

**Making Art Learning Accessible Through Differentiating Instruction Using Multiple
Intelligence Theory**

By

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B.F.A. The College of Charleston, 2000

**An Applied Project Report Submitted to the Lamar Dodd School of Art of the University
of Georgia in Partial Fulfillment of the Requirements for the Degree**

Master of Art Education

Athens, Georgia 2005

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Approved:


MAJOR PROFESSOR

12/5/15

DATE

I would like to thank the following people for all of their support, encouragement and assistance in the creation of this applied project.

Dr. Richard Sigesmund, for his knowledge and guidance on Multiple Intelligence theory and art education.

Dr. Carol Henry for serving on my committee.

Rebecca Enghaus for serving on my committee.

The students at Northwood Elementary School for being the enthusiastic learners that you all are.

My parents Edwin and Susannah Farley and my brother Starke Farley for all of your love and encouragement through my journey in becoming an art teacher.

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Chapter 1

My Personal Interest and Connection with Multiple Intelligence Theory

While attending elementary school in Columbia, South Carolina, my kindergarten teacher quickly noticed that I was having major difficulties with written language. In the process of learning to read and write, I continuously switched letters and the order of words. Soon through a series of tests, it was determined that I was dyslexic. The areas of reading, writing, and language were always a thorn in my side. Back then, there seemed to be a very narrow way of teaching students how to learn material in a classroom. Unfortunately, these ways of teaching centered on the linguistic and logical intelligences.

My dyslexia, of course, interfered with my ability to obtain information easily through linguistic ways of learning. For a long time, I shut down and avoided things like reading in front of classmates and writing spelling words on the board. In fact, as a twenty-seven year old woman, I still have qualms about standing up and writing on the board, frightened that I might misspell a word.

In the second grade, I began attending tutoring sessions with a woman named Mrs. Prossor. She aided me in a way that none of my teachers or other tutors had before. She broke away from the linguistic and logical learning styles others tried with me, and introduced me to kinesthetic learning, learning through the use of the body. My previous teachers, knowing that my dyslexia caused me to spell phonetically, forced me to learn the correct spelling of most words through rote memorization. However, writing or seeing the words over and over again did not seem to help. Fortunately, Mrs. Prossor soon reached into her teacher's bag of tricks and produced something I will never forget.

It was a good old southern gal's favorite thing: grits. She poured about a cup of these magical little granules into a shoe box top. After shaking them around, she said I could use my finger and spell words. I ran my fingers through the grits, feeling them slide out of the way as I wrote my first letter. I was stunned at how it felt going from rough to smooth. My eyes were amazed at the contrast between the texture of the grits, their white color and the dull brown of the flexible cardboard.

Using the grits as an extension of my body to shape my spelling words for some reason seemed to get the words into my head faster than using pencil and paper. I now can reflect back and know it was the tactile sensation and visual impact that spoke to two of my strongest intelligences: spatial and kinesthetic.

Mrs. Prossor was wise. She knew how to use my strongest intelligences to aid my weaker ones. She was using "Multiple Intelligence Theory" (Gardner, 1999) before it was introduced as a way to teach in school. As a student with a learning, disability this situation helped me to realize that there are many different ways of learning and some work better for some people. This is a fact that I would not forget especially once I began teaching art at Northwood Elementary School. As an elementary art teacher, I have noticed that special area subjects such as art, music and physical education are seen as support tools or resources for general education teachers when implementing Multiple Intelligence Theory in their classes. As an art teacher who knows the value of an art education, I know it is just as vital to make the art curriculum accessible to all students through the implementation of Multiple Intelligence Theory. This is why I have become dedicated through this applied project to making the learning in my class accessible to everyone.

Development of Multiple Intelligence Theory

Multiple Intelligence is a theory proposed by Howard Gardner, a psychologist at Harvard University. Gardner theorizes that each individual has nine different intelligences.

Gardner developed this theory while working "...with gifted children and victims of brain damage. That was when he first observed the disparate "intelligences" that formed the basis of his theory." (Pennar 1996, p. 3) While conducting this research on brain damaged victims, he found that "damage that was suffered depended on the location of the injury in the brain, he began to consider the possibility that our brains pose many distinct abilities" (Hoerr 1996, p. 2). From this research, Gardner was able to "isolate seven different mental faculties, to which he recently added an eighth and a ninth (Pennar, 1996). Linguistic, logical, musical, spatial, kinesthetic, interpersonal, intrapersonal, naturalistic and spiritual are the nine faculties Gardner proposes that each human possesses. As of now spiritual intelligence is still a proposed intelligence and has not been totally accepted as part of multiple intelligence theory. So I have decided to only work with the eight accepted intelligences in this applied project.

However, the basis of Gardner's theory is that each individual possesses these nine intelligences in different degrees. An individual may be successful in tasks that involve musical, logical, and linguistic activities but may be less successful in activities that use the other types of intelligences. Thus, this individual possesses a higher degree of the musical, logical, and linguistic intelligences and a lesser degree of the others.

Like many psychology based theories, the Multiple Intelligence Theory supports what the education world has always known and struggled with in the classroom. Teachers have observed time and time again that different students are more inclined to different types of learning activities besides the standard logical and linguistic methods that have been the basis for classroom teaching and learning activities for centuries. The over emphasis on logical learning and linguistic learning in schools has forced teachers to become inventive when it comes to teaching a child who does not succeed in these types of activities (Reiff, 1997). Teachers must use other means to help that child. For example, if a student is having trouble solving a logical mathematical problem, then the teacher may create a spatial visual aid in order to help build on that child's spatial strength to work through the math problem. The Multiple Intelligence Theory has helped to give credibility to classroom teachers' knowledge. It has also triggered a huge increase in staff development to help teachers develop units and reflect on how they can teach students with different degrees of these nine intelligences. The idea behind this is that all students can learn, if the material is presented to them in a manner that speaks to their strongest intelligences. In order to do this, schools started adapting their curriculum through lesson designs, student projects, assessments, apprenticeships, and interdisciplinary units (Guignon, 1998).

In this applied project I have adapted my curriculum to multiple intelligence theory. I have come up with a several activates that engage the different intelligences. As I implement these activates I have used observations, self-reports, quizzes and rubrics to document how the use of Multiple Intelligence theory has affected students learning.

Chapter 2

Overview of the Intelligences and How They can be Applied in the Art Room

Linguistic Learning

Gardner defines linguistic intelligence as the “sensitivity to spoken and written language, the ability to learn a language, and the capacity to use language to accomplish certain goals” (Gardner, 1999 p.41). This intelligence includes the ability to effectively manipulate language to express oneself rhetorically or poetically. It allows one to use language as a means to remember information” (Brualdi, 1996, p. 1). Many people use this type of intelligence in many different degrees. “Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high linguistic intelligence” (Smith, 2002 p. 4). Learning strategies to reach students using linguistic learning “include reading/writing workshops, book sharing, dialogue writing, book-tape stories, word processing, and newspaper activities” (Reiff, 1996, p. 2).

Art teachers can use many of these learning strategies to differentiate instruction in their classrooms. Using a storybook like Dr. Seuss’ *My Many Colored Days* as a form of book sharing could be the instructional tool that a linguistic learner might need to learn the color theory objectives in the elementary art curriculum (Seuss, 1996). Playing books on tapes while students work, playing hang-man, scrabble, and using art terms that students have learned during the year, are ways to use linguistic learning to engage elementary students. At the middle school level, the teacher may have students pretend to be a newspaper critic and write a critique of a piece of art to be printed in the school newspaper. At the high school level, the art teacher might give a student the option of

writing a paper about a certain artist instead of requiring the student to create a piece of art in the style of a particular artist.

Logical-Mathematical Learning

Logical-Mathematical intelligence “involves the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically” (Gardner, 1999, p. 5). It is the “ability to detect patterns and reason deductively” (Brualdi, 1996, p. 1). This type of intelligence is common among those in the scientific and mathematical fields (Smith, 2002). Teaching strategies suggested for these learners are “...problem solving and patterning activities...,” conducting “...experiments, computer instruction, syllogism...,” and using “...graphic organizers, number sequences and pattern games” (Reiff, 1996, p. 3).

Art teachers can apply these strategies to their teaching by creating problem solving activities in the art room. Elementary and middle school teachers might use a worksheet with mathematical problems on it to demonstrate color theory. The worksheet would use questions such as “Add a $\frac{1}{2}$ tsp. of red Play-doh to a $\frac{1}{2}$ tsp. of blue Play-doh. What color will you get? What is the fraction for this new color?” With the worksheet, students are also given a set of measuring spoons and various colors of Play-doh, so students can work through the problems.

At the high school level, students could use their deductive reasoning ability to create a piece of art for the school. A teacher might have a contest where students create a plan for constructing the artwork. Requirements for this contest would be that students take into account and solve the problems of selecting a space for which the piece of art is

designed for, designing a feasible budget for its construction, presenting the plan, obtaining the proper permission from the administration, and finally constructing the piece. The art teacher could make this a real world experience by actually having students take it from the drawing board to the final completion and having the students deal with the logistics of building it by a certain deadline.

Musical Learning

“Musical intelligence entails skills in the performance, composition, and appreciation of musical patterns” (Gardner, 1999, p. 42). One teaching strategies for teaching musically inclined students are to vary the level of your voice when talking to the class. Use rhythmic words or phrases that teach skills and are easy for students to remember, such as, “Glue: just a dot, not a lot.” Use a variety of music in the classroom. Use both songs that teach skills and music that is played in the background to set a mood or to promote or inspire ideas. And, finally, eliminate any environmental sounds that might interfere with students learning; i.e., if the custodian cuts the grass outside your window during your instruction time, ask him to hold off until after class time (Reiff, 1996). This causes divided attention which lessens the ability to process information.

Art teachers can apply these strategies for teaching to musical learners by creating rhythmic slogans that illustrate an objective. Mary Lazzari at Timothy Road Elementary school uses the rhythmic phrase, “Shapes are flat, forms are fat,” to catch students’ attention and make the key objective easy to remember. Another that works at the elementary level, is “There are lines of many kinds” (N. Herman, personal communication, Jan 15, 2005).

Art teachers also can use songs that illustrate art terms. Robbie Quinn, a doctoral student at The University of Georgia, composed a musical CD, *Art Songs*, which uses songs to illustrate different art concepts (Quinn, 2003). Songs like *The Color Wheel* tell what happens when different colors are mixed together (Quinn, 2003, track 3). Other songs on this CD focus on the different elements of art, such as, line, value, color, space, shape, and texture.

Kinesthetic Learning

Kinesthetic intelligence is the potential of using one's whole body or parts of they body (like the hand or the mouth) to solve problems or fashion products" (Gardner, 1999, p. 42). It is the use of "...physical movement, mimicking and touching..." to learn (Reiff, 1997, p. 2). Kinesthetic intelligence also involves "the ability to use mental abilities to coordinate bodily movements" (Smith, 2002, p 4). Teaching strategies for kinesthetic learners are to "provide physical exercise and hands on activities. Walk through difficult problems and ideas, such as subtraction and addition. Use materials such as fabric, clay, blocks and other manipulatives" (Reiff, 1996, p. 4).

An art teacher can combine the aforementioned art songs in combination with movement to teach a kinesthetic learner. Music and movement can be combined to help students learn important art concepts. An art teacher could use the words of one of Robbie Quinn's art songs to make physical movements that would teach the art concepts. In his *Art Songs* series, there is a song called *Line* (Quinn, 2003, track 4). Below are the words of the song and in bold are the physical movements that could go with the words. These physical movements actually demonstrate the art concept, line, taught in the song.

The words are, “A line is a mark that is made by a moving dot. **Student points finger like he or she is making a dot in the air.** It can wiggle left. **Student wiggles body and moves 3 steps to the left.** It can bob to the right. **Student takes three hops back to the right.** It can climb up. **Student pretends to climb a ladder by doing a hand over hand motion.** It can slide down. **Student uses hand to make a sliding motion and touches the floor.** It can be horizontal. **Student leans body so that the chest and head are horizontal to the floor and the arms are stretched out in a horizontal motion.** It can be vertical. **Student pulls body back to an erect position, but extends hands over head.** Oh, yes, a line is a mark that is made by a moving dot. **Student pretends to make a dot in the air.** You can’t make an omelet, **wags pointer finger,** without breaking an egg, **pretends to crack an egg with two fists,** and you can’t, **wags finger,** build a house, **makes outline of house,** without bricks. You can’t paint a picture, **pretend to paint with a paint brush,** or sculpt in stone, **pretends to hammer,** till you know just where to start, so let me tell you about the elements of art. **Student takes a small jump forward and cups hand around the mouth and shouts last line”** (Quinn, 2003, track 4)

Art teachers also might use manipulatives to teach art concepts to kinesthetic learners. In the elementary school setting, the use of manipulatives as centers not only provides a way for kinesthetic learners to access art concepts, but it also creates a way of maintaining free time in a classroom and provides a chance for free expression. Sculpture blocks are a good manipulative for teaching what a sculpture is and how height, width, and depth can be altered to change the appearance of a sculpture. The use of peg boards is another manipulative that can be used by kinesthetic learners. Peg boards are useful for

teaching radial design, pattern, and balance. By using these manipulatives, as a center or as a group class lesson, an art teacher can have students create art works by placing the rubber bands on the peg boards in a symmetrically balanced design, a design where each side is the same. The teacher can then have students manipulate or change a few of the rubber bands to an asymmetrical design, a design where both sides are different but have the same visual weight.

Interpersonal Learning

“Interpersonal intelligence denotes a person’s capacity to understand the intentions, motivations, and desires of other people and, consequently, to work effectively with others” (Gardner, 1999, p. 43). “Educators, salespeople, religious and political leaders and counselors” are all careers where an interpersonal intelligence is utilized. Strategies for reaching students who are interpersonal learners are to “arrange for these children to be peer tutors or buddies to younger children. These children would enjoy skits, plays, group work, discussions, debates or cooperative learning” (Reiff, 1996, p. 5).

The art curriculum has a lot of potential for including activities that are appropriate for interpersonal learning. At the elementary school level where students only have art one class a week, the need for peer tutoring is great. If a student is absent on the day that they attend art at school, then they will be a lesson behind. The following week instead of the art teacher spending time reviewing the previous week’s lesson, he or she can assign an interpersonal learner to be a peer tutor and help a student, who was absent the week before, get caught up. Thus, the interpersonal learner is reviewing the art

concepts that were taught the previous week in a way that is best suited towards their way of learning.

At the elementary school or middle school level, art teachers can have students create a skit or a play that is based on a piece of art. This form of critiquing a piece of art is a way of differentiating instruction, so that cooperative learning is being used to write the dialogue, come up with the costumes, and perform the skit. Interpersonal learners are important in this type of cooperative learning as they are able to “understand the intentions, motivations and desires of other people” (Smith, 2002, p. 5). They serve as a mediator, thus allowing people to work together in a harmonious way and allowing the skit to be accomplished.

At the high school level, an art teacher could use mural painting as a form of cooperative learning to differentiate instruction for interpersonal learners. The teacher can team students up into groups where they would work together to come up with a design for a mural in the school. In addition, students would present their design to be voted on by the class, create a budget, and implement the construction of the final artwork.

Intrapersonal Learning

Intrapersonal learners are individuals with the “capacity to understand one’s self, to appreciate one’s feelings, fears and motivations” (Smith, 2002, p. 5). According to Gardner it is also having “an effective working model of oneself-including oneself” “to use such information effectively in regulating one’s own life” (Gardner, 1999, p. 43).

Artists use this type of intelligence in responding to artwork. Often, you hear of an artist

describing their intrapersonal learning through an aesthetic response that they have to an experience. Novelists and counselors are individuals who use this type of intelligence (Guignon, 1998). Suggestions for teachers are to provide a quiet area for independent work such as a carrel or an individualized desk. Teachers may encourage writing in a personal journal or provide time to discuss thinking strategies with others. A teacher also can facilitate meta-cognition techniques and suggest independent projects (Reiff, 1996).

Art teachers at any level can use sketchbooks for student's journaling as a form of meta-cognition, thinking about thinking. At all school levels, using sketchbooks to pre-draw and organize art completion is a way of providing activities for intrapersonal learners. At the elementary school level, a teacher might ask a student to first plan a clay piece by doing a pre-drawing of the animal that they will make from a pinch pot. Next, the teacher may have the student complete the clay piece. After the clay piece is made, the teacher could ask the student to redraw the sketch and indicate any changes he or she would have made to the pre-drawing or the final piece. Students should indicate their feeling of progress, success or failure concerning their art experience. For example, a student might indicate that they would not make the neck of a giraffe as long next time to prevent slumping of the clay. They might indicate that they feel their piece was not successful because the neck was too long and bent over thus creating an undesirable effect.

At the middle and high school level, a teacher might use the sketchbook more as a reflective journal of the student's life and a progression of ability to draw people. The teacher could require that the student do five thumbnail sketches a month of people who are involved in their lives. Students would keep this journal going throughout the school

year. Starting at the beginning of the year, the teacher may review the basic alignment of facial features and how to accurately draw a person's face. On their own, students would have to complete these drawings in their sketchbooks. At the end of each month, the student would turn in the sketchbook with a written explanation of why these people were important to include. Students would need to identify a feeling or emotion that was related to each person and elaborate on why they included this person based on the emotion. This would provide the intrapersonal learner with a medium that reflects not only their drawing ability, but also the people who come into their lives within the school year.

Spatial Learning

Spatial intelligence is the “ability to ‘think in pictures,’ to perceive a visual world accurately, and recreate or alter it in the mind or on paper. Spatial intelligence is highly developed in artists, architects, designers, and sculptors” (Guignon, 1998, p. 2). Gardner also saw this intelligence in “surgeons, chess players,” “navigators and pilots” (Gardner, 1999, p. 42). These learners “like to invent and design. They enjoy creating visual patterns and need visual stimulation” (Reiff, 1996, p. 3). The general art curriculum already involves many activities designed to reach these learners. Students are surrounded by visual stimulation through exposure to different artists, art works, and visual exemplars. Students are constantly encouraged to invent and design new pieces of art based on their interpretation of the visual world. Because this way of learning is so inherent in the art curriculum, there is little need for teachers to focus on developing more ways of reaching students with this type of intelligence. As art teachers, it is important to be aware of the amount of emphasis we place on the spatial intelligence. Art making is

complex. It is a unique blend of spatial intelligence, kinesthetic intelligence, and intrapersonal intelligence. As art teachers, we must be cognoscente of not over emphasizing the spatial nature of the art making process.

Naturalistic Learning

Naturalistic intelligence is Gardner's eighth proposed intelligence. It is the ability for individuals "to recognize, categorize and draw upon certain features of the environment" (Smith, 2002, p. 7). This intelligence is one of the newest of his three proposed intelligences, also including spiritual and existential intelligence, so there is very little information on teaching strategies that provide access to these methods of learning for students. I have chosen to include naturalistic in my applied project; but due to the sensitive nature and controversy around religion and spirituality in schools, I have decided not to include spiritual and existential in my applied project.

When you look at Smith's definition of naturalistic intelligence it includes the ability to "recognize and categorize....features of the environment" (Smith, 2002, p. 7). This sounds a lot like Georgia's, Fulton County objectives for fifth grade students. Students must be able to identify and categorize art works as landscapes and seascapes. An art teacher could very easily build on this intelligence by creating a categorizing game where students had to classify art as a landscape, seascape, portrait, still life, or as an abstract piece of art. Other ideas for the elementary level are to collect objects from nature and press them into clay. Students could start a collection of natural objects to use in a still life drawing, or revisit the same spot outside every class period for a month and draw the weather.

Smith's (2002) definition also states that individuals "draw upon certain features of the environment" (Smith, 2002, p. 7). Artists have always used the environment as a source of inspiration and ideas for art. Nature is often the subject matter of pieces of art whether it is a painting, drawing, clay pieces, site specific pieces or a conceptual piece. Andy Goldsworthy is an artist who used nature as not only his inspiration, but he also used natural materials in his work, such as leaves, sticks, or ice (Busse, Holmes, 1997). For example, Goldsworthy would venture out into nature and create a chromatic color scale only using different shades of leaves. He then photographs the site specific piece of art. In an art classroom, an art teacher might reach a student with strong naturalistic intelligence by having them create a site specific piece of art made with natural objects in the style of Andy Goldsworthy.

Standards for an intelligence to be included in Multiple Intelligence Theory

Thomas Armstrong (1999) distinguishes the importance of Howard Gardner's theory of multiple intelligences from other theories that advocate different types of intelligences. According to Armstrong, there are four requirements an intelligence has to meet in order to be accepted into Gardner's multiple intelligence. Armstrong illustrates how Gardner settled on these eight different intelligences as meeting four requirements:

1) "Each intelligence is capable of being symbolized" (Armstrong, 1999, p. 13). All of the intelligence have their own set of symbols that can be read. For example, kinesthetic learning uses body language, and linguistic learning uses letters.

2) “Each intelligence has its own developmental history” (Armstrong, 1999, p. 14).

3) “Each intelligence is vulnerable to impairment through insult of injury to specific areas of the brain” (Armstrong, 1999, p.14). This means that there is a portion of the brain that is partially responsible for this type of intelligence. If that area is damaged then the intelligence is somehow affected in a negative manner.

4) “Each intelligence has its own culturally valued end state” (Armstrong, 1999, p. 15). This means that different intelligences are valued in different cultures. For example, Native Americans value interpersonal intelligence. The accomplishments of the community as a whole are more important than the accomplishments of the individual. Therefore, the ability to get along and understand the needs of others is an intelligence that is highly valued.

The Three Categories of Multiple Intelligence Theory

Linda Campbell, Bruce Campbell and Dee Dickerson (2004) are co-authors of *Teaching and Learning through Multiple Intelligence*. They recognize the merits of using Multiple Intelligences theory in the classroom. In this book, the authors divide the intelligences into three categories: object-related, object-free, and person-related. The first category of object-related intelligences “are controlled and shaped by the objects that individuals encounter in their environment” (Campbell, 2004, p xxi.). This category includes spatial, body-kinesthetic, logical-mathematical, and naturalistic intelligences. In

the second category “object-free intelligences” they “are not shaped by the physical world but are dependent on language and musical systems” (Campbell, 2004, p. xxi). This category is comprised of the verbal-linguistic and musical intelligences. The third category of “person-related intelligences” is made of intrapersonal and interpersonal intelligences. This category consists of the two intelligences that balance out our relationship with our inner self and with those around us. I think these divisions help us understand how these intelligences enable us to function productively in our daily lives. A person who is weak in one or more categories of these intelligences is going to have a less balanced life. However, if a person is strong in at least one intelligence from each category, they are better apt to dealing with a larger variety of situations.

Table 1: Three Categories of Intelligences

Object-Related	Object-Free	Person Related
Spatial	Verbal/Linguistic	Intrapersonal
Body/Kinesthetic	Musical	Interpersonal
Logical/Mathematical		
Naturalistic		

*The development of this chart by Linda Campbell, Bruce Campbell and Dee Dickerson was developed prior to the proposal of Spiritual Intelligence.

The levels of development of Multiple Intelligences

In addition to the three categories that Campbell, Campbell, and Dickinson describe, they provide a chart so that an individual can graph their level of multiple intelligence development. Going down the left hand side of the chart are the categories for development: Inventor, Expert, Practitioner, Apprentice, and Novice. Going across the top of the chart is each of the eight intelligences: verbal-linguistic, logical-mathematical, bodily-kinesthetic, visual-spatial, musical-rhythmical, interpersonal, intrapersonal, and naturalistic. I have filled in the chart below with what I have observed in my classroom to be characteristics of third graders at the different levels.

Table 2: Developmental Processes in Multiple Intelligences

	Practitioner Develops proficiency in the intelligence symbol systems. Understands concepts and skills of a discipline and applies such knowledge in many contexts.	Apprentice Perceives relationships between symbols and objects or events they represent. From role models or instructions, learns symbols systems, concepts, and skills of the knowledge.	Novice Learns about the intelligence through exploration of the environment, interaction with others. Observation, imitation, and experimentation instill knowledge and skills.
<i>Spatial</i>	<ul style="list-style-type: none"> ● Recognizes a visual element in a piece of work and gives it meaning, and applies it to outside contexts. 	<ul style="list-style-type: none"> ● Recognizes visual elements in a piece of work and gives it meaning. ● Develops own ideas in art work. 	<ul style="list-style-type: none"> ● Participates in the art making activity. ● Usually using elements of other students work or copying the teacher.
<i>Kinesthetic</i>	<ul style="list-style-type: none"> ● Relates the movement of bodies to the gestures created by the subject in the art work and to relationships outside classroom. ● Participated in the gesture movement activity and related that to art concepts and concepts outside classroom. (PE, Dance, Gymnastics, sports) 	<ul style="list-style-type: none"> ● Relates the movement of bodies to the gestures created in the dancer in the art work. ● Participated in the gesture movement activity and related that to art concepts. 	<ul style="list-style-type: none"> ● Uses body to explore different types of gestures. Imitates teacher and other students.
<i>Logical</i>	<ul style="list-style-type: none"> ● Uses elements from other sources and disciplines to solve problems. 	<ul style="list-style-type: none"> ● Uses own ideas of how to solve a problem without copying or receiving assistance. 	<ul style="list-style-type: none"> ● Uses the teacher or another student's assistance to navigate problems. ● Parrots someone else step by step instructions.
<i>Naturalistic</i>	<ul style="list-style-type: none"> ● Accurately observes an object and depicts it visually or verbally to the best of ability for age. But brings in knowledge of the natural object from outside the art realm. 	<ul style="list-style-type: none"> ● Accurately observes an object and depicts it visually or verbally to the best of ability for age. 	<ul style="list-style-type: none"> ● Interacts with object through looking or touching, but uses little observational skills to represent an object.
<i>Linguistic</i>	<ul style="list-style-type: none"> ● Uses art vocabulary in correct manner and can connect it to other things outside the classroom. ● Can reflect on the work done in writing in an elaborative and descriptive way. ● Is able to accurately recall elements of books read in class and relate them to the work we are doing or work done or to subjects outside the art room. 	<ul style="list-style-type: none"> ● Uses art vocabulary in correct manner and perceives a relationship between vocabulary and elements in art. ● Can reflect on the work done in writing in a comprehensive way. ● Is able to accurately recall elements of books read in class but does not relate them to the work we are doing. 	<ul style="list-style-type: none"> ● Participates in class but does not link to art vocabulary. ● Gives an incomplete written analysis of work with no elaboration. ● Listen attentively during reading of book, but does not connect to classroom
<i>Musical</i>	<ul style="list-style-type: none"> ● Relates elements of art lesson to musical knowledge developed outside the art room. (i.e., bands, music concepts, songs, instruments) ● Is able to recognize aesthetic experiences outside the art room and communicate how they make them feel. 	<ul style="list-style-type: none"> ● Shows understanding of the art concept of rhythm and can explain or show how it relates rhythmically. 	<ul style="list-style-type: none"> ● Sings, beats feet or hands while working on or thinking about art.
<i>Intrapersonal</i>	<ul style="list-style-type: none"> ● Is able to recognize aesthetic experiences outside the art room and communicate how they make them feel. 	<ul style="list-style-type: none"> ● Uses a wide vocabulary in writing and speaking about feelings concerning aesthetic experiences in the art room. I.e. this piece makes me feel scared because.... 	<ul style="list-style-type: none"> ● Practices communicating through writing and speaking about aesthetic experiences and how the aesthetic experiences make them feel.
<i>Interpersonal</i>	<ul style="list-style-type: none"> ● Serves as a mediator in group activities 	<ul style="list-style-type: none"> ● Gives input during group activities, but takes cues from 	<ul style="list-style-type: none"> ● Tries to give input in group activities as to how he or she

		others as to what will work for the group and what will not work	wants things done with no consideration to others.
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The Novice is someone who has begun to develop their particular intelligence.

- The Novice “learns about the intelligences through exploration of the environment, and interaction with others” (Campbell, 2004, p. xxiv).
- He or she uses observation, imitation, and experimentation to input knowledge and develop their skills. (Campbell, 2004)

In my classroom, I have many students who fall into this category, especially the kindergartner students that I see. Because kindergartners are relatively new to the world and the learning environment of the art room, they are at that beginning stage with a lack of prior experience. I can think of countless numbers of times when I have seen a student who is exploring their visual spatial intelligence by copying my example, regardless of me giving instructions not to. Or other times when I am teaching a student how to trace an object they have cut out, I have to physically place the crayon in one of their hands, place their other hand on the object to be traced and move the hand with their crayon just so they can understand on the kinesthetic motion it takes to trace an object. If a student has not ever used their kinesthetic intelligence to connect the concept of tracing, then they are naturally at a novice stage and beginning to build that kinesthetic symbol system or vocabulary.

The Apprentice is the next stage up on the development chart.

- The apprentice is able to perceive and understand relationships between symbols, objects, or events (Campbell, 2004).
- He or she learns the symbol system, concept, or set of knowledge through instruction or from the aid of role models (Campbell, 2004).

The students who I see as apprentices in my classroom are the students who have built up an understanding of the symbols used in the different intelligences from being in school longer. They have been exposed to experiences where they have been able to develop a better understanding of the symbol systems, concepts or sets of knowledge associated with each intelligence. In general, these students tend to be my first, second, and third graders. However, every now and then I will find a kindergartner who has built up an understanding of these symbol systems, concepts or sets of knowledge.

An example of a more experienced student working at the Apprentice level was demonstrated while my class was studying a piece by Georgia O’Keeffe. I asked my students why they thought she painted the flower red. One of my students said, “The flower is red which means love. We read that she loved to paint objects in nature, so she made the flower red.” This student had taken on an understanding of the concept that colors have meaning and applied it to this situation that was being modeled for them in a classroom critique. The student may have never come to this conclusion without a bit of modeling from the teacher on how to look deeper into a piece of art through a classroom critique.

The mid-level of development is the Practitioner.

- The practitioner has an understanding of the symbol system to the point that he or she can use it in a proficient manner. (Campbell, 2004).
- The practitioner uses the skills and concepts of that intelligence and applies them in a variety of different contexts. However the practitioner is still capable of learning additional skills (Campbell, 2004).

When I think of the practitioner, I cannot help but think of the wonderful moments in my classroom when students make connections and leaps of learning that I have not intended or that actually teach me something. For example, in my first year of teaching I taught a lesson on symmetry. I had broken down the lesson so that I explained symmetry as having the same shape on both sides of a line. However, I was completely amazed when a student in third grade rattled off a better explanation of symmetry that I now use to explain it to my students. This student explained symmetry as having the same shape that is the same size, is in the same place, and is the same color on either side of the line. Now whether or not this student learned this concept in math already or came up with it on his own did not matter. What mattered was that he was using it in a proficient manner to the point that he was teaching a teacher and was applying it in a different context than in the math class where they split geometric shapes in half.

The Expert is the next level of development.

- The expert demonstrates a “mastery of concepts and practices of the intelligences in professional or vocational activities” (Campbell, 2004, p. xxiv).
- He or she may be viewed as a specialist of that intelligence (Campbell, 2004).

Because of the professional vocational requirement of this level, students do not often reach this level. That is not to say that some students do not engage in professional learning in ways that cause them to use their intelligences in a vocational manner. For instance, when I was in high school, I applied for the Governor's School for the Arts in South Carolina and was accepted after a very intense interview. In this interview, I was required to put together an extensive portfolio that showed mastery of the different art concepts that I had learned. However, I then had to bring my portfolio in to discuss it with a panel of judges. In this interview, I had to linguistically explain the art concepts that I had used in each piece and give an explanation of why and how I created my art work. This interview was much like what someone would undergo when presenting their art work to a museum or to a gallery for professional exhibition. In the interview I found myself using my linguistic intelligence. I used my intrapersonal intelligence to draw on and to describe the emotions that were expressed in many of my pieces. I used my interpersonal intelligence to establish a rapport with my interviewer. I made sure I called them by name in a respectful manner and was polite in expressing appreciation for the opportunity to interview. In addition, I also used my kinesthetic intelligence to make eye contact and shake hands like a professional would. In fact, my father had sat me down before my interview to discuss the physical manners that one must have in an interview. I was told by him to have a strong and firm handshake and to look the person in the eye.

The highest level of development on this chart is the Inventor.

- The inventor is known for his or her ability to invent new forms of communication through the intelligences or for their ability to create original works (Campbell, 2004).

Inventors are the people in a professional field who create new genres, styles or movements. They are the people who think outside of the box and are able to do so, because they have made it through all the lower tiers and have a proficient use of the intelligences that they are using. For example, Martha Graham, the mother of modern dance, broke away from traditional genres of dance and created her own style with fluid dance motions that followed the natural line of the body versus a distorted line of the body. She created her own form of communicating kinesthetically that did not exist before (Jowitt, 1988).

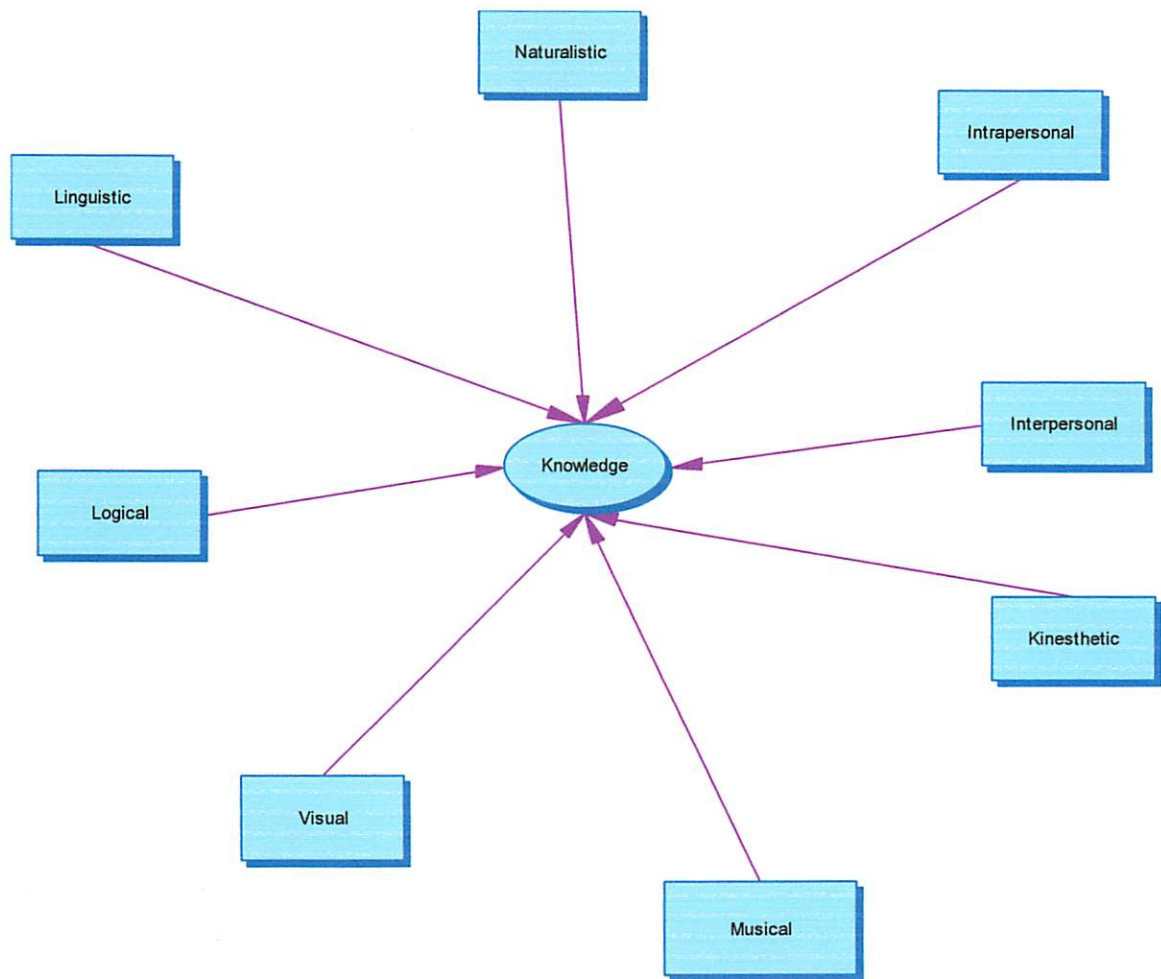
In the lower three categories of this chart (see page 26), it is easy to see the importance of the symbol system that is the first requirement of Gardner's criteria for an intelligence to be considered one of the nine multiple intelligences. It is only after an individual develops a proficiency in the symbol system that the individual can be considered to be a specialist in that intelligence. This chart is particularly useful in reminding an educator that each student in their class is at a different level of development with all nine intelligences. I personally believe that, in an elementary education setting it is reasonable to expect students to fall in the lower three tiers of these categories: the Practitioner, the Apprentice, and the Novice. The higher levels require students to engage in these intelligences in a professional or a vocational way or "invent

new forms of communication through the intelligence” (Campbell, 2004, p. xxiv).

However, in most education settings, students are rarely asked to engage in these intelligences in a professional way or invent new forms of communication. The answers that teachers and standardized test takers are usually looking for are prescribed and do not challenge students to stretch their intelligences to the higher levels of development. As an educator, I believe we can always reach for the highest levels in this development scale by creating more authentic tasks that require students to push for the higher levels of the Expert and the Inventor.

What Every Student and Teacher Should Know about their Multiple Intelligences

In the book *You're Smarter Than You Think: A Kid's Guide to Multiple Intelligences*, Armstrong (2003) discusses Howard Gardner's eight intelligences. While presenting Multiple Intelligence Theory in a book geared towards children, he discusses the nine intelligences. He asks kids to keep in mind several important aspects of Multiple Intelligence Theory that educators also need to remember. I have created a picture diagram that helps in understanding these different aspects. The diagram depicts each intelligence as a method of transportation. Each method of transportation has its own road or arrow leading to knowledge and understanding.



1) “All of the intelligences are different, but they are also equal” (Armstrong, 2003, p. 5). Each and every student’s learning style must be used in the classroom as an access road to information. Each child is individual and unique. Like the above modes of transportation, some of us are better at or prefer to use one mode over another, but we can all acquire knowledge using these different modes. One learning style is not more important to use than another, but using a variety of activities to provide access to a concept is a more appropriate way to teach rather than focusing on the standard logical and linguistic methods that tend to be most important in American schools today.

2) “No matter what kind of ability you have in a given smart, you can explore, grow and develop it” (Armstrong, 2003, p. 5). Armstrong provides a list of activities that can be used to strengthen each intelligence. This is a very important resource for teachers. These lists are all activities that teachers can employ in a classroom and provide to parents to help strengthen a student’s weaknesses. If we were to put this concept into the model above, you could see how you can strengthen your intelligences. Say you were just learning to rollerblade, you first would practice just getting up. Then you might practice moving on the rollerblades. After that when you are confident and have built up your muscles, you would tackle rollerblading up a hill.

3) “You may know what you’re best at, but that does not mean you’re limited to one kind of intelligence” (Armstrong, 2003, p. 5). I think that one really important aspect to the Multiple Intelligence Theory is that it does not advocate allowing students to fall into the rut of one learning style. It encourages the exploration of using other intelligences and improving them through the use of activities that strengthen the weaker intelligences. This leads to students having a wider variety of ways to access and learn information, as well as help build their self-esteem. I also relate this to the above model that certain types of intelligences are needed for certain activities. If you were trying to get to New York City from California you would pick the best mode of transportation for that activity, whether it be a car, a plane or a bus. You may not be as familiar with taking a plane; but if it is the best way to get there, you are going to use the best method even if it is not what is familiar to you. Nonetheless, you always have more than one mode of transportation available to you.

4) “There are many different ways of being smart in each intelligence”

(Armstrong, 2003, p. 5). Students often tend to over generalize their intelligences in a negative way. If a student has trouble spelling, then they think that they are automatically not a good writer, reader, or a good speaker. However, they may be excellent at one or all of these.

I personally have been a victim of this type of over generalization. Earlier, I gave an account of my difficulties growing up dyslexic. Growing up this way left me feeling inadequate when engaging in linguistic tasks. In college, I had a women’s studies professor who told me that I was an excellent speaker and paper writer. She did not care that I often had misspellings and a number of agreement errors. She cared about the points I was trying to get across. She encouraged me to present my arguments orally in class versus in my papers. I had always avoided talking during my classes in high school, because I had a preconceived notion that I was not good at linguistic venues. My college professor helped me build on my linguistic intelligence which shaped my success in graduate school and my ability to compose arguments in my personal life.

5) “The different smarts work together in almost everything you do” (Armstrong, 2003, p. 5). The intelligences are like muscles in this sense. When you work out you are usually working one primary muscle, but there are a lot of assistor muscles that are the support for that primary muscle. Without these assistor muscles, the primary muscle would not be able to function. Armstrong makes a strong example of how this works for painting. He states, “For example, you might think that painting a picture is just about

being picture smart. Wrong! Painting a picture can use body smarts to master different brush techniques, nature smarts to develop an eye for detail, or even self smarts to come up with ideas to paint. Most activities rely on a lot of different smarts, not just the most obvious ones” (Armstrong, 2003, p. 5).

6) “The eight intelligences are found across all cultures and in all countries and age groups” (Armstrong, 2003, p. 5). I think that this statement helps to break down some of the stereotypes that educators and the general public hold about individuals from different cultures and in different age groups. For example, often it is assumed that students from particular cultures will be good at logical learning, and they are directed towards the logical science field. If they find out that this is not one of their dominant intelligences, it can crush their self-esteem and deter them from engaging in activities that speak to their true dominant intelligence.

Multiple Intelligences and its Role in Schools

In Seven Kinds of Smart: Identifying and Developing Your Multiple Intelligences
Thomas Armstrong (1999) advocates using the strengths of the different intelligences to build a student’s learning potential. Armstrong is a former elementary school teacher who began focusing on multiple intelligences after he realized the potential for the application of this theory to bring out each student’s “inner genius” (Armstrong, 1999).

Armstrong is concerned with the American educational system’s focus on linguistics and logical learning that is tested by IQ tests and standardized tests. He states

“MI theory celebrates the diversity of ways in which different cultures show intelligent behaviors. Rather than regarding the verbal and logical discoveries of white Europeans as the apex of intelligences (again, something promoted and sustained by IQ testing), it provides a more broadly conceived spectrum of human intelligence” (Armstrong, 1999, p. 16). We are now faced with a student population that is more diverse than ever before and who come from cultures where other intelligences, not just linguistic and logical intelligence, are valued. We are doing a huge disservice to not only these students but to all students in preparing for the real world by ignoring the development of the other intelligences. After all, in the real world, we are faced with many challenges and problems that can only be solved by using kinesthetic, musical, spatial, interpersonal, intrapersonal, and spiritual intelligences. Logical and linguistic intelligences do not solve all problems.

Take for instance the simple problem of getting from your home to a job interview across town. If you are not able to use the directions that you are given to create a spatial map and then follow it, you will not arrive at the job interview. In the interview, you will need to demonstrate interpersonal intelligences as you relate to the individual conducting the interview.

The problem with implementing the Multiple Intelligence Theory in schools

Through the work of writers like Thomas Armstrong, over the past several years, teachers have focused more attention on this new paradigm shift in education, Multiple Intelligence (MI) Theory. Where general education classrooms have emphasized MI

theory to vary their instruction. The special areas, such as music, art, and physical education have taken only a supporting role in this exciting movement in education. General education teachers are turning to the special area teachers for advice and aid in developing lessons using spatial (the visual arts), musical (the musical arts) and kinesthetic (physical education) intelligences. As happy as special area teachers are to use their area of expertise to aid the general education teachers in differentiating their instruction, something is being overlooked. Each special area has its own set of standards and objectives that are as important for students to learn as the general education curriculum. If the premise of differentiating instruction through multiple intelligences is so vital to the learning of students, then why are the special areas only seen as a support tool verses an area that is worthy of having its own instruction differentiated?

Chapter 3

The implementation of Multiple Intelligence Theory at one school

At Northwood Elementary, a suburban elementary school in Roswell, GA, the general education teachers have been part of the changing curriculum that incorporates the ideas of MI theory. As part of their staff development requirements, they were required to come up with two units that centered on differentiating instruction through the eight Multiple Intelligences. (Gardner's ninth intelligence has not yet been introduced.) As a staff member for the past two years, I was trained and involved in this staff development. Each grade level used one day of planning time per unit to collaboratively plan the lesson. The general education teachers sought the aid of the special area teachers (music, art and physical education) in order to come up with ideas of how to develop activities to serve the students who were musically, kinesthetically, and spatially inclined.

Some special area teachers created an interdisciplinary unit between the art, music, and P.E. and the general classroom. This seemed to work well as the general education teachers were appreciative of the help they received, and the special area teachers were able to give their input.

However, when the situation was looked at from another view, a problem became apparent. We know that a student learns best by engaging in activities that utilizes their strongest intelligence. What happens to the special areas' learning objectives when the teacher is not providing different activities to access the special areas learning objectives? Why would special areas not want to differentiate their instructions between the different learning styles when we know there are so many benefits from this type of instruction?

Why is it assumed that spatial intelligence is the easiest and best way for all students to learn in the visual arts when there is a push to understand that linguistic intelligence is not the only way for a student to learn in the language arts?

According to Judith Reiff, “When we understand the various ways in which children learn, we are better able to: 1) prevent discipline problems, 2) communicate with parents, 3) reduce teacher burn-out and parent frustration, 4) organize the classroom, and 5) help children reach their potential” (Reiff, 1996, p. 1). When you consider the positive outcome of teaching to the different intelligences and how special areas are the only part of the school curriculum that are provided to all students in the school, then it makes perfect sense to develop differentiated instruction for the special areas curriculum, such as art. This problem led me to develop a series of Multiple Intelligence lessons that can be applied and used in the art room. I am such a strong believer in this theory that every child should have information made accessible to them through their strongest intelligences that I have converted a semester of my third grade curriculum to Multiple Intelligence units. The following pages will explain my applied project and how I implemented these lessons.

The School Demographics

Northwood Elementary is a school located in North Fulton County on the outskirts of Atlanta, GA. The school is comprised of approximately 850 fifty students. Students range in age from five years to eleven years old. Northwood has a wide variety of students coming from different socioeconomic statuses. According to the schools data clerk twenty four percent of our students qualify for and receive free and reduced priced

meals (Personal Communication). The other seventy six percent are either from middle to upper-income families or choose not to participate in the free and reduced price meal program to which they are entitled. Students are from diverse cultures including the USA, Haiti, Israel, Jamaica, Asia, Thailand, and Ireland.

As the full-time art teacher I see 60% of the students in my classroom and the other 40% are taught by a part time art teacher. I teach thirty classes a week, including the five third grade classes that I have chosen for this applied project. Each class period lasts forty five minutes once a week. I see each class approximately thirty-six times throughout the year. Eighteen of the classes were dedicated to this applied project.

I received IRB approval to have students participate in this project and to use photographs of them and their work in my applied project. (Copies of the IRB forms appear in the index.) My IRB laid out how I would be gathering data for my research. I created rubrics and assessments to determine if the information that I was covering in my art lessons was being learned and understood by the students. After all, my goal is to make sure the QCC's and information I am trying to teach is being taught through multiple intelligence activities that. I also used a self-report assessment to determine which type of activities helped student to learn and which activities they enjoyed the most. Students are usually very honest and are the best judges of what helps them to understand information. I felt that I needed their input as to what helped them the most of the different activities that I presented. The rubrics were used to grade the art work that each student completed and covered a variety of topics such as: Did the student attempt to create a piece of art? Were the elements and principles that I taught demonstrated in

the art work? The results of these rubrics, assessments, and self-reports are discussed in depth later in this applied project.

In addition to the above rubrics, assessments and self-reports, I did a lot of observing and writing down what students said and did to help me reflect on what was going on in the class during these lessons. Often students said things that I later could reflect on and make connections as to what students were learning. In addition, I tried to use my own intrapersonal intelligence to help guide me in reflecting on what worked and what did not work, so that I could improve this for my future teaching.

Special problems when implementing Multiple Intelligence Theory to the art room

The practical application of these eight intelligences in the art curriculum and through the other specials areas takes a bit more consideration because of some of the logistical concerns of how the art room is set up. Consider that students are only seen in the art room for one hour each week and consider that teachers are given a limited budget to order supplies. This situation creates limitations as to how the art curriculum can be differentiated. However, this does not mean that art teachers cannot implement some simple procedures that are used in the general education curriculum to make the learning objectives more accessible to a wider variety of students.

Types of Lesson Plans

David Lazear (2003) claims that some schools currently only teach to mathematical and linguistic intelligences. This leaves out many of our students who

process information best through other intelligences. According to Lazear, “Our instructional methods must undergo a revolution if we are to reach all students sitting in our classrooms, who have at least eight ways of knowing and probably many more!” (Lazear, 2003, p.xiii)

Lazear has come up with two different ways for teachers to design and plan lessons using multiple intelligences. They are the eight-and-one lesson plan and the intelligence focused lesson plan. The main idea of the eight-in-one lesson plan is that you have some sort of activity that is geared to all eight intelligences. Lazear has three main concepts about intelligences and the use of multiple intelligences that led to the development of the eight-in-one lesson and the intelligence focused lesson.

1) “Each of the intelligences can be taught as a subject in its own right: musical skills, language, and art as a formal discipline” (Lazear, 2003, p.7). However “Teaching these subjects requires a grasp of the developmental stages of each intelligence as well as an understanding of the accumulated cultural wisdom on the subjects, the formal knowledge base, and the practical methods, skills, and techniques of the intelligence.” (Lazear, 2003, p. 7)

2) “Each of the intelligences can be used as a means to gain knowledge in areas beyond itself: using body movements to learn vocabulary words, music to teach math concepts, art (drawing, painting, and sculpture) to bring to life different periods of history and different cultures.” (Lazear, 2003, p. 7)

3) “Meta-intelligence investigates itself (teaching about multiple intelligences). Lessons that deal with meta-intelligence processes teach students about their own

multiple intelligences-how to access them, how to strengthen them, and how to actively use them in learning and in everyday life” (Lazear, 2003, p.7).

While I believe it is important to understand and know that each intelligence can be taught as a subject in itself, I believe the second concept puts the first in line with using Multiple Intelligence Theory in schools. Yes, music can be taught as a subject all on its own; yes, art can be taught as a subject all on its own; and yes, language can be taught as a subject all on its own. However, these individual subjects become more assessable to students when the second concept is applied. Each intelligence can be used as an access road to other subjects. If we only use skills that develop musical intelligence in a music class, we are only going to reach a certain percentage of the students that are inclined to that type of intelligence. However, if we broaden the types of activities to use other intelligences, we are going to reach a larger percentage of students in that music class just by presenting material though a different intelligence. The art class, PE class, and general education classrooms are the same. The more intelligences used, the larger the percentage of students engaged in the learning.

The third concept is important because students need to understand what Multiple Intelligence Theory is and how it can empower them to access their different intelligences to gain access to information and learning. This concept made me realize that before I began implementing the multiple intelligence lessons in my classroom, I needed to explain to my students what Multiple Intelligence Theory is and how it could help them. I did this on the day I had the students fill out the student Minor Assent form I explained what Multiple Intelligence Theory is and how I thought it could help them

learn in my class and in their other classes. I went over the six aspects of Multiple Intelligence Theory that Thomas Armstrong discussed in his book:

“All of the intelligences are different, but they are also equal.”

“No matter what kind of ability you have in a given smart, you can explore, grow and develop it.”

“You may know what you’re best at, but that does not mean you’re limited to one kind of intelligence.”

“There are many different ways of being smart in each intelligence.”

“The different smarts work together in almost everything you do.”

“The eight intelligences are found across all cultures and in all countries and age groups” (Armstrong, 2003, p, 15).

My goal was to help my students understand what I was trying to do with this project and to give them some insight that could help them in my class as well as in life in general. After all, this is not a secret that we want students to be unaware of. It is a practice that is vital to developing lifelong learners.

Lesson Plan One: Eight-in-One

The eight-in-one lesson “incorporates all eight intelligences into a single teaching/learning experience” (Lazear, 2003, p, 14). The advantage of this type of lesson is that every student has one or more activity that is going to speak to their intelligences, and they are exposed to other activities that help strengthen their weaker intelligences. Lazear first starts off designing an eight-in-one lesson by looking at what he calls his multiple intelligence toolbox. This box is a list of core operations of each intelligence.

For example, the tools or core operations for musical and rhythmic intelligence are:

“environmental sounds, instrumental sounds, music composition/creation, music performance, percussion vibrations, rapping, rhythmic patterns, singing/humming, tonal patterns, vocal sounds/tones” (Lazear, 2003, p. 15).

Table 3: The Multiple Intelligence Toolbox

Logical/Mathematical	Verbal/Linguistic	Visual/Spatial	Musical/Rhythmic
<ul style="list-style-type: none"> ▪ Abstract Symbols/Formulas ▪ Calculations ▪ Deciphering Codes ▪ Forcing Relationships ▪ Graphic/Cognitive Organizers ▪ Logical/Pattern Games ▪ Number Sequences/Patterns ▪ Outlining ▪ Problem Solving ▪ Syllogisms 	<ul style="list-style-type: none"> ▪ Creative Writing ▪ Formal Speaking ▪ Humor/Jokes ▪ Impromptu Speaking ▪ Journal/Diary Keeping ▪ Poetry ▪ Reading ▪ Storytelling/Story Creations ▪ Verbal Debates ▪ Vocabulary 	<ul style="list-style-type: none"> ▪ Active Imagination ▪ Color/Texture Schemes ▪ Drawing ▪ Guided Imagery/Visualizing ▪ Mind Mapping ▪ Montage/Collage ▪ Painting ▪ Patterns/Designs ▪ Pretending/Fantasy ▪ Sculpture 	<ul style="list-style-type: none"> ▪ Environmental Sounds ▪ Instrumental Sounds ▪ Musical Compositions/Creation ▪ Musical Performance ▪ Percussion Vibrations ▪ Rapping ▪ Rhythmic Patterns ▪ Singing/Humming ▪ Tonal Patterns ▪ Vocal Sounds/Tones
Interpersonal	Naturalistic	Bodily/Kinesthetic	Intrapersonal
<ul style="list-style-type: none"> ▪ Collaborative Skill Teaching ▪ Cooperative Learning Strategies ▪ Empathy Practices ▪ Giving Feedback ▪ Group Projects ▪ Intuiting Other’s Feelings ▪ Jigsaw ▪ Person-to-Person Communication ▪ Receiving Feedback ▪ Sensing Other’s Motives 	<ul style="list-style-type: none"> ▪ Archetype Pattern Recognition ▪ Caring for Plants/Animals ▪ Conservation Practices ▪ Environment Feedback ▪ Hands-On Labs ▪ Nature Encounters/Field Trips ▪ Nature Observations ▪ Natural World Simulations ▪ Species Classification (organic/inorganic) ▪ Sensory Stimulation Exercises 	<ul style="list-style-type: none"> ▪ Body Language/Physical Gestures ▪ Body Sculpture/Tableaus ▪ Dramatic Enactment ▪ Folk/Creative Dance ▪ Gymnastic Routines ▪ Human Graph ▪ Inventing ▪ Physical Exercise/Martial Arts ▪ Role Playing/ Mime ▪ Sports Games 	<ul style="list-style-type: none"> ▪ Altered States of Consciousness Practices ▪ Emotional Processing ▪ Focusing/ Concentration Skills ▪ Higher-Order Reasoning ▪ Independent Studies/Projects ▪ Know Thyself Procedures ▪ Met cognition Techniques ▪ Mindfulness Practices ▪ Silent Reflection Methods ▪ Thinking Strategies

After the creation of his toolbox, Lazear goes through a five-step process to create his eight-in-one lesson. First he “focuses on the content” (Lazear, 2003, p. 16).

This involves getting a clear idea of your goals for the lesson. The second step is to “state

the lesson objectives and outcomes” (Lazear, 2003, p. 16). This step involves writing down your academic objectives like your QCC’s, Quality Core Curriculum, what specific things you want your students to understand, and any additional objectives like personal understanding, behavioral patterns and skills that are involved in the lesson. The third step involves referring back to the multiple intelligences toolbox. From your toolbox, you choose one tool or activity that allows you to teach the objective from each of the eight intelligences. The fourth step is to “define how each tool will be used” (Lazear, 2003, p. 16). This step involves writing a description of how each tool will be used to achieve the learning objective. This step also includes determining “what product they will produce, how you will use the tool to teach the lesson, how you will assess the students’ understanding of the materials through the tools” (Lazear, 2003, p. 16). The final step in this process is deciding on the order of using the eight activities.

Lesson Plan Two: Intelligence Focused Lesson

The second type of lesson, the Intelligence-Focused lesson, incorporates “the tools and techniques of one intelligence into a given learning experience” (Lazear, 2003, p. 9) Intelligence focused lessons stress one intelligence and one intelligence only. This does not mean that the other intelligences are neglected. They are addressed separately in their own intelligence-focused lessons. This gives students a chance to work in their comfort zone with their dominant intelligences and also forces them to exercise and strengthen their weaker intelligences. In this lesson, the multiple intelligence toolbox is

another vital way to help decide what activities are appropriate for teaching the lesson as you choose tools only from the category of the intelligence on which you are focusing.

The Intelligence-focused lesson actually has four stages to it: awakening the intelligence, amplifying the intelligence, teaching for/with the intelligence, and transferring the intelligence. In the awakening stage, “We must first become aware that we possess multiple ways of knowing and learning. Then we must learn various techniques and methodologies for triggering an intelligence within the brain-mind-body system.” (Lazear, 2003, p. 38). This stage is hard for many students, since in most educational settings alternative ways of learning outside the logical and linguistic intelligences are often ignored. So, many students are not even aware that there are alternate ways of learning and that those ways might be better ways for them to learn. In this stage, Lazear uses the five senses to awaken the intelligence, because “a particular intelligence can be activated or triggered through exercise and activities that use the sensory based-sight, sound, taste, touch, smell, speech and communication with others-as well as inner senses-intuition, meta-cognition, and spiritual insight” (Lazear, 2003, p. 39).

The second stage is the stage where we exercise and strengthen the intelligence that we have awakened. This involves determining what “capacities and/or skills are necessary, how to access these capacities and skills, and how to use and understand different intellectual modalities” (Lazear, 2003, p.38). Because most students are not aware that they have many different ways to learn, they are not aware of the skills that are needed to express those intelligences. This stage is essential so that the lesson teaches the skills students need to express the intelligence. “For example, the language of

bodily/kinesthetic intelligence is physical movement, not words, sentences, writing, and speech” (Lazear, 2003, p. 38).

The third stage involves teaching with and for the intelligence chosen in the lesson. This is a challenge for teachers who have been trained and preprogrammed from their own educational experience to learn in only logical and linguist ways. They are not familiar with the skills and vocabularies of the other intelligences. We must now learn to teach a lesson incorporating the vocabularies of the other intelligences.

The fourth and final stage is the transfer of the intelligence. “The goal of this stage is for the intelligence to become a regular part of one’s cognitive, affective, and sensory life” (Lazear, 2003, p.39). As educators, we want to empower all students with the intelligences and skills to overcome the challenges they face in their daily lives. By equipping them with a larger group of skills and intelligences, students are able to transfer those skills to solve problems that they face not only in the school environment but also in their social, home, and work environments.

Development of My Units

In the development of my lessons, I used a modified approach of the Eight in One Lesson, the Intelligence-Focused lesson. This was due to the time constraints of seeing students one time a week for forty five minuets and having to get cleaned up and prepped to teach my next class with two to five minuets in between.

I first created and used a table of the eight multiple intelligences that I wanted to address in the units. I added this table to my lesson plan template knowing that in some

of my lessons I would try to teach for all eight intelligences, but in other lessons I might just focus on one intelligence. After I came up with my template, I began looking at the multiple intelligence toolbox for activities that would fit the lesson and coordinate well with the essential questions, and the QCC's for that particular lesson.

Table 4: Multiple Intelligence Insert for Lesson Plans

Logical	Linguistic	Musical	Kinesthetic
Visual	Interpersonal	Intrapersonal	Naturalistic

In total, I developed and taught three units for this applied project, however, I will only be describing one of the units in depth. The unit I have chosen is the Dancer/Gesture Creation unit. (Lesson plans for this unit are located in the appendix) I choose this one as it had a larger variety of intelligences used throughout the course of the unit, and I was able to create a rubric, a quiz and a self-report to get feedback on this unit. The overview of the other two units is included in the Appendix of this applied project. (see Appendix page 98 and page 107).

Rationale for Dancer Lesson

The rationale behind this unit was to engage the different intelligences so that students had an understanding of the essential question of the lesson. How do art, music and physical movement allow you to express a feeling, emotion or action? Because some areas of Multiple Intelligence Theory fit nicely together they naturally make great companions in a lesson. Music and movement are two entities of Multiple Intelligence Theory that go hand in hand. When I saw a lesson done by an art teacher from North Carolina, Terry McManus, who had combined her love of teaching art with her love for dance, I saw a natural connection to what I was trying to do in my classroom with Multiple Intelligence. I immediately saw a link between the visual/spatial intelligence and the kinesthetic intelligence. As I went along in developing this unit, I saw yet another natural link, musical intelligence. Music sets the tone for the movement of the body and would fit in nicely with this lesson.

In this lesson I wanted to use music to help students explore how different types of music set different moods and how these moods are expressed through the body with gestures. Artists often create works of art using the gestures of the body to create mood or express a feeling. I wanted students to explore different types of gestures created by the different types of moods inspired by the music and then capture the mood in a piece of art done in the style of Henri Matisse.

Next, I pulled in some of the additional intelligences: naturalistic, linguistic, and intrapersonal. I did not try and force all the intelligences into this lesson like an eight-in-one lesson would require. Instead, I modified the eight-in-one lesson plan to a six-in-one lesson plan only keeping activities for the intelligences that truly would bring out the

objectives of this lesson. As I mentioned earlier, there are particular problems that arise in creating a Multiple Intelligence unit for the art room. Time is the biggest. Because students only receive art instruction one time a week totaling less than 36 hours of instruction over the course of the year, it is imperative that I use this time to include activities that are truly effective.

Two of these truly effective activities are observation and movement. The naturalistic intelligence can be developed through observations and the kinesthetic intelligence through movement. Using these ideas, I focused on the idea of artists as observers of nature and how they use those observations to study the figure and learn to accurately draw it. The basic study of the figure begins with gesture and contour drawings. Gesture drawings and contour drawings fit into this lesson perfectly. First they were good basic studies of the body that captured movement. Second they created a chance for students to move their bodies and relate that to what they were capturing with their drawing. Third they easily could be redrawn on construction paper to create the pieces of the collage needed to make the body parts of a dancer in motion.

The fact that I wanted this piece of art to be a collage of cutouts to create a dancer in the style of Henri Matisse was enriched further by the presentation of artists that studied dancers. I was able to expose my students to the artist Edgar Degas, who worked in the Impressionist style making oil paintings and pastels of dancers. Edgar Degas spent many years attending dance rehearsals in Paris and painting the gestures and movements that the dancers made.

The linguistic activities were brought into this lesson next. Luckily, earlier in the year, I was given a great book called *Drawing with Scissors* (Heartland, 2002). This book

is written from an imaginary art student's point of view. It is written as though the student is doing a report on Henri Matisse. From reading through this book, it was easy to see that it gave an in-depth overview of the artist, his work, and his life. However, the book was a bit too long to read to the class. I chose the pages that focused on his book *Jazz*, and the pages that talked about how Matisse began to create collages due to his failing health. I believe the linguistic activity of reading a book to be a concise and brief way of introducing the art history portion of the lesson.

I also chose to include writing vocabulary words in sketchbooks as a method of reinforcing the vocabulary that is introduced in this lesson. The actual writing of vocabulary words creates a time when students have to think about and cognitively reflect on the vocabulary they are presented within an art lesson. This activity also provided a way of cataloging and recording the concepts that students were engaging in during the lesson. This record could also be used to validate the concepts being taught in the art room. If an administrator came in and wanted to see proof that I was teaching art concepts to students, this record would provide that proof. If a parent wanted to know what art concepts their student was learning in the art room, then he or she could refer back to the sketchbook and see the list of vocabulary words and their meanings. I created a general multiple-choice quiz to assess the effectiveness of the definition writing activity. (See appendix, item 1A)

The final intelligence I chose to bring into this lesson was the Intrapersonal. I brought this into the lesson in two different ways, first through a written reflection on the dance group *Moving in the Spirit*, and then through a self-evaluation of what seemed to help the students. (Moving in the Spirit is a dance performance group in Atlanta, GA who

use dance to teach character education in the public schools arena through dance performance brought into the schools by the Cultural Arts Council of Fulton County) In the written reflection students, were asked to write their responses to three questions: 1) Which dance piece did you like the best and why? 2) How did watching it make you feel? I wanted students to tap into an emotion or an action that they might have experienced while watching the performance. The third question stated 3) How would you move if you were a dancer (Fast, slow, up down, turn, skip, hop, or jump)? Question one was designed to help students reflect back to the different dance pieces that they observed and describe what drew them to that particular piece. It was essential to have the reflection because some of the classes wrote their reflections almost a week after seeing the dance performance. Again the latency of writing the reflections was due to the fact that students were only given art instruction one time a week on set days. As an art teacher, I could have asked teachers to have students write the reflection in class directly after the performance. However, when I ran that idea by several 3rd grade teachers they responded that they were swamped with CRCT test preparation and could not give up their class time to this. The second question I used to tap into an emotion or an action that students might have experienced while watching the performance. The third question was designed to get students to identify different gestures that could be made with the body. Later in the lesson, they would be creating a dancer making a gesture, so this was a way to get them to reflect on different gestures the body could make.

The self-report (See appendix, item 1B) was an afterthought of the initial planning for this lesson. As I was teaching, the lesson I was concerned that certain parts of the lesson might seem too much like general education activities. In particular, I was

concerned with students losing their excitement about coming to art, because they were doing things like recording definitions in their sketchbooks. I thought it was important to get students' feedback on the type of activities that engaged them the most and their thoughts on whether or not writing the definitions was helpful to them. I also wanted to find out what they remembered from the book, *Drawing with Scissors*, and whether or not they felt rushed in making their artwork because of the time the other activities took up in class. I used the self-report sheet to get some feedback on these topics.

Chapter 4

Teaching the Lesson

Week One

Introduction of Matisse, dancers, contour drawings, and gesture drawings.



Figure 1: Students around carpet for contour and gesture drawing activity

The students began by coming in the classroom and getting their sketchbook, a hardback book to press down on, and a pencil; they then moved to their seats. I began by showing them several images. One of the images was Matisse's, *Icrus* from the book *Jazz* (Matisse, 1943). Afterwards, I read them portions of the book *Drawing with Scissors* (Heartland, 2002). I condensed the pages that I read to those telling about the history of Matisse's life and how he came to draw with scissors because of his heart disease and failing sight. I read to the students about how Matisse's father wanted him to be a lawyer and how he worked for a law firm but was often chastised for drawing flowers on important

documents. I read about when he got sick, and had to be in bed for several months, his mother gave him a paint set to occupy his time. When he got better, he decided he wanted to go to art school and become an artist. We read about how when he first started to paint, all of his painting looked realistic and, as he got older, he made them more abstract. I showed them a realistic painting of a still life he did and an abstract painting he did of a snail. I asked them to first describe what they saw in the realistic painting. They replied with the names of the different objects. I then asked them to describe what they saw in the abstract snail painting. They were able to tell me the names of the colored square that Matisse had used to make the snail painting. When I asked what the picture was of most of the students could not tell, me and I had to give them the answer that it was a snail. The book also talked about *Jazz* (Matisse, 1943). I explained that *Jazz* was a book Henri Matisse wrote and illustrated with lots of his images that he made by cutting paper out with scissors. It also was like a journal of his feelings. Next, I used a large screen television and a PowerPoint presentation to show examples of Edgar Degas' dancers along with images of dancers of other cultures. I asked students to describe the dancer's gestures in each picture. They would tell me things like, "He is flinging his arms around." The next set of slides in the PowerPoint presentation was the vocabulary portion of the lesson. I had students read the slides, and I showed them images of contour, gesture, and expressive line drawings. The slides had examples and definitions for each word. Each student used the vocabulary section of their book to write down the definitions. After this was completed, the students made a half circle around the carpet and practiced

drawing a simple contour of a bottle just to learn the process. After that, the students had the opportunity to make a contour drawing of me, Ms. Farley. Once the practice drawing was done students took turns making gestures with their bodies, then stopped to draw each other.

Moments: Observations from implementing the above activities

While looking at the images on the large screen television, I asked students to describe the image. The image was of a dancer created in the style of a Matisse cut out. Not everyone got that it was a dancer right away. I would sometimes have to explain it was a dancer and then ask what they saw that would tell them it was a dancer. However, a student, Adam, looked at it and said that it was a dancer right off the bat. (All students' names have been changed in accordance with IRB regulations.) When I asked him how he knew that, he said that the "The arms look like they are moving." Referring back to Table 2 (Developmental Processes in Multiple Intelligences), Adam was working at an Apprentice level of spatial intelligence. He recognized a subtle visual element in a piece of art and was able to assign meaning to that element. He perceived an object, the Matisse like dancer, and created a relationship with it by naming it as a dancer.

During the lesson, I noticed that the book portion of the lesson was particularly interesting to the students, perhaps because I was using both the linguistic and visual method of presenting the art history portion of the Matisse/Dancer lesson. When I was reading the book out loud and showing pictures, students did not talk and wiggle as much as when I simply and explained things. The book seemed to engage them in both a linguistic and visual manner and presented materials quickly and in-depth. One student,

Cindy, noticed the picture *Jazz* in the book that we were reading. She shouted out that she had seen that picture in a book and had seen the book *Jazz* by Matisse. Cindy was using not only her visual spatial intelligence but her linguistic intelligence as well because she began to tell us about the book *Jazz*. She described where she had seen it and how all the words were in French. I would even venture to say that she was using her interpersonal intelligence, because she wanted to share with me a fact that she knew would interest me. If I had to classify Cindy, I would say she was working at a practitioner level of linguistic intelligence. She took a picture addressed in class and related it to the real world experience of actually seeing the book, *Jazz*, by Henri Matisse.



Figure 2: Students writing vocabulary word

The second linguistic activity of writing definitions held a great surprise for me. I thought most of my students would moan and groan about writing definitions down in their sketchbooks; but they actually were very on task, and they moved through the definition writing quickly. They were very concerned with getting the accurate definition. One student remarked, “I am not done and I want to get it right,” when I tried to move to

the next definition before she was finished. This told me that this student was investing a lot of herself into doing this portion of the lesson. This student is a linguistic learner, who knows this is her strength and prides herself in getting things correct. I did notice that some of my students, who I would suspect not to be the strongest readers because of the Individualized Education Programs (IEP) that I have access to, took much longer to write down the definitions. One student in particular was extremely slow at copying the definitions. In fact, he was so slow that I had to take down the definition that I had attached to the bulletin board where I keep my vocabulary words posted, and give it to him. This way he could write the definition while the rest of us moved along. The rest of the class got through all three definitions in the time that it took him to write just one. I would say that this student is not particularly strong with this linguistic activity. But that is the beauty of this type of lesson. There are many ways for these students to get the information; and as a teacher, I quickly learned that if I kept using the word wall, then I had an extra way of modifying this lesson for students with disabilities.



Figure 3: Mrs. Farley posing for drawings

After students wrote the definitions of the words we began making the drawings. While I was posing in one class, a student, Alex, had a light bulb go off. While I posed, I would ask students to tell me what a contour drawing was. Most would repeat the definition that I had them write. However, in one class, Alex said out loud, "It's like drawing a shadow, because you are just drawing the edges." I could tell that he had made the connection between the definition and how it is applied in actually drawing a contour of a person. Alex was working at an apprentice level, as he used art vocabulary in a correct manner and perceived a relationship between the vocabulary and the elements in art.

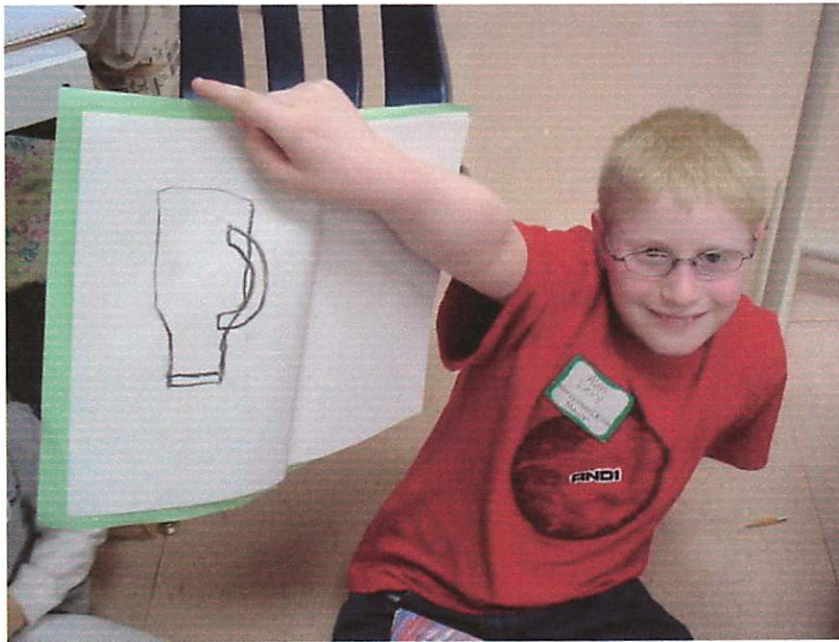


Figure 4: Student showing contour drawing

Week Two

Gesture drawing to music, making background.



Figure 5: Students moving to music

In this lesson, we started off using charcoal in the sketchbooks to make gesture drawings. As students entered the room, I had them pick up their supplies and sit in a half circle around the carpet. They then reviewed contour and gesture drawings. I explained that they would be moving around to music making gestures with their bodies. Next, I told them that when the music stopped, they were to hold that gesture, so the other students could draw them. After this, I asked for volunteers. Some of the students

laughed, because they were too embarrassed to get up and dance in front of their peers. I put on some upbeat Beatles music and let the volunteers move around.

After I stopped the music, I gave one demonstration of using circles and ovals to form the body parts in a gesture drawing. I demonstrated how this allows you to capture the gesture quickly. Then I let them begin drawing. We did two gesture drawings.

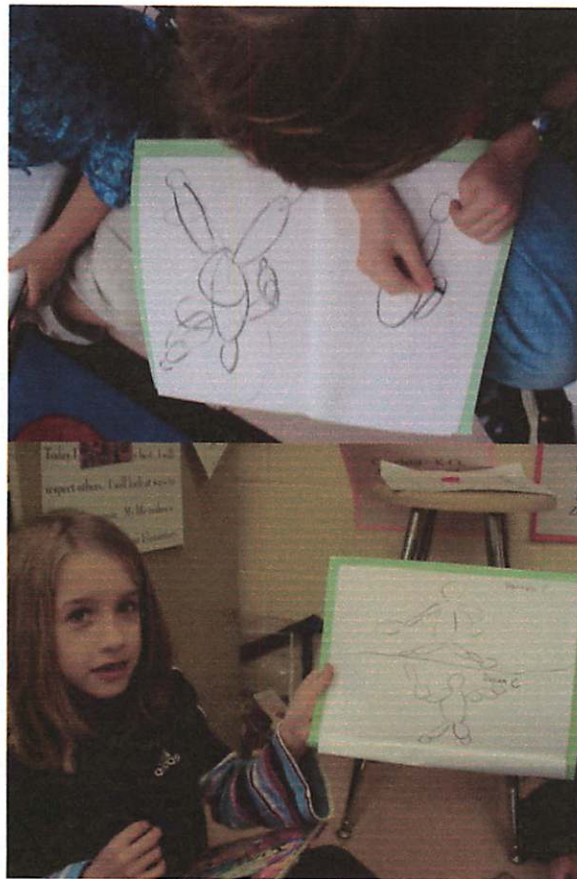


Figure 6: Students gesture drawings

After this, the students put away their supplies and then went to chose their background color paper for the art work making portion of the lesson. Students first put their names on the back of their background sheet, and I did a quick demo of how to

create a background using contrasting colors and using a variety of colors. Next, I gave them turns to go to the scrap paper box. Here, they were to choose a variety of contrasting colors to cut out and glue on to their background paper. Because the gesture drawing activity took so long, we did not have time to get the definitions down in their sketchbook. That had to be moved to week three's lesson plans. As a teacher, I had to prioritize the different activities, and the gesture drawing activity was the most important to accomplish, so students had it to relate to the *Moving in the Spirit Dance* company that I had brought in for the School Arts Program. I think I made the right choice, because in Ms. Rosso's class I did a quick visual poll to see who thought that the gesture drawing activity helped them understand what a gesture drawing was. Fifteen of the twenty students raised their hands. I also felt that it was important to have the students go ahead and start some of the art work before they lost the ideas from the previous week's explanation of how Matisse made art.

Moments: Observations from implementing the above activities.

In Ms. Rosso's class, I first had two students dance to *Lucy in the Sky with Diamonds* (Lennon, McCartney, 1967, track 3). While they were moving, the other students were making comments on the music like "I like the Beatles." Next, two other students moved to a song called *Honey* by the artist Moby (Moby, 1999, track 1). While I was waiting for students to finish their gesture drawings, I began asking if students could tell me what a gesture drawing was. I saw a lot of students look back at the definition, but a good number could give a definition in their own words. Approximately, two thirds of the class could tell me the definition of a gesture drawing. But for those who could not

tell me the definitions, the vocabulary list became an important reference material. Students now had the vocabulary list as a reference what definitions we had already talked about. In addition the sketchbook will go home with the students at the end of the year. Parents and guardians will be able to look through this and see the different vocabulary that we use in the room during the year. This sketchbook could prove to be an important piece of support for my art program, especially for individuals who think that all we do is make “pretty” pictures.

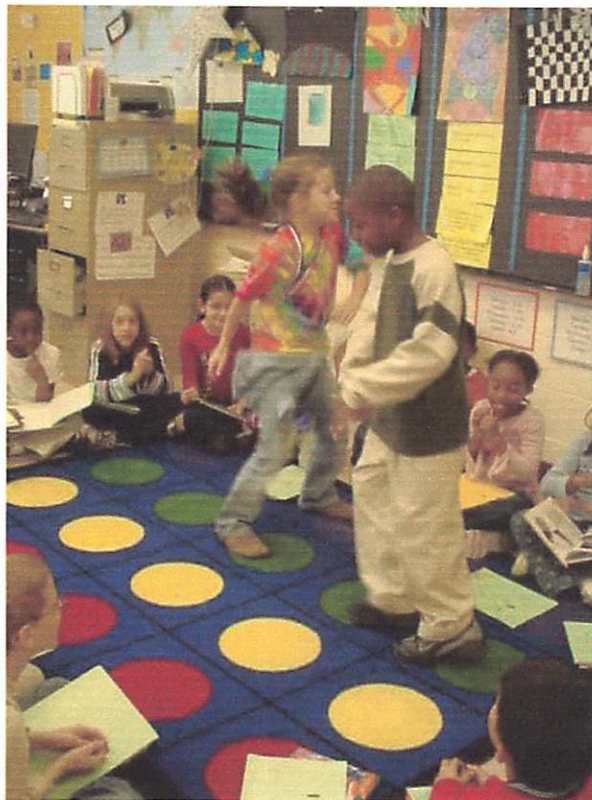


Figure 7: Students in movement for gesture drawings

The enthusiasm of the students for dancing and gesturing in class was overwhelming. Every class I taught was not satisfied with doing two or three gesture drawings. They wanted more. I was even surprised when a particular student, whom I

have had major behavior problems with, became engrossed in the activity. This student, Scott, is a student who is constantly loud, inattentive, and has problems following instruction. Often, he cannot follow step-by-step instructions. Even with modifications of peer tutoring, repetition of instructions in written form, frequent refocusing, and individualized instructions, he is often off-task. However, today he was focused.

Scott is a student I have interacted with in the *Jump up to Make Progress* program, *JUMP* for short. The *JUMP* program is designed to identify students who are in risk of failing the Criterion Referenced Competency Test, a test required for third graders to advance to fourth grade. These students attend the after school program four days a week for two and a half months. Teachers, like myself, work with these students on math and reading skills and provide the students with two recesses and a snack time in the two and one half hours they are with us after school. While working with Scott in this program, it became apparent that he is very high in kinesthetic intelligences. During the recess time, Scott was constantly playing football and basketball. He knew the rules of each game and took on a leadership role of dividing teams and running plays. I was surprised to see a student, who cannot follow simple step-by-step instructions in my room and often was a behavior problem, explaining with the use of his body how to run a complicated play in a football game. As I watched Scott out on the playground, he explained step-by-step instructions. "You are going to run over here, and then you are going to go like this and fake the other guys out." Next, he said "You will throw the ball to him and he will run down the field."

Reflecting back on this memory of Scott playing football and noting his behavior in the gesture drawing activity, I can see how this activity appeals to his kinesthetic

intelligence. Not only was he watching how students moved like you would in a football game, but he was actually able to get up and use his body to move to the music. The two activities were very similar and therefore spoke to his kinesthetic intelligence.

In this activity, I especially loved that many students could show off their kinesthetic dancing abilities. Many of my students are trained in dance or have natural movement abilities. One student, who we will call Martian, stood up to dance to the music, when he did; he broke out into the moon walk. He could do it very well, and everyone was impressed. Students began asking him how he did that and could he teach them. I was thrilled not only because he got into the kinesthetic activity; but because of the kinesthetic activity, he was receiving positive attention for his ability to move so well. I want to mention that Martian is a student who receives a lot of negative attention for his behavior both from teachers and from peers. The fact that this activity allowed him a chance to shine in a positive way excited me as a teacher. It also added another reason to the long list of reasons I have for continuing these types of activities in my classroom.

Week Three

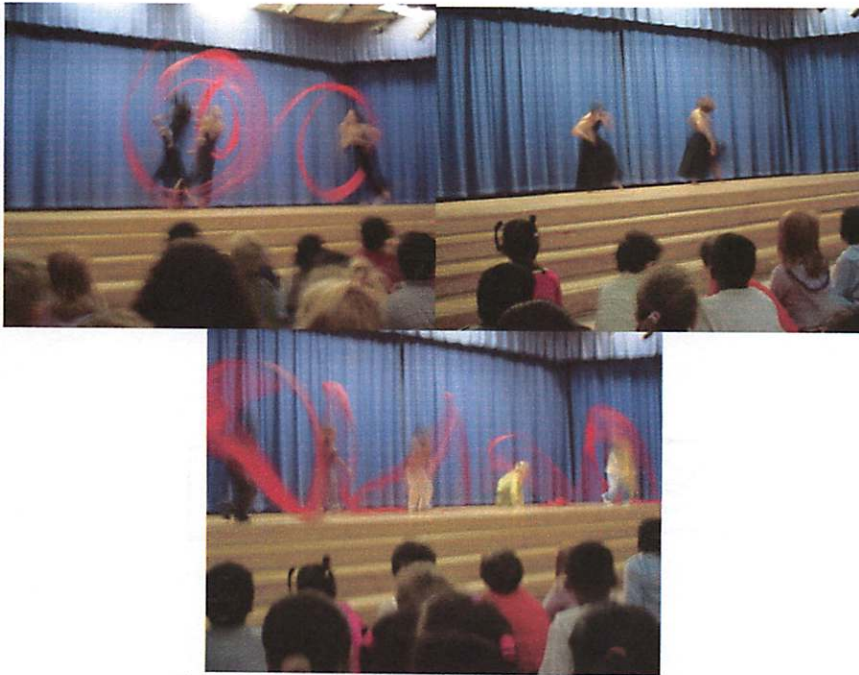


Figure 8: Moving in the Sprit dance performance

This week's lesson started with a recollection of the School Arts program. The School Arts program is a collaboration between the Fulton County Arts Council and The Fulton County Board of Education. Through this program, all schools in Fulton County receive monies based on the number of students they serve to bring in artists, dancers, storytellers, and musicians to perform for the students. It is a way of exposing many students, who might not otherwise be exposed, to the arts. Being the chair of this program at Northwood allows me a lot of influence into the programs we bring into the school. I had chosen to bring in the *Moving in the Spirit Dance* group and wanted the students to use that experience of visually watching a dancer move their bodies kinesthetically to music. This performance was a great illustration of the connection between gesture and dance that students were using in the Matisse lesson. Because this performance took

place on one particular day, and every student attended on that day, I did not get to discuss it with my third grade students until they came to art again. For some students, this is as much as a week after the performance. This is why a recapitulation that jogged the student's memory was critical. As the students came in, I gave them each their sketchbook and asked them to take their assigned seat. I then directed their attention to the dry erase board where I had a list of three questions written.

- 1) What piece did you like best? And why?
- 2) How did watching it make you feel?
- 3) What kinds of gestures did you see? (high, low, fluid, fast, slow, up down, turn, skip, hop, or jump)

I next reviewed with students what a complete sentence was and how to always to always start a sentence with a capital and end with a period. I helped students brain-storm about some of the pieces they had seen. Finally, I gave students about ten minutes to answer the questions.

Moments: Observations from implementing the above activities.

I was surprised at the variety of answers I got to the questions. Some hit the nail on the head, and others gave very weak responses. One student, who had an excellent response wrote:

I liked the Chinese Ribbon dance. I liked it because you had to be really good to do it. I loved the way they moved the ribbons

It made me feel excited when watching it.

I saw fast movements. I loved how high the guy jumped. All the dancers moved fluidly. (Students in class, personal communication, February 2005)

This student was able to connect the level of difficulty of the ribbon dance and articulated that verbally to me in his writing. He also was able to use verbal means to describe the types of gestures that he saw.

A second student answered Question Three making a more direct connection between gestures and the movement of the dancers. This student answered “I saw some jesters (misspelled gestures). Girls and boys they skipped jumped, it was slow and it was fast.” The fact that this student was taking the vocabulary from the lesson and applying it to the performance that she had seen shows me that my teaching about gesture drawings was being understood. Students understand that a gesture is a type of movement of the body, and a gesture drawing is a drawing that captures that movement.



Figure 9: Backgrounds of art work showing variety of colors

After students finished this, I had them record in their vocabulary section the two new vocabulary words that would be introduced and used in that day’s lesson, “variety” and “contrast”. I then demonstrated how to create the background using a variety of

colors that contrasted with each other. I showed them how to cut out large chunks of colored paper and lay them next to one another. Subsequently, they could move them around so that the colors that stood out the most were next to one another. I also showed them how to use the color wheel to find colors that were far away from each other on the color wheel. I explained to them that colors that are not neighbors are contrasting colors, but the best contrasting colors are the complementary colors that are across from each other on the color wheel. Complementary colors was a concept that had been studied earlier in the year and in previous years. From here, I gave students work time to begin making their background.

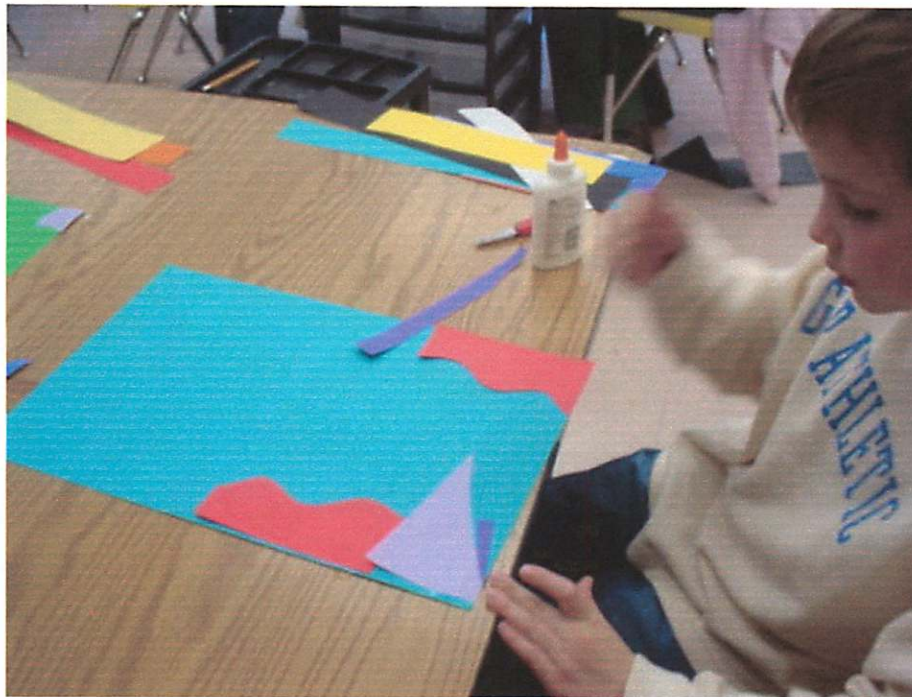


Figure 10: Student creating background

Week Four and Five

Week Four's lesson began with the final set of vocabulary words being written in the sketchbook. As students moved into the classroom, the process of writing down the vocabulary words had become routine. I did not have to explain where to write the words or explain leaving a space in between each word. Students recorded the definitions for rhythm and point of emphasis, and we quickly reviewed verbally the previous week's vocabulary.

Next, I demonstrated how to use the gesture drawing that we had done to create a dancer. I first chose a piece of construction paper, in a color that contrasted with the background colors. After this, I began drawing the different size circles and ovals that represented the body parts of the dancer from the gesture drawing on the construction paper. I cut them out and began moving them around to create a point of emphasis. At the beginning, I put the body in the center with the legs hanging straight down and the arms right by the side of the body. I explained that this is how most people make an image of a person, but that this person looked boring and did not catch your eye. It had no point of emphasis, and it also did not look like a very good dancer. Then I began moving the ovals and circles around on the page making the dancer kick or bend its legs. I moved the arms out and up and tilted the head and the body. I asked the students which of the dancers they preferred. It was unanimous. The second one was more interesting to look at. I then gave students time to go back and begin making their own dancer. While students worked individually, I put on a variety of upbeat background music. I have found that music is a

great thing to have in the art room. Students will often refrain from talking, because they are listening to the music while they work.



Figure 11: Student creating dancer

Moments: Observations from implementing the above activities.

While students worked independently, I was able to eavesdrop on some of their conversations and observe them in the art making process. During this time, I saw evidence of how the different types of multiple intelligence activities had helped students to understand and enrich the different concepts that I was trying to teach. In my Tuesday afternoon class, I observed a discussion by two students. Cindy and Mason were discussing how different movements represented different music. Mason wanted to make a rap musician doing rap moves. However, Cindy believed the movement he was creating with his paper was not representative of rap moves. She told the other student, “No

Mason, that is jazz not rap. Move it like this.” Students all around the room were discussing their art and using their interpersonal intelligences to help them solve problems that arose while they were creating their dancer.

Often, I saw students using both their interpersonal and kinesthetic intelligences to solve problems. Because many students have not had much experience drawing the body or studying the way it moves, they did not know what it looked like when it moved in a certain way. However, I was so impressed to see how some of the students worked this problem out using their interpersonal skills and their kinesthetic skills. One group of girls who needed a model of how their dancer would be moving got together and posed for each other. Mary first told Tiffany what she wanted her dancer to be doing. Tiffany moved into the “plié” position (a position in Ballet where both legs are slightly bent and turned out from the hips) that Mary had asked for and held it while she drew the shapes for her dancer. Once Mary was finished, she moved into the flying leap position that Tiffany wanted and held it for her while she worked.

It was wonderful to see students naturally using their different types of intelligences like this to solve problems. It also served as a great reminder to me as a teacher that although I can plan all these different activities that speak to the different intelligences, sometimes it is better just to give the students a bit of leeway, and they will solve problems and use their different intelligences on their own.

In my Wednesday class, one table of students took the lesson to a more musically inclined basis. Ned and Mason sat at a table with several other boys. I had put on some background music for the students to listen to while they worked. However, I had let them choose between the music selections that I had. The winning vote was the Beatles.

As the music played, I began noticing a discussion between Ned, Mason and the other boys at the table. They were discussing the Beatles. How many were there? Where did they come from? How did John Lennon die? Mason then raised a hand and pulled me into the conversation. As I talked with Mason, I heard Nate exclaim, “I am going to give my dancer a guitar.” I was thrilled to see the effects of the background music on this group of boys. They were allowing one intelligence to aid another. As I mentioned earlier “The different smarts work together in almost everything you do” (Armstrong, 2003, p. 5). The way the music was influencing Nate to enrich his visual image of a dancer showed a connection between the musical intelligence and the visual/spatial intelligence. In fact, in several of the art works, you can see the influence of music on the art work through the addition of musical instruments.



Figure 11: Final pieces of art

Week Six

This week was dedicated to assessments and finishing work. There were three types of assessments conducted on this lesson designed to evaluate the explicit curriculum: analysis of the art, a quiz, and a self-report sheet.

The first assessment was the analysis of the art. I first scored each piece using a rubric I designed based on the essential elements of the art work.

Table 4: Dancer Rubric

Dancer Rubric		
Did Student create a collage?	Yes=50 pt	No=0 pt
Was their a figure cut out in contour form?	Yes=10 pt	No=0 pt
Was the figure making a gesture or some sort of movement?	Yes=10 pt	No=0 pt
Was there rhythm or repeating lines, shapes or colors?	Yes=20 pt	No=0pt
Was there a point of emphasis?	Yes=10 pt	No=0 pt

All three classes that I taught averaged a score of 94.06 points. Sixty four of these pieces had scores of 100 points. Eleven had a score of 90 points. Six had a score of 80 points. Four has a score of 70 points and one scored 60 and one scored 50. I made the base line of my objective to score 80 points. I choose 80 as a base line because in order to score 80 points you would have to have met the majority of the criteria of the rubric or answer yes to at least 3 of the 5 questions. If I graphed these on a bell curve, it would be

slightly skewed towards the higher end of the chart, but that was my objective. I was hoping to tap into the different ways students learned best to get them to be comfortable with their creativity and to get them to understand the art concepts that I was trying to teach. On the whole these were very successful art pieces that measured up to the explicit goals I wanted them to demonstrate based on the activities that we did.

Table 5: Scores for art work

Number of Points	Number of students
100 points	64 students
90 points	11 students
80 points	6 students
70 points	4 students
60 points	1 student
50 points	1 student

At the end of the lesson I gave a quiz as a second form of assessing the students. I strongly believe that students learn differently; and they also express what they learn differently, so students should be assessed in several types of ways. The quiz that I gave was geared more toward the logical, linguistic learner whereas the assessment of the artwork was geared more towards the kinesthetic, visual, naturalistic learners. It was a six question multiple choice quiz that covered the major points of the lesson that was taught. The quiz is item 1A in the appendix of this paper.

The self-report assessments, (item 1B in the appendix), that I used were meant to tell me which activities the students thought helped them the most and which activities they enjoyed doing. I compiled the data from question one and learned that 66.66% of students found that writing the definitions down helped “a little” with learning the definitions, and 25.28% found that it helped “a whole lot.” Interestingly, all three hearing impaired students that I teach reported that it helped them a great deal. I think that the end result here is that writing the definitions down benefits the majority of the students, and is an appropriate accommodation for my hearing impaired students. Therefore it is a practice I will continue in my class despite the amount of time that it takes to get them copied. I also think it is an important tool to show parents what we are learning in art. At the end of the semester, they have a nice sketchbook with vocabulary words, observations, and written stories that illustrate the concepts that we are learning.

Table 7: Question 1 student answers

Q1: Did writing definitions help you learn definitions.			
# Of Students with this Answer.	7	58	22
N=87	Not at All	A Little Bit	A Whole Lot

The activity that students reported in question two as helping them understand gesture drawing was seeing the dance group *Moving in the Spirit*. 58.58% of students thought this helped them. The second highest rated activity, at 20%, was moving around to the music then stopping to do the gesture drawing. And the third highest activity, at 17.64%, was creating the actual piece of work. This told me that my students prefer to

take in information through kinesthetic movement, visually, and through naturalistic observation. This is not surprising to me when I take into account that most of their day is spent engaged in logical and linguistic type of activities. By the time they get to art, they are looking for a change of activities. This tells me that I need to keep incorporating more kinesthetic types of activities and direct observations. This is again confirmed when looking at question four of the self-report. Students again reported that they preferred these three types of activities over the other activities.

Table 8: Question 2 student answers

Q2: Which Activity Helped you Understand gesture drawing?					
# Of Students with this Answer.	8	43	17	3	15
N=85	Writing Definition	Seeing the Dance Group <i>Moving in the Spirit</i>	Moving Bodies to Music Then Drawing Them.	Listing to the Music While We Worked	Creating a Piece of Art by Drawing the Dancers

Question three was a disappointment to me. This question was designed to see what students could recall from the book *Drawing with Scissors*. Unfortunately, there were very few answers that accurately described the book and the information in it. From this I learned that I concentrated too much on the elements and principles of this lesson and not enough on the art history when I was reviewing each day with them. It is hard for third graders who come to art one time a week to recall information that was presented

six weeks earlier. The next time I teach this lesson, I will include more review of the art history portion.

Table 9: Question 4 student answers

Q4: What Activity was Your Favorite					
# Of Students with this Answer.	0	39	17	6	18
N=80	Writing Definition	Seeing the Dance Group <i>Moving in the Spirit</i>	Moving Bodies to Music Then Drawing Them.	Listing to the Music While We Worked	Creating a Piece of Art by Drawing the Dancers

Question four was intended to find out what activity students enjoyed doing the most. This was an important question for me to ask because overall I want students to enjoy what they do in my classroom. When you look at the long term goal of creating life long artist, art consumers, and patrons, it begins by making the first experiences with art ones they enjoy. As an educator I know that when students are engaged in an activity where they are having fun then they naturally learn. If a teacher sets the stage for a child to enjoy the activities in the art room then that child has a better chance of becoming intrinsically motivated to do or participate in art activities later in life. Intrinsically motivating activities are activities that people will engage in regardless of receiving a reward or not. The interest and enjoyment of the activity is what motivates the person to engage in the activity. I found that 48.75% of students enjoyed seeing the dance group *Moving in the Sprit*. These students are our future patrons of the arts. I found that 21.25% of students enjoyed moving to the music and then doing a drawing, and 22.5% of

students enjoyed creating a piece of art by making a dancer. These two groups are our students who might become professional artists.

Final Reflections

The overall experience of doing this applied project has been a good one. As I look back on the benefits of adding Multiple Intelligence Theory to my classroom, I can see how this experience has helped me to improve as a teacher. I am slowly including different types of activities for the multiple intelligences into my lessons with other grade levels from first grade up to fifth grade, because I can see the positive impact of implementing this curriculum.

The process of doing this action research project has helped me to see the benefits of incorporating Multiple Intelligence Theory into my curriculum. Wanda May defines action research as “the study and enhancement of one’s own practice” (May, 1997, p. 224). Through the study of my own teaching and the enhancement of the curriculum by using Multiple Intelligence theory I have been able to see many benefits to the students and to myself. Judith Reiff was right when saying, “When we understand the various ways in which children learn, we are better able to 1) prevent discipline problems, 2) communicate with parents, 3) reduce teacher burn-out and parent frustration, 4) organize the classroom, and 5) help children reach their potential” (Reiff, 1996, p. 1). In many ways, I found this statement to be true when I introduced Multiple Intelligence Theory into my classroom.

First, I noticed the reduction of discipline problems. Prior to this, I had several students who had a real block when it came to art. They saw it as something that they could not do and therefore acted out in inappropriate ways, because they were frustrated. The student Ned, who I referred to earlier, is a good example of this. I noticed in my class that after he had a way of accessing the information in art through his stronger intelligence, his behavior changed for a while. He had discovered that he could do this lesson and therefore became engaged in it. Ned, who is a very social child and likes to be up moving around and talking to students during class, really got into his art work through the addition of music to the lesson. He focused on sharing his knowledge of music and added musical instruments to his artwork. While he was involved in making the musical instruments, he was not as talkative with the other students and he remained in his seat.

This method of teaching has also given me a better way to communicate with parents. When I have had to drop a student's grade to a B, or occasionally a C, this method of teaching substantiates my decision. I am able to show parents the vocabulary list that the students have created, and I can talk about the different methods I used to present the material to a student; therefore demonstrating that if a student is not doing well, it is probably because of behavior problems or some other factor. The reflection section in the sketchbook is also a great medium to communicate to parents what we are doing in art. I found that when the artwork was sent home at the end of the year, the students sometimes read their parents the stories they had written. This sparked conversation between parents and children about the artwork and how it was made.

The reduction of teacher burnout for me was the most interesting of the benefits that I observed in this lesson. I get bored teaching lessons the same way and using the same activities. As an art teacher I enjoyed the challenge of creating a wider range of activities to use to teach the students. I get as involved in the activities as they do. When I notice that a lesson is getting stale to me and no longer engaging me, I can empathize with a student whose multiple intelligences are not being utilized. When I add a new type of activity that deviates from norm of creating art through spatial and kinesthetic means, I find myself becoming more engaged and striving to enrich the lesson for the students. Thinking in different ways is challenging and time consuming; however, it is also invigorating. It prevents me from experiencing burnout while I practice the one thing that I love to do the most which is teaching art to children.

The most important aspect of this applied project has been the fact that so many of the students have been engaged in a curriculum that has helped them to reach their full potential. My overall belief still stand that all children can learn if material is presented in a way that speaks to their strongest intelligence. I believe that the analytical data supports this idea, as well as, my personal observations of students like Scott. Prior to engaging Scott in a kinesthetic activity, I believed he was not capable of following step-by-step instructions. After I found an activity that spoke to his stronger intelligence, he became engaged in the activity and was able to put effort into the lesson because he now had an access road to learning the material. Students like Scott may never reach their full potential unless teachers and the education world begin expanding our classroom methodology to include Multiple Intelligence Theory.

Recommendations for other Teachers

From my experience with the implementation of this applied project, there are several things I can recommend for other teachers to do if they choose to incorporate Multiple Intelligence Theory into their classroom.

My first suggestion is to build up to a modified eight in one lesson plan. Do not start off trying to get an activity for every intelligence in each lesson. Find authentic activities and add them bit by bit to your lessons. If you try to do an eight in one lesson plan for a unit, you will end up spending ten to twelve weeks on a lesson and thus jeopardize time with future lessons and objectives. Remember, everything is good in moderation. Trying to do multiple intelligence units for every unit you do with every grade level could get too complicated. Begin by building one unit for each grade level for the year. Then the next year, add two more units that incorporate the different intelligences along with the one you used the year before. Slowly build this into your curriculum where there is a logical connection in the units, and you will not get so overwhelmed.

My second suggestion ties into the first and is the most important. The activities that a teacher chooses to add must be authentic and valid to the art lesson. It makes no sense to have students engage in an activity that taps a different intelligence, if there is no true connection to the art lesson and the objective of the art lesson. The objective is to make the activities you add valid to the lesson and to the students. Don't try to incorporate a weak activity just to have an activity that reaches a particular intelligence. Use your time wisely for the different activities that authentically teach your objective through a different intelligence.

The third suggestion involves talking to your students about what you are doing and how you are trying to build their intelligences. Remember most students are very unaware that there are different ways of learning. Spell it out for them that you are providing activities that are helping them learn through their different intelligences. I feel this is where I was weak in my teaching. As I incorporate my next set of lessons, I will be better about verbalizing the intelligences I am trying to get students to use while we are engaging in a new activity. I have thought about having a poster in my room that is divided in to eight squares. The title of this poster would be “Which Intelligences are we Using Today?” Then, after each activity, students would have to tell me which intelligences we are using.

Do not keep Multiple Intelligence Theory a secret. It is a valuable theory that students need to understand and use in their daily life. They need to learn how to use their stronger intelligences to aid their weaker ones. As they get better at this we will have more successful students in all subjects as well as in life.

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Appendix

Unit One: The Dancers/Gesture Creations



Figure 12: Final piece of artwork

Topic: Matisse Cut-out Dancer/Gesture Creation

Class: 3rd

Length of Assignment: 6 days

Essential Questions?

How do art, music, and physical movement allow you to express a feeling, emotion or action?

Key Discipline Art based Questions?

What is a gesture drawing?

What is a contour drawing?

How do you create contrasting colors?

What is variety?

What is balance? (Symmetrical and Asymmetrical)

What is a point of emphasis?

How do you create rhythm in art?

Fulton

	Fulton Objective	Corresponding QCC
3.1	Produces art in a variety of media, techniques and processes.	3.2, 3.5
3.3	Creates artwork from direct observation emphasizing aspects of one or more elements or design principles (such as intermediate colors; expressive lines, geometric shapes and forms; tints, shades and value scales; balance; emphasis; and proportion as size relationships).	3.4, 3.8, 3.9, 3.10, 3.13, 3.14
3.5	Demonstrates proper care and safe use of art materials and tools.	3.6
3.6	Applies concepts and topics from other subjects as sources of ideas for own artwork.	3.7
3.15	Expresses descriptive ideas, experiences, stories, and information about art in sentences form.	No corresponding QCC

Medium/Artist or Art work/Skill/Element or Focus:

Degas, *The Rehearsal*

Matisse, *Icrus* from the book *Jazz* (Matisse, 1943)

Demonstrations

Demo how to cut paper

Vocabulary

Expressive lines= A line that shows a feeling or movement in a piece of art.

Gesture= A drawing that captures the basic movement of the body.

Contour= A drawing of the outline of an object.

Contrasting color= Colors that stand out next to one another or show a difference, such as light or dark, warm or cool, or are complements.

Variety= The use of different lines shapes and colors in a piece of art.

Symmetrical Balance= The same shape in the same place and the same size on both sides of a line of symmetry.

Asymmetrical= Different shapes with the same visual weight on both sides of a line of symmetry.

Emphasis= Using color, shape or size to make an area in an artwork important or stand out.

Rhythm= The repeating lines, shapes, and colors in a piece of art.

Day	Pacing/Process	MI Activity	Materials
1	<ul style="list-style-type: none"> -Introduce and define expressive line, gesture and contour drawings. Write in sketchbook. -Show images of Degas and Matisse. Introduce Matisse by reading <i>Drawing with Scissors</i> (Heartland, 2002). -While some students take turns moving to different types of movement have the other students practice drawing gesture and contours of people. 	<ul style="list-style-type: none"> -Vocabulary in sketchbooks (Linguistic) -Read <i>Drawing with Scissors</i> (Linguistic) (Heartland, 2002) -Have students move to music while others draw them. (Musical, Visual, Kinesthetic) -Natural observations of the way a body moves. (Naturalistic) 	<ul style="list-style-type: none"> -Sketchbook -Charcoal -Manila paper -Different types of music
2	<ul style="list-style-type: none"> -Review expressive line, gesture and contour drawings. Introduce variety and contrasting colors. -have students make background of piece by using a variety of squares, rectangles and polygons to glue on 11 by 24 sheet of paper. 	<ul style="list-style-type: none"> -Vocabulary in sketchbooks (Linguistic) -Students reflect on <i>Moving in the Spirit</i> performance. (Intrapersonal) 	<ul style="list-style-type: none"> -Sketchbook -A variety of colored paper in 12 by 5 sheets of paper. -scissors -Glue -11x24 sheet of white paper -Ruler for straight lines
3	<ul style="list-style-type: none"> -Reflect on School Arts Program <i>Moving in the Spirit</i>. What piece did you like best? How did watching it make you feel? What gestures did you see? (high, low, fluid, fast, slow, up down, turn, skip, hop jump) - Review expressive line, gesture, contour drawings, variety, and contrasting colors. Introduce balance (Symmetrical and asymmetrical), rhythm, and emphasis. -Begin making background 	<ul style="list-style-type: none"> -Play different types of music in the background (Musical) 	<ul style="list-style-type: none"> -Contour drawings -Scale -Scrap Paper -Scissors -Glue -Background paper

	using a variety of colors and contrasting colors.		
4	-Using the gesture drawings from day one have students cut out shapes from paper scraps to make a person dancing and capture the gesture form of the dancer. -Students must make a piece that has rhythm, and a point of emphasis. -Talk about using rhythm of background music to inspire rhythm in dance piece.	-Play different types of music in the background (Musical)	-Contour drawings -Scale -Scrap paper -Scissors -Glue -Background paper
5	Review and work on artwork	-Play different types of music in the background (Musical)	Contour drawings -Scale -Scrap paper -Scissors -Glue -Background paper
6	Finish working on artwork	-Play different types of music in the background (Musical)	Contour drawings -Scale -Scrap paper -Scissors -Glue -Background paper

Logical	Linguistic	Musical	Kinesthetic
	-Vocabulary words write in sketchbook. -Read <i>Drawing with scissors</i> (Heartland, 2002).	-Play a variety of classical dance music pieces and modern dance pieces of music while students work. (<i>Chopin, Paul Simon-Rhythm of the Saints 1986, Moby-Play 1999</i>) -Watch musical dance performance <i>Moving in the Spirit</i> . -have students move	-Have students move to different types of music while other students practice drawing gestures of body.

Visual	Interpersonal
-Pictures of Degas, Matisse dancers. -Drawing gestures of body	

to different types of music while other students practice drawing gestures of body.

Intrapersonal
 -Have students reflect on *Moving in the Sprit* performance. Which piece did you like best? How did watching it make you feel? How would you move if you were a dancer (fast, slow, up down, turn, skip, hop jump)
 -Self-report on what helped them in learning the material for this lesson.

Naturalistic
 -Natural observations of the way a body moves.

Assessment
 Quiz, Self Report

Item 1A

Name _____

Class Code _____

1. What is a gesture drawing?

a) A drawing that shows the outside of the person.



b) A drawing that shows the action of a person.



c) Using different types of lines shapes and colors in a piece of art.

2. What is a contour drawing?

a) A drawing that shows the outside of the person.



b) A drawing that shows the action of a person.



c) Using different types of lines shapes and colors in a piece of art.

3. How do you create contrasting colors?

a) By placing a warm color next to a cool.

b) By using colors on opposite sides of the color wheel.

c) Both A and B.

4. What is variety?

a) Using different lines, shapes, and colors in a piece of art.

b) A drawing that shows the action of a person.

c) A place in a piece of art that attracts your eye first.

5. What is a point of emphasis?

a) A place in a piece of art that attracts your eye first.

b) A drawing that shows the action of a person.

c) Using repeating lines, shapes, and colors in a piece of art.

6. How do you create rhythm in art?

a) Using repeating lines, shapes, and colors in a piece of art.

b) A drawing that shows the action of a person.

c) A place in a piece of art that attracts your eye first.

Item 1B

Name _____

Class Code _____

1. Do you feel that writing definitions helped you understand and learn the definitions in this art lesson? For example: Contour Drawing, Gesture drawing, Rhythm, Variety, Emphasis)



a) Not at all



b) A little bit



c) A whole lot

2) Which Activity helped you to understand gesture drawing the most?

- a) Writing Definitions.
- b) Seeing the dance group Moving in the Spirit.
- c) Moving our bodies to music.
- d) Listening to music while we worked.
- e) Creating a piece of art by drawing the dancers.

3) What can you tell me about Henri Matisse from the book we read?

(Where was he from? Why did he start using scissors to cut things out to make art? What was the name of the book he made?)

4) What activity was your favorite way to learn about dancers and art?

- a) Writing Definitions.
- b) Seeing the dance group Moving in the Spirit.
- c) Moving our bodies to music.
- d) Listening to music while we worked.
- e) Creating a piece of art by drawing the dancers.

5) Did you feel rushed in making your art? If so why?

- a) Yes
- b) No

Unit Two: Clay Fish



Figure 13: Fish lesson's final piece of artwork

Topic: Clay Fish

Class: 3rd

Length of Assignment: 5 days

Essential Questions?

How does art imitate nature?

QCC Question?

1. What is ceramics?
2. What is additive sculpture?
3. What is subtractive sculpture?
4. What is molding?
5. What is scoring?
6. What is slipping?
7. What is texture?
8. Name two types of textures?
7. How is a clay object made?

Fulton

	Fulton Objectives	Corresponding QCC's
3.1	Produces art in a variety of media, techniques, and processes.	3.2, 3.5
3.2	Compares features and applies modeling, additive, and subtractive sculpture methods.	3.1
3.4	Compares and explains how qualities of texture in	3.3, 3.11

	artwork can be visual (or implied) and tactile (or actual) and applies these qualities in 2-dimensional shapes and 3-dimensional forms.	
3.5	Demonstrates proper care and safe use of art materials and tools	3.6
3.15	Expresses descriptive ideas, experiences, stories, and information about art in sentence form.	No corresponding QCC

Medium/Artist or Artwork/Skill/Element or Focus:

Clay= A mixture of earth and water that can be shaped.

Additive sculpture= When pieces of clay are added to the piece of art to make a clay sculpture.

Subtractive sculpture= When pieces of clay are carved out or removed to make a clay sculpture.

Mold= To shape the clay with your hands.

Texture= The way a surface looks or feels.

Score= To scratch up the surface of the clay so two pieces of clay will stick together.

Slip= A mixture of clay and water that acts like a paste to attach two pieces of clay together.

Ceramics= A piece of art made by clay.

Ceramicist= An artist who make artworks out of clay.

Demonstrations

Demo how to make the body of the fish

Demo how to make eyes, fins, etc.

Demo scouring and slipping

Vocabulary

Clay= A Mixture earth and water that can be shaped.

Additive sculpture= When pieces of clay are added to the piece of art to make a clay sculpture.

Subtractive sculpture= When pieces of clay are carved out or removed to make a clay sculpture.

Mold= To shape the clay with your hands.

Texture= The way a surface looks or feels.

Score= To scratch up the surface of the clay, so two pieces of clay will stick together.

Slip= A mixture of clay and water that acts like a paste to attach two pieces of clay together.

Ceramics= A piece of art made by clay.

Ceramicist= An artist who make artworks out of clay.

Greenware= A piece of clay that has dried completely and is ready to be fired.

Kiln= The large oven used to bake the clay.

Fire= Baking the clay.

Day	Pacing/Process	MI Activity	Materials
1	<p>-Introduce ceramic and describe and define a ceramicist. Define additive and subtractive sculpture. Write all vocabulary in sketchbook. Introduce process of clay (dirt and water- rocks removed-hand built or thrown-dries hard or greenware-fired in kiln-glazed-fired again)</p> <p>-Demo scoring and slipping.</p> <p>-Demo how to make the body of the fish and how to make a textured body that looks like scales.</p>	<p>Vocabulary (write definitions in sketch book)</p> <p>Kinesthetic scoring activity</p> <p>Ocean sounds</p>	<p>-6 by 6 slab of clay for each student</p> <p>-Jar of slip</p> <p>-Fork</p> <p>-Texture making materials</p> <p>-Newspaper to put fish on</p> <p>-Newspaper to roll up inside of fish.</p> <p>-Piece of paper for the name</p> <p>-Sketchbook</p>
2	<p>-Review ceramics and ceramicist. Define additive and subtractive sculpture. Define molding and forming? Introduce process of clay (dirt and water- rocks removed-hand built or thrown-dries hard or green ware-fired in kiln-glazed-fired again)</p> <p>-Demo scoring and slipping.</p> <p>-Show how to mold and form eyes, mouth, and fins then show how to attach.</p> <p>-Start creative writing if time</p>	<p>Vocabulary (write definitions in book)</p> <p>Ocean sound</p> <p>Baby shark song</p>	<p>-Overhead with words from baby sharks</p> <p>-CD/CD player</p> <p>-Jar of slip</p> <p>-Fork</p> <p>-Piece of paper for the name</p> <p>-Clay</p> <p>-Sketchbook</p>
3	<p>-Creative writing activity</p> <ol style="list-style-type: none"> 1) Name fish. 2) Describe the fish. Describe the texture his body. 2) What ocean does he live in? 3) What is he doing? 4) Where is he going? 5) What does he see in his surrounding environment? 	<p>Linguistic creative writing</p>	<p>Sketchbooks</p> <p>Pencils</p>

4	<ul style="list-style-type: none"> -Demo how to glaze -Talk about patterns and bright colors on fish. -Allow time to look at Beta fish for color ideas. 	Beta fish Observation (Naturalistic observation)	Glaze Paint brushes Newspaper
5	<ul style="list-style-type: none"> -Play clay game and have students finish glazing if needed. -Share creative writing stories to critique the art work. 	Clay game (Logical)	Dice Board Cards

Logical	Linguistic	Musical	Kinesthetic
<p>Students must move through the ocean by answering trivia questions on the process of making a clay object.</p> <ul style="list-style-type: none"> -What is scoring -What is slipping -What is the name of the oven in which the clay is baked in. -What is clay called that has not been baked -What is the paint like substance that we put on clay to give it color. -What is glaze made of. -What is a 	<ul style="list-style-type: none"> - Vocabulary (write definitions in book). -Write a story in journal using the fish. Tell us where this fish is swimming. <p>(Creative Writing)</p>	<ul style="list-style-type: none"> -Play background music of the ocean. <p>(Environmental sounds)</p>	<p>Have students sculpt fish out of clay.</p> <p>(Sculpting)</p>

ceramicist? -What are two methods of building clay? (hand building and throwing) -What is clay made of? -What do you use to mold or form clay? (Problem solving)			
Visual	Interpersonal	Intrapersonal	Naturalistic
Have students sculpt fish out of clay. (Sculpting)		-Break small group of students into teams to play Logical Fish game. They must work as a team to answer questions and to try and win.	Set up fish tank for the class to look at and observe. Bring in Beta fish to observe. (Natural Observations)

Display Method:

Display on shelves in library with write up and name cards.

Assessment

Assess story of fish.

- 1) Name the fish.
- 2) What Ocean does he live in?
- 3) What is he doing?
- 4) Where is he going?
- 5) What does he see in his surrounding environment?

Item 2A

Name _____ Class Code _____

Circle the correct answer for each question

1. What are ceramics?

- a) A foreign country.
- b) A way of attaching two pieces of clay together.
- c) An object made from clay that has been baked in a kiln.

2. What is additive sculpture?

- a) A way of making a clay sculpture by cutting out or removing pieces of clay from the sculpture.
- b) A way of making a clay sculpture by adding pieces of clay onto the sculpture.
- c) Scratching the surface of the clay to make it stick together better.

3. What is Subtractive sculpture?

- a) A way of making a clay sculpture by cutting out or removing pieces of clay from the sculpture.
- b) A way of making a clay sculpture by adding pieces of clay onto the sculpture.
- c) Scratching the surface of two pieces of clay, so that they stick together.

4. What is molding?

- a) Scratching the surface of two pieces of clay, so that they stick together.
- b) Putting a mixture of clay and water between two pieces of clay, so that the two pieces of clay stick together.
- c) Shaping clay with your hands to make it in the form that you want it to be.

5. What is scoring?

- a) Scratching the surface of two pieces of clay, so that they stick together.
- b) Putting a mixture of clay and water between two pieces of clay, so that the two pieces of clay stick together.
- c) Shaping clay with your hands to make it the form that you want it to be.

6. What is slipping?

- a) Scratching the surface of two pieces of clay, so that they stick together.
- b) Putting a mixture of clay and water between two pieces of clay, so that the two pieces of clay stick together.
- c) Shaping clay with your hands to make it the form that you want it to be.

7. What is texture?

- a) A pattern placed in clay that makes the surface of the clay feel a certain way such as bumpy, rough, or smooth.
- b) Putting a mixture of clay and water between two pieces of clay, so that the two pieces of clay stick together.
- c) Shaping clay with your hands to make it the form that you want it to be.

8. Describe in your words how a clay object is made. (Use the back if you need to)

Rationale for Fish Unit

When starting this lesson I first looked at what QCC's would match and be appropriate to teach with the clay fish lesson that I wanted to do. After identifying the QCC's listed in the above lesson plan, I next made an assessment of what I wanted students to be able to answer at the end of the lesson. The questions that appeared on this assessment became my essential questions that I want to answer and focus on in the art lesson. This helped to determine the content of the lesson and what type of Multiple Intelligence activities I would include to make the information in the art lesson more assessable to a wider range of students.

The first intelligence I choose was the naturalistic intelligence. A naturalistic observation and nature encounters are two of the strategies given by David Lazar in his multiple intelligence toolbox. I knew that the addition of fish tanks to the room would provide a way for students to observe Beta Fish in their natural state vs. seeing a picture or a model of one. Students would be able to observe the colors of the fish, how they looked, and how they moved. I also knew that Beta Fish are able to live in small habitats that could easily be set on the table where a small group of students could observe them.

The second intelligence I wanted to address is the linguistic intelligence. While looking at the toolbox two strategies became apparent to me: vocabulary, and creative writing. I first wanted to approach this type of learning through vocabulary words. I have implemented a word-wall in my classroom where I put vocabulary words with their definitions. The word wall allows students to copy the definitions in the vocabulary section of their sketchbook. They then have a way to refer back to the vocabulary words that are presented in this lesson: Ceramics, Ceramicists, Score, Slip, Additive sculpture,

Subtractive sculpture, Texture (actual and implied), Greenware, Kiln, Fire, Mold, and Form. I decided to have them write all vocabulary words in their sketchbook on the first day to save us time during subsequent lessons and give them background knowledge when we introduced those word throughout the rest of the lessons.

I decided after adding the vocabulary for linguistic learners that I also wanted a more creative way of reaching students who are strong in linguistic intelligence. The addition of a creative writing exercise allowed students to elaborate on the fish that they made. This exercise also provided a way of getting students to describe verbally the different types of textures they used in their fish.

The third intelligence that I began looking at was the musical intelligence. After reviewing the multiple intelligence toolbox, I decided upon playing background music such as *Chopin*. These environmental sounds were to help stimulate the idea of ocean life.

The last intelligence that I decided to include in this lesson is the logical intelligence. From the toolbox I choose a logical game to review concepts explored in the essential questions of this lesson. This game consists of a board game that you must move from the beginning to the end by answering questions concerning the clay process and concepts that deal with this lesson. For example one question is “What is texture?” I also found that this game could be designed in a way to use student’s interpersonal skills. First students would be divided into small groups to play the game, but the small groups would be divided into two teams with about three students each. So each game board would have six students total working on it. The team would have to agree on the answer to the

questions and give one unified answer. If they got the question correct they would advance on the game board.

The benefit of this set up is that students were able to use two intelligences at the same time to accomplish a task. As mentioned earlier, intelligences often do not work in isolation. They work together on a task. Also one intelligence can assist in strengthening a second intelligence. So in this case a student, who might be weak in interpersonal skills but is strong in logical skills, could practice and thus strengthen their interpersonal skills by using their logistical skills to help in the game. The strong linguistic learner would have to talk to his or her teammates to get them to agree with the answer he or she believes is correct. The forced teamwork in this game is designed to make students use their interpersonal skills regardless of whether they are strong or weak.

Unit Three: Squiggles and Abstract Art



Figure 14: Final piece of art for the squiggle lesson

Topic: Squiggle Lesson

Class: 3rd

Length of Assignment: 5 to 6 days

Essential Questions?

How is art individualized?

How do artist see things differently?

QCC's Question?

What is a tint? Shade? Hue?

What is abstract art?

Can you name different types of lines?

What is a print? Why do you make prints?

Fulton

	Fulton Objective	Corresponding QCC
3.1	Produces art in a variety of media, techniques and processes.	3.2, 3.5
3.3	Creates artwork from direct observation emphasizing aspects of one or more elements or design principles (such as intermediate colors; expressive lines, geometric shapes and forms; tints, shades and value scales; balance; emphasis; and proportion as size relationships).	3.4, 3.8, 3.9, 3.10, 3.13, 3.14
3.5	Demonstrates proper care and safe use of art materials and tools.	3.6

3.15	Expresses descriptive ideas, experiences, stories, and information about art in sentences form.	No Corresponding QCC
3.16	Applies reading strategies to artwork as visual text: Connects/ visualizes/ predicts/ questions.	No Corresponding QCC

Medium/Artist or Art work/Skill/Element or Focus:

Printmaking

Tint and Shade

Intro

Demonstrations

Demonstrate how to make tint and shade.

Demonstrate how to print with string.

Demonstrate how to turn line into other objects

Vocabulary

Line

Abstract

Shade

Tint

Hue

Day	Pacing/Process	MI Activity	Materials
1	<ul style="list-style-type: none"> -Start out with silly string to introduce abstract art. Then show Piet Mondrian trees to further explain. -Write def for Abstract Art, Hue, Tints and Shades. -Have students mix hue, tint and shade in cups with paint already in them. -Make a paper that has 3 lines printed on it with string. One hue, one tint and one shade. Put on drying rack -Hand out fraction worksheets and have students mix play-doh -Sing the color song with students 	<ul style="list-style-type: none"> -Fraction worksheet (Logical/ Kinesthetic). -Color song by Robbie Quinn (Musical) -Mondrian paintings (Visual) -Silly sting (Visual) 	<ul style="list-style-type: none"> -Laminated black poster board -Can of silly string - Small Dixie cups -Acrylic sting tied to a paper clip (one for each student) -8X10 sheet of white drawing paper (one for each student) -Play-doh -Fraction worksheet -Pencils
2	<ul style="list-style-type: none"> -Review tint, shade, hue, and abstract art. -Read "The Squiggle" (Lexa Schaefer, 1996) -Have students get in groups and turn each person's picture around looking at it from all sides. Have each person give one idea of what it could be turned into. Write all ideas on the back. Have students go back and begin drawing one idea lightly, so they can erase. 	<ul style="list-style-type: none"> -"The Squiggle" (Lexa Schaefer, 1996). (linguistic) -Brain storming activity. (Interpersonal) 	<ul style="list-style-type: none"> -"The Squiggle" (Lexa Schaefer, 1996). -8X10 papers with 3 lines on it. -Prearranged groups for students. -Pencils
3	<ul style="list-style-type: none"> -Review tint, shade, hue, and abstract art. -Have students begin adding color to the work. -Use "Make Your Artwork Snap" poster to get them to enrich drawing (add a variety of lines, outline the objects, make an object big or small, put in a pattern, use contrasting colors, etc) Student must use at least 4 ideas from this poster to enrich their artwork. 		<ul style="list-style-type: none"> -Colored pencils -Squiggle brainstorming

4	<p>-Review tint, shade, hue, and abstract art.</p> <p>-use your artwork snap poster to get them to enrich drawing (add a variety of lines, outline the objects, make an object big or small, put in a pattern, use contrasting colors, etc) Student must use at least four ideas from this poster to enrich their artwork.</p>		<p>-Colored pencils</p> <p>-Squiggle brainstorming</p>
5	<p>-Last day to add color.</p> <p>-Begin writing story</p>	<p>-Creative writing that predicts.</p>	<p>-Sketchbook</p> <p>-Colored pencils.</p>

P

Logical	Linguistic	Musical	Kinesthetic
<p>Color-mixing using fractions to mix tints and shades with play-doh. (Have worksheet with fraction addition problems on it. Use measuring spoon to solve problems.)</p>	<p>1) Read "The Squiggle" (Lexa Schaefer, 1996).</p> <p>2) Creative writing story where student "applies reading strategies to artwork as visual text: Connects/ visualizes/ predicts/ questions." Fulton Standards</p> <p>-Who or what is in the picture; does it have a name?</p> <p>-What is happening in the picture?</p> <p>-What do you think happened before, and what do you think will happen next?</p>	<p>-"The Color Wheel" by Robbie Quinn</p> <p>-"The Color Element" by Robbie Quinn</p>	<p>Color mixing using fractions to mix tints and shades with play-doh</p>

Visual	Interpersonal	Intrapersonal	Naturalistic
<p>-Silly string to begin idea of how you can look at clouds and see objects in them.</p> <p>-Mondrian Tree pictures. Use them as an example of how to remove lines or rearrange lines to make a piece abstract.</p>	<p>Brainstorming activity with group. Look at each person's picture and write on the back what they see in the lines. Everyone must give one idea for each student's work.</p>		<p>-Mondrian Tree pictures. Use them as an example of how to remove lines or rearrange lines to make a piece abstract.</p>

Display Method:

Assessment

Does piece of art have lines with a hue, tint and shade? 10 pts. for each=30 pts. total

Did students turn lines into an object by adding back in line? 30 pts.

Did Student use four ideas from the "make your artwork snap" poster to enrich artwork?
40 pts.

Item 3A

Name _____

Class Code _____

1) What is a hue?

- A) A color that does not have another color mixed in with it.
- B) A special instrument used to roll ink around.
- C) A cartoon charter.

2) What is a tint?

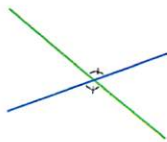
- A) A place you sleep while camping.
- B) A color mixed with white.
- C) A color mixed with black.

3) What is a shade?

- A) A place to rest on a hot day.
- B) A color mixed with white.
- C) A color mixed with black.

4. In your words own describe/define abstract art.

5. Draw a line from the picture to the correct name.



Wavy



Straight



Doted



Zig Zag

Name _____ Class Code _____

Whipping up Some Colors



A recipe for hues, tints, and shades!

1. 1 tsp. of red + 1 tsp. of red = _____ How much
_____ color?
2. 1 tbsp. of blue + 1 tbsp. of white = _____ How much
_____ color?
3. 1 tsp. of red + $\frac{1}{2}$ tsp. black = _____ How much
_____ color?
4. $\frac{1}{2}$ tbsp. of blue + $\frac{1}{2}$ tbsp. of black = _____ How much
_____ color?
5. 1 tsp. of blue + $\frac{1}{4}$ tsp. of blue = _____ How much
_____ color?
6. $\frac{1}{4}$ tsp. of red + $\frac{1}{4}$ tsp. of white = _____ How much
_____ color?

Item 3C

What is ceramics?
An object made from clay that has been baked in a kiln.

What is additive sculpture?
A way of making a clay sculpture by adding pieces of clay onto the sculpture.

What is Subtractive sculpture?
A way of making a clay sculpture by cutting out or removing pieces of clay from the sculpture.

What is molding?
Shaping clay with your hands to make it the form that you want it to be.

What is scoring?
Scratching the surface of two pieces of clay so that they stick together.

What is slipping?
Putting a mixture of clay and water between two pieces of clay so that the two pieces of clay stick together.

What is slip made of?
Clay and water

What is texture?
A pattern placed in clay that makes the surface of the clay feel a certain way such as bumpy, rough, or smooth.

What is the name of the oven a piece of clay is baked in?
A kiln

What is clay called when it has dried completely and is ready to be baked?
Greenware

What is another name for baking clay?
Firing

What is the name if a person who makes clay objects called?
A ceramicist

Where does clay come from?
The ground

What does it mean to throw a clay pot?
To use the potters wheel to make a clay pot.

What does hand building mean?
To use your hands to build a clay piece.

What is the stuff you put on clay to give it color and make it shiny?
Glaze

What is glaze made of?
Glass and color.

Where do you not want to put glaze on a clay piece?
The bottom

How hot does the kiln get?
1,950 degrees

Name one object that you use everyday that is made of clay?
Plate, coffee cup,

How many times does a piece of clay get fired?
2

Rationale

In this lesson like the previous lesson used the backwards design method of forming my essential questions and assessments to determine what I wanted students to know at the conclusion of this lesson. I began looking at what QCC's I had not covered yet this year. I determined that I wanted my students to have a basic understanding of abstract art, a basic understanding of the basic lines, and how you make tints and shades from hues. For this lesson I decided to use an art lesson that I created with several other graduate students at the University of Georgia several years ago. I knew this lesson touched on lines, touched on the concept of creating tints and shades from a hue, and could be related to the idea of abstract art.

After finding an art lesson that fit the QCC's that I still needed to teach this year, I began looking for natural links to different types of multiple intelligence activities that would fit the lesson and have quality teaching merit. The first activity that I decided to do was an activity that was introduced to me while I was student teaching. The teacher, Mary Lazari, whom I worked under, was creating lessons that helped to build math skills. She had students use worksheets with fraction problems on them to create different colors, tints, and shades using play-doh. Students were given a set of measuring spoons and were then asked to solve the problems. For example if you mix $\frac{1}{4}$ tsp of white play-doh with $\frac{1}{4}$ tsp of red play-doh, what color would you get? Is this a tint or a shade? How much play-doh would you have now?

In this activity students had to physically mix the play doh and think through the math problems step by step to determine the correct answer, thus combining their kinesthetic and their logical intelligences. I decided to make this activity a full class

activity that would be used to introduce mixing colors. I figured that the worksheet would take about 3/4 of the class time, so I decided to use the remaining time for students to hear two color songs that explain mixing tints and shades. The combination of the logical/mathematical styled worksheet with the musical activity provided a strong contrast of activities that would reinforce each other while providing enough variation to keep students interested. It would also provide two alternative means of reaching the essential concepts that I wanted students to know at the end of the lesson.

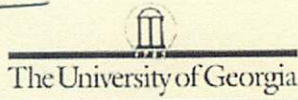
On day three of the lesson I decided to introduce the book *The Squiggle* as a means of introducing abstract art (Lexa Schaefer, 1996). I used the book to demonstrate how a person viewing a piece of abstract art unscrambles and adds back in the lines and details that are missing from the work to find a concrete object. In the book a little girl has many different shaped lines, and she adds in other lines to make them into concrete objects. In the definition of abstract art that I use it states; an abstract piece of art is one that has lines or shapes that are missing, rearranges or placed in a strange way so the viewer does not recognize what the picture represents when they first look at it.

On day two of the lesson students are more involved in a visual creation process where they mix up a hue, tint and shade of a color; and they then dip a string, in the paint and print with the string, so that they have three squiggly lines on a sheet of paper. On day three of the lesson when these pieces are dry, the students will participate in an interpersonal brainstorming activity. Students will be asked to look at the squiggle picture as if it were a piece of abstract art. They will then do what the girl in the book did and come up with ideas of what the squiggles could be if lines and other shapes were added back in to make a concrete object. Students will then be placed in groups of four or five

and will take turns passing each other's artwork around and coming up with different ideas of what each set of lines could be. Students will then have an opportunity to explain to each other what they saw in each piece of artwork. Students will be using their interpersonal skills of talking and working together on the ideas of what these abstract pieces of work could actually be. They will also get to experience how each person might see something different in a piece of abstract art. There is no wrong answer; there is just the right answer for that person.

In this lesson I also have a creative writing piece for my students. However, this could possibly make the lesson into a six day lesson. I see each class seventeen times, and I have fifteen days of lessons planned out without the writing activity I may drop this writing activity. Therefore this writing activity may have to be dropped when field trips interrupt class time or when other lessons take longer than the time allotted to them.

Item 4A



Office of The Vice President for Research
DHHS Assurance ID No. : FWA00003901

Institutional Review Board
Human Subjects Office
612 Boyd GSRC
Athens, Georgia 30602-7411
(706) 542-3199
Fax: (706) 542-5638
www.ovpr.uga.edu/hso

APPROVAL FORM

Date Proposal Received: 2004-09-03

Project Number: 2005-10127-0

Name	Title	Dept/Phone	Address	Email
Ms. Katherine Farley	PI	Art Education	1823 Brook Haven Circle Atlanta, GA 30319 404-542-2536	Farleyr@fultonschools.org
Dr. Richard Siegesmund	CO	Art Education Lamar Dodd +4102 (706) 542-1647		rsieg@uga.edu

Title of Study: Effects of Differentiated Instruction Through Multiple Intelligence Theory on Student's Demonstration of Art Concepts.

45 CFR 46 Category: Expedite 7 6
Parameters:
Approved for Northwood Elementary only.

Change(s) Required for Approval and Date Completed: 2004-10-05
Revised Consent Document(s);

Approved : 2004-10-05 Begin date : 2004-10-05 Expiration date : 2005-10-04

NOTE: Any research conducted before the approval date or after the end data collection date shown above is not covered by IRB approval, and cannot be retroactively approved.

Number Assigned by Sponsored Programs:

Funding Agency:

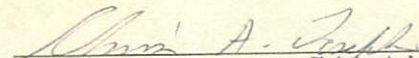
Form 310 Provided: No

Your human subjects study has been approved.

Please be aware that it is your responsibility to inform the IRB:

- ... of any adverse events or unanticipated risks to the subjects or others within 24 to 72 hours;
- ... of any significant changes or additions to your study and obtain approval of them before they are put into effect;
- ... that you need to extend the approval period beyond the expiration date shown above;
- ... that you have completed your data collection as approved, within the approval period shown above, so that your file may be closed.

For additional information regarding your responsibilities as an investigator refer to the IRB Guidelines.
Use the attached Researcher Request Form for requesting renewals, changes, or closures.
Keep this original approval form for your records.


Christina A. Joseph, Ph.D.
Chairperson, Institutional Review Board

