**A UNIQUE APPROACH TO LEARNING:
A VIEW OF TWO SCHOOL’S APPLICATION OF MULTIPLE INTELLIGENCES**

by

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Abstract:

The purpose behind “*A Unique Approach to Learning*” was to examine the differences between schools, and classrooms that used Multiple Intelligences (MI) emphasis. There are many ways to differentiate learning, and many ways to use MI; the goal was to examine these differences and the results they might produce if replicated by readers. The study involved visiting two schools, both with an MI emphasis in their curriculum, observing the school environment and the use of MI. Teachers and administrators were also interviewed, gleaning their perspective on how MI benefits students, the school community and how it affects their classroom and planning. The paper is organized by first providing the research questions, a review of what literature has to say about Multiple Intelligences, explanation of how the material will be evaluated and used, an introduction about each of the two school’s visited, and an evaluation of each school with requisite observations. This is a qualitative study regarding the use of Multiple Intelligences in the school and classroom and its impacts. **Table of Contents**

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**Chapter I**

**Why Multiple Intelligences?**

 When brainstorming topics for my thesis, I reflected on my education classes. What stood out in my memory was my Educational Psychology class. Education Psychology deals with the way students learn, the cognitive how as well as why we learn the way we do, and quite strikingly, there is not one *right* way to learn. I can recall Howard Gardner’s Theory of Multiple Intelligences (MI) stealing my attention. What a great way to differentiate learning for all students! MI in the classroom is just like universal design for buildings: giving people access, and tools. MI seemed cognitively exciting, stimulating creativity and critical thinking, and seemed to improve retention and recall of material. But I’m a smart student; I know you should not believe everything you read – even if it **is** in a textbook. Could MI really be this wonderful? Does MI improve student learning, retention and recall? How do teachers use MI in their classrooms? What are the drawbacks of using MI? These were the questions I wanted to explore with my thesis.

 The theory of MI puts into words what teachers experience every day: different students are good at different things, and they use these strengths and talents to help them become smarter. Different students learn different ways, they gravitate towards different activities. Effective teachers can see in students’ eyes their interest flip on and off for any given project or class exercise. The goal of teaching is to keep the interest in students’ eyes flipped “on” always. The question I needed to explore is whether or not MI can do this.

**Nature of the Topic**

 I chose to select qualitative data regarding education and MI in the classroom with the understanding qualitative data may be prone to criticism because observations can be biased. Before investigating, I asked: does MI improve student learning, retention and recall? How do teachers use MI in their classroom? What are the drawbacks of using MI? Answers to these questions are qualitative, there is no quantitative data.

 I conducted a review of the literature before confronting precisely what questions I wanted my thesis to answer. From this review of the literature, found in Chapter II, I brainstormed a list of questions which I felt anyone who used MI in their classroom would be able to answer. These questions can be found in Chapter III.

 A long-term case study of a teacher using MI, a classroom or even a school who had made the switch from a traditional classroom would be ideal. However, due to time constraints, it would be impossible for me to conduct a longitudinal study. Through my review of the literature, I was made aware of quite a few schools with an MI emphasis in their curriculum, both in the United States and internationally. I decided to take a snapshot of schools who do this, by visiting; observing their classrooms for a day, touring the school and interviewing their faculty and staff. The two schools who agreed to let me visit were New City School in St. Louis, Missouri and the Key Learning Community in Indianapolis, Indiana.

 I planned to interview teachers, administrators and paraprofessionals who daily interact with students using MI, who observe and shape students learning and understanding. They are the people who know MI the best, through its daily use. From their interviews I hoped to paint a picture of how MI is used in the classroom and the impacts MI has on students, classrooms and schools.

**Why is MI Important?**

MI theory as it is defined can be found in the beginning of Chapter II. The reason the theory of MI is so important is because it is changing the way we as a society and a culture look at intelligence. What makes a person intelligent? Different students learn in different ways. How a student processes information is not a reflection of his/her intelligence, only indicative of their memory storage and recall preferences. What makes a person’s abilities “smart” or not? MI changes the way we as educators approach the differences in our classroom. The theory teaches not tolerance, but acceptance of differences. When we embrace that we are different and use these differences to our advantage to learn the best way for us, the individual, our learning becomes more effective.

 Some of the research also claims that MI use in the classroom increases student motivation, because they learn in a way that is fun; increases student participation, because they understand the material better; and increases student responsibility for learning because they have options for how they are going to learn and how they are going to be assessed. MI seems to change the way we as educators can approach instruction in our classroom, and whether the claims hold true, I feel they are important to investigate.

**The Tough Questions**

 I wanted to know; does teaching with MI motivate students and improve their learning? Does MI improve anything else? If MI does in fact improve learning, students’ would understand more material, or have a deeper understanding of the material. But what does the ability to retain and recall information really do for our students’ futures? In the long term, although I could not conduct a longitudinal study, I hoped to find evidence that either proved or disproved MI’s ability to positively impact students’ and their preparedness. I want to know how MI improves students’ preparation for the future, both inside and outside of the classroom.

**Chapter II**

**Review of the Literature**

In 1983, Howard Gardner published his book *Frames of Mind* which challenged the long-held belief that in order for someone to be considered intelligent, they must have strong logical and mathematical ability (Armstrong, 1994; Díaz-Lefebvre, 2004; Gardner, 1983; Nolen, 2003). Gardner questioned general intelligence and instead asserted that “smarts” can manifest themselves in different ways in different people (Armstrong, 1994; Díaz-Lefebvre, 2004; Gardner, 1983; Gardner, 2011; Sulaiman et al., 2011). The theory of multiple intelligences (MI) suggests that each person has different cognitive processes which influence how he/she perceives and learns from the world. MI says all people can be strong in all identified intelligences, and no one lacks any of the intelligences, instead some intelligences are more pronounced than others, with variances observed in each individual (Armstrong 1994; Gardner, 1983; Hopper et al, 2000; Nolen, 2003).

**What is Intelligence?**

Many children and adults alike describe someone really smart as having a high IQ. But what does this mean? The Intelligence Quotient (IQ) Test describes general intelligence, and it is adjusted annually so that the average population’s IQ falls at 100. Charles Spearman was an English psychologist who worked with intelligence testing and theories. A general intelligence by his definition is used in all intellectual tasks (Douglas et. al., 2008; Gardner, 1983; Gardner, 2011). However he failed to define what tasks are considered intellectual, and which are not. IQ tests describe a person’s general intelligence. That is what college entrance exams, proficiency tests and other standardized testing assesses. However, no matter what a person’s IQ, people have more abilities than just test taking.

**What are the Multiple Intelligences?**

Howard Gardner deduced that the different abilities students have are effective tools for teaching students and that students have more than an affinity for a way of learning, instead, there are intelligences that every student has the ability to develop, some are simply stronger than others (Armstrong 1994; Díaz-Lefebvre, 2004; Gardner, 1983; Gardner, 2011;). In order for an intelligence to be considered more than an ability, competence, or tendency, Gardner aligned eight criteria which need to be met in order to be considered a realized intelligence. These are 1) potential isolation by brain damage, 2) the existence of savants, prodigies and other exceptional individuals, 3) A distinctive developmental history and a definable set of expert “end-state” performances, 4) An evolutionary history and evolutionary plausibility, 5) Support from psychometric findings, 6) Support from experimental psychological tasks, 7) An identifiable core operation or set of operations, 8) Susceptibility to encoding in a symbol system (Gardner, 1983). From this check-list of sorts, the eight identified intelligences are; verbal-linguistic, logical-mathematical, visual-spatial, bodily-kinesthetic, musical, naturalistic, interpersonal, and intrapersonal (Gardner, 1983). Naturalistic intelligence was added by Gardner later than the original publication of *Frames of Mind*, which included the seven other intelligences, and there is some debate as to whether or not more intelligences are present in the human mind (Armstrong 1994; Gardner, 2011).

**Verbal-linguistic intelligence** fits the description of a traditional intelligence. When someone is described as smart, an image of someone who is articulate, well-spoken, has an eloquent vocabulary and an affinity for memorizing information comes to mind (Douglas et al., 2008). Linguistic intelligence is the proper use of words, but also using words in an elevated way to provide meaningful interpretation of a subject, double meaning or a metaphor. Students with strong verbal-linguistic intelligence can feel the rhythm in words and sounds, and are acutely aware of the meaning and function of people’s language (McCoog, 2007). Verbal-linguistic students may look like storytellers, joke tellers, and are comfortable speaking in a small group or in front of a class (Nolen, 2003). Verbal-linguistic students are often keen to memorize information of names, places, dates, and trivia. Playing word games, as well as writing creatively comes easily to them. Students with strong verbal-linguistic intelligence read for fun, are good spellers, and enjoy stories being told aloud (Deutch Lash, 2004). To encourage students to develop their verbal-linguistic intelligence, students could give oral presentations, give dramatic readings about their lives or areas of interest, write in journals, publish their works, tape-record themselves, providing books on tape (Armstrong, 1994; Nolen, 2003). Giving students the means to express themselves through a variety of linguistic activities will develop skills in verbal-linguistic intelligence.

**Logical-mathematical intelligence** is also considered a traditional intelligence, because math skills are also valued greatly in a traditional classroom and by standardized tests. Logical-mathematical intelligence is more than the ability to compute quickly, it is the use of logical thinking, reasoning, deduction, problem solving, using quantifiable data, making predictions and finding patterns to come to a conclusion (Armstrong, 1994; Nolen, 2003). Logical-mathematical intelligent students typically do well in a traditional classroom because they can understand the sequencing of lessons, as well as the quantifiable way information is presented to them (Nolen, 2003). Logical-mathematical students enjoy strategy games, and puzzles, and enjoy working out solutions to puzzles (Deutch Lash, 2004; McCoog, 2007). A logical-mathematical student will want a definitive answer, and real results rather than an outcome which is open to interpretation (McCoog, 2007). To encourage the use of logical-mathematical intelligence in your classroom you can teach with calculations and quantifications, classifications and categorizations, and scientific thinking. Within the classroom, consider a math lab with calculators and math manipulatives, or a center for science experiments, recording observations, change and growth (Armstrong, 1994; McCoog, 2007). The visualization of a math concept may help students who are struggling with mathematical-logical thinking to see mathematical ideas in a different way.

**Visual-spatial intelligence** is a broad form of intelligence where observations from the world around us are processed and categorized. People with spatial intelligence can abstractly represent and understand other people’s representations of physical space. This may be due to a correlation in shape, form, lines or color patterns (Armstrong, 1994). A visual-spatial intelligent student can recognize an object from different angles, and are able to imagine themselves in different places, or an object from sides they have not seen (Nolen, 2003). To have a visual-spatial capacity, students are able to modify what they originally know of an object or scene, communicate the original accurately, but also clearly communicate the changes (Douglas et al., 2008). This could be through drawings, sculptures, computer graphics, 3D design etc. Art is typically an activity spatial students enjoy and excel at because there are colors, patterns, tangible examples, but also feelings and interpretations to describe the details of an event or an idea (Deutch Lash, 2004; Nolen, 2003). Creativity is key for a spatial learner because they are able to focus on interpretation and beauty of a project (McCoog, 2007). To bring-out visual-spatial learners in your classroom, consider jigsaw puzzles, pictures and photographs, films, overheads, diagrams, paints, collages, videotapes, computer graphics, maps, graphs, and building materials which all aid the students by bringing learning to their level and putting it in their hands in a way that will help them interpret the information and make it easy for them to understand (Armstrong, 1994; Deutch Lash, 2004; Nolen, 2003). Students can demonstrate their comprehension through visual tools.

**Bodily-kinesthetic intelligence** helps students understand the world through their bodies and their movements (Nolen, 2003). Bodily-kinesthetic intelligence relies on people’s strengths to be physically able to express themselves through physical action, or bring about a change in the physical world through the action. Large motor and fine muscle skills are needed for precise movements and physical intentions (Armstrong, 1994). The ideas of a kinesthetic learner are best expressed through their movement (McCoog, 2007). Bodily-kinesthetic intelligent students can be very expressive in their movements, and teachers can usually identify students through their classroom behavior or playground activities (Deutch Lash, 2004; and Nolen, 2003). Students who often find it difficult to sit still, who need to tap or click something, who need to touch something in order to learn more about it, as well as students who are good at competitive sports or mimicking someone all show signs of having bodily-kinesthetic intelligence (Deutch Lash, 2004). Bodily-kinesthetic intelligent students enjoy clay, finger-painting, manipulatives, physical movement, classroom theater or skits, body maps, hands-on thinking, carpentry, building blocks, textures, physical examples of what you are learning, body answers – using arms, fingers, tapping on legs, stomping feet etc (Armstrong, 1994; Deutch Lash, 2004; Nolen, 2003). These techniques assist the bodily-kinesthetic student to learn and understand the content in a way that is familiar and strong with them.

**Musical intelligence** can be defined in two ways; musically intelligent students have a solid understanding of pitch, rhythm and timbre, or students who can understand the individual technical pieces of music, and appreciate and judge them based on musical criteria (Armstrong, 1994; Nolen, 2003). Musical intelligence gives people the appreciation of music in its entirety, such as appreciating the global impact of music, appreciating the individual pieces, analyzing how pieces are different from one another, and how different movements can affect a piece as a whole (McCoog, 2007). A musical learner in your classroom will focus on listening, creating rhythms and creating patterns (Armstrong, 1994). Musical learners express themselves through auditory senses, and enjoy playing musical instruments, singing, listening to music and are sensitive to the surrounding sounds in their environment as well as may react differently when different music is played (Deutch Lash, 2004). Interactive books, tape recorders, metronomes, video and audio recordings benefit the musical students (Armstrong, 1994). Using raps, songs and chants for content knowledge, incorporating music in projects, using mood music to signal transitions or encourage students to work productively (McCoog, 2007). All intelligences can be tied together, and are used very effectively in tandem with one another. Musical intelligence makes it easy to connect many different intelligences because it can easily incorporate words and movements, can be set to images and conducted in a group. Grouping intelligences is an effective way to give your students another option for exploration of knowledge.

**Naturalist intelligence** was not originally part of Gardner’s set of intelligences, and was added to the intelligences later on. The skills of someone with a naturalist intelligence are evident in many; it is simply the ability to understand nature’s symbols, and the ability to make connections between content in the school world, and the natural world (McCoog, 2007; Nolen, 2003). Students with a high naturalist intelligence enjoy natural environments and animals. These people are described as pet lovers, green thumbs, and ecological activists (Deutch Lash, 2004). They enjoy connecting with the natural world in every aspect of their lives. A student may enjoy sorting and classifying natural elements such as rocks, leaves, insects, fossils, shells and may enjoy activities outside such as hiking or nature walks, playing with animals or gardening (McCoog, 2007; Nolen, 2003). Naturalist learners learn best outdoors whether they are observing and recording the natural world, or presenting to the class what can be found in the natural world. Students with this strong intelligence will benefit from incorporation of nature and animals in the classroom.

**Interpersonal intelligence** is the ability to read people, their motivations and desires (Nolen, 2003). People with strong interpersonal intelligence can tell the difference in changes, and are affected by peoples’ moods, feelings, motives and they use this understanding in social situations because they can pick up on people’s subtle body language (Armstrong, 1994; Douglas et. al., 2008; Nolen, 2003). Interpersonal learners interact well with the whole classroom of students; they are the talkers, are good at starting discussions and encourage participation through their own participation (McCoog, 2007). Students with strong interpersonal intelligence have good people skills and a lot of friends. They enjoy socializing with others in large and small groups and are often the mediators or problem solvers in the group (Deutch Lash, 2004). Interpersonal students are focused on other people and their opinions (McCoog, 2007). These students enjoy group games, group discussion, peer teaching, board games, presentations, video-conferencing or Skype, peer sharing, cooperative groups, and simulations (Armstrong, 1994; Deutch Lash, 2004; McCoog, 2007; Nolen, 2003). The skills interpersonal intelligent students have are essential for life after school. To best encourage all students to increase their interpersonal skills, students should be given the opportunity to work together in a positive environment.

**Intrapersonal intelligence** is the ability to know yourself, your limitations and your strengths, and the inner workings inside of yourself (Armstrong, 1994; and Nolen, 2003). A student who has a strong intrapersonal intelligence uses what they know about themselves to self-motivate and make decisions (Douglas et. al, 2008). Students who have a strong intrapersonal intelligence are self-aware, have an independent wills and self-confidence that comes from their realistic assessment of their strengths and weaknesses (Deutch Lash, 2004). These students work well alone and are goal-oriented. They learn from their mistakes, and self-assess. These students need to be praised frequently, and should be encouraged to share their work with others, however they should not be pushed to being social if they do not chose to do so (Cuban, 2004; Deutch Lash, 2004; McCoog, 2007). Technology offers a wide variety of resources for intrapersonal learners; blogs, online journaling, concept-mapping, internet research all allow students to work independently and let ideas of others fuel their creativity and self perceptions (McCoog, 2007). Allowing students in your classroom to have space to work independently, seats or desks for self-paced study are effective tools for the intrapersonal students (Armstrong, 1994). In the classroom, allowing personal choice time, as well as working with students one-on-one on goal setting for personal development, incorporating one-minute reflection periods is also helpful for encouraging the growth of intrapersonal intelligence (Armstrong, 1994).

Gardner knew intelligences were rooted in the brain, and also knew certain intelligences could operate without others, as evident by medical patients who had suffered brain damage (Douglas et al., 2008). When certain sections of the brain were injured, different intelligences were lost. However, even though patients suffered brain damage, some retained the ability to play music when they lost the ability for speech (Armstrong, 1994). This is evidence enough to show that different intelligences operate in different spheres of the brain. Intelligences are disconnected, yet strongly interrelated (Gardner, 2011). Our intelligences are best encouraged to grow through challenging them and our application of use. By combining intelligences to understand new material, we are duplicating and reinforcing the paths our brains use to recall information and therefore deepen our understanding of the material.

**Why Use MI?**

Often students in the classroom ask the questions; “how does this relate to my life?”; “why am I learning this?” and “when will I ever use this?” The traditional classroom is preparing students with books, definitions, rote memorization and tests (Douglas et al., 2008). The students who are considered intelligent can pass the tests, the students can go on to college, earn a diploma and enter the real-world where they find; tests are not a part of life. Students who considered themselves intelligent, now cannot creatively problem-solve and do not learn as a result of challenges or problems they face. Traditionally-intelligent students may find difficulty thinking in new ways or solving problems from a different angle. Traditionally-intelligent students are able to memorize information, retain it, but find difficulty truly understanding it and synthesizing it in a new context.

A student who understands their learned material -- concepts, theories, knowledge-- is able to take the learned material and apply it correctly in a new situation (Armstrong, 1994; Deutch Lash, 2004). According to Gardner everyone has the “biophysical potential” to take new learned material and relate it in a cultural, contextual setting to create something new or solve a problem (Gardner, 1983). Educators willingly acknowledge the vast differences in students; every student comes into a classroom with a different set of experiences and previous knowledge; from physical abilities to cognitive abilities, their family make-up, their socioeconomic status, how they were raised, what kinds of extra-curriculars they participate in, what kinds of vacations or field trips etc. Since students come from different backgrounds, and need different contexts to understand the material being taught, then why would educators only teach in one way? Teachers should be instructing in a variety of ways; more than one way to understand material must be made available so students can apply their knowledge in a plethora of ways. Teachers know students have learned the information when they can demonstrate an understanding of the material and when the information can be applied outside of the classroom setting (Armstrong, 1994; Gardner, 2011).

**Implications of Making Your Classroom MI**

Students need a classroom that is outfitted to support their understanding. When teachers acknowledge that different students learn in different ways, and therefore have different needs, the set-up of the classroom looks different (Douglas et al., 2008). An MI curriculum affects every aspect of the classroom, from the mode of instruction and diversification of lessons, to the classroom management procedures and daily routines to the set-up of the learning centers throughout the classroom and the assessments that take place throughout the students’ learning (Armstrong, 1994). A traditional learning environment anticipates learning to happen in a very tight, controlled way, compartmentalizing learning to specific subjects, rarely teaching in an interdisciplinary way. However, many of the eight intelligences, as explained below, are interconnected. As one intelligence grows strong, so do others. The intelligences which students are strong in are not meant to be used as a label for students, but rather as an instructional tool to provide the best opportunities for learning and understanding (Deutch Lash, 2004; Nolen, 2003). The theory of MI challenges the traditional view of intelligence. How we as a culture define intelligence directly impacts MI, because instead of people being “smart” and “not smart” based on a set of narrow academic skills (Armstrong, 1994), MI encourages people to think of intelligence in different ways.

Learning Centers are an excellent way to give students a choice in their exploration of intelligences. MI lessons do not require every lesson to activate each of the eight intelligences; however, over the course of a week, students’ should use each of their intelligences multiple times. For example, a science teacher may use mathematical-logical intelligence paired with musical and verbal-linguistic intelligence. The next day she may use bodily kinesthetic intelligence paired with verbal-linguistic to get students to understand terms and definitions. The third day the teacher may choose to group students in small groups and have them create a diagram of the information and challenge them to connect their diagrams to shapes or objects seen in nature. This way the important information is repeated and presented to the students using many different intelligences. By using MI, students are able to process the information in a way that is comfortable for them, and a way which makes the content meaningful and understandable.

Designing areas of the room, or grouping tables or desks into learning centers provide different academic outlets for students to explore (Hopper et al., 2000). Groupings throughout the room should be created implicitly to support different intelligences, making the learning centers physically, linguistically and cognitively available to all students (Armstrong, 1994; Deutch Lash, 2004; Nolen, 2003). The teacher may observe which areas students naturally gravitate towards, to best accommodate for learning and making sure that challenging concepts incorporate these elements so learning comes alive. When learning stays interesting and challenging, the learners stay engaged. Students should be encouraged to grow all their intelligences, reach outside their comfort zone and use an intelligence they would not consider a strength.

**How to Use MI**

There are strong implications for team teaching with MI. Brainstorm ideas for each lesson or unit, and try to think of as many teaching techniques for each of the multiple intelligences as you can (Armstrong, 1994). Be specific about what goal you want the students to attain, and don’t discriminate ideas until you have everything written down (Hopper et al., 2000). Develop daily routines incorporating MI; a more diverse classroom ecology and behavioral management are affected by the use of multiple intelligences. Teachers should be using MI theory to assess their own strengths in order to best serve the students. Gardner encouraged the use of his theory by teachers to adjust their own instructional practices to reach the most students and their instructional needs (Gardner, 2011). A teacher does not have to consider his/herself a master of all eight intelligences, but he/she should realize where he/she have weaker intelligences, and develop those into proficient or strong intelligences.

The multiple intelligences should not be used by teachers as labels for students, while still instructing in a traditional manner. MI gives students and teachers the chance to branch out and try teaching and learning in ways that will be most effective for everyone (Nolen, 2003). Students develop strengths in different intelligences because of their experiences; their environment, their feelings, their aspirations, their developed sense of self, how others respond to them and the way they have been able to express themselves through learning (Douglas et al., 2008; Suliaman et al., 2011). We as individuals get to know the intelligences through our exploration of the world with our body, and words, physical as well as metaphorical symbol systems. We gain an understanding of ourselves and others, and this understanding becomes our profile of intelligences. Where we differ from individual to individual is in the strength of the intelligences.

All people have the capacity to have a strength in all eight of the intelligences, however not all people would consider each intelligence a strength. Generally, people are most comfortable with two or three of the intelligences to solve problems and apply learned skills. The varying strengths and weaknesses come from our varying experiences. This means that all students have the ability to make a deficiency in an intelligence into a strength (Gibson et al., 1999). Each individual has the capacity to excel in each of the eight intelligences, even if at some point they were deficient (Armstrong 1994; Gibson et al., 1999; Shearer, 2004). Educators should be aware, however, that the intelligences do not follow a timeline in development. They do not all mature, peak or plateau at the same rate or at the same ages in similar individuals. MI emphasizes the diversity of expression people can show their smarts within intelligence as well as between intelligence.

**Drawbacks of Using MI in Your Classroom**

MI may seem confusing and challenging at first for teachers and students alike. Understanding the best way to implement MI in the classroom may require some trial and error, and some teachers may run into conflicts of interest if their classroom is the only one using MI in the school.

Changing lesson plans which may not have been modified in the last few years in order to implement MI is a time-consuming process. The question becomes: do the benefits to students outweigh the time teachers must invest up-front to make their lessons more accessible to all their students? Even if MI in the classroom benefits just one student, it is worth the teachers’ time.

There is no evidence for MI negatively affecting a classroom. Quantifiable results such as test scores are relatable to those from a traditional classroom. However, it is the qualitative results such as student enthusiasm for learning, class participation and overall joy in the environment which can be attributed to teaching using MI. Students in an MI classroom have an increased responsibility for their learning and demonstrate greater engagement in the content material (Deutch Lash, 2004; Gibson et al., 1999; McCoog, 2007; Nolen, 2003).

**In Conclusion: the What, Why and How**

In the past, the traditionally stressed intelligences were the verbal-linguistic and logical-mathematical intelligences due to standardized proficiency tests and other standardized tests; however ignoring the other intelligences does our students a disservice. Students who do not exhibit an appropriate amount of the scholastic intelligences may consider themselves stupid. If our brain has the ability to develop all eight, perhaps more intelligences, why would we as educators emphasize only two? By emphasizing the many ways to be intelligent in our classrooms, we can help our students develop a broader range of talents, and we ourselves can make the curriculum more accessible to a wider variety of students. Effective teachers want their students to succeed, and with MI, all teachers and schools have the tools to lift students up, make learning fun and meaningful, and give students the chance for meaningful understanding and synthesis of content.

MI asks the question in what way are students smart, rather than asking whether or not they are smart (Armstrong, 1994). If teachers are looking for ways to reach students with individual needs, or differentiate their instruction, MI can certainly cater to diversity in the classroom because MI empowers students to learn in a way that is associated with their strengths. MI is advantageous to everyone in the classroom because it puts greater emphasis on the students exploring and understanding their own learning process. Teachers who use MI in their classrooms and schools experience their students taking greater ownership for their learning, in addition teachers experience development personally and professionally (Deutch Lash, 2004; McCoog, 2007; Noble, 2004; Nolen, 2003;). Active and involved teaching is a precursor to student success; teaching to a class’s strengths as well as encouraging students to take a proactive role in their learning turns the teacher from an instructor to a facilitator, prodding students towards creativity and ingenuity. Ultimately the goal of MI use in the classroom is to modify instruction through differing intelligences, reaching struggling students and encouraging the appreciation of diversity, that every student is smart in different ways.

**Chapter III**

**Interviews**

In order to answer my research question of How MI affects students’ lifelong learning, I conducted interviews, with questions centering around MI use, implementation in the classroom, and its effect on the futures of students.

 I interviewed teachers and administrators; anyone who was part of the school staff who actively interacted with students and used MI while doing so. I asked their first name, what they taught, and these key questions:

* How are students encouraged to develop intelligences in areas which they aren’t as strong?
* To what extent are students allowed and encouraged to use MI to demonstrate what they know and have learned?
* What evidence do you have that students have a greater passion for learning using MI?
* How do you vary instruction and student choice so all intelligences are employed and improved equally?
* How much information do you typically gather from the parents about their students and their intelligences expressed at home/ outside of the classroom?
* How do you collaborate with teachers and reflect on students’ learning, development and performance?
* How do you [the professional] feel MI prepares student for the future, and life beyond school?

This last question, asking how students are prepared for the future through MI is really the “big idea” question. Preparation for the future and meaningful understanding are, in my opinion, the two most important things students can learn while in school. I really wanted my interviews and visits to the school to explain what MI can do for the school community, and how MI is most effectively implemented in the classroom. By interviewing professionals in the MI school community, I gained a greater insight than just examples of students work, or taking pictures of how the classroom was set-up. Interview responses provided qualitative data of how students use MI and how MI shapes the classroom and the school as a whole.

 I conducted a total of 18 interviews; 11 at the New City School and 7 at Key Learning Community. Most of my interviews came from teachers, although there were a few administrators, and counselors who were willing to meet with me and provide answers.

I chose to explore MI through the attainability of four criteria: academic achievement, classroom management, student enthusiasm for learning and student participation. These criteria would distinctly separate the MI classroom from a traditional classroom. Academic achievements, classroom management, student enthusiasm for learning and student participation are measurable criteria and are evident in a traditional classroom which uses direct instruction. My goal was to explore in what way MI use in the classroom enhances these qualities. I really wanted to explore why teachers should use MI and how it changed student learning. A more thorough explanation of the criteria and how I evaluated each of the schools can be found in the appendix.

**Planned Analysis of Data**

 Post-interviews I organized the data first by school and then by question answered, to look for similar trends in answers. I wanted to explore how the responses from each school related to the school environment. I then took the responses and my observations from visiting the schools, and rated each school in each of the four criteria as listed in the above section.

 The abbreviated rubric I used to evaluate each school can be found below. The extended explanation of the criteria within each rubric may be found in the appendix.

|  |
| --- |
| **Academic Achievement**Standardized test scores and reported Academic Yearly Progress (AYP) according to the No Child Left Behind Act are quantitative data to support evaluation of a school’s academic achievement.  |
| **Classroom Management**Increased student time-on-task and smooth transitions. Students are actively engaged in learning. Instructor displays a keen sense of “withitness” where s/he is aware of any possible disruptions within the classroom. Behavioral problems are dealt with in using the least amount of force/ punishment required.  |

|  |
| --- |
| **Enthusiasm for Learning**Students and teachers who have enthusiasm for learning take educated risks with their learning and are excited to change tasks or try something new in order to motivate and interest themselves through the day, week or school year. People with enthusiasm for learning set academic as well as personal goals so they can continue to grow and change.  |
| **Participation**How comfortable and willing students’ feel expressing themselves or sharing their thoughts can be an important indicator of how meaningful a student’s learning is. Whether being called on or volunteering, students who feel engaged and are willing to contribute to the class are more likely to understand a topic, project or lesson than students who are passively involved.  |

**Limitations of the Study**

Although I tried to ask thorough questions covering all aspects of MI, I realize there is no way to truly understand the inner workings of a school without actually attending or working there. I visited the New City School in St Louis for two days, and the Key School in Indianapolis for one of their visitor days. During my time there, I spoke with teachers and students alike discussing with them what their school days were like, what they enjoyed, what they would change if given the chance, and how they feel their MI school is different from a traditional school. There are biases that come with their answers, just like there are biases that I, the interviewer, brought into the interviews. People’s education, life experiences, socio-economic status and a whole conglomerate of other factors affect how they interpret observations.

The days I visited the schools, I took pictures of wall decorations, student work, how desks were arranged in the classroom, bulletin boards, learning centers and the materials available. I observed teachers interacting with other teachers, administrators and administrative professionals, parents, students and custodial staff. Although I spoke with these people, and I watched them discuss with one another, as an outsider, I got a skewed perspective of what life at each school is really like due to observational bias. Observational bias says you change what you are studying by studying it, meaning students and teachers may have treated me differently or answered me differently because I was a visitor and not a regular in the school. I do not think teachers, administrators or students responded to me any differently, however there is the possibility of bias. In addition, I took a snapshot of the day, and can extrapolate that information to the other 270 days at school. Life at each school may be exactly like the day I visited, or it could be very different. I operated under the assumption that each day at school was very similar to my visiting days. Because I only have the information from my interviews and observations of that given day to work from, I assume the interviews and tours of each school were conducted honestly.

**Expected Results**

Before visiting each school I was looking forward to seeing students actively and happily playing and learning. I was hoping to see students’ presentations using their MI skills, and although I did miss out on that, I did hear quite a bit about the “MI shares” as they’re called at the New City School.

I was expecting to see classrooms look vastly different from a traditional classroom. Maybe the chairs would be replaced by bean bags or yoga balls, maybe students were given clipboards and could do their work independently or in groups. Perhaps the teacher did not use any direct instruction, and instead wrote all the instructions on papers for the students and let them lead themselves.

Instead, what I found was an excellent mixture of learning styles, intelligences, modes of instruction, and classroom involvement. All which will be expounded upon in Chapter IV.

**Background Information: New City School**

The New City School was founded in 1969 by a group of neighbors struggling to find appropriate education for the diverse needs of their students. The school has since grown and currently employs 59 faculty and staff members, pushing the boundaries of what a traditional classroom looks like. The teachers use innovative and creative methods to get students to take responsibility for their learning and to get the most out of their learning.

New City School is dedicated to promoting differentiation of learning, so that their students can learn best. This is evident in the learning spaces provided throughout the school and tucked away in each classroom. It was not until 1988, almost twenty years after the founding of New City School that they began implementing an MI curriculum. The MI theory states that different children learn different ways, and all children have one or more talents; talents and strengths which can help students learn. Through the use of MI, students learn that in a variety of settings, their diverse skills and ability levels can help them solve problems and learn material in a number of ways.

Students at the New City School learn how to read and write and do arithmetic, but they also grow a number of other skills. Self-reflection and group skills are two intelligences emphasized at New City School. New City School’s curriculum instruction revolves around MI, and with the additional freedom of being a private school, may dictate exactly what curriculum they teach. New City School creates year-long themes for each grades from which they frame their curriculum. This really helps the students absorb the content because students eagerly participate in each project and students look forward to creating and presenting each year’s theme-related project.

The framework of MI at New City School is not used to assess students’ intelligence; because one intelligence is not better than another; nor is a student smarter or dumber for having a strength or a weakness in an intelligence. The intelligences are tools for students to use. When it comes to using MI in the classroom, sometimes students may choose which intelligence they want to use to complete an assignment or task; other times student are assigned which intelligence(s) to use. When given a choice, more than likely students will use a stronger intelligence. By using a strength, this gives student confidence and the ability to learn material in a way that is natural for them. However, students are expected to reflect on themselves and are encouraged to grow through feedback from their peers and teachers.

New City School administers traditional tests in addition to using project based learning. However the frequency of traditional tests given at New City School increases as students move up through the grades. Results of traditional tests are quantifiable data, proof that students are learning and are performing at state proficiency levels. Once at the fourth grade, New City School students’ progress reports include a narrative assessment of the students’ intelligences, as well as percentages of their personal tested achievement and the tested class average. New City School believes intelligences should be used at all times and encourages student self-reflection as well as peer group-reflection after tests as well as after presentations.

New City School breaks the eight intelligences into three types of intelligences; scholastic, personal and creative intelligences. The scholastic intelligences include: Verbal-linguistic and logical-mathematical. Progress in these areas are quantifiable, however with all intelligences, New City School feels the best way to evaluate intelligences is through rubrics as well as through students’ self reflections rather than percentages from tests. New City School emphasizes the personal intelligences: interpersonal and intrapersonal. Successful people demonstrate strong personal intelligences. Successful people are good communicators and work well in groups, they motivate others, are able to self-reflect, reevaluate their own work and improve. The creative intelligences include spatial, bodily-kinesthetic, musical and naturalistic.

New City School knows their students will leave their school as good communicators, being able to speak well to an audience as well as one on one. Students present their knowledge from a given unit or theme using PEPs or Projects, Exhibitions and Presentations. All PEPs, or MI shares, which students conduct three times a year, are recorded for the student to keep in a portfolio, and reflect on. MI shares are typically bigger than just a class presentation; it is a culminating project for a theme or unit presented to parents and other classes or grades within the school. For example, the third grade theme at New City School is the “Keepers of the Earth” focusing on Native Americans. The students then get the chance to show what they know about the theme, using their multiple intelligences to best express what they have learned. They could incorporate math to create an historical artifact to scale, could play music of the time or culture, do a dance or teach a game from that era- anything that expressly demonstrates that the students have met the laid-out rubric criteria and clearly understand the theme or message from the unit.

New City School students grow up to be very humanitarian, very professional and really tuned in to helping others. The New City School through its use of MI provides its current students and alum with skills to self-reflect, know a lot about themselves, and communicate well with others. The ability to see the big picture puts students at an advantage because by asking “*why*” and “*how*” students are able to see how things interrelate, and have the tools to make a greater impact in the world.

**Background Information: Key Learning Community (Key School)**

 The Key Learning Community was founded in 1987 by a group of teachers who liked Howard Gardner’s theory of Multiple Intelligences, and decided their students could be taught in a better way which would increase their learning and understanding. Key school was the first school in the world designed around the theory of multiple intelligences with the idea that in addition to the time spent learning in their core subjects, students would also spend equal amounts of time growing their eight other intelligences. The Key Learning Community now educates 180- 200 elementary students, and opened its doors to secondary students in 1999, currently educating 160 seventh to twelfth graders.

 One of the founding principles of the Key Learning Community is that each of the intelligences of every child should be stimulated daily. Each day, students spend equal amounts of time in classes that support their intelligences. The core subjects are taught, and meet state standards, but the Key Learning Community’s daily schedule also teaches the eight intelligences directly through subject-related classes. Mathematical-logical intelligence is highlighted in math class, spatial intelligence in art class, verbal-linguistic intelligence in English class, musical in music class. Bodily-kinesthetic intelligence taught through physical education, naturalistic intelligence emphasized in science class, and the interpersonal and intrapersonal intelligences are honed during Key’s flow and pod classes. Beyond this, Social Studies and geography are taught in an additional class, and some students receive additional supplemental reading instruction. The daily structure of the Key Learning Community is designed to encourage students into using all of their strengths evenly. The classes, such as math focus primarily on tapping into students’ mathematical-logical skills.

 Teachers at the Key Learning Community collaborate to produce two themes a year which are relatable to the students as well as applicable to the world. From these two themes a year, the school sponsors weekly programs which students actively participate in and learn from. Lectures, musical entertainment and/or involvement, demonstrations from members in the community and specialized groups that visit the Key School are just a few examples of the programs presented once a week. The goal of the weekly visits from a specialist or parent is for students to gain a wider appreciation and knowledge of the activities in the Indianapolis community and gain awareness for job or career interests after graduation. These programs provide for the Key students an opportunity to follow up and learn more about a particular subject, and could potentially create connections to a specialist who may become their mentor.

As a graduation requirement students will give three presentations a year which go on display at the end of the theme and during which students are videotaped. The visual aids to the projects students create and present are put on display in public places within the Key School so other students may investigate what their peers have created. When students present to their peers they describe the projects’ original idea, purpose, problems encountered throughout the project, a summary and what their project means for the future or its impact on the world. Students receive a video portfolio of their projects and the evolution of their presentations when they graduate. This portfolio is an evolving model of the students’ development. Equally important to this portfolio is the students’ self-evaluation after each one; peers after each presentation provide verbal and written feedback about the presentation, constructively critiquing and asking probing or progressive questions. The idea behind student theme-based projects is that students will take responsibility for their learning and find a topic in each of the intelligences that interests them, which also relates to the overarching theme. Students then reflect on their learning and their presentations.

 Each student participates daily in an apprenticeship-like “pod” activity where he or she works with multi-age and multi-ability peers to explore an interest. The multi-age and multi-ability grouping allows students to complete an activity at their own level and at their own pace. Peer-tutoring-peers where a more knowledgeable student is able to guide less knowledgeable ones are an excellent way to foster productive interests, and encourage younger or less able students to excel. Students in the elementary level also encounter peer tutoring and intelligence-strength-exploration through a class labeled “flow.” Flow is semi-structured free play where elementary students choose various activities that build on their strengths. Students in the flow class are grouped by mixed abilities and ages. Both flow and pod classes are student-selected elective classes which focus on the students’ strengths.

 Students at the Key Learning Community are not given letter grades because the curriculum supports cooperation and teamwork above competition. Instead of spending time meeting state or nationally mandated curriculum, the Key Learning Community instead directs their resources to what they feel the students’ should be learning. The administration at the Key School wants students to spend equal time with all the intelligences because they believe in the teaching for understanding framework from Harvard, meaning what students need in order to be successful in life. The Key Learning Community believes that a lot of the tests and routine “assessments” students endure do not really indicate intelligence or potential of success. Therefore they place little emphasis on the standardized test scores and teach for what they believe their students need, not what the government dictates their students need.

**Interviews and Observations**

I conducted Interviews at both the New City School in St. Louis, and the Key Learning Community in Indianapolis. What I gleaned from these interviews became the basis for the “grade” I award each school in Chapter IV, based on previously determined criteria and the rubric, also presented in Chapter IV. The full rubric can be found in the appendix, an abbreviated version is explained before the evaluation of each school.

**Chapter IV**

**Evaluation of the Schools**

 In order to best evaluate two schools with an MI emphasis, I chose to assess regarding certain criteria; academic achievement, classroom management, enthusiasm for learning and participation. I visited each school, made observations as well as interviewed teachers. I made observations of the layout of the classroom, the students’ behavior, the teachers’ behavior, interactions in the halls and the library; simply observations on my tour. Below is an abbreviated rubric with a description of what kind of behavior or outcome I was expecting to observe to earn a “5” out of 5 on my grading scale. Each school would be evaluated in each of the four criteria, then would be awarded an overall score.

**Evaluation Rubric and Criteria (Abbreviated)**

**Figure 4.2**

|  |
| --- |
| **Academic Achievement**Standardized test scores and reported Academic Yearly Progress (AYP) according to the No Child Left Behind Act are quantitative data to support evaluation of a school’s academic achievement.  |
| **Classroom Management**Increased student time-on-task and smooth transitions. Students are actively engaged in learning. Instructor displays a keen sense of “withitness” where s/he is aware of any possible disruptions within the classroom. Behavioral problems are dealt with in using the least amount of force/ punishment required.  |

|  |
| --- |
| **Enthusiasm for Learning**Students and teachers who have enthusiasm for learning take educated risks with their learning and are excited to change tasks or try something new in order to motivate and interest themselves through the day, week or school year. People with enthusiasm for learning set academic as well as personal goals so they can continue to grow and change.  |
| **Participation**How comfortable and willing students’ feel expressing themselves or sharing their thoughts can be an important indicator of how meaningful a student’s learning is. Whether being called on or volunteering, students who feel engaged and are willing to contribute to the class are more likely to understand a topic, project or lesson than students who are passively involved.  |

**New City School**

**Background Info**

**Demographics of the community and students**

Teachers and students who compose the community of New City School were widely diverse, but very well educated. New City School is a private school, the parents who send their children to New City School live well with regards to the socioeconomic ladder, and although scholarships are offered for children of all different backgrounds to attend the school, the majority of the attending students come from a background of higher education and great privilege. The parents are clearly very involved in the school, as I roamed the halls during my observations, I came upon a parent in the library looking at students’ dioramas. Her daughter had created one, and she was reading some of the other students’ as well. As a parent she had the freedom and opportunity to be a part of the school community and was taking the time to stay actively involved in her child’s learning material.

**Teacher Training**

The majority of the teachers were white, middle-class, and they were all very enthusiastic, well spoken, and clearly well-educated. Many teachers spoke about their extensive training on Multiple Intelligences, and how supportive the school administration was towards their furthering education. Liz, the technology teacher, was completing her Masters degree while teaching, and was happy to discuss the extensive training, team teacher meetings, whole-building training sessions and teacher collaborations that really make New City School a unique community, which encourages the growth of each and every student.

**Figure 4.2**

|  |
| --- |
| **Academic Achievement**New City School 1 2 3 4 **5** |
| **Classroom Management**New City School 1 2 3 **4** 5 |
| **Enthusiasm for Learning**New City School 1 2 3 4 **5** |
| **Participation**New City School 1 2 3 **4** 5 |

**Explanation of Awarded Grade**

Out of a score of 20, I have assigned the New City School a score of 18.

**Academic Achievement** 5 out of 5. The New City School is clearly doing something right. They pass all state mandated tests with flying colors, and even ask their students to take the Stanford Achievement Test when they are in eighth grade. The New City School is provides supporting evidence that you can educate students in nontraditional ways, and they can excel traditionally. The teachers are assessed as well as the students. Assessment of students is conducted by both teachers and students; they are evaluated using specific and detailed rubrics.

**Classroom Management** 4 out of 5. Teachers with much experience can tell you that there is a difference between productive noise in the classroom, and destructive noise. Students who are working productively chatter amongst themselves but the conversation (for the most part) is on topic. In the art class and math class I observed, where students were working on their own projects, there was definitely noise in the classroom, but students were discussing their projects or a topic-specific question and remained on topic. Only once did a student need reminding twice to work while he talked. Mouths may be busy as long as brains and hands remain busy. When interviewing teachers I asked about classroom management problems, and I found overwhelmingly that the teachers at the New City School felt that if students need their learning to be individualized, that perhaps they need their punishments and rewards to be individualized. An example of a student with a strong musical intelligence who needed to be removed from a situation for being distracting, was taken aside, asked to put on headphones and listen to their calming music, and then resume working. Instead of punishing the student; giving them a creative outlet they understood, such as playing or listening to music, the student was able to stop the inappropriate or unacceptable behavior and regain the ability to work productively without altering the environment of other students.

**Enthusiasm for Learning** 5 out of 5. Students I observed entering and leaving the bodily-kinesthetic class were happy to enter the classroom and play games, and were happy to line up and go onto their next classroom topic. Students entering the technology class in the computer lab were eager to sign onto their computers and learn through typing software, just like they were excited to get in a circle and brainstorm as a whole group for their advertising projects. These seemed to be examples of enthusiasm for learning. The Students at New City School seemed bubbly and excited to try new things and encourage others. They would chatter during a lesson, but did so in order to provide their peers with feedback; “that looks good,” “try another color,” “you can do better by writing it out.” Students fed off the feedback from other students and were happy to engage in every learning environment I observed.

**Participation** 4 out of 5. The more comfortable a student is in a given learning environment, the more likely it is they will be willing to take academic and personal risks, such as sharing to a large group or trying to answer a difficult question. It is obvious at New City School, the students were encouraged to rely on one another and that their environment was considered a “safe” zone. Students actively contributed to the conversation with ideas, questions and their own personal experiences. Teachers were able to keep the overflow of contributions on task, and practiced good classroom management skills to call on students equally and regularly as well as maintain a good pace of the lesson.

**Results from the Interviews**

The interviews at the New City School with teachers, administrators and administrative professionals all provided answers to my questions like they were running a business. And to a certain degree, a private school is just that, a business in educating children. However, I have to applaud the sincerity of the teachers, and how excellent they communicated. Teachers at the New City School meet as a team once or twice a week, and meet as a whole staff once a week. If there are problems with a student, they will know because their communication is so efficient. Also, the teachers have the financial- ability and time-flexibility, courtesy of New City School, to continue their professional development, which will only make them better teachers.

Students are encouraged to develop all their intelligences; in areas where they are not as strong, students are expected to make progress and grow their intelligences. Everyone has the capacity to make each intelligence a strength. Students are required to use all of their intelligences throughout the week. Both teachers and students keep track of how often a student is using a particular intelligence to help them learn. If a student reaches a rut and needs an additional push to try applying their knowledge using a different intelligence, which they may not feel as comfortable with or may not consider quite as strong, the teacher will provide the scaffolding the student needs and encourages the student to branch out. Some teachers will require that a student uses two developing intelligences alongside their stronger intelligences for a project, homework, or class learning center.

Students are not only allowed to use many different intelligences to demonstrate what they know, they are encouraged to branch out and use all of their intelligences in different ways. Students present their knowledge from a given unit or theme using PEPs or Projects, Exhibitions and Presentations. All PEPs, or MI shares, which students conduct three times a year, are recorded for the student to keep in a portfolio and reflect on. MI shares are typically bigger than just a class presentation; it is a culminating project for a theme or unit presented to parents and other classes or grades within the school. For example, the third grade theme at New City School is the “Keepers of the Earth” focusing on Native Americans. The Students then get the chance to show what they know about the theme, using their multiple intelligences to best express what they have learned. They could incorporate math to create an historical artifact to scale, could play music of the time or culture, do a dance or teach a game from that era- anything that expressly demonstrates that the students have met the laid-out rubric criteria and clearly understand the theme or message from the unit. MI allows students to play to their strengths within the context of expectations set out by the teacher. When administering or assessing their own intelligences, students need to complete reflection forms and answer which intelligences they use. Students are given rubrics for each project presentation, so they know ahead of time what is expected out of their presentation. The students presenting information using their unique intelligences are in control of how they want to show what they know, but there are certain requirements needed to pass.

Students have a greater passion for learning due to MI simply evident with their enthusiasm for class time, and their participation in lessons. Students who are enjoying their learning and feel passionate about a subject or the way they are learning, want to participate, want to take control of their learning and are gladly responsible for their content. Lauren, the Bodily-Kinesthetic (BK) instructor, says she does not experience classroom problems with the students because they *want* to be there. When learning is fun and all your friends are participating, you the student do not want to get pulled out for breaking rules. If students do need to sit out for a minute, they get the chance to change their attitude and get right back in the game (Personal Communication, 9 May 2012). Lauren’s policy for conflict resolution is to give students the tools to handle problems themselves. Students can resolve their own problems themselves without the teacher intervening. Sometimes, the teacher needs to be the tie breaker, but mostly kids will be honest with one another and be able to resolve problems (Personal Communication, 9 May 2012). This does not mean Lauren does not maintain a watchful eye. Students cannot learn when they do not feel safe, and they need emotional as well as physical safety. Lauren maintains a zero-tolerance policy to any disrespect so that all students feel valued and respected. When it comes to classroom management, the worst punishment is seeing peers enjoying the game and having fun while you have to sit out because you were disrespectful. Across the New City School campus, teachers are called by their first name to emphasize respect and equality, students are taught everyone is smart, everyone has worth and everyone is important. Being disrespectful or mean to fellow students or teachers is not tolerated. In the classroom, MI increases participation. Because the more involved, the more engaged the students are, the more fun they have and the greater the participation. How do you know if the students understand the information? They show you, they tell you. Students who are learning their way, are excited to work with new material and stay engaged. Students who use MI, like those at New City School, stay engaged with their work and enjoy learning. As a result, they participate often. They are hard workers who ask good questions because they want to know and they want to learn. Students have a passion for learning when they are in control of how they get to learn it. MI helps everyone learn in a way that best fits them, and demonstrate that knowledge in a way that works best. New City School, and the theory of MI, value creativity and thinking outside the box because students who are able to think differently seem to have an affinity for perseverance, or the ability to succeed when something is difficult.

Lauren the BK instructor has been with the school for twenty years, and feels strongly that what New City School does is right. What non-MI-emphasis teachers’ call interdisciplinary teaching; she calls it a regular day in the classroom. She loves the grade themes, and relishes the challenge to incorporate new information into her classroom. Lauren says having the grade themes helps fit in or find or make up games, and the games keep the lessons fun and the students engaged (Personal Communication, 9 May 2012). Repetition of classroom material in a game format is fun and educational. All teachers take the chance in their weekly meeting to discuss what they are doing in the classroom and steal ideas from one another. By giving students choice in rubrics, projects, group activities, learning centers: students gain enthusiasm for the material, and improve. Some students need a nudge to equally improve all their intelligences, but when students are given options through instructional variation, they have a wider sense of exploration of the material.

All students complete an MI profile multiple times a year. Annually, parents and teachers will fill out the MI profile for each student. The students, parents and teachers then get three perspectives of the students’ progress. MI profiles are not used for a grade; they are for the growth of the student. By completing the MI profile, the students use intrapersonal and interpersonal intelligences, as well as continue to grow their other intelligences. The parents and teachers maintain two-way communication to benefit the students and their MI development. By allowing students to really reflect on how they are using MI both inside and outside the classroom, students take greater responsibility for their learning and receive greater benefits. Although we think of learning as centralized at the school, learning is by no means limited to the classroom. The amount of information New City School gathers from the parents to assist their child only stops at the amount of information parents are willing to share to benefit their student’s learning process. Parents at New City School are involved and choose an MI emphasis school because they want their student to succeed.

New City School works tirelessly to maintain a good relationship with parents, keeping communication flowing freely between teachers and parents, and encouraging active involvement of parents in their students’ life both at school as well as at home. Just inside New City School’s red double doors, beyond the welcome desk there sits a niche in the wall with a few comfy chairs, a coffee pot and a sign. It encourages parents to sit down and chat, enjoy a cup of coffee while their students run off excitedly for another day at school. Dr. Tom Hoerr, the principal of New City School, is proud of this coffee sign because it says something about the climate and attitude of New City School; reminding parents to maintain open communication between parents, teachers and yes- the kids (Personal Communication, 8 May 2012). Communication is the world’s biggest problem and good communication is necessary to be successful. With this in mind, New City School has four parent-teacher conferences a year. The first parent-teacher conference happens three weeks into school, intentionally too early for teachers to know a student very well. New City School expects that parents will talk for 75% of the conference time. Parents have spent the most time with their students; most parents know their child’s ins and outs, ups and downs, what gets them excited and what bores them. Asking parents to talk and share more, sets the tone for collaboration and communication and equalizes the balance (Personal Communication, 8 May 2012). Parents are not stupid; just because they do not necessarily have a degree in education does not mean they do not understand how their student learns. What New City School wants is the best for their students: lifelong learning and success, and parents want that too. Communication and collaboration is how these dreams become a reality.

Teachers collaborate and reflect on students’ learning, development and performance, as well as their own development and performance during faculty meetings. New City School has a faculty meeting every Monday, and teams or grades have group planning once or twice a week, so everyone stays informed and all teachers stay connected to one another. Teachers communicate with each other, administration and administrative professionals constantly to keep students’ developing and increase student performance to maximize student learning and understanding.

I asked several teachers how they felt MI prepared students for life beyond school. The prevailing thought was that students are put at an advantage knowing who they really are, and how they learn. Students daily encounter their strengths and weaknesses; they learn how to adapt and apply themselves, how to problem solve and what curiosity or questioning can teach them. Students who use MI get to ask “why”, “what purpose” and they strive for an expected outcome. New City School students have strong intrapersonal intelligence, because the more you know about yourself and how you learn, the better able you will be able to learn. MI gives students the skills for error analysis, so they can understand why mistakes were made. New City School students also have strong interpersonal skills because everyone eventually has to work with people, greet people, make eye contact, speak well, respect people’s ideas and feelings and problem-solve with a group.

New City School students grow up to be very humanitarian, very professional and really tuned in to helping others, according to the assertions made by many of the teachers interviewed. The New City School through their use of MI provide their current students and alum with skills to self-reflect, know a lot about themselves, and communicate well with others. The ability to see the big picture puts students at an advantage because by asking “*why*” and “*how*” students are able to see how things interrelate, and have the tools to make a greater impact in the world.

**Overall Impressions**

Overall the experience visiting the New City School was ideal and picturesque. An administrative assistant sat in a desk in the middle of the first floor hallway and greeted everyone who entered the building and each class or teacher who passed her in the hall. There were a few sculptures scattered throughout the building, at the entrance, in the stairwells and in the library that were student-created representations of the eight intelligences created into the shape of a driffin, part dragon part griffin (lion and eagle), the school’s mascot. The building was well-lit and student work lined the hallways in a way Dr. Tom Hoerr, the principal of the school, described as used for education not decoration. Bulletin boards called for students’ opinions and were interactive. The library was an enormous welcoming space with many options for tapping into students’ intelligences.

New City School encourages everyone to use the hallways to educate, not just to decorate. Students perceive a lot more than what is taught in the classroom. What is shown of the community? What do students see every day? Are parents encouraged to see just one part of the educational aspect during the parent teacher conference or are they welcome to roam the halls whenever they like, assessing for themselves the educational quality? Are a number of diverse individuals with differing backgrounds and ability levels represented in the curriculum? Diversity is a difficult topic to teach, however actions speak louder than words, and the New City School clearly speaks with their environment to encourage all students to not just tolerate differences, but to accept and embrace them.

Dr. Tom Hoerr, who prefers to be called just “Tom”, explains that at New City School, every teacher, student and staff member is called by their first names. If actions speak louder than words, then the best way for students to learn is by doing. Everyone deserves an equal amount of respect whether you are an administrator with a PhD or a custodial worker who graduated college, and in fact, just loves working with the kids. New City School is a different place to learn, and using first names is just one way of letting students know that (Personal Communication, 8 May 2012). When the students go home and speak to their parents, their friends’ parents, their doctors and dentists, do students use titles like Mrs. A? Yes, Tom says students are not put at a disadvantage, and still learn and use the cultural “norms” the way any student in a traditional classroom would. Could public schools use first-names only the same way New City School does? Sure. But New City School is private and therefore has more flexibility. As Tom put it; “New City School teaches to what the kids’ *need*, not what the state says we need” (Personal Communication, 8 May 2012).

Most classrooms in New City School use a block schedule, which gives the lessons and the students more flexibility. In Denise’s math classroom, there is a lot of drill or flashcard practice and small groups. Of course the information and concepts will challenge the students, but because they are able to use their strengths to apply the new material, students are then able to use MI to answer the “so what” question teachers are so often asked (Personal Communication, 9 May 2012). Rather than being able to regurgitate the correct answer, students are able to understand how they got to that answer.

New City School does not use IEPs. If students come from public schools and already have an IEP, New City School does not use it. Does that mean that New City School does not accommodate for disadvantaged learners? Not at all. The whole idea behind MI is that the learning is accommodated for students’ individual needs. New City School does do ILPs, or Individualized Learning Plans. Students set goals based on previous years, at the beginning of each school year with input from parents and teachers. Students also fill out MI profiles and evaluate how they use each intelligence.

**Key Learning Community**

**Background Info**

**Demographics of the community and students**

The Key Learning Community is set in an urban environment, most of the students are African-American, and many are on free or reduced lunches. The students wore uniforms and were bussed into the school from all over the Indianapolis community. The younger students spoke well for themselves and were visibly excited to welcome visitors on the day I visited, which was one of the two visitor days of the school year.

**Teacher Training**

The vast majority of teachers I spoke with --two exceptions-- were white and were first to fifth year teachers. The guidance counselor and the Health teacher were the only black female teachers who also had at least ten years of experience teaching. I discussed the training teachers receive regarding Multiple Intelligences with the Vice-Principal of the Secondary School; he did not seem able to appropriately describe what MI was or how to best incorporate it in the classroom. It seemed that in the history of the school, when Key School went from a magnet school to a public school with an emphasis on MI, and when students began being bussed in rather than parents dropping them off for school—the dynamics of the school changed. Around this time, the Key Learning Community also came under new administration, and the founding principal retired, therefore it seems that the founding essence and emphasis on MI was lost, and teachers did not receive the same continuing of education regarding their own personal development, and the further exploration and use of MI.

**Figure 4.3**

|  |
| --- |
| **Academic Achievement**Key Learning Community 1 2 **3**  4 5 |
| **Classroom Management**Key Learning Community 1  **2** 3 4 5 |
| **Enthusiasm for Learning**Key Learning Community 1 2 3 **4**  5 |
| **Participation**Key Learning Community 1 2 **3** 4 5 |

**Explanation of Awarded Grade**

Out of a score of 20, I have assigned the Key Learning Community a grade of 12.

**Academic Achievement** 3 out of 5. According to the Vice Principal of the Secondary school within the Key Learning Community, the Key School is an academically failing institution. Although they have the highest graduation rates from any Indianapolis Public School, they lag behind meeting their state minimum requirements for achievement and improvement.

**Classroom Management** 2 out of 5. When visiting both the elementary school and the secondary school, it was difficult to tell what classroom was a structured class versus a flow or pod classroom, versus a study hall versus a standard classroom. Comparing four different classrooms, they each looked like an “indoor recess” day. Students were clumped throughout the room and there was little to no teacher supervision or instruction. Students appeared to be enjoying a free-for-all within the classroom, dancing on chairs, playing phone games, computer games and board games, coloring and gossiping with no unifying theme or purpose. Students did not spend their time on task or actively investigating an assigned project, instead these classrooms looked like daycare: unstructured play. The students were cooperative and answered me when I asked what they were doing, however they could not tell me how their activities related to the previous unit or how they could possibly relate to the next unit. This seemed like instructional dead time.

**Enthusiasm for Learning** 4 out of 5. I observed two different art classes with two different instructors. And after both, the students were clearly very engaged, very happy and clearly absorbing quite a lot from the lessons.

The first class was part of the secondary school and the teacher was able to answer questions about how she was incorporating multiple intelligences into her lessons and the students were able to explain what the purpose of their projects were and what they were going to do with them once finished. The students were actively using the resources within the classroom, described as brain food, to fuel their creative juices and which pertained to the topic at hand. The students were chattering throughout the lesson, however most of the chatter was on topic and revolved around proactive feedback and constructive criticism. Students were excitedly discussing another class where they would use the skills learned in this class to create a diorama for their science class in order to best demonstrate what they learned.

 In the second art class, the elementary school students were working on their self-portrait banjos. The art teacher had brought in his banjo and played some music for the students, then explained what the parts of the banjo were, how they were connected and what they did. Students then had to create their own banjo. The head could be whatever the students wanted, in whatever shape or design. The students were supplied with necks to attach to their individual banjos, and they had to write words where the bars would normally be found. The body of the students’ banjos had to be reflective of themselves and what they learned. Some students put straps on their banjos, and others added “personal” touches, but all students had to explain their reasoning for their choices in their banjo creations.

The students after both of these classes left still talking about the lesson and what was going to happen tomorrow in the next class. This apparent enthusiasm for learning is why I awarded the Key Learning Community a grade of 4. It was true that not all classes and teachers left students quite this enthusiastic, and I believe there is that room for growth, but at the Key School students were clearly happy to be part of the community.

**Participation** 3 out of 5. When it came to classes where the lesson was taught through direct instruction, in observed grade levels of 4, 7, 9 and 10, the students all seemed reluctant to share. In every traditional and non-traditional class alike, there is a volunteer or two who are more than happy to share their thoughts and opinions both on and off the subject matter of the lesson. However in all four observed classes, the vast majority of the students would only contribute when called on, and when they did provide an answer, they did so reluctantly or hesitantly. I concede that there may be an observational bias because I was a stranger in the classroom, however because these behaviors were observed in different age groups, I feel that across the board participation was lacking and this could have been due to a number of factors including teacher influence and student choice.

**Results from the Interviews**

The interviews with teachers and administrators yielded very different results even when asked the same questions. All faculty members lauded the benefits of teaching with MI and how it benefitted students, however very few teachers could give examples of how they would use MI within a unit. I can empathize with the inability to incorporate all eight intelligences in every given lesson, however I feel it is very plausible to use a mixture of the intelligences throughout the week so that students may tap into their strengths and build up weaker intelligences in every classroom while learning every subject. Math class does not have to be taught just using math. Musical, bodily-kinesthetic, linguistic, spatial and the personal intelligences are all very easy to blend into a math lesson. The same applies for any class curriculum.

Students are allowed and encouraged to use MI to demonstrate what they know and have learned in their class presentations and their pod classes. The Key School benefits student because they are given the opportunity to explore PSEO credit and potentially complete an internship, apprenticeship or explore other career possibilities. When students are able to identify their strengths, they are identifying in what kind of a career they would feel comfortable and or happy in for the rest of their life. Self-knowledge is important for students who want to go on to college and decide what their major should be.

All intelligences are employed equally through the Key Learning Community’s daily class schedule. Students tap into each of their intelligences for an equal amount of time throughout the day. Even as funding has been cut to the Key School, the administration has made choices to cut time in excess classes, so that students may spend time developing and exploring all of their intelligences equally. The core philosophy at Key is to help students develop their skills and explore what they love so they can continue on to higher education. Many of the teachers mentioned the “perk” of students experiencing MI instruction at the Key School is that students are able to complete post-secondary credit. This means that students are able to tap into their intelligences and by using these intelligences they will be able to pass state-mandated tests, giving them college readiness and career readiness.

Teachers collaborate at an MI school the same way they do at a non-MI-emphasis school; when a teacher sees a student is struggling, he/she first tries to talk to that student and get through to them. The teacher also relies on resources: other teachers who encounter the same student. Are they experiencing the same problems? What has the second teacher done? Brainstorming and teaming up to help students in need helps teachers grow professionally. Ultimately teachers convene to reflect on students’ learning and performance, but according to Key, it is the individual students’ progress which is important, not what the state deems performance. The Vice Principal says that Key empowers the teachers, but this empowerment to make decisions for the good of the students comes with great responsibility at both the state and local level. The phrase he used was “we cannot use data in a data driven way” meaning we – the administration at the Key School—cannot make decisions solely based on the short-term observations of student test scores. They teach for the long-term, for lifelong understanding and for their students’ personal motivation. They do not give grades, and students earn their knowledge, it is not passively administered to them. The idea behind student theme-based projects is that students will take responsibility for their learning and find a topic in each of the intelligences that interests them, which also relates to the overarching theme.

According to the Vice Principal of the Secondary School, MI helps intrinsically motivate the students. However, because the Key Learning Community does not assign grades to their students, and does not value state achievement tests, the scores from the Key School are not high. The Key Learning Community employs specialists in each of the seven intelligences, and students spend equal amounts of time in each of the specifically-focused intelligence classrooms. When students do not excel with a particular intelligence, teachers ask; “what do students naturally flow to in order to learn?” However at the Key School, these strengths do not appear to be utilized by students when working with the curriculum, instead a deficiency in intelligences is just identified and students are encouraged to push for motivation to improve and better understand the material. The example provided was if a student has low self esteem, this is interpreted as a deficiency in the intrapersonal intelligence. MI helps prepare students for the future and for life beyond school in ways that are not quantifiable, only quallifiable. According to the Guidance Counselor at the Key School, MI helps students in their professional or job-related future as well as their personal future. Students at the Key Learning Community are given opportunities for PSEO credit and completing additional courses or participating in an apprenticeship. In addition to this, students learn the skills for conflict resolution, and are comfortable working in small groups. Students who graduate from the multiple intelligence program have an increased sense of self and greater personal motivation because multiple intelligences help students recognize their strengths.

**Overall Impressions**

Overall, the school visit was a pleasant one, although the information in the pamphlet published by the Key Learning Community was disproved as we conducted our tour of the school. There were murals and artwork on the walls, and a pleasant staff who were actively engaged with all students whether walking the halls with a pass or waiting to see the nurse. Students at the Key School wore uniforms and I was caught off guard by the lack of freedom students were given walking from one class to the next. I observed a class walk from their classroom to their physical education class, escorted by their teacher and in a straight line. And several times the teacher stopped the students in the hallway to get every student back in line, or to remind students to keep their hands to themselves. The trip to the water fountain before the PE class seemed an exhausting one with regards to classroom management. This was not an elementary school class, these were high school students who needed reminding to stay in line and keep their body parts to themselves. The hallways were dimly lit, and the classrooms were not decorated or inviting but rather blandly institutional, and for one of the two visitor days out of the year, since the school community was clearly aware there would be visitors, I was surprised by the lack of effort to impress.

The Key Learning Community seems strongly influenced by the urban environment of Indianapolis. Although MI and the design of the school is organized to put the emphasis on the individual and student choice, Key has been losing students and therefore as a magnet school have lost funding. Key School has cut staff first, but as they lose funds they cut linguistic and math time (which had been receiving extra time in the day) because the Key Learning Community ideal would expose students to each of the eight intelligences in the day. Unfortunately, as the Key School program was explained to me, classes are grouped by intelligences, rather than content material. The classes are taught in one predominant intelligence and students are expected to hone that intelligence in that class as they learn the material.

The pamphlet and additional reading material supplied by the Key Learning Community emphasize student choice and the difference in classroom environment students have as part of attending the Key School rather than another Indianapolis Public School. I saw how differently students in elementary school were treated from the students in high school. Students in the elementary classes seemed to be encouraged to grow and change and try new things. These classrooms appeared to be a safe and happy environment where students would feel comfortable taking academic risks. In sharp contrast to this, in the secondary classes, students appeared to have busy work, constantly kept on task even if it was not productive, and the students could not explain the purpose of their work when asked. They were expected to keep quiet and it seemed the teachers expected the vast majority of them to mutiny at any moment. The vice principal did not speak well about his own school, and everything we were told by the guidance counselor who did speak well about the school, was disproved on the tour.

**Chapter V**

 What did interviewing teachers and observing schools with an MI emphasis accomplish? It proved MI is an effective tool for instruction of students. MI proves that you can educate students in a non-traditional way, and get traditional achievement results.

**The Research Questions Answered**

* How are students encouraged to develop intelligences in areas which they are not as strong?

Students from all walks of life need motivation to continue to learn. As teachers, we would love for students to always be intrinsically motivated to complete their class assignments, do their homework and additional practice and participate in learning activities just to benefit themselves. In reality, this is not the case. However, MI provides an outlet for students to learn in the way that suits them best. Students are encouraged to grow all their intelligences through MI profiles, MI wheels and other assorted MI tests which identify the students’ strengths and preferences as well as identify where students can improve. Teachers and parents should be made aware of this information so students can be encouraged to continue to grow and develop those intelligences which are considered “weaker.”

 Within the classroom, students can be encouraged to develop intelligences in areas which they are not as strong through rubric requirements implemented by the teachers. When a student is assigned a project or homework assignment, the teacher may require the students to utilize 3 of their intelligences, one of which must be a growing intelligence, meaning an intelligence which is not as strong as their preferences or strengths.

The phrase “practice makes perfect” applies well to MI because the more anyone uses their many diverse intelligences, the easier it is to use them. Teachers and parents can lead by example for their students and continue to grow their own intelligences by trying new things, or attempting to solve problems in different ways.

* To what extent are students allowed and encouraged to use MI to demonstrate what they know and have learned?

How do you, as an educator, a friend and a student of life, know when someone has learned something? They tell you; that person who has just learned something new will express it in any way they are comfortable. Whether it’s through telling a story or showing off a new dance, painting and drawing or singing a song: when someone “gets it” you can tell.

Life does not consist of tests, we spend 12- 16 years of a students’ life teaching them to memorize information, fill in the bubbles and take tests and call it life preparation. Only for students to discover once they are applying for jobs that there are no tests in the real-world. Skills students should hone are those which they feel comfortable using to learn information and express the processing of that information.

Students should be encouraged to show what they know using the skills they used to learn the material. If a student uses color-codes, diagramming, categorizing, songs, dances or patterns to understand and remember information, why shouldn’t they be able to use those same things to recall information? Students should have the freedom to demonstrate their deeper understanding of material through their multiple intelligences.

* What evidence do you have that students have a greater passion for learning using MI?

The rubric which was used to assess schools evaluated student’s enthusiasm for learning and student participation. Students who were allowed and encouraged to transition from one topic or subject to another through intelligences they enjoy demonstrated interest and excitement for each lesson.

* How do you vary instruction and student choice so all intelligences are employed and improved equally?

Within the rubrics for projects, presentations, research assignments and homework problems, teachers varied instruction by sometimes giving students’ choice as to which intelligences to use, and sometimes assigning students which intelligences to use. On other occasions, students are assigned and required to use certain intelligences. Students are encouraged to grow all their intelligences equally, making them all strengths, so all intelligences may be drawn on equally.

* How much information do you typically gather from the parents about their students and their intelligences expressed at home/ outside of the classroom?

Parents are typically the expert on their child who can share what kinds of activities their child is drawn to, and what kinds of activities their child avoids. These are indicators of preferences for intelligences, and can be used as tools to help students learn and appreciate the content material in a way that makes sense to them.

If parents are given the opportunity to fill out an MI profile, or take an MI test with their child’s specific talents and inclinations in mind, these tests will provide a second opinion of how a student is learning, developing and using their intelligences.

* How do you collaborate with teachers and reflect on students’ learning, development and performance?

Specialists within a school are an essential factor in students’ MI growth. Students with speech impediments, reading disabilities, disgraphia, anxiety issues and other disorders/ delays need the additional assistance of an instructor who will help them succeed in intelligences they will not feel as strong in due to a predisposition. By collaborating with teachers across content areas or across teams, educators are guaranteeing excellent planning of their units, lessons, and individualized student plans.

* How do you [the professional] feel MI prepares student for the future, and life beyond school?

MI prepares students for the future by giving them the tools to learn material and skills in different ways. MI encourages people to think outside of the box, think creatively to solve problems. MI also encourages the value in every individual, and teaches that differences are good and should not only be tolerated, but embraced.

Some of the best advice I received in my education classes at college was if it was important say it and show it, then repeat it in a different way. The more important the information is, the more you should make it available to students, in as many different ways as possible. The goal of all teaching is to teach for understanding, we are not instructing students to pass tests, and we are instructing students to become global citizens who will be prepared for lifelong learning. When we present content multiple times in many different ways, we light up different parts of the brain and increase the chance that students will understand the material and take interest in it.

MI can provide for students the chance to experience new activities and challenge the way a student thinks about a topic. MI can and will open doors for students, because they will not be limited by one way of thinking of a problem or idea and will be able to use multiple intelligences to approach a situation.

**Review of the Schools**

MI teaches us not to judge someone by their ability levels, because what we see may not show full potential. However in the case of the New City School, it is evident that they are a high performing school, constantly reaching beyond and challenging their level of achievement. New City School does an excellent job continuing the education of their teachers and all professional staff within the school to be able to appropriately use MI to benefit their students. All intelligences are activated daily, across all the classes.

The MI classroom is structured to accommodate for the differences in intelligences because students are given options for how to show their learned content, and teachers teach in different styles using different combinations of intelligences. However, in the Key Learning Community this is not the case. The difference is that each “intelligence specialist” in a classroom, teaches focusing on one intelligence and students only learn that subject with that intelligence. The potential problem with this interpretation of MI is that if a student is not strong in math, they do not get to use a different strength to learn it, instead the student just has to learn math the mathematical-logical way. This has typically been a complaint of a traditional classroom, not using MI, and the difference between MI instruction and standard instruction is that students identify their stronger intelligences so when they struggle with a particular subject or topic, the student can then use a strength to compensate. And eventually over time, students can then grow these struggles into strong intelligences. In addition to using student strengths, teachers should be instructing in a variety of ways using many different intelligences.

**Thesis in Review**

 The most important question I had when beginning my thesis was whether or not MI actually prepared student for the future, equally or better than traditional education. Without long-term observation of students and sans-quantifiable data, it is difficult to tell to what measurable degree MI prepares students for the future relative to a traditional (non-MI) education.

 Yet the observable quantities of academic achievement, and class participation according to the interviewed teachers improved through appropriate and deliberate use of MI in the school. And the testimonies from teachers in both New City School and Key School applauded the benefits of MI, and how it helped their alum reach great success.

**How teachers and schools can incorporate MI**

I would suggest all teachers look into MI and begin having a conversation with your peers and administrators; brainstorm ways to incorporate MI in your pre-established lesson plans. Give students greater choice as they learn the data. Think outside the box when you assess your students. Tests are not the only way to prove a student has learned material. How else might students excite their learning and explore new material, other than a worksheet, a lecture, practice problems or example group work? Experimentation is okay, students will be excited that they get to try something new, and what better way to get feedback for improvement, than sharing with the students what you are trying to accomplish through their increased independence?

We, the teachers, give students the keys, the tools to do well for themselves. They have good heads on their shoulders and know themselves when they graduate from an MI program. The whole point of MI is giving students choice. Giving people choice puts the responsibility in their hands, they then have to self-motivate. MI improves teaching and learning because teachers use MI too. Teachers as well as students need to use MI in order to grow all their intelligences and learn how to be smart in different ways. Appreciation for differences in learning also creates an appreciation for other differences.

**Appendix:**

**Extended Rubric for Evaluation of the Schools:**

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| **Academic Achievement**Academic achievement is a measurement of a school’s success as a whole, based on student’s success on standardized tests. These standardized tests may be state proficiency tests, the Sanford Achievement Test or state graduation tests. The average grade of all students: proficient, passing, developing etc., is accumulated to provide the “grade” of a school and those schools are then combined to provide the grade for a district. All schools are required to display some amount of progress from their students; either from test scores in state proficiency tests in reading and math or in increased student graduation rates. The focus on growing academic achievement is on schools, their expectations of students, and the growth of the students towards achievement. Public schools are required to meet the state’s standards laid out by the curriculum. Private Institutions may meet any expectations they set however, these expectations must be peer-reviewed and based primarily on the state’s academic achievement. An adequate yearly progress according to the No Child Left Behind Act requires annual testing of at least 95% of their students in reading and mathematics, and that this 95% of students meet the minimum target for meeting or exceeding standards for these subjects. In addition, 95% of all students must attend the minimum days of school required by law. Schools who do not meet these minimum standards for two consecutive years must then develop an a improvement plan and provide students with the option to transfer to a different school. After four years in a row without meeting minimum requirements, schools are required to implement new curriculum and replace the school’s authority. This restructuring can take the form of chartering, contracting with an outside school, replacing school staff or a state-school-takeover. By restructuring the school in a new way, a variety of options are available including closing and re-opening with a theme or broad idea such as multiple intelligences in order to create a richer learning environment. It is important to make sure students are achieving academically because traditional methods of measuring intelligence such as IQ, SAT and ACT scores provide pathways for students to continue their education. The MI criteria evaluated of academic achievement is an important criteria all teachers strive for; student success. With the investigation of MI, I wanted to make sure the schools expected students to academically succeed, and not just passively “play” through their school years by using MI. Students who attend MI focused institutions must pass standardized tests, the same as students who attend MI focused classrooms.  |

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| **Classroom Management**Classroom Management: Teachers establish the classroom experience, and are responsible for designing the organization of the classroom curriculum to best meet students’ needs and facilitate learning. Good classroom management does not waste students’ time, and instead allows for increased time students’ spend on task. The Learning environment should be conducive to all students to best learn. For example, if some students need to think aloud, they should be permitted to do so, but may not be off task and should speak at a respectful level so their neighbors may work in quiet. A well-managed classroom keeps students on task and actively engaged in learning. When there are behavioral problems, students are put back on task, and the issue is deal with in an appropriate manner, affecting only those involved. A teacher with effective classroom management skills has a keen awareness of disruptive behavior, or behaviors with the potential to become disruptive, and is able to immediately correct the issue, or redirect the students’ attention before a problem occurs. Students are aware what is expected of them at any given time, and can meet these clear expectations with regard to the task at hand. An effective manager within the classroom is able to maintain momentum and has a good pace throughout the lesson, even when students ask off topic questions or ask important pertinent questions, the teacher is able to appropriately answer the question and continue, or redirect the question to a more appropriate time after the lesson. Good classroom management is seen through smooth transitions from one subject or location or task to another. If instructions are clear and students know what is expected of them, the transition will be much smoother and classroom management will be more effective allowing students increased time on task. There is variety and challenge to the effective classroom manager’s work. Students are engaged more in their work, and therefore achieve more and cause classroom problems less. Students are challenged to grow, not just kept quiet and occupied with busy work.Classroom management, especially with regards to MI, means that teachers may use rewards and punishments that fit a students’ intelligence. Other things which classroom management is typically used for such as transitions from one task to another, collecting supplies, giving instructions; all have the possibility of using MI and increase the likelihood that students will remain focused. Students would be able to activate the different parts of their brain where each specific MI is located, therefore growing intelligences while conducting daily classroom duties.  |

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| **Enthusiasm for Learning**As teachers know, not every subject is for every student, and as studies show, not every student learns the best in the same way. The beauty behind multiple intelligence use in the classroom is that it gives students a greater enthusiasm for learning. Students who are happy learners are those who find a project they enjoy, or a topic they want to learn more about, and then they actively look forward to spending more time learning. Students who have a great enthusiasm for learning are those who passionately participate in class, in their work and even think about a topic even when they are not in class. Observed enthusiasm for learning can look like students talking amongst their peers in the hallway or lunch room about their latest project on a certain topic. Enthusiasm can look like groans when the teacher instructs students to pack up their things and move on to the next task, because that means they were enjoying the task at hand! Students with an enthusiasm for learning are excited by choice and anticipate new projects. Students and teachers who have enthusiasm for learning take *educated* risks with their learning and are excited to change tasks or try something new to motivate and interest themselves throughout the day, week, or school year. People with enthusiasm for learning set academic as well as personal goals so they can continue to grow and change. Student enthusiasm is a difficult criterion to explain. How do you measure enthusiasm? The same way you measure intelligence. You may not always see everything that’s going on below the surface, but the point is, when a student “gets it” the same way a student is excited about something: it’s going to show. Students will not be excited about school, every day, in every subject. But the idea behind multiple intelligence is that students will have more freedom to take responsibility for their learning. MI really helps facilitate the teacher to make the material exciting, making it relatable to the student and allowing the student to learn in their own way. The teacher is guiding the students to discovery, providing direction and structure for their content learning, and allowing students to take initiative and make every day fun.  |

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| **Participation**Because our students are varied and unique individuals, educators will always encounter students who do not like a particular topic, have no interest in a certain area and therefore do not actively participate in class. However the theory of Multiple Intelligences promotes students to invest the time with their peers and grow their interpersonal intelligence to become better communicators. How willing students’ are in the classroom, and how comfortable students feel expressing themselves and sharing their thoughts can be an important indicator of how meaningful their learning is. Students who feel engaged and are willing to contribute to the class discussion either by being called on or volunteering to answer questions are more likely to understand a greater amount of the content and will get more out of a project or a lesson than the students who are passively involved. Students’ participation may look like offering opinions about a topic, sharing related stories, asking questions and requesting a demonstration of knowledge. Students may also demonstrate their own knowledge through show and tells, stories, projects, presentations, group discussion and informally in the hallway, lunchroom or recess. Student participation is a good indicator of how happy students are, and how involved they are with the content. If students do not participate with the material whether it is in a whole class grouping, small groups, partners, or individually with a peer tutor or the teacher; how are the students being challenged? Students need to participate in order to get the most of the content and their instruction. MI is an excellent tool for increasing student participation, however student participation is important whether educating in a traditional classroom or an MI classroom.  |

*These four criteria; academic achievement, enthusiasm for learning, classroom management and participation; are essential for a successful classroom.*

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**Biography of Author**

Brandy is a Middle Childhood Education Major (4-9), concentrations in Science and Social Studies. She will also graduate with her Generalist Endorsement. Brandy’s family is from Dublin, Ohio, she is a graduate of Dublin Jerome High School, class of 2009. At Ashland University Brandy is active in the Schar Scholar program for Education Majors, a member of Kappa Delta Pi, the education honorary, and the Honors Program. Brandy has also been active in the Theater Department, working for two years as the Head Scenic Artist completing eight shows and is a Resident Assistant in Clayton Hall for the Department of Residence Life for two years. She has been on the Dean’s List for 4 semesters and has received both academic and honorary scholarships. She will student-teach in the spring in Sarasota Florida as part of the Southern Internship Program. After graduation, Brandy hopes to return to the Columbus Ohio area to find a job teaching Middle School Students, and looks forward to continuing her education.