what is happening in the classroom. It is the same student that demonstrate the ability to process new information, review existing knowledge and apply both for a deeper understanding. This natural "g" intelligence factor crosses curriculums and is the foundation that past, present and future learning will be built on. It was his contention that the stronger the students ability to cognitively associate and apply the information the higher the intelligence level. It was also his contention that this ability is static in nature and the level you are born with is representative of what your intelligence level will always be.

Looking for an example of this "g" student in a musical setting, this is the same student that can add new pitches to a scale (do, re mi etc.) or add a new value to a rhythmic passage ( half note, quarter note eighth note etc.) without missing a beat As a music educator I would love all of my students to take with them a broad understanding of musical expression and theory. However, as an educator, it is also my quest to instill the skills of learning for any discipline.

## Howard Gardner

In 1983 Howard Gardner offered exciting information on Multiple Intelligences, or MI. This MI Theory points to the existence of seven separate intelligences:

1. Linguistic Intelligence (a poet, lawyer)
2. Logical-Mathematical Intelligence (mathematician, scientist)
3. Musical Intelligence (composer, performer)
4. Spatial Intelligence (pilot, sculptor)
5. Bodily-Kinesthetic (dancer, athlete)
6. Interpersonal Intelligence (salesperson, actor's ability to understand others)
7. Intrapersonal Intelligence (the ability to know and understand oneself and effectively make decisions based upon that model)

Gardner's theory initially stated that basically the brain was broken up into individual areas of expertise. The strength or energy of these areas determined what came naturally as a style of learning. In his latter book, he seems to expound upon his theory and give credit to the communication the brain has between the sections and goes on to say that overall communication between all sections is needed for the musical or any other intelligence to perform optimally. Thus a vocalist would have musical, bodily/kinesthetic, interpersonal/intrapersonal intelligences, while a lawyer would possess linguistic, logical, interpersonal/intrapersonal intelligences. The contention here is the dominant section would be the field of choice. He also contends that this is the natural learning style.

It is my quest to take Gardner's theory and apply it to the student that is albeit seemingly interested in education, is somehow falling behind in reading. The crux of my exploration is how to use the natural musical interest of a student to support behavioral and educational discipline in the regular classroom. Specifically, helping the student to focus and achieve. The process of taking turns singing or playing an instrument, suggesting rhyming words and writing a song, or learning to listen for clues in poetry / songs should reinforce their classroom experience. Hopefully in turn create a stronger and self motivated reader.

## Curriculum

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The following are specific examples of how I have chosen to apply the information acquired from the seminar into my general music program. The first examples have been taught with success and are used with grades K-2. The 2nd grade reading program will be implemented in the year 2001-2002.

We have all learned the chant, "In 1492, Columbus sailed the ocean blue". But we eventually all learned to recognize the information given and expound upon it as we learned the ship's names and the entire story of Christopher Columbus' exploration. 1492 became part of a whole, although the rhythm of the chant is always there, as a cute ditty, it is not how we remember it. The exploratory year of 1492 now is part of the long term memory which includes many more facts about Columbus' voyage.

It is the overlapping of modalities helps the memorization process for all students. By keeping a steady beat in their bodies it reinforces when the words are expected disabling the fear of singing alone and reinforcing group participation. It also enables a slower internal rhythm for some and allows for greater verbal concentration.

To further this is an example of a song I call, "We Can Count By Ten". Although learned by rote, the initial understanding is just that, a song. But coupled with movement very specific to each part of the song, the section of 10 to 100 has its own movement to coincide with the counting process, as well as its own melodic line. A student can find themselves counting by tens to one hundred as early as Kindergarten.(Lesson 1) At that grade level it should be left as that, a cute song which reinforces numbers and a steady beat objective with patchen, or body percussion. However, if you ask 1st or 2nd graders to do it without the music it is almost impossible for some. Usually, they automatically start singing and keeping a steady beat with the motions that have been given to different parts of the song.. At these grade levels taking the simple lesson of counting by tens and augmenting it with mathematical manipulatives, such as groups of tens, the song takes on a concrete and easily applied concept for mathematical groupings, addition and eventually multiplication. With new associations for the 10's groupings, the song is usually replaced by concrete visualize of manipulatives and numerical signs.

The same is true for groupings of fives. A simple song that helps with reading time. (This is the song we have all used for Hide-N-Go Seek) I have added various student driven movements to this one. Although the simple cross-body meeting of a partner's hands seems to work with any level. Some students can't do it without the "Five" chant. They have not made it part of their long term knowledge without recalling all parts of the song. Again, introduction of 5 manipulatives cements the mathematical application and a new visual association. An analog clock face can now be used to further the understanding and application of the 5 groupings.

Are we changing the natural ability of the students with these songs? No. However, we are maximizing the educational experience and minimizing the failure factor.

By adding simple melodies and rhythms to the information the student is spurred to remember what the proper sequence is to recall the information. It is similar to nuemonic devices we have used for the Great Lake names; HOMES. It is also how most have learned the names of spaces in the treble clef in music; FACE.

At this point I would like to focus on the 2nd grade level. This population of students offers a wide spectrum of reading capability. Due to different social maturity levels many slower readers are the very students that have more physical energy than they can put on hold. As a musical specialist, these are the same children that have not met the criteria of changing their internal rhythm to match and external rhythm given by the teacher. Part of a musical curriculum for K-2 is teaching a steady beat. The student needs to ignore their internal rhythm and focus on the external group rhythm.

In a musical setting, these are the very students that cannot hold a steady beat. They can start with the group, but invariably they lose count. Ironically, not because they are non-musical but because of the layers of sub-rhythms they hear in their heads. They come bursting out when the rest of the class is keeping a steady

beat. A steady beat seems boring to those students and too elementary. Suddenly, subdivision and syncopations are heard. Harnessing and directing that natural ability is sometimes quite a challenge. It is only when they can internally feel a steady beat that the student can keep track of musical notation and begin reading a notated rhythmic phrase. As that student grows in the basics, their musical abilities blossom.

In a classroom setting, this is the same child that loves telling stories or is fascinated when being read to, but can't read on grade level. Either the tracking mechanics aren't there or phonemic awareness is not strong enough. However, sometimes memorized words are so strong that they replace actual words in the story. The energy level is usually so high, that stumbling over words causes frustration. This in turn cause a high failure factor and the energy turns into behavior problems.

So the next step would be to apply the same internal monitoring enforced in learning the songs mentioned above, to a reading group. Choosing the students for this program will be a collaborative effort of the second grade teachers and myself. This program is designed to work with students that are reading below grade level and are not progressing steadily. It is not designed to combine the student on medication with the student that is not. A maximum of 16 students would be selected, approximately 10%. 8 will receive an extra hour of musical/reading instruction, 2 - ½ hour sessions weekly, the other 8 will not. The student would apply basic musical reading and performance to enhance reading ability to well known and comfortable stories, (Lesson 2), as well as explore phonograms and word families that may be known in their language but not recognized easily in writings, (Lesson 3). Strict record keeping of what has been taught in each session is imperative. Phonograms that have been augmented into word families and consonant weaknesses and strengths will create an overall picture of the success or failure rate. Bi-monthly meetings would review the classroom reading progress of both groups. The classroom teacher(s) would document when and if growth has occurred and if it coincides with their musical experiences. It is important to review any behavioral changes that have occurred as well. After all, the primary objective is to assist the student in self regulating impulsive, therefore distracted, behavior in the classroom. We are looking to make the educational experience something that is within the student's control.

As a starting point, each session will begin with a basic rhythmic exercise. This will provide the group with an external pace. It is at this time the book of the week or the phonogram of the week should be introduced. Simple phrases from the book or words from the phonogram should be worked into the exercise. By building and extending the amount of time at a definitive pace, the students would be forced to regulate their internal rhythm. Every time the class begins, this self-regulation should ready the student for the task at hand. I believe this would transfer into their regular classroom and become habitual. Working in smaller groups with the at-risk readers, reading small phonetically related words to musical notation in a definite meter, enhances the students tracking ability.

As the student builds the sight words and story words/phrases, tracking and recalling details should follow. So the overall effect would be a more confident reader and self regulated student.

The following lessons are offered as a glimpse at the possibilities that are available to help further the above quest. As always the educator is encouraged to create and/or augment to specifically respond to your student's abilities.

## Lesson 1 - Counting By Tens

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### Learning Objectives

TSW (the students will) learn the song "We Count By Ten" by rote.

TSW learn the patchen or body percussion to the song.

TSW keep a steady beat.

TSW identify how many beat or pulses are in the grouping.

TSW identify where the strong and weak beat fall.

TSW add body percussion and sing the song keeping the steady beat.

TSW create a new body percussion for the song.

### Materials Required

The numbers 10,20,30,40,50,60,70,80,90,100 written on a large easel paper or blackboard.

"We Can Count By Ten" song written on a large easel paper or blackboard.

The number sequence above on individual card stock. (Optional)

### References/Resources

"We Can Count By Ten"

body percussion and arrangement by: D. Canzanella

### Sequence of Events

TTW (the teacher will) introduce a steady beat (4/4) with patchen. Strong beat in the lap, weak beats in the shoulders.

TTW introduce and sing the song above.

TTW repeat the song, while students are asked to identify how many phrases or rainbows the song has.

TTW teach each rainbow or phrase by rote.

TSW repeat the first two rainbows keeping the steady beat with patchen.

TTW will add the second patchen along with the number sequence.

TSW repeat the number sequence using the specific patchen taught. (see handout)

TTW repeat the song 2 times. The students are invited to join the second time through.

## Student Tasks

After learning the new song and patchen the students are invited to change the patchen, keeping the steady feel of the song.

### *Evaluation/Assessment Method*

TSW perform the song individually with the original patchen.

For further reinforcement, a group could hold up the individual numbers written on the stock, while the whole class sing the song with the patchen.

## Lesson 1 - Teacher Handout

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Legend:

TOP LINE = Note Values

s= sixteenth note

e= eighth note

q= quarter note

h= half note

SECOND LINE = Lyrics

THIRD LINE= Scale Steps (do1 is high do)

FOURTH LINE= Patchen or body percussion

e e e h q e e q q

WE CAN COUNT BY TENS, UP TO ONE HUNDRED

do do do mi sol la la do sol sol

lap clap lap, clap lap clap lap clap

e e e h e e e h

WE CAN COUNT BY TENS, READY HERE WE GO

do do do mi sol mi fa mi re do

lap clap lap, clap lap clap lap, clap

q e e q q

TEN, TWENTY THIRTY

do do mi sol sol

lap clap snap

e e e e q q

FORTY, FIFTY SIXTY

la la do1 sol sol

lap clap snap

s s e e e q q

SEVENTY, EIGHTY, NINETY

la la la la do1 sol sol

lap clap snap

q q h

ONE HUNDRED

mi sol do

lap clap snap

## Lesson 2 - " The Little Red Hen"

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It is important to note here, that the simplistic nature of this story was chosen purposely chosen for its comfort level. The students should concentrate on the external flow and rhythm that repeating words in this story naturally present. Ideally the students should be able to work as a unit within their group, creating a cohesive sound. Anytime one student is heard within the group either speaking out of time, or playing out of time, the above main objective should be restated.

### Learning Objectives

TSW ( the students will) ready the story "The Little Red Hen".

TSW identify and organize repeating words and phrases.

TSW orchestrate repeating words and phrases on non-pitched percussion instruments.

TSW perform the story, playing the instruments on the repeating words and phrases.



## **Materials Required**

Big Book of " The Little Red Hen"

Large chart or blackboard for repeating words and phrases

Selection of hand bells, blocks, sticks, and other non-pitched percussive instruments

## **Sequence of Events**

TTW (the teacher will) read aloud the book " The Little Red Hen".

TTW notate all the words no recognized or understood (i.e.: gossip, vain, thresh, how, mill, etc.).

TTW notate all words/phrases students identify as repeating.

TTW assign three/four different groups to represent each character in the book.

TTW re-read the story aloud having the students fill-in their parts.

## **Student Tasks**

TSW identify all words deemed to be orchestrated to enhance the emerging "sound story".

TSW choose the non-pitched instruments to be used on the repeating words/phrases. Each group choosing their common instrument.

TSW identify a rhythmic phrase (quarter notes, eighth notes, combination patterns etc.)

to be played on their instruments for their part(s).

TSW identify and practice soft/loud, fast/slow sounds to be made depicting the words/phrases.

## **Evaluation/Assessment Method**

TSW perform in groups playing and speaking only when it is their turn to do so.

TSW works as a team to make their character come alive.

TSW perform their parts in time and without interruption the flow in other parts of the story.

## **Lesson 3 - Phonograms**

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The following lesson plan is just an example of a word family and uses just one phonogram. It can be adjusted many times over to fit whatever suits you classroom needs.

The most important objective is creating a safe environment sot the students feel comfortable exploring the different words compiled. Some consonants will tend to be harder than other, but successful pronunciation and blending is the ultimate goal. Transferring that comfort level to a successful word reading game, creates a

positive emotional attachment to that word family.

### **Learning Objective**

TSW (the student will) learn and repeat the "ick" phonogram.

TSW recognize what individual alphabet sounds make up the "ick" phonogram.

TSW add beginning sounds and blends to form new words for the "ick" family.

TSW say and repeat this list of new words while keeping a steady beat with patchen or body percussion.

### **Materials Required**

Large lined paper lined blackboard (to assist in tracking)

5' x 7' index cards for word wall (optional)

pitched and non-pitched instruments for a sound poem (optional)

### **References/Resources**

Word Families - Book 2

### **Student Task**

Each student has the task of developing their own word to add to the class list.

If the student is not sure the word is correct, it is advisable to have a beginner dictionary on hand.

The students collectively identify enough words for each child to have at least two words he/she needs to say aloud.

### **Evaluation/Assessment Method**

TSW sit round robing on the floor and keep the steady beat started by the teacher. (This can be as silly or as simple as needed.)

TSW take turns saying one word each while they continue to keep the steady beat. (Please adjust the tempo as necessary.)

TSW review their word family and choose the easiest and hardest words for them.. These words will go on the word wall representing the "ick" family.

For further enrichment the students can write a poem using the "ick" sound.

TSW orchestrate this poem with pitched or non-pitched instruments.

## Student Resources

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Snow, Ruth. *Word Families, Book 1* . Scottsdale, AZ: Remedia Publications, 1991. Workbook for the beginning phonograms and word families. Nicely laid out with family introductions, pictures, word puzzles.

Snow, Ruth. *Word Families, Book 2* . Scottsdale, AZ: Remedia Publications, 1991. Continuation of book 1. Same well laid out format with larger phonogram families.

Milne, Barbara. *Sounds Like Fun* . cass. Pleasant Hill, CA, Discovery Toys 1984. A wonderful compilation of various songs that teach. Acoustic in nature, this cassette has counting songs, as well as an Alphabet Sounds and ABC Chant.

Gallery Books. *First Dictionary* . New York, New York. W. H. Smith 1989. Well illustrated for beginning words like bath and bear etc. Large print for little fingers to point to and sound out.

## Teachers Resources

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Routman, Regie. *Literacy at the Crossroads* . Portsmouth, N.H., Heinemann 1996. Written by a language arts teacher this book studies the impact teaching towards testing is having on our readers of today. It challenges the back to basics model that is being pushed. Well written and supported by citations it is well worth the minimal investment of time to read.

Hannaford, Carla Ph.D. *Smart Moves - Why learning is not all in your head* . Arlington, Virginia, Great Oceans Publishers, 1995. A neurophysiologist and educator, she presents strong research and personal experience to convey the importance of moving with specific goals in mind augmenting the educational process. Specific examples using Brain Gym developed by The Educational Kinesiology Foundation.

Jensen, Eric. *Teaching with the Brain in Mind* . Alexandria, Virginia, Association for Supervision and Curriculum Development, 1998. This book covers new research as well as old and the implications it all has on how educators are teaching. A well detailed book from the explanation of how the brain functions (what are the basic operations) to how to in using the brain's systems for memory retrieval. This book also stresses movement and the components for a more complete learning experience.

Gould, Stephen Jay. *The Mismeasure of Man* , New York, New York, W.W. Norton & Company, 1981. The book exposes the inconceivable ways we have labeled human beings with intelligence or lack thereof. It shows the folly of measuring one's head for signs of intelligence, through the Bell Curve. Although written with a heavy dose of self importance and opinion, it is comprehensive in information.

Gardner, Howard . *Frames of Mind* . New York, New York, BasicBooks, 1983. The ground breaking introduction for Multiple Intelligence. An intricate view of Gardner's 7 intelligences and the implications these learning styles have on the way we teach.

Gardner, Howard. *Multiple Intelligences* New York, New York, BasisBooks, 1993. A follow up book written tens years after the first introduction of MI. Mr. Gardner shows the success of Project Zero, and answers the nay-sayers in the scientific world.

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