

## *Effects of Environmental and Instructional Factors on Student Motivation and Self-Directed Learning*

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### *Abstract*

This study analyzed the impact of parent involvement and integration of multiple intelligences strategies in classroom instruction on student motivation and academic achievement. The population for this study comprised of 13 elementary students receiving special education services. Parent involvement was developed and supported through weekly home activities and daily take-home folders. Multiple intelligences strategies were implemented in reading, writing, and math classes. Data collection methods included surveys, observations and reflections, teacher-student conferences, exit cards, existing records and grade reports. The findings of this study showed positive effect on both student motivation and academic achievement. Students displayed an increase in positive attitude towards assignments, activities, and school overall; and 8 of 13 students achieved an increase in academic grades.

## *Effects of Environmental and Instructional Factors on Student Motivation and Self-Directed Learning*

As a teacher, I have been party to numerous conversations concerned with and debating the rising number of unmotivated students. Students have been increasingly described as unmotivated, lazy, behavior problems, and academically at-risk. As a special education teacher, I often find my students branded with these same descriptors and have come to believe it has grown increasingly difficult for these students to remain motivated to do well in school. Throughout my first few years of teaching I have found myself continuously reflecting on the cause of students' loss of interest in learning, and therefore, frequently question what environmental and/or instructional factors motivate learners to effectively monitor and control their own learning resulting in positive outcomes. Concerns include (a) how students become unmotivated, (b) what issues influence student motivation, and (c) what teaching methods are best for increasing student motivation.

There are two reasons it is imperative that my students are highly motivated to learn and succeed in school: (a) education will serve as the foundation for their future and (b) motivation to learn and do well aids in overcoming the daily challenges presented by their disability. My theory, with regards to motivation, rests on the idea that the continuous increase of diversity in students' backgrounds, abilities, intelligences, learning styles, and classroom instructions directly affects students' motivation and academic achievement. After review and analysis of current research, identification of contributory factors that lead to student disengagement and lack of motivation was accomplished, thus subsequently allowing me to intervene by creating a learning environment employing teaching strategies that motivate students to take control of their own learning and strive for success.

## *Literature Review*

There are several theories that address student motivation and engagement in learning and adequate research to support their implementation. I will address four main subjects:

- 1) Motivation is a key factor in academic achievement.
- 2) Student backgrounds can impact motivation and academic achievement.
- 3) Parent involvement in education affects academic achievement.
- 4) Incorporating multiple intelligences into classroom instruction increases motivation and engagement and creates a positive learning environment for all students.

The research I found supports the need for reform in education in order to meet the needs of all students as well as to prepare them for a successful future.

### **Motivation is a Key Factor in Academic Achievement**

In order to understand motivation, it must first be defined. Studies, in which both teachers and students were surveyed, suggest the following characteristic as elements of motivation: student holds positive beliefs about school, works hard, and has high educational aspirations (Keith, Wetherbee, & Kindzia, 1995). Research has indicated that motivation is linked to engagement and academic achievement. Students who are motivated to learn are therefore engaged in the learning process and do better in school than those who are viewed as unmotivated. (Keith, et al., 1995).

The underlying question then is, what factors contribute to lack of motivation and student engagement in school? According to a report released from Indiana University's High School Survey of Student Engagement (HSSSE), students say they are bored in class because they dislike the material and experience inadequate teacher interaction. Students further explain that material being taught in today's schools is uninteresting and irrelevant. Students expressed positive responses towards activities that included (a) cooperative learning, (b) group discussions and/or debates, and (c) open-ended and/or student-directed projects ("Students are bored," 2007).

Research also suggests that student motivation increases when there is continuous, positive interaction between teacher and students. According to Stipek's (2002) research, students are engaged and learning takes place when teachers promote effort in the classroom by emphasizing (a) participation, (b) setting high expectations, and (c) encouraging students to support each other as learners (as cited in Renninger, 2002). If students view the tasks at hand to be (a) interesting, (b) relevant, and (c) achievable, the motivation and effort needed to complete the task successfully will increase, most likely resulting in a positive outcome.

### *Student Backgrounds Can Impact Motivation and Academic Achievement*

In a study by Keith et al. (1995) findings support the belief cited in Bruner (1996) that all students have a predisposition to learn, so why do we find that some students learn and some struggle to grasp even the most basic concepts? Previous research has shown that motivation

and engagement are linked to personal backgrounds of students (Marks, 2000). Factors such as (a) biology (ex: sex, genetics), (b) home life, (c) age, (d) personal responsibilities, and (e) others have been explanations for students' levels of academic motivation (Legg-Burross & McCaslin, 2002). How students approach different subjects and activities can be expected to vary, just as the background and basic abilities that each student brings to each subject and activity will vary (Renninger, 2002). For example, it is well documented that children from economically disadvantaged homes often begin school with significantly poorer scholastic skills and are at a greater risk for school failure than their more affluent peers (Howse, Lange, Farran & Boyles, 2003). It has also been documented that with higher levels of socioeconomic status, motivation and engagement among students is higher (Marks, 2000). When planning, it is imperative that teachers take into account students' individualities with regards to these factors and design curriculum and activities that will promote motivation and engagement for each student independently and for the class as a whole.

### **Parent Involvement in Education Promotes Academic Achievement**

It has been my experience, as a teacher and a parent that students perform best when learning is supported and connected across all settings of their lives. Parent support in education is a vital aspect of student motivation and academic achievement. Research indicates that for students who have a substantial support system working for them, motivation and engagement are more likely to be higher than those who lack a supportive system (Marks, 2000). Over the past few years my observations have supported the idea that time management seems to be a growing problem for most families. Although I do not doubt that most parents would like the opportunity to be thoroughly involved in their child's education, realistically I feel that many families are stretched thin when it comes to spare time. Through research I hope to implement new strategies to help effectively promote parent involvement in education so that every student has a valuable support system.

### **Incorporating Multiple Intelligences into Classroom Instruction Increases Motivation and Engagement, and Creates a Positive Learning Environment for All Students**

Teachers have traditionally looked at education from the mindset that students learn primarily through one's intelligence. This has been evident by a reliance on intellectual quotient (IQ) and other standardized testing (Pociask, A. & Settles, J., 2007). Efforts to increase student motivation and engagement have been employed in classrooms over the past decade. Examples include (a) increased use of technology, (b) new teaching strategies, (c) schedule changes, and (d) responsive classrooms. One of the more popular and well-documented efforts addressing student motivation and engagement is Gardner's Multiple Intelligences Theory (MI). Gardner suggests an individual possesses eight different intelligences. His theory is centered on the content of learning as well as the relationship between learning and eight distinctive fields of knowledge or disciplines (Silver, Strong & Perini 2000). The MI theory was originally developed as an explanation of how the mind works and not intended for use as an education policy (Passmore, 2006). The purpose was to demonstrate that because students bring to the classroom diverse intellectual profiles, one "IQ" measure is insufficient to (a) evaluate, (b) label, and (c) plan education programs for all students (Moran, Kornhaber & Gardner, 2006; Passmore, 2006). The MI theory is not a new term or concept. It expands on what teachers have been or are doing in the classroom (Pociask, A. & Settles, J., 2007). The MI approach requires the teacher to create rich experiences in which students with different intelligence profiles can

interact with the materials and ideas using their particular combinations of strengths and weaknesses (Moran, Kornhaber & Gardner, 2006). Designing a curriculum with the use of multiple intelligences to complement these factors enhances the ability of the teacher to maintain student motivation and engagement in the learning process.

Research has shown that incorporating multiple intelligences in classroom instruction increases student motivation and engagement, and lead to an overall increase in academic achievement. In a study done by a Maryland elementary school, the introduction of the MI theory improved children's performances on state tests and created a school wide culture of achievement (Greenhawk, 1997). In a New York classroom, teacher S. Sweet also supports the use of multiple intelligences. Sweet (1998, p. 50) states, "Allowing students to use their knowledge of how they learn best can increase their enthusiasm, raise their achievement levels and foster growth in other intelligences." Students who understand how their brain and body operates are better able to support and foster their own learning.

The implementation of MI in classroom instruction needs to be carefully designed though. Incorporating the MI theory into lessons can seem overwhelming because of district curriculum and state testing requirements (Perini, Silver, and Strong, 2000). Some teachers are uncomfortable incorporating different learning style practices because of the perceived time restrictions and the perceived difficulty with using multiple activities with one lesson (Pociask, A. & Settles, J., 2007). Problems also arise in schools that do not have the resources available to teach to all levels. Another concern is presenting students with the concept of learning a particular way. According to Professor A. Pollard "oversimplifying can be dangerous. If people believe they have a particular learning style and that they're not capable of gaining from different sorts of learning, then they're diminished" (as cited in Bloom, 2007, para 4). It is important to accentuate students' strengths through advanced opportunities in order to develop their gifts, but it is equally important to bolster their weak areas through remediation so they can succeed in other areas. Boss expressed it adequately, stating, "It doesn't mean treating everyone the same, but providing everyone with a mix so they can all hit the ball out of the park" (Boss 2007, para 16). Integrating multiple intelligence practices assists teachers in differentiating instruction so that the greatest number of students' needs will be met.

After reading these articles, it is apparent to me that there are many factors that impact student motivation and academic achievement. The research is conclusive: students, who are motivated and therefore engaged in learning, do well in school. Research has also shown that (a) teaching strategies, (b) student backgrounds, and (c) parent involvement impact motivation and student achievement significantly. Educators are most successful when they adjust the content and the delivery of their instruction in order to maximize success for all students (Wright, 2006). Over the course of my study, I hope to implement and refine strategies that will help create a learning environment that fosters motivation and connects student learning across all settings resulting in academic achievement for all students.

### *Methodology*

#### **Participants**

This study took place in a rural elementary school in Wisconsin with an enrollment of approximately 240 diverse students. The study included 13 students; five girls and eight boys.

All students received special education services: seven received services for learning disabilities, one for cognitive disabilities, four for emotional and behavioral disabilities, and one student was on an at-risk consult plan. Five of these students also received speech and language services two received occupational and/or physical therapy services, and one student was in the gifted and talented program. All 13 students received free or reduced breakfast/lunch, and six students received weekly food donations through the Backpack Buddies program. Backpack Buddies provides eligible families with a bag of nutritional snacks and meals for use over the weekend. Nine students were Caucasian, two were African-American, one was Hispanic and one was Native American.

### **Procedure**

The main question of this action research project was what environmental and/or instructional factors motivate learners to effectively monitor and control their own learning resulting in positive outcomes. The focus was on (a) implementation of multiple intelligence strategies into lesson plans and (b) activities encouraging parent involvement in the education of their child.

Prior to the start of this study, parents of the participants received a letter that (a) explained the research, (b) promoted further questioning if needed, and (c) requested consent for their child's participation. Upon given consent, parents were asked to complete two surveys and one questionnaire (see Appendix A). The first survey addresses parents' feelings on the importance of a variety of different actions they can participate in to connect the school and home environment. The second survey addresses the frequency of parent participation in these actions, as well as what factors help or hinder participation. The questionnaire was designed to obtain parents' input on their child's intelligences and learning styles. A baseline of parent involvement was developed from the information received via the surveys and communication between researcher and parents. Participants were given two assessments designed to identify their intelligences or individual pathways of learning (see Appendix B), as well as determine strengths and weaknesses. Multiple intelligence inventories are means to aid in understanding overall personality, learning preferences and strengths. These inventories are meant to be used as a diagnostic instrument so that classroom instruction can be designed to meet the strengths of all students. The two assessments were similar in format and measured the same outcomes. The first assessment was done with the teacher; the second assessment was done individually by each student. It was felt that using multiple assessments would produce more reliable results. A baseline of academic achievement was developed for each participant through use of prior academic grades and progress reports and communication with former classroom teachers. Classroom lesson plans were then designed incorporating activities based on students' intelligences. Activities presented were designed to both reinforce areas of strength and develop areas of weakness. Parent involvement for each participant was tracked through use of take-home folders and weekly at-home activities.

### **Research Design**

At the start of this study all lesson plans were designed using multiple intelligence strategies and incorporated into all pullout classes (reading, math, and writing). Lessons were intended to be a larger projects, planned for one week increments that offered (a) differentiation, (b) choices, and (c) self-directed learning opportunities. Data collection tools included (a) surveys, (b) teacher observations and reflections, (c) individual and group conferences, (d) parent involvement data

(take-home folders/activities), (e) exit cards, and (f) progress and grade reports. Surveys gathered information on the level and extent of parent involvement and multiple intelligences strengths and weaknesses.

Observations and teacher reflections recorded information regarding (a) on-task behaviors (b) student emotions, and (c) thoughts or feelings verbally expressed by students. Data was also kept on the amount of time planned for each lesson and the actual time it took to complete lessons. Individual and large group conferences were held to allow adequate interaction between students and researcher in order to gather input about presentation of lessons.

Parent involvement data included signatures as proof of completed at-home activities and use of take-home folders to record the amount of parent involvement for each participant. After each lesson, students recorded opinions on exit cards. They were asked to comment on (a) interest level, (b) difficulty of tasks, (c) likes and dislikes, and (d) whether they thought they retained information from the differing styles of presentation and various activities. Grades from progress reports and quarter marks from the previous semester were examined and compared to grades students earned throughout the study.

By the end of October 2007, researcher's observations and reflections showed a need for a decrease in lessons incorporating new teaching strategies. It was noted that students were feeling overwhelmed by the new, less structured activities. These particular students had consistently demonstrated a high need for solid structure and step-by-step instruction. Presenting lessons that required them to make (a) individual choices, (b) think critically, (c) process open-ended questions and (d) ultimately take a role in their own education and learning, proved to be too much of a challenge for most of the students. The study was scaled back to focus on pull-out reading classes which presented better resources offer additional one-on-one instruction and guidance with these strategies.

## ***Results***

The object of this study was to increase student motivation by means of incorporating multiple intelligences strategies into lessons and to increase parent involvement in order to improve student academic achievement and foster self-directed learning.

### **Parent Surveys**

Prior to the start of my action research, I conducted multiple parent surveys. Two surveys assessed the level of parent involvement for each participant. These surveys focused on varying methods of parent participation in learning at home and in the school environment. The key focus was to obtain information on what strategies and activities were (a) important, (b) motivational, and (c) effective outside of the school environment.

Of the 13 parents who completed these surveys, six responded. All six who responded agreed that (a) providing routines, (b) consistency, (c) positive experiences and (d) talking to their child daily were the primary measures that should be taken at home to support learning. All of the respondents also agreed that (a) reading school newsletters, (b) attending parent-teacher

conferences, (c) reviewing homework, and (d) contacting teachers were central for supporting learning.

A third survey asked parents to provide input on their child's intelligences and how they felt their child learned best. The survey was given to the same 13 parents; six responded. Of these respondents, five indicated that their child benefits from (a) hands-on activities, (b) movement, and (c) group work, while one parent indicated that his or her child succeeds best through watching and listening.

### **Student Surveys**

At the onset of this study, students were given multiple intelligence indicator survey to determine which sorts of learning would be most effective. Research has shown that student background and age can affect the development of multiple intelligences. Discovering an individual's learning strengths can aid in increasing academic achievement and strengthening the less used intelligences (Perini Silver, and Strong, 2000; Moran, Kornhaber & Gardner, 2006). The goal of this study was to motivate students by providing access to learning through students' dominate intelligence, and also to cultivate intelligence areas less often used. Of the 13 participants surveyed, seven indicated bodily-kinesthetic as their foremost intelligence, two identified with interpersonal intelligence, two with logical-mathematical, one with intrapersonal, and one indicated visual-spatial.

### **Teacher Observation and Reflections**

During this study, weekly group observations were conducted related to (a) on-task behaviors, (b) participant comments associated to lessons or strategies used, and (c) time spend on individual lessons. Observations were recorded during (a) instruction sessions, (b) participant work time, and (c) assessment periods. Observations were scheduled 15 minute sections divided into three minute increments. Every three minutes, the group was given a plus or minus for on-task behaviors and positive or negative comments, for a total of 5 marks each session.

Comments made by participants were noted for later reflection. Each observation period was then rated as positive or negative based on the comparison of pluses to minuses. For example, during one observation students received three minus marks and two plus marks, therefore the results of this observation would be negative. After rating each observation session during the week, all observations were then compared for an overall result. For example, during week one six observations were completed. Four of the six observations received a negative result, therefore, week one was viewed to be overall negative or unsuccessful. Observations were completed during each of the 10 weeks of this study. Weeks one, two, four, and six resulted in negative outcomes and were therefore viewed as unsuccessful. Weeks three, five, seven, eight, nine and ten resulted in positive outcomes. These results show a favorable reaction (60%) towards the teaching strategies and lessons used during the ten weeks of this study. The fact that the last four weeks of the study were consistently positive further illustrates the promising impact of this specific teaching approach.

### **Conferences**

Twice a month individual or group conferences were held with the participants. Guiding questions were presented to help keep discussion flowing, but conferences were participant-led, open conversations in which they could express concerns or thoughts about (a) instruction, (b)

activities, (c) assignments, or (d) other classroom related issues. During these times, remarks on areas that pertained solely to the study were recorded.

Much of the feedback noted from participants (personal communication, 2007) included statements such as:

- “I need more direction. It’s hard for me to follow what I am supposed to do.”
- “I really like all the choices we are getting. It is a lot more fun than my other classes. I think I do better when we get to pick what we want and work in groups.”
- “I don’t get it. Why can’t you just tell us what we are supposed to do?”
- “It takes too long to do all this stuff. Why are we doing it like this and not like our other classes?”
- “I really like doing Reader’s Theater for reading class. I like pretending to be someone when I’m reading instead of just reading out loud.”
- “It seems like we are repeating a lot of stuff but in different ways. I know it help me remember better so I like doing it.”
- “I love that we can be up and doing things. It is so boring to just listen to a teacher talk and then do homework. Most of the time I tune them out anyway.”

### **Parent Involvement Figures**

Once a week parents were asked to complete an activity or assignment with their child at home. A parent signature, typically followed by teacher-student conversation regarding the activity or assignment, was required as proof the activity was done together. Also parents were asked to read through and sign daily take-home folders which included school-related information and homework. Of 13 participants, eight had parent involvement on weekly activities or assignments more than 80% of the time, four had parent involvement at least 50% of the time, and one participant had parent involvement 0% during the study. Of the 13 participants, six had signed take-home folders 95% of the time, six had signed 50% of the time and one did not have take-home folders signed at any time during the 10 week study.

### **Exit Cards**

During this study students were given exit cards upon the conclusion of a session or unit utilizing multiple intelligence strategies. The cards monitored (a) interest level, (b) perceived difficulty of activities, (c) likes and dislikes, and (d) whether students felt they learned or retained information better from the presentation format. During the 10 week study, students completed 14 different exit cards on (a) assignments, (b) activities, (c) projects, and (d) assessments. Interest level was rated as (a) low, (b) medium, or (c) high.

Of 182 responses, 33 rated interest level as low, 62 rated interest level as medium, and 87 rated interest level as high. Difficulty level was ranked as (a) easy, (b) medium, or (c) hard. Of 182 responses, 19 (10.4%) ranked difficulty level as easy, 64 (35.2%) ranked difficulty as medium, and 99 (55.4%) ranked difficulty level as hard.

### **Existing Records/Grade Reports**

A baseline of academic achievement was developed for each participant using (a) quarter reports, (b) semester grades, and (c) teacher communication. Third and fourth quarter grades for each participant were averaged to calculate a semester grade for the 06-07 school year. Comments



from teacher communication were noted and used for reflection regarding effort and achievement. Midway through and upon the completion of the study, academic achievement was assessed for each participant using the same criteria. First and second quarter grades for each participant were averaged to calculate a semester grade for the 07-08 school year. The assessments were then compared for academic growth and achievement. Figure I shows 8 of the 13 participants made academic growth over the 10 week span.

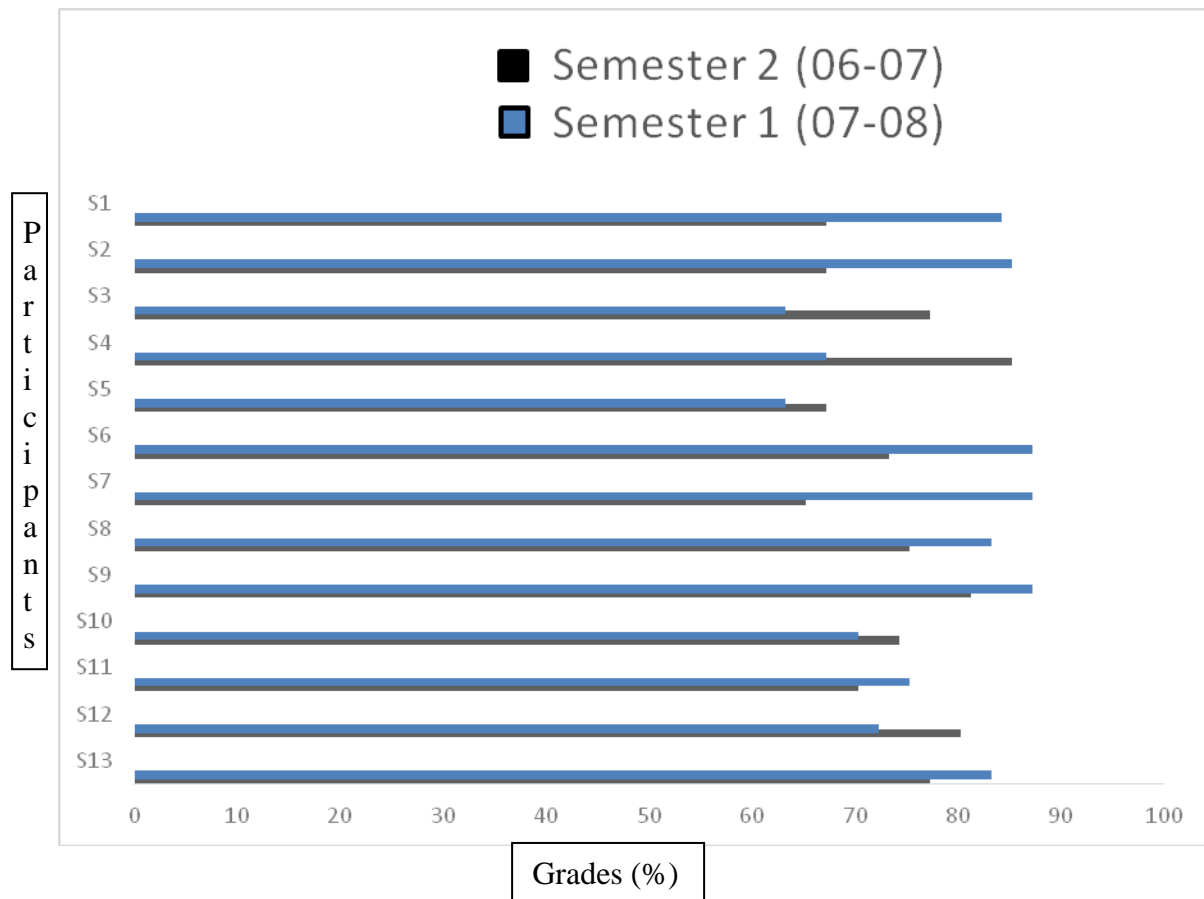


Figure I. Participant Academic Progress Discussion

After analyzing the results from this study it's clear that parent involvement and the use of multiple intelligences strategies can have a positive effect on motivation and academic achievement. Although midway through the ten week study, teacher observations and student comments suggested a need to reduce the implementation of new strategies, at the end of this study students were noticeably more motivated towards learning. In my experience, students with disabilities often function more successfully in an environment that offers rigorous (a) structure, (b) consistency, and (c) routine. Even though participants had been successful with the tasks presented using multiple intelligences strategies, they felt as though the school day was a blur and learning was something they were chasing after rather than pursuing at their own pace. Rather than continuing to implement multiple teaching strategies into all lessons, pullout reading

classes became the focus of the study. This offered a slower paced environment and allowed more one-on-one instruction when needed. After analyzing the results from this study, it is clear that parent involvement and the use of multiple intelligences strategies can have a positive effect on motivation and achievement.

At the end of this study students were noticeably more motivated towards learning. Participants whose parents were involved in their education during this study, by means of the designated activities, completed more homework and expressed less concern for assigned work compared to those who did not have a high level of support at home. It is my deduction that students with additional home support feel less academic pressure and could therefore focus more on learning, knowing they had resources to support them both at school and home. Most students showed more enthusiasm toward their learning and were willing to take more risks when it came to (a) assignment, (b) group work, (c) projects, and (d) assessments. This was evident by comments made on exit cards and during conferences. The results of exit card responses confirms that during the 10 week study, teacher instruction and student learning was at the desired and effective level: instructional or independent, offering students a challenge with room to grow. Likes and dislikes, as well as whether information was retained better, were recorded through use of personal statements. These statements were analyzed and used to make necessary changes to (a) instruction, (b) activities, (c) assignments, and (d) assessments. Comments from group conferences supported the need for a high level of (a) teacher-student interaction, (b) direction and (c) support, but also indicated the strategies were promoting motivation and academic success. At the end of each month (a) reflections, (b) identified themes, and (c) necessary changes related to the study were reviewed and addressed.

It was also noted students seemed to retain and recall information more successfully when materials were presented using a variety of multiple intelligences strategies; which proved true through (a) assignments, (b) student work time, (c) projects and (d) assessments. Students also appeared to be more focused and on-task during lessons in which these strategies were incorporated.

Incorporating multiple intelligences strategies in classroom lessons has given these students more confidence and the ability to use strengths to generalize skills across settings, which is an essential goal for students with disabilities. For example, one 5<sup>th</sup> grade participant; coming from a dysfunctional home setting, reading at a beginning kindergarten level, and highly unmotivated due to lack of success over almost the entirety of her elementary years; greatly benefited from the performance tasks that focused on intelligences other than those geared for reading or writing. This participant's academic success flourished when working with the visual-spatial and bodily-kinesthetic intelligences. Based on the results of this study, it is highly recommended that supporting parent involvement and incorporating multiple intelligences strategies into lessons be a principal priority of all teachers.

### *Limitations*

This study was conducted in a cross-categorical special education classroom. The variety of differing abilities and disabilities is far greater than those of a single category special education or regular education classroom. Student needs often interfered with (a) planned lessons, (b)

activities, and (c) schedules. Many participants also received additional related services such as (a) Speech & Language, (b) Occupational or Physical Therapy, and (c) Guidance. Participants were frequently pulled out of class to receive such services. A great deal of teacher interaction and support was needed and utilized during this study which may have facilitated the positive results. Regular education or other classrooms may not have the same access to additional staff assistance such as teacher aides and program resources. In addition, this study focused on a small number of participants. Results may vary with a larger group or within a regular education setting. However, even with these limitations, this study confirms the effectiveness of parent support and multiple intelligences strategies.

### ***Conclusion and Implications***

Environmental and instructional factors significantly impacted student motivation and academic achievement during this study. Teachers have a responsibility to their students to provide instruction and lessons that offer access to education for all learning types. Integrating multiple intelligences strategies is one method that has proven effective in classroom instruction. In my opinion, these strategies not only provide learning pathways for all students, they also foster the development of well-rounded critically thinking students. Participants have gained confidence and knowledge of themselves and what they can accomplish. They have set realistic goals for their future and are working hard to achieve them. This study has also shown that developing and supporting parent involvement in learning can lead to increased student motivation and positive academic achievement. Participants had less anxiety and were more likely to complete homework successfully when they knew their parent(s) were actively supporting them at home.

Although I previously integrated a variety of different teaching strategies into classroom instruction, this study has led me to believe multiple intelligences strategies are an efficient method of providing valuable access to learning for all students. The results of this study have led me to re-structure how I design lessons, activities and assessments. Furthermore, I have found that teaching students how they learn best has opened the door to earning and bolstered confidence and self-esteem for many of my students.

### ***Action Plan***

I plan to continue use of multiple intelligences strategies in my teaching as well as develop and support parent involvement. Depending on my student caseload, the time frame and extent of incorporation of these strategies will vary so as to bypass the similar difficulties that developed in this study. For example, for students who are working significantly below grade level and are more productive with structured lessons and activities, I may elect to focus solely on strategies to enhance dominant intelligence rather than trying to expand on less developed or all intelligences. I have already begun to create a monthly newsletter designed to inform parents on research, strategies and activities they can integrate in the home. I would also like to collaborate or team-teach with a regular education teacher utilizing these strategies. I have seen first-hand the positive effects of this study and feel this would be an excellent way to integrate students with disabilities into the regular education (inclusion) classroom more effectively as well as increase motivation and academic achievement in a greater number of students.

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## APPENDIX A

### Parent Surveys

*Which of the following do you feel are the most important things parents can do at home to help their children do better in school? (Please mark all that apply).*

- Manage your child's TV time
- Teach your child to listen and follow directions
- Show your child respect and expect him/her to respect others
- Talk with your child about his/her homework
- Provide daily routines for your child
- Help your child develop homework routines
- Provide a variety of experiences for your child
- Teach your child actions and consequences
- Try to eat one meal a day with the entire family
- Give your child practice exercising responsibility
- Talk and listen to your child's problems, concerns, etc. daily
- Employ firm, fair and consistent discipline at home
- Set a good example by being honest, respectful and tolerant of others
- Read to or with your child daily

Other:

*How do you support your child's learning? (Check all that apply)*

- Read newsletters from school
- Talk to my child's teacher at least monthly
- Visit my child's school during school hours
- Visit my child's school during parent events (parent-teacher conferences, open house, etc.)
- Review my child's homework regularly
- Volunteer for school activities
- Teach at home
- Participate in parent groups (PTA, committees, parenting classes, etc.)

Other:

## Parent Survey

Please tell us if you do the following:

	Always	Sometimes	Never
Attend Open Houses or parent-teacher conferences			
Volunteer for School activities			
Chaperone or accompany students on field trips			
Participate in Parent-Teacher-Student Organizations			
Attend student programs or performances			
Visit your child's classroom during the school day			
Contact your child's teacher about school work			
Limit the amount of time your child watches TV, plays video games, or surfs the internet			
Read with your child at home			
Make sure your child does his/her homework			
Help your child with homework when needed			

Please mark if each of the following is true or false:

	True	False
Lack of transportation reduces my involvement		
Family health problem reduces my involvement		
Lack of available care for my children or other family members reduces my involvement		
My work schedule makes it hard for me to be involved		
The school does not encourage my involvement		
Information on how to be involved either comes too late or not at all		
I don't feel like it is appreciated when I try to be involved		

Please rate your school on the following:

	Excellent	Good	Fair	Poor
The school's overall friendliness				
The school's effort to encourage communication between parents and teachers in a variety of ways				
The school's interest in parents' ideas and opinions				
The school's efforts to get important information from parents				
The school's efforts to give important information to parents				

## Parent Questionnaire for MI Assessment

*Dear Parent(s)/Guardian(s)*

*I am in the process of assessing your child's natural talents and strengths in the multiple intelligences areas. Please complete the following questionnaire and return it to me. Your input is highly valuable to this process.*

Student Name \_\_\_\_\_ Date: \_\_\_\_\_

1. What do you feel is your child's favorite subject in school?
  
2. What are your child's hobbies and interests outside of school?
  
3. Check all the things your child is good at:  

Reading \_\_\_\_\_ Writing \_\_\_\_\_ Speaking in front of others \_\_\_\_\_  
Art \_\_\_\_\_ Music \_\_\_\_\_ Movement \_\_\_\_\_  
Working Alone \_\_\_\_\_ Working w/ others/team \_\_\_\_\_  
Building activities \_\_\_\_\_
4. What is your child's favorite way to learn about things?
  
5. What skill, activity or subject would you like to see your child improve most in?
  
6. What improvements or changes could be made to make learning more interesting and meaningful to your child?
  
7. What careers do you feel may interest your child in the future?

Multiple Intelligences Test – based on Howard Gardner's MI Model

[http://www.businessballs.com/freepdfmaterials/free\\_multiple\\_intelligences\\_test\\_young\\_people.pdf](http://www.businessballs.com/freepdfmaterials/free_multiple_intelligences_test_young_people.pdf)