INCREASING READING MOTIVATION IN ELEMENTARY AND MIDDLE SCHOOL STUDENTS THROUGH THE USE OF MULTIPLE INTELLIGENCES

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ABSTRACT

The problem is that with each passing year it becomes increasingly harder to maintain student motivation to read and improve reading comprehension. The purpose of this project was to increase reading motivation in elementary and middle school students through the use of multiple intelligences. This project was conducted by four teacher researchers who taught in the second, fourth, sixth, and eighth grade levels. The 2nd and 4th grade teachers taught all subjects while the 6th and 8th grade teachers taught reading and language arts. There were 26 second graders, 25 fourth graders, 46 sixth graders and 33 eighth graders used in this study, for a total of 133. The research study began on Monday, January 29, 2007 and concluded on Friday, May 11, 2007.

There were three tools used in this project to document evidence of the problem. The first tool was the observation tally sheet. During four 15-minute sessions of SSR, teachers made tally marks when one of the 15 listed behaviors was observed. Out of the 15 listed behaviors, four behaviors made up more than half of the total observed. These behaviors were staring into space, fidgeting, lack of interest, and not paying attention. The second tool was the student survey, which gathered information on student reading habits. The survey included nine questions created to determine students' feelings towards reading. Students were asked on a pictorial lichert scale to circle the expression that best suited their response. Although students believed they read well and enjoyed being read to by their teacher, the survey showed that students did not read at home, did not enjoy reading for fun, and were not comfortable visiting a library or reading new words. The third tool, the teacher survey, was used to gain insight on the lack of reading motivation and corrective strategies used by teachers at Sites A and B. This tool measured that the lack of reading motivation is common in other classrooms as well as the teacher researchers. It also showed that the two most common intelligences addressed in the classroom were verbal/linguistic and interpersonal, while the least common were intrapersonal and naturalistic intelligence.

The teacher researchers chose to implement multiple intelligences as their primary solution to increasing reading motivation in elementary and middle school students. Multiple intelligences incorporate eight major intelligence areas. These areas, as defined by pioneering educators Howard Gardner and Thomas Armstrong, are titled: linguistic intelligence (word smart), logical-mathematical (number smart), spatial intelligence (picture smart), bodily-kinesthetic (body smart), musical intelligence (music smart), interpersonal intelligence (people smart), intrapersonal intelligence (self smart), and naturalist intelligence (nature smart) (Lash, n.d.). The intelligences reflect the structure of individual languages; the power restraints in yourself, expectations of others, cultural pressures, and accepted norms of thinking; and work to solve a problem or make a product (Chapman, 1993). Each person is born with all eight intelligences (Chapman, 1993) and it is therefore recommended that teachers use a variety of ways to teach a lesson (Safi, 1996).

One of the most notable results of this study was a major decrease in non-movement and movement behaviors during SSR. Students became skilled in selecting books and choosing activities that suited their dominant intelligence. The results of the student survey showed that there was an increase of students reading at home, visiting a library, and feeling comfortable and confident when approaching a new word in reading. Through this study, the teacher researchers became more tolerant of students' needs and behaviors that are attributed to their dominant intelligence.

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

With each passing year it is becoming increasingly harder to maintain student motivation to read and improve reading comprehension. The behaviors that define the problem area and contribute to poor academic achievement and learning environment are off-task behaviors such as not paying attention, fidgeting, staring into space, and demonstrating a lack of interest. One of the methods used by teacher researchers to provide evidence of this problem was a student survey that assessed feelings on reading habits. Another method was an observation checklist administered during several sessions of Silent Sustained Reading (SSR). The final method was a teacher survey containing three sections which included a checklist of student behaviors exhibited during reading instruction, teacher strategies related to multiple intelligences that can be used in the classroom, and an area to report the multiple intelligence strategies that worked most effectively.

Immediate Context of the Problem

This project was conducted by four teacher researchers. Two of the teacher researchers taught sixth and eighth grade at Site A. The other two teacher researchers taught second and fourth grade at Site B. The detailed information at each site can be seen in the subsection below: Site A and Site B. All information in this subsection had been obtained from the appropriate *Illinois School Report Card*, 2005, unless otherwise noted.

Site A

The teacher researchers at Site A taught middle school communications covering reading and language arts. All data in this section is from the *Illinois District Report Card*, 2005, unless otherwise specified. Site A is a middle school housing 787 students in sixth through eighth grade. It is one of five middle schools in the district. Of the 787 students enrolled, the majority were Hispanic. Refer to Table 1 for the percentage breakdown of racial/ethnic background.

Table 1

Racial/Ethnic Background by Percentage

	Hispanic	African American	Caucasian	Asian/ Pacific Islander
School	67	21.7	8.5	2.5
State	18.3	20.3	56.7	3.7

The majority of the student body had low-income status at 71.4% compared to the state which had only 40%. However, according to teacher researchers, the mobility rates seem low.

The truancy, mobility and attendance rates are as follows:

Table 2

Attendance, Truancy, and Mobility Rates by Percentage

	Attendance	Truancy	Mobility
School	94.5	8.6	8.3
State	93.9	2.2	16.1

According to the 2005 School Report Card, Site A's district had 903 teachers out of 128,079 teachers for the state. Of the district's 903 teachers, 227 were male and 676 were female. Similar to the state, the majority of teachers are made up of Caucasian American with

77.4%. Refer to Table 3 for the percentage breakdown of teacher's ethnicity in the District and State.

Table 3

Teacher Racial/Ethnicity Information by Percentage

	Caucasian	Hispanic	African American	Asian/ Pacific Islander
District	77.4	12.1	8.1	2.4
State	84.3	4.5	9.9	1.2

The average district teacher salary was $49,607 compared to the state average salary of $55,558. The education levels in the district vary with only 39.3% of teachers with a Master's and above in the district compared to 49.1% in the state. Refer to Table 4 for the breakdown of educational experience.

Table 4

Teacher Educational Experience by Percentage

	Average Teaching Experience	Teachers with bachelor's degree	Teachers with masters & Above
District	11.3 years	60.6	39.3
State	13.6 years	50.1	49.1

The ratio of teachers to students in the District for secondary education was 22.2:1. The average class size reported on the 2005 School Report Card was 15.5 for sixth grade and 15.9 for eighth grade. However, according to the teacher researchers, these class sizes do not accurately represent teacher experience.

The core subjects taught in grades sixth through eighth consist of mathematics, science, social studies, and English/language arts. The curriculum followed the state standards and

performance descriptors that were laid out for each district. There was a disparity of minutes per day devoted to teaching core subjects when comparing the state and the school figures. Note that the amount of minutes allotted for each core subject was greater on the state level compared to the school.

Table 5

Time Devoted to Teaching Core Subjects (Minutes per day)

	Mathematics		Science		Social Studies		English/Language Arts	
Grade	6	8	6	8	6	8	6	8
School	41	41	41	41	41	41	82	82
State	52	50	43	44	43	44	104	93

The results for the overall Illinois State Achievement Test (ISAT) performance show that 45.7 % of students met or exceeded state standards in the 2003-2004 school year, compared with 53.2 % of students who met or exceeded the state standards in the 2004-2005 school year. The school percentages were significantly lower than the state averages which were 67.5% in the 2003-2004 school year and 68.9% in the 2004-2005 school year. The seventh grade ISAT science scores were above the schools overall performance at 56.4 % for the 2004-2005 school year and 68.4 % for the 2004-2005 school year. However, the eighth grade reading and math ISAT scores were either at or below overall school performance. Eighth grade reading scores were 46.4 % for the 2003-2004 school year and 53.1 % for the 2004-2005 school year. Eighth grade math scores were 36 % for the 2003-2004 school year and 42.1 % for the 2004-2005 school year.

Site A is composed of 30 school personnel, 50 teachers, and 15 paraprofessionals. School administration consisted of one principal and one assistant principal. The office staff consisted of

two full-time secretaries. Other school personnel included three grade level counselors, one part-time psychiatrist, one social worker, one bilingual liaison, one nurse, one truant officer, one police officer, four security guards, four custodians, two librarians, one computer technician, and seven cafeteria workers. The school was divided into teaching teams. The physical education team had five teachers, and the fine arts team had two art teachers, two full-time music teachers with a part-time band instructor. The sixth grade team consisted of five full-time and one part-time teacher. The seventh grade team consisted of six teachers and the eighth grade team was made up of four. The combo team consisted of six teachers, while the Gifted Accelerated Program team had five full-time and one part-time teacher. The bilingual team consisted of five teachers and the special education team has seven teachers. There are a total of 15 paraprofessionals which are dispersed amongst the building.

Site A is one of the original three middle schools in the district. Site A also housed the middle school Gifted Program for the district. The only CBDIII special education program for middle schools was also housed at Site A.

Site A is located on the south side of the town at the intersection of two busy roads. As you enter the school, the parking lot is to the right and a circular drive runs through the front of the school. Upon entering, you enter into the main hallway with the office directly to the right and the main gym directly ahead. If you follow to the right, past the office, you will come to the cafeteria on your left with other administrative and school personnel offices to the right. There is a hallway to the left of the cafeteria that leads you to the fine arts hallway on the left, or the sixth grade hallway to the right. If you return to the main entrance and head left, you will pass the library, a computer lab, and a main hall of classrooms. At the end of that hallway there is another

computer lab to the left and the bilingual hallway is to the right. If you were to continue straight you would continue through the main hallway passing seventh and eighth grade classrooms. There are three entrances to go upstairs. One entrance is across from the library, another at the beginning of the seventh and eighth grade hallway, and a third at the end of that hallway. Upstairs houses the combo and GAP teams with some special education classrooms. On the south side of the building is a large field used for various PE activities. In front of the building there is a large grassy knoll.

Many students at the middle school level lack interest and motivation in reading. Unfortunately too many students view reading as boring or a waste of time. It is becoming harder to choose material that holds the interest of everyone and at the same time covers what is necessary according to the curriculum. This brings in the issue of available funds. If material is outdated, in order to have new, more interesting material for a group of students it most likely will have to be purchased by us. However, in some cases not at all if the school or district is unable to purchase it for us. This puts us in an awkward position and we sometimes have to settle with what we were given. Maintaining student interest is hard in a large class because students, especially middle schoolers, have differing interests. What part of the class may enjoy might be of no interest to the rest of the class. Therefore, it is a struggle to motivate and keep all students engaged in their reading. Since it is such a struggle to even get students motivated to read, you can imagine the problems that surface in reading comprehension scores. We try to cover curriculum and make sure Adequate Yearly Progress is met with students that are reading and achieving below grade level, most of which have English as a second language. The problems seem endless which is why we are taking a step towards improvement by incorporating lessons

designed around the students varying multiple intelligences. If we create lessons designed for our students and stretch ourselves to teach using a variety of different methods, hopefully student motivation will improve. Reading should start to become more enjoyable and something that students actually look forward to. Once the students become more motivated, their comprehension should improve over time. Incorporating multiple intelligences may be a small step, but it is a step in the right direction.

Site B

The school had a total enrollment of 417 students. The state had a total enrollment of 2,062,912 students. The elementary building at Site B was made up of six different races. The majority of the student body was Hispanic. Forty-nine point two percent of students at Site B were Hispanic compared to 18.3% for the state. Refer to Table 6 below for a complete ethnicity percentage breakdown.

Table 6

Student Ethnicity by Percentage

	Hispanic	African American	Caucasian American	Asian/Pacific Islander	Multiracial/ Ethnic	Native American
School	49.2	28.5	18.5	2.4	1.2	0.2
State	18.3	20.3	56.7	3.7	0.7	0.2

The socioeconomic status, referred to, as low-income rate in the school was 37.2% and the state was 40.0%. Table 7 below shows the chronic truancy, mobility, and attendance rates.

Table 7

Chronic Truancy, Mobility, and Attendance Rates

	Chronic Truancy Rate	Mobility Rate	Attendance Rate
School	4.0	22.8	94.2
State	2.2	16.1	93.9

According to the 2005 *Illinois School Report Card*, Site B's district had 903 teachers out of 128, 079 teachers for the state. Of the district's 903 teachers, 227 were male and 676 were female. Similar to the state, the majority of teachers are made up of Caucasian American with 77.4%. Refer to Table 8 for the percentage breakdown of teacher's racial/ethnicity in the district and state.

Table 8

Teacher Racial/Ethnicity Information

	Caucasian American	Hispanic	African American	Asian/Pacific Islander
District	77.4	12.1	8.1	2.4
State	84.3	4.5	9.9	1.2

The average district teacher salary was $49,607 compared to the state average salary of $55,558. The education levels in the district vary with only 39.3% of teachers with a master's and above in the district compared to 49.1% in the state. Refer to Table 9 for the breakdown of educational experience.

Table 9

Teacher Educational Experience

	Average Teaching Experience (Years)	Percent of Teachers with Bachelor's Degrees	Percent of Teachers with Master's & Above
District	11.3	60.6	39.3
State	13.6	50.1	49.1

According to the 2005 *Illinois State Report Card*, the district's elementary student-to-staff ratio was 21.5:1 compared to a ratio of 18.9:1 for the state. The average class size for second and fourth grades at Site B was not available in the 2005 *Illinois School Report Card*. Third grade was listed as 14.2 for the average class size. However, according to the teacher researchers at Site B the average class size was almost double this amount.

Site B had an adequate amount of time devoted to teaching the core subject areas. Site B spent 158 minutes per day teaching English/language arts as compared to the state spending 146 minutes per day. Mathematics was taught 90 minutes per day at Site B and the state spent 58 minutes per day. Science and social science was taught 21 minutes per day. The state spent 30 minutes per day in science and 31 minutes per day in social science. All of this came from the third grade information in the 2005 *Illinois School Report Card*. The curriculum followed the state standards and performance descriptors that were laid out for each district. For the academic year 2004-2005, 78.1% of the elementary students met or exceeded the Illinois Learning Standards according to their overall performance on the Illinois Standards Achievement Tests. The states overall performance was 68.9% that met or exceeded the Illinois Learning Standards. The students at Site B remained in the average overall in mathematics and science. However, the

reading scores at Site B showed only 61.1% of the students met or exceeded the Illinois Learning Standards.

Site B had a principal, two secretaries, three maintenance staff, three cafeteria workers, a nurse, a social worker, three speech/language pathologist, a psychologist, two interpreters, a librarian, a technology assistant, a reading coach, a part time Title I teacher, 15 paraprofessionals, a band teacher, an orchestra teacher, a physical education teacher, an art teacher, a music teacher, a language arts and literacy teacher, 11 full time regular education classroom teachers, and 10 special education classroom teachers. Band and orchestra was only provided for the fourth and fifth graders. The Title I teacher was assigned to first through third grade. The reading coach worked closely with the kindergarteners and first graders. Music, art, computers, and LAL are provided for 45 minutes intervals once a week. Library is 35 minutes per week and physical education is 25 minutes twice a week. The social worker, speech/language pathologist, and psychologist were available for students who have an IEP or for students that have academic/behavioral concerns. The interpreters and paraprofessionals were designated to special education classrooms for students who were in need of additional assistance.

Site B has met AYP for the last five years in a row as defined by the No Child Left Behind legislation. Site B houses many of the special education programs at the elementary level. Site B is the only school in the district that incorporates a yearly school wide field trip.

Site B is a two level structure. As you enter the front door, the gymnasium is to the right and the administrative offices are straight ahead. As you make a right turn before hitting the offices, you will see the nurse’s office on the right, followed by the staff lounge, kindergarten room, and ending with the library. If you turn to the left, you will pass the large multipurpose

room on the left and shortly enter a circular hallway that houses the first and second grade classrooms, along with a special education classroom. Directly above is another circular hallway which houses the art room, and the fourth and fifth grade classrooms. If you were to enter the building and walk slightly to the left, the offices will be on your right. You will enter a new hallway that houses special education classrooms. If you take the stairs at the end of the hall to the second level, you will notice the third grade regular education classrooms, more special education classrooms, and all of the specialist offices. Located on the east side of the building are a large playground, basketball court, soccer field, baseball diamond, and blacktop used for a variety of sidewalk activities. Site B does not have any technology labs, and utilizes the gymnasium as a cafeteria. The technology assistant travels around to each classroom with two computer carts.

Even though Site B is an elementary school, the same problems with reading motivation and comprehension occur as opposed to a middle school, Site A. We have to try and maintain student interest in a classroom with students of various abilities and learning styles. Reading is extremely important in the early years and to lose motivation and lack comprehension early on is a huge problem that will only get worse as students get older. Limited materials and lack of funds pose a similar problem as in Site A. So, in an effort to improve overall reading comprehension we need to start at the root of the problem, which is lack of interest and motivation.

Local Context of the Problem

Both Sites A and B are located in the same community. The community resides in the far northeast portion of the state along a lake. Site A is on the south side of the community while Site B is on the northwest side.

According to the 2000 census, the community had a total population of 87,901. It is the ninth largest city in the state by population. Of the total population, males made up 50.8 % of the population and females 49.2 % (American FactFinder, n.d., *U.S. census bureau*: *General characteristics*). Recent findings suggest that the estimated total population for 2004 jumped to 91,602, which was a change of 4.2 % (City-Data.com, n.d.). The median age for residents of this community was 29 years. The median household income in 1999 was $42,335, and the median family income was $47,341. The percentage of individuals below poverty is 13.9 %. Families below poverty level are 10.7 % (American FactFinder, n.d., *U.S. census bureau*: *Economic characteristics*). Refer to Table 10 to view the age distribution of the community.

Table 10

Age Distribution of the Community

	Under 5 yrs.	*6-17 yrs.	18 and over	65 and over
Percentage	9.6	12.7	69.8	7.9
Total Number	8,457	11,149	61,348	6,947

* The percentage and total number for 6-17 years was calculated by the teacher researchers due to absence of category.

The breakdown of race/ethnicity for the community can be viewed in Table 11 below. Note that the Hispanic population dominates the community; however teacher researchers believe that the percentage is actually higher (City-Data.com, n.d.).

Table 11

Race/Ethnicity of the Community

Race	Percentage
Hispanic	44.8
Caucasian Non-Hispanic	30.9
Other Races	23.0
African American	19.2
Two or more races	3.5
Filipino	2.1
American Indian	1.0
Asian Indian	0.6

The information found on educational attainment covers members of the community age 25 and older. The individuals with at least a high school diploma make up 66.5 % of the community. Those with at least a bachelor's degree are 16.3 % and those with at least a graduate or professional degree make up 5.5 % of the community.

There are 27,787 households and 19,450 families residing in the community. Out of which, 40.4 % had children under the age of 18 living in them and 49.5 % were married couples living together. Female householders with no husband present made up 14.6 %, 30 % were non-families, 24.2 % of all households were made up of individuals, and 7.5 % had someone living alone who was 65 or older. The average household size was 3.09 and the average family size was 3.68. The labor force population for 16 years and over is 42, 994, which is 67.6 % of the population. On the other hand, the unemployment rate for the community is 9.7 %. Many of the residents commute to other areas for work, so 5.3 % of the population is lost daily due to

commuting. Workers who live and work in this community make up 29.6 %. The main industries providing employment in this community were manufacturing (26.9 %), educational, health, and social service (14.6 %), professional, scientific, management, administrative, and waste management services (11.8 %) (City-Data.com, n.d.). The crime rate in this community is prevalent. Over the years, crime is becoming an increasing problem. Gang affiliation is an ongoing issue in this community. A shocking recent article determined that gang members in this community were estimated at 3,000 (MSNBC.com, 2006). However, a dispute was posted in another article arguing that there were only 1,400 gang members and only 20 % of them were considered hard core (Brenner, 2006). The following table, Table 12, demonstrates the various crimes present in the community (Crime in Illinois, 2004). Note that larceny has an overwhelming 1,878 acts during 2004.

Table 12

Crime Rates in the Community

Crime	Total in 2004
Larceny	1,878
Burglaries	388
Assaults	197
Auto thefts	196
Robberies	103
Rapes	24
Murders	3

This community first began as a French trading post in the late 17th century. It became the County Seat in 1841. The Chicago & Northwestern railway reached the town in 1855 and this stimulated interest in the community as a manufacturing center. Early settlers were attracted to this community as a port city and the community shipped produce and grain from counties to the

city. The town was incorporated as a city in 1859. Current improvements were being made to the harbor and lake front community and the downtown area. They were aiming for a reduction in industrial and commercial use of the lakefront (Martin, 2002). Some recreational opportunities include a large theatre in the downtown area providing a variety of entertainment to the community, the YMCA, a center for the Arts, park district, BMX track, yacht club, golf club, beach front area, youth sports programs, and a public library.

The community school district is composed of two early elementary schools, fourteen elementary schools, five middle schools, and three high schools. The district is run by one superintendent, one deputy superintendent and four associate superintendents involved with different divisions of specialized instructional programs and services. Site A has two main feeder schools, however Site A is a choice school so students from the entire community have the option to attend. Site B's attendance is determined by address location (Waukegan Community Unit District 60, 2006, *Schools*). The district mission statement reads as follows:

> Educating students for the world of tomorrow is our top priority. Through mobilization of the entire community, we will challenge, teach, and inspire our students. We will provide the resources to serve each of our students, expecting excellence from all involved. We will deliver an exciting education in a safe learning environment that celebrates our diversity and similarities in a spirit of unity and respect. (Waukegan Community Unit District 60, 2006, *Mission statement*)

Technology access in the schools and district is somewhat limited. Site A has three computer laboratories housing 20-30 computers in each and one traveling computer laboratory. Site B only has one traveling computer lab. In both sites teachers have an average of one to two

computers per classroom. According to the 2005 *Illinois School Report Card*, the local property taxes made up 47.1 % of the 2003-2004 revenue by source. The 2002 equalized assessed valuation per pupil was $61,456. The 2002 total school tax rate per $100 was 5.93 and the 2003-2004 instructional expenditure per pupil was $4,645.

We the teacher researchers deem that many of the problems we have with student motivation and reading comprehension may be resulting from the demographics, culture, and socioeconomic status of the community in which we live. The majority of the student population comes from low-income families, and many also coming from single parent homes. This may be attributed to reading typically not being viewed as a priority, families not utilizing the library, and homes lacking print materials. Parental involvement in their child's education may be lacking for many. As much as teachers stress the importance of reading, it needs to be reinforced at home as well. Language is an issue because too many students are coming in below grade level with limited English proficiency. However, if the parents do not speak or read in English, the students might not yet see the importance of it. With the community our students live in and the many struggles they already must endure, it is no surprise that they do not view school as something beneficial to their future. This makes our job as a teacher twice as hard. We need to begin by improving motivation to learn and read and once we have that we can work on improving their skills and comprehension. If we go above and beyond to make reading enjoyable and interesting to all through multiple intelligences then we can begin to maintain student motivation and move toward improving overall reading comprehension.

National Context of the Problem

Society and its members—families, individuals, employers, and governmental and private organizations—provide support for education in various ways, such as spending time on learning activities, encouraging and supporting learning, and investing money in education. Parents contribute to the education of their children in the home through encouraging them to learn and teaching them directly. Communities provide learning and values to their members through various kinds of formal and informal modes (National Center on Educational Statistics, 2003). However, through all this, students of lower socio-economic status often do not receive the same parental nurture and support of that of their white peers.

According to the National Center on Educational Statistics (2003), the poverty level of students sets the social context for their progress and achievement in school. In the 4th, 8th, and 12th grades, the average mathematics scores of students decline as the percentage of students who receive free or reduced-price lunch in the school increases. The percentage of students from families below the poverty line is highest in central cities and lowest in the urban fringe or rural areas within metropolitan areas (National Center on Educational Statistics, 2003).

In 1999, 16% of all children ages 5–17 lived in households where the annual income in the previous year was below the poverty level. Compared with students in other types of communities, students in school districts in central cities were more likely to be poor, and students in the urban fringe or rural areas within metropolitan areas were less likely to be poor (National Center on Educational Statistics, 2003).

Along with these conclusions, the differences in children's reading skills and knowledge appear to be present when children enter kindergarten and persist or increase throughout the first two years of school. For example, when children entered kindergarten (in fall 1998) and after

two years of school (in spring 2000), Caucasian children had higher assessment scores in reading than African American and Hispanic children, and children from poor families had lower scores than children from nonpoor families. Children with richer home literacy environments demonstrated higher levels of reading skills and knowledge when they entered kindergarten in 1998-99 than did children with less rich literacy environments. Children's home literacy environment varied by their poverty level, with poor children scoring lower than nonpoor children on a home literacy index. The percentage of poor and nonpooor children who participated in literacy activities with a family member increased between 1993 and 2001. Despite these increases, nonpoor children were more likely than poor children to engage frequently in certain literacy activities in 2001, such as being read to by a family member or being told a story (National Center on Educational Statistics, 2003). Without a positive learning environment in the home, it is difficult for students to maintain and increase reading skills and literacy in the classroom.

CHAPTER 2

PROBLEM DOCUMENTATION

Evidence of the Problem

The purpose of this research project was to increase reading motivation in elementary and middle school students. There were 26 second graders, 25 fourth graders, 46 sixth graders and 33 eighth graders used in this study, for a total of 133. The second and fourth grade teachers taught all general subjects and the sixth and eighth grade teachers taught communications (reading and language arts). The three tools used to document the problem evidence included reading observation tally sheet (Appendix A), a student survey (Appendix B), and a teacher survey (Appendix C). These tools were used within a two week time frame beginning Monday, January 29, 2007 and concluding on Friday, February 9, 2007.

Observation Tally Sheet

The purpose of the observation tally sheet was to observe the frequency of problem behaviors related to the lack of reading motivation. All participating students were observed by each teacher researcher. The observation tally sheet was used during four 15 minute sessions of silent sustained reading. The observation tally sheet was completed twice a week during the two week period of January 29, 2007 through February 9, 2007. There were 15 listed behaviors that were observed during each of these sessions (Appendix A).

There was a total of 723 behaviors observed, the data has been divided based upon movement and is represented between Figures 1 and 2. Of 723 observed behaviors, 430 (n=59%) were non-movement behaviors and the remaining 293 (N=41%) involved movement. Though the behaviors are separated between the figures, percentage calculations are based upon the total of

723. Out of the 15 listed behaviors, four behaviors made up 54% (n= 723) of the total observed. These behaviors were staring into space (n=119), fidgeting (n= 113), lack of interest (n=81), and not paying attention (n=82). Three out of these four most prevalent behaviors are non-movement behaviors.

Figure 1 demonstrates the frequency of occurrences for the non-movement behaviors observed during silent reading. Overall, staring (n=119), not paying attention (n=82), and lack of interest (n=81) were the highest percentage of the non-movement behaviors.

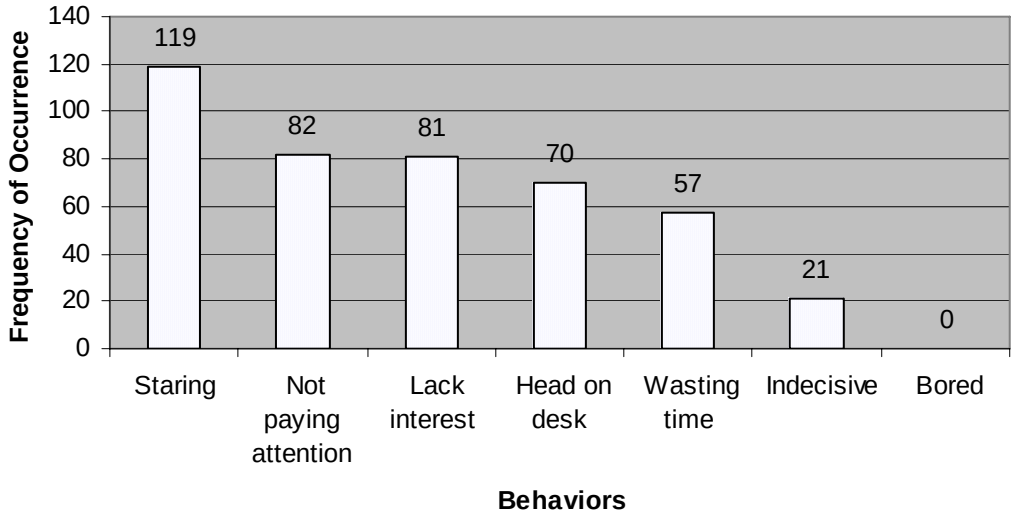

Figure 1: Silent Reading Behaviors: Non-Movement (n=430)

Figure 2 shows that fidgeting is the most pervasive movement behavior demonstrated in the classroom with a total of 113 occurrences. This is followed by flipping pages (n=66) and doing other work (n=44). Fidgeting, flipping pages, and doing other work represent 52% (n=223) of the total movement behaviors.

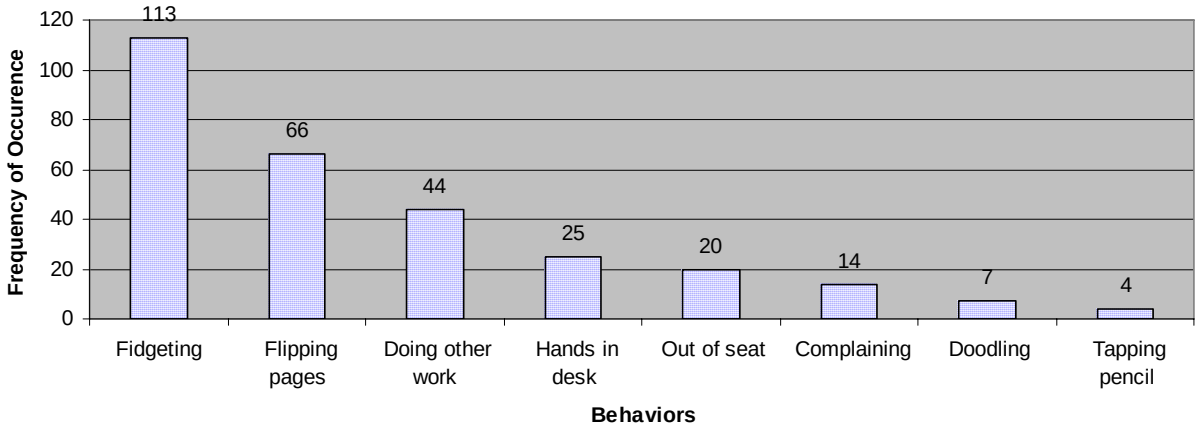

Figure 2: Silent Reading Behaviors: Movement (n=293)

Student Survey

The purpose of the student survey was to help the teacher researchers gather information on student reading habits. The survey was given on Thursday, February 1, 2007. This questionnaire was distributed to 33 eighth graders, 46 sixth graders, 25 fourth graders, and 26 second graders for a total of 133. All participating students completed the survey given to them by the teacher researchers. The survey included nine questions created to determine students' feelings towards reading (Appendix B). Students were asked to circle the facial expression that best described the way they felt. The expressions were labeled love it, like it, leave it, or loathe it. In each graph, the love it and like it data was grouped together and the leave it and loathe it data was grouped due to the importance of the meaning.

In the student survey, question one asked students how they felt about reading a book in school during free-time. Results showed that 51% (n=54) of students enjoyed reading during free-time in school.

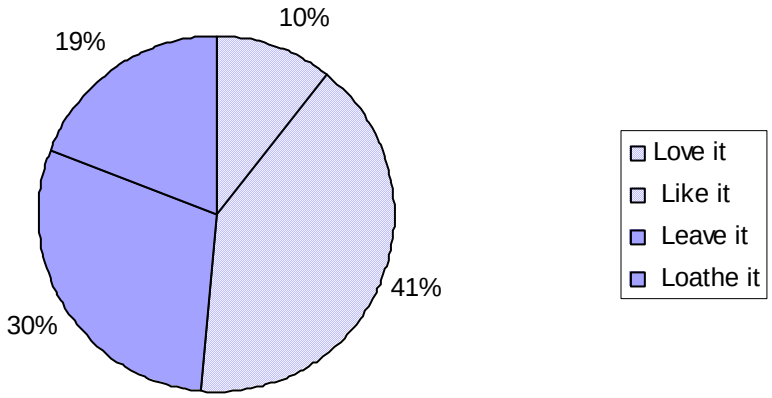

Figure 3: Reading During Free Time (n=105)

In question two, students were asked how they felt about reading for fun at home. Results showed that 66% (n=69) of students do not enjoy reading for fun at home.

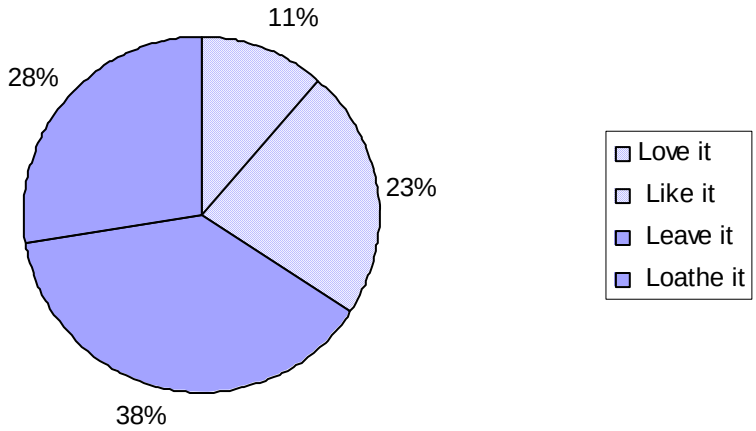

Figure 4: Reading For Fun at Home (n=105)

Question three asked students how they feel about reading instead of playing. Results showed that 79% (n=83) of students chose to play rather than read.

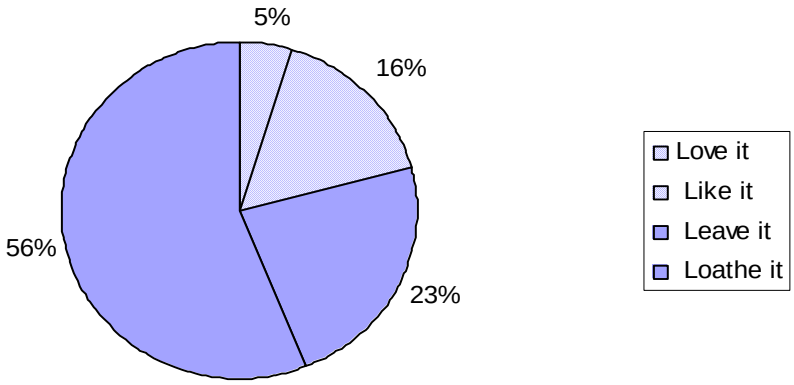

Figure 5: Reading Instead of Playing (n=105)

In question four, students were asked how they feel about reading different kinds of books. The data reveals 70% (n=74) of students enjoyed having their choice of reading material.

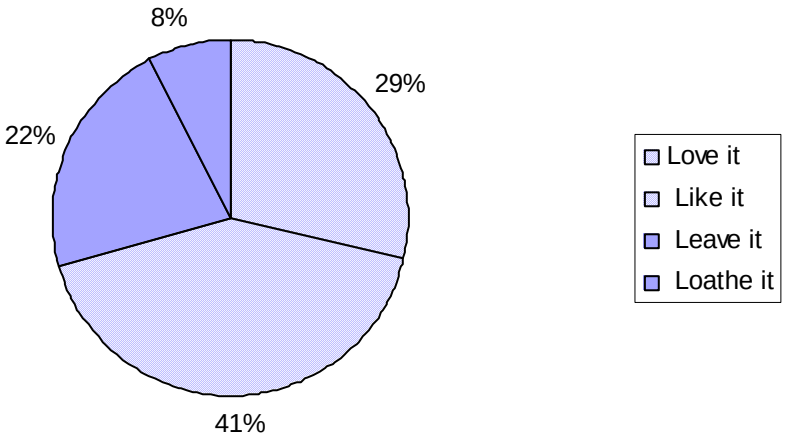

Figure 6: Reading a Variety of Books (n=105)

Question five asked students how they feel about how well they read. Overall, 81% (n=85) of the students believe that they read well and only 19% (n=20) feel that they do not.

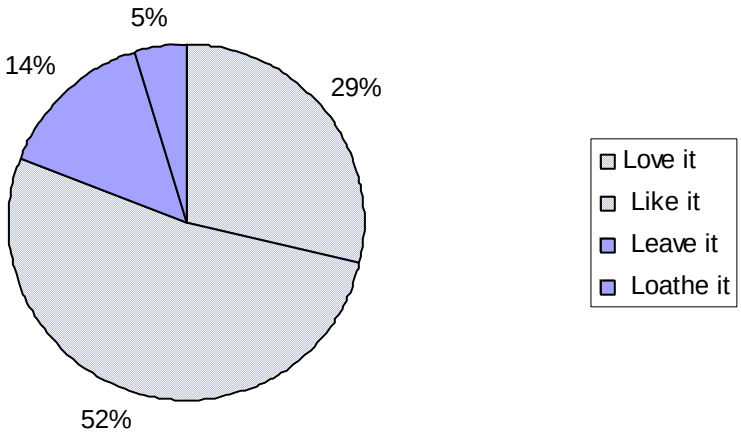

Figure 7: How Well Students Feel They Read (n=105)

Question six asked students how they feel when their teacher reads aloud. The survey showed that 81% (n=85) enjoy being read to by their teacher.

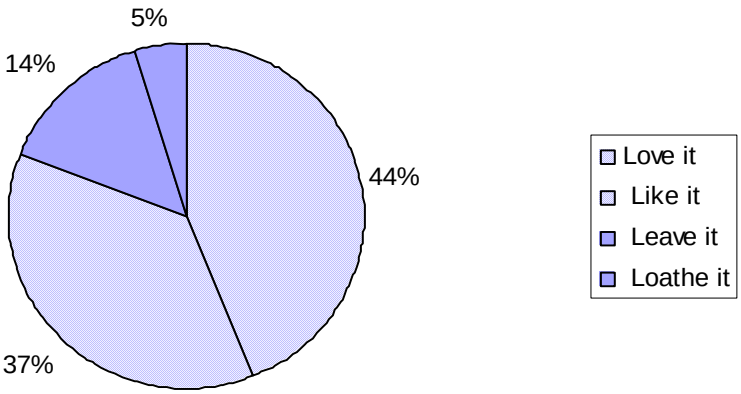

Figure 8: Teacher Read-Alouds (n=105)

In question seven students were asked how they feel when they come to a new word in reading. There was an even split among how students felt.

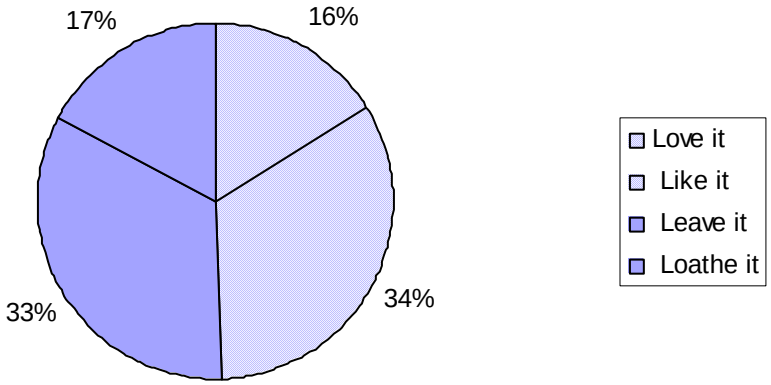

Figure 9: New Words in Reading (n=105)

In question eight students were asked how they felt when someone at home reads a book to them. The survey showed that 42% (n=44) enjoyed this activity, however 58% (n=61) did not.

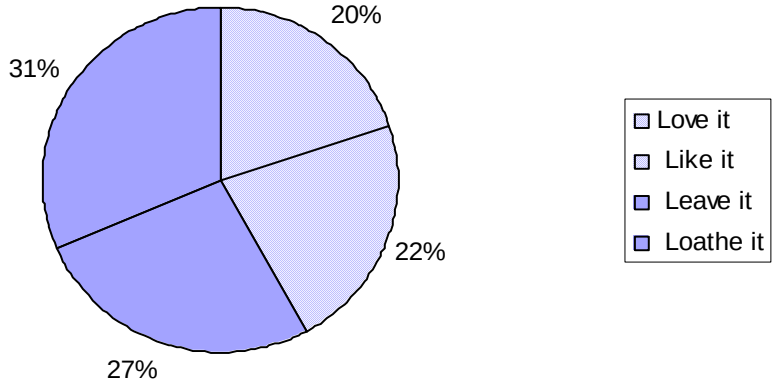

Figure 10: Someone at Home Reads Aloud (n=105)

Finally, question nine asked students how they feel about visiting a library. There is a marked difference in the number of students who enjoy visiting a library (n=69; 66%) as opposed to those that do not (n=36; 34%).

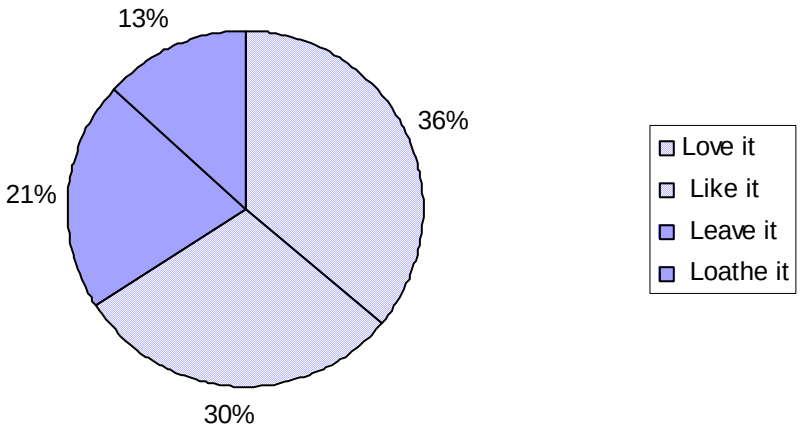

Figure 11: Visiting a Library (n=105)

Teacher Survey

The purpose of the teacher survey was to gain teacher insight on the lack of reading motivation and corrective strategies used by the teachers at Site A and Site B. The information measured whether the lack of reading motivation is common in other classrooms as well as the teacher researchers' classrooms. The survey was given by teacher researchers to approximately 50 classroom teachers during a staff meeting on Wednesday, February 7, 2007 at Site A. That same day the survey was given by teacher researchers to approximately 30 teachers at Site B. The percent rate of return was 84% (n=42) at Site A and 80% (n=24) at Site B. There were a total of three questions and a space for additional comments. The first two questions required that the teachers circle options best suited to their classroom. The final question allowed them to

fill in strategies that have worked in their classroom. An optional open ended comment section was offered (Appendix C).

Question one asked faculty to circle the behaviors they have seen students display in their classroom during instruction, reading, and/or discussion time. Figures 12 and 13 report 553 total behaviors observed in their classroom. There were 254 (46%) non-movement behaviors and similarly 299 (54%) movement behaviors. The four most seen behaviors were not paying attention (n=55; 10%), staring into space (n=48; 8%), tapping pencils (n=44; 8%), and wasting time (n=41; 7%).

Figure 12 demonstrates the frequency of occurrences for the non-movement behaviors observed through teacher classrooms. Overall, not paying attention (n=55; 22%), staring (n=48; 19%) and wasting time (n=41; 16%) were the highest.

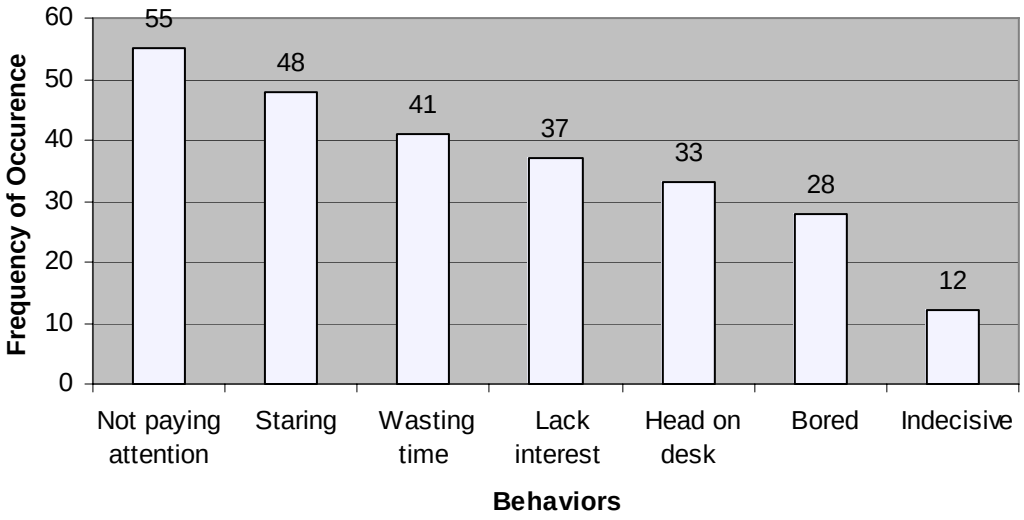

Figure 12: Silent Reading Behaviors: Non-Movement (n=254)

Figure 13 shows that tapping a pencil is the most frequently observed movement behavior in the classroom with a total of 44 occurrences. This is followed by doodling (n=37; 12%) and fidgeting (n=35; 12%).

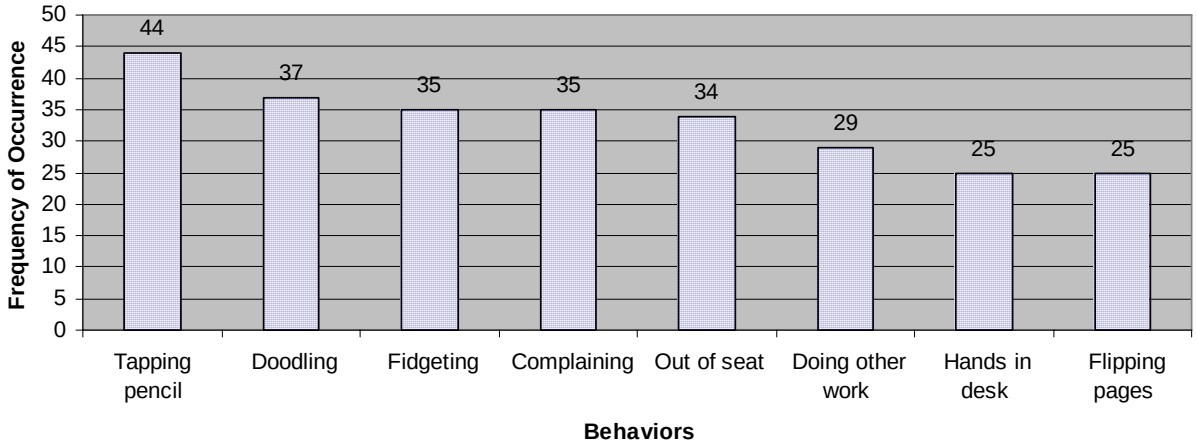

Figure 13: Silent Reading Behaviors: Movement (n=299)

Question two asked faculty to circle the strategies that they have used in their classroom. The total number of responses was 531. Interpersonal (18%, n=93) and verbal/linguistic (17%, n=92) were the most frequently used by the faculty. Conversely, naturalistic (6%, n=30) and intrapersonal (10%, n=55) were the least used intelligences. The following chart demonstrated in Figure 14 displays the breakdown of the multiple intelligences and the strategies used.

Intelligence	n	Total	%	Strategy	n=
Interpersonal	93		18	Cooperative Learning	53
				Creative Group Tasks	40
Verbal/Linguistic	92		17	Manipulatives	50
				Student Centered Learning	42
Musical/Rhythmic	69		13	Background Music	42
				Creating Songs	27
Visual/Spatial	69		13	Cognitive Organizers	36
				Art Materials	33
Logical/Mathematical	63		12	Venn Diagram	34
				Calculators	29
Bodily/Kinesthetic	60		11	Role-Play	35
				Stretching	25
Intrapersonal	55		10	Journaling	28
				Self Discovery	27
Naturalistic	30		6	Science Experiments	19
				Nature Walks & Talks	11

Figure 14: Multiple Intelligence Strategies Used in the Classroom (n=531)

Figure 15 emphasizes the breakdown of the total number of multiple intelligences used by teachers in the classroom.

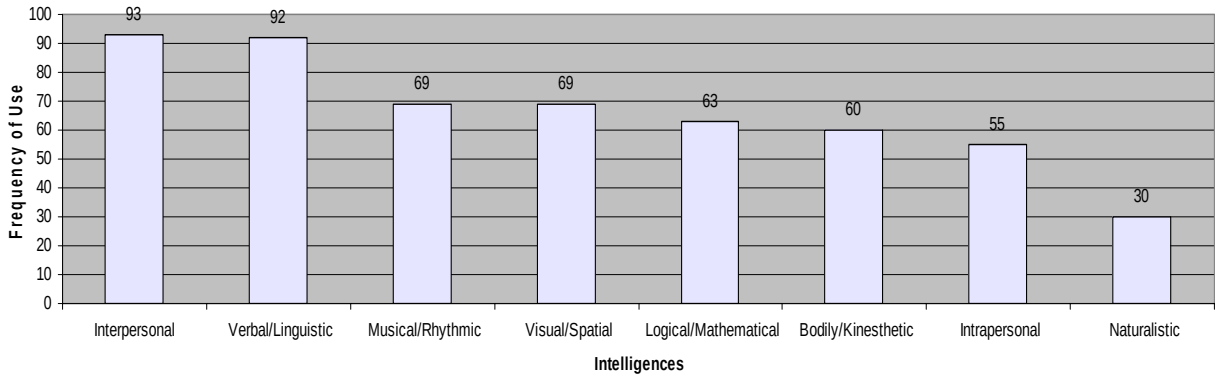

Figure 15: Multiple Intelligence Strategies Used in the Classroom (n=531)

Finally, question three asked faculty to fill in which strategies have worked in their classroom from those they had circled in question two. Once again, the findings (n=293) showed that interpersonal (n=93; 18%) and verbal/linguistic (n=92; 17%) were the intelligences that the faculty reported worked best. Naturalistic (n=30; 6%) and intrapersonal (n=55; 10%) were reported to work the least. The following chart demonstrated in Figure 16 displays the breakdown of the multiple intelligences and the strategies that teachers felt were most effective.

Intelligence	n	Total	%	Strategy	n=
Interpersonal	52		18	Cooperative Learning	32
				Creative Group Tasks	20
Verbal/Linguistic	52		18	Manipulatives	34
				Student Centered Learning	18
Visual/Spatial	38		13	Art Materials	20
				Cognitive Organizers	18
Bodily/Kinesthetic	36		12	Role-Play	23
				Stretching	13
Logical/Mathematical	36		12	Calculators	19
				Venn-Diagrams	17
Musical/Rhythmic	36		12	Background Music	18
				Creating Songs	18
Intrapersonal	25		9	Journaling	15
				Self Discovery	10
Naturalistic	18		6	Science Experiments	12
				Nature Walks & Talks	6

Figure 16: Effective Multiple Intelligence Strategies Used in the Classroom (n=293)

Figure 17 emphasizes the total use of effective multiple intelligence strategies that teachers use in the classroom. Interpersonal (n=52; 18%) and Verbal/Linguistic (n=52; 18%) were the most common intelligences used in the classroom.

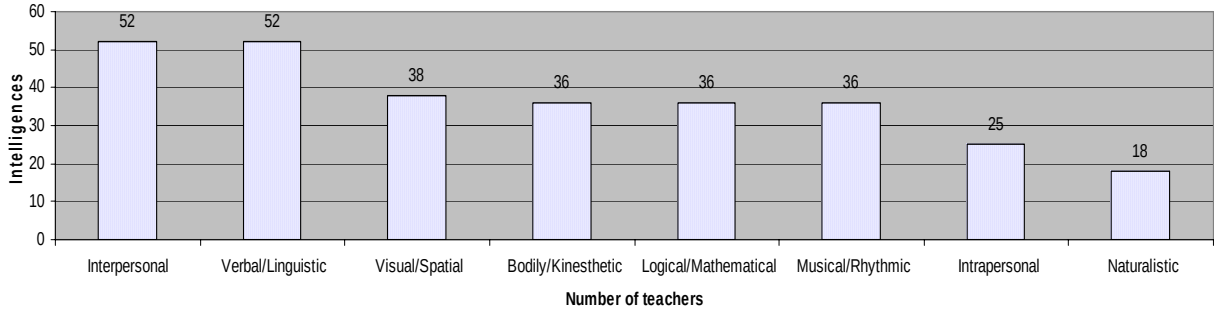

Figure 17: Effective Multiple Intelligence Strategies Used in the Classroom (n=293)

In addition to the questions asked on the teacher survey, teacher researchers were interested in any additional comments from their fellow colleagues. Some teachers had conflicting comments. For example, one teacher stated that a variety of music was beneficial; however, another teacher felt that background music could be distracting. The same issue appeared with the use of manipulatives. One teacher said that manipulatives were great when used in small groups, where as two teachers felt they were difficult to use in large group instruction. In one classroom, the teacher commented on how she used incentives to motivate students to work and monitors behavior with a monthly calendar. Another teacher felt that stretching and exercising over-stimulates students. It was noted that picture support for reading is helpful in the classroom. Finally, a special education classroom teacher uses one or more of the strategies listed above in every lesson.

Summary

Based upon the data collected in the observation tally sheet, the teacher researchers learned that the most prevalent behaviors were non-movement behaviors such as staring into space, lack of interest, and not paying attention (Figure 12). Most unmotivated students are unnoticed because they are not being disruptive in the classroom. The student survey showed that students are relating reading to school rather than a leisure activity at home (Figure 4). Another interesting observation was that although most of our students feel that they read well, they are not comfortable with new words. In both the observation tally sheet and teacher survey, three out of the four highest reported behaviors were non-movement behaviors (Figure 1). Overall, the two common non-movement behaviors (Figure 1) in both the observation tally sheet and teacher survey (Figure 12) were staring into space and not paying attention. In both questions two and three of the teacher survey (Figures 14 & 16), the results were similar due to the high use of interpersonal and verbal/linguistic intelligence, on the other hand, the least used intelligences were naturalistic and intrapersonal (Figures 14, 15, 16, & 17). If intelligences are not being used frequently, students will be unable to be successful in those areas.

The results of the student survey showed that there was no strong preference between whether the students enjoyed or did not enjoy reading during free-time (Figure 3). We also concluded that students view reading as a school activity rather than something they prefer to do at home (Figure 4). Overall, we determined that students prefer bodily/kinesthetic activities over reading (Figure 5). While analyzing data we noticed that there was a discrepancy between questions five and seven on the student survey (Figures 7 & 9). Although 81% of the students feel they read well, only 50% of them felt comfortable approaching a new word when reading

(Figures 7 & 9). As seen in Figure 8, there was a 39% increase in those who enjoy being read to by a teacher (81% as noted in question six) as opposed to by a parent (42%) (Figure 10). In addition, this validates our conclusion from question two in which students felt reading was a school activity rather than something they enjoy to do at home (Figures 3 & 4).

Overall from the teacher survey, the teacher researchers gained helpful perspectives into fellow colleague's strategies and opinions. We noticed that teachers focus mainly on traditional teaching methods which include interpersonal and verbal/linguistic. This style of teaching does not address the needs of students who have not fully developed these multiple intelligences (Figures 14 & 15).

After reviewing all the data, we feel that we need to use a greater variety of intelligences in our classrooms. This will help those students whose intelligences are not tapped to see reading as more than just a school requirement. We also feel that we need to pay attention to those non-movement behaviors our students display as a sign of their lack of motivation. To do so, we will continuously circulate the room, model activities, observe more closely through SSR, and offer a wider variety of appealing choices catering to gender, learning style, and reading ability. In addition to that, we need to model and practice a variety of strategies to strengthen our students' comfort level in new words and reading activities.

Probable Causes

For decades teachers, worldwide and from K-12th grade, have pondered the issue of lack of motivation on the student's part when it has come to reading. With each passing year this issue seems to get increasingly harder to tackle. According to the literature on this pressing issue, there seem to be an abundance of probable causes. These causes range from learning in a

traditional classroom, to students having different learning abilities, to students lacking skills, and also children having decreased enjoyment in reading.

A major cause for the lack of motivation in reading is the traditional classroom. In a traditional classroom, the teacher stands and lectures, writes on the board, assigns handouts (Stanford, 2003), as well as expecting the children to memorize many vocabulary words and their meanings for class (Safi, 1996). In a study observing more than 100 classrooms, 70% of the time was filled with teachers talking, followed by students working on their written assignments (Stanford, 2003). The emphasis in schools is on the logical/mathematical and verbal/linguistic intelligences. This means the other types are overlooked and the students who have these overlooked intelligences are at a disadvantage (Chapman, 1993; Ozdemir, 2006). Traditional teaching methods are not focusing on individual learning styles (Cluck, 2003). Teachers cannot continue to teach as they once learned. Teachers must work harder to keep up with the new demands of technology to properly prepare the students for their future (Wells, 2006). The greatest challenge is the time required in planning appropriate lessons and activities that reach and assess all the different levels of interest, readiness, and individualized profiles for every student. Classroom management becomes another issue because the teacher becomes a facilitator and no longer just a dispenser of knowledge (Corley, 2005).

The problem that Armstrong discusses in his article is the war on reading. Educators, researchers, and other stakeholders have been fighting over the best way to teach reading for several decades. In his article Armstrong refers to this as the literacy lion. One educator may believe that literacy is taught through whole words, another educator feels that literacy is best taught by sounds, a third educator may think it should be taught through stories and songs, and

others may think that in order to teach literacy skills we should encompass whole cultures and their triumphs and struggles. Each of these participants believes that their techniques are the correct ones for all of their students. Each side of the argument seems to have some truth to it. However, the main problem is that they are seeing only their side and not seeing the big picture. In order to effectively teach reading that meets the needs of our diverse student populations we must see the whole reading process. As long as we see the literacy lion in tunnel vision, we will be hampered in our ability to provide different kinds of learners with the experiences they need (Armstrong, 2004).

If reading is to become a motivational experience, we, the educators, must chip away at the traditional classroom (get out of our comfort zone) and begin to sculpt a progressive classroom. This classroom would allow the student to experience reading as a wonderful, fulfilling, and motivating occurrence.

Each classroom also faces the problem of a wide range of learning abilities. Students often have one intelligence they dominate in, where others may need a variety of intelligences (Safi, 1996). Everyone has their own comfort level in the classroom (Safi, 1996). Each child is born with a different capacity of the intelligences, is a unique individual, and sees the world in their own individualized way (Chapman, 1993; Lash, n.d.). Some students grasp strategies while others remain reliant on an isolated tactic (Marcell, 2005). Students who are failing, but not qualifying for special education need an alternative program and differentiated small group instruction (Rubado, 2002).

Another issue that many teachers have is the challenge of reaching and maximizing the learning potential of all students while recognizing the differences between them (Corley, 2005).

When attempting to use whole-group instruction with a multilevel class it is impossible to reach and even teach all the students (Saldana, 2005). Educators need to rethink their lessons due to the different learning abilities of students (Safi, 1996). If a teacher decides to implement differentiated instruction, they may face some challenges. Teachers need to be aware of the various readiness levels, interests of students, and learning profiles for each. Teachers must ensure that the needs of all their learners are valued and served equally. Teachers must understand and know their learners skill levels, strengths, challenges, interests, needs, preferences, and goals (Corley, 2005).

The U.S. Department of Education says school age boys read a grade and a half lower than girls. This is attributed to the fact that boys read less than girls, teachers urge boys to read the wrong books, boys only use half their brain at one time, and because of this boys need more stimulation when reading to get the other half of the brain working. Many women teachers are less respectful of boys' book choices and therefore promote more books that appeal to girls (Sullivan, 2004).

The changing demographics of family and community often determine the effects on the students learning capabilities. Students enter districts at different times, at different ability levels (Uhlir, 2003).

Many students tend to be inattentive, passive and disorganized. In a recent study conducted by Uhlir, many students lacked interest in reading which directly effected their reading growth. Students did not demonstrate a strong foundation of reading strategies, fluency, vocabulary, comprehension strategies, and even critical thinking skills. Many students did not see the relevance of the material being studied and were unable to relate it to their lives. Lack of

strategic reading skills caused many students to not participate in class or test well (Uhlir, 2003). Poor thinkers and poor problem solvers may have the skills to do it, but lack the use of skills they need to be successful (Stanford, 2003). These characteristics may be related to their failure to comprehend what they read (Uhlir, 2003). Reading and writing to some students can be referred to as a chore (Perrone, n.d.; Phi Delta Kappa Fastbacks, 1999; Williams, 2004/2005). Students have a tendency to be hesitant writers when they do not know the material (Glazer, 2005). Students struggle with deliberate decoding: cannot tell what happened or where it took place while reading a story. Children cannot make sense of books while reading (Marcell, 2005). Meaning is not always extracted from the text even though the words are being read (Kuersten, n.d.). Teachers want to find a strategy to help students come alive and independent without having to constantly prompt the student (Marcell, 2005). Students with learning disabilities show a deficit in verbal/linguistic and logical/mathematical intelligences (Stanford, 2003). Middle and high schoolers often lack skills to decipher more complex reading materials (Kuersten, n.d.).

In some cases, lack of motivation and skill continues to be a problem into adulthood. A study discussed in Saldana's article showed that even when individual work was required approximately half the class slept instead. When asked to write, students groaned, complained and many admitted that they were unable to write and some were unable to even spell or form coherent words. Even though implementing differentiated instruction would take a lot of work and energy, it was something that needed to be done (Saldana, 2005).

An additional probable cause for students' lack of reading motivation is decreased enjoyment. In a study documented by Uhlir, Students in a 5th grade classroom were not motivated to meet or exceed expectations in reading comprehension on assignments, tests, and

state tests. Students did not engage in self-reading materials; demonstrate a foundation of reading strategies, fluency, vocabulary, and comprehension strategies, or critical thinking skills. The majority of students did not enjoy reading free time, going to libraries or reading with their parents. Many students were uninterested in reading and when given SSR, often changed books repeatedly or worked on homework instead. Many students who checked out books from libraries never actually read them. Many students lack motivation and engagement. Today distractions like video games, television and other technological advances affect their motivation to read (Uhlir, 2003). Students do not love their work, rather they love television, movies, internet, etc (Uhlir, 2003; Williams, 2004/2004). Lack of motivation was noticed when there were incomplete homework assignments and a disinterest in subject matter (Cluck, 2003). In the early grade students love to read and use a variety of ways to become familiar and interest in reading. As you approach middle school and beyond the teaching style differs and students disengage from wanting to read for enjoyment let alone for their assignments. Teachers are in need to find ways to help students receive pleasure out of reading (Keeping Kids Reading, 2006; Williams, 2004/2005). Most chapters in a book are too long, which causes students to get bored easily (Glazer, 2005). Motivating students to engage in reading is a continual problem. The smartest/brightest students will not engage in reading without some type of motivation. Motivation to read had not been adequately researched as other reading aspects have been (Metsala, 1996/1997). Students lack motivation to succeed in school. Many factors contribute to the lack of motivation in students. Learners must learn how they are motivated, and what motivates them (Reading Rockets, 2005). Students are not motivated to read because they don’t see the relevance, benefits and it is not meaningful to their lives (Perrone, n.d.; Phi Delta Kappa

Fastbacks, 1999; Uhlir, 2003; Ozdemir, 2006). As a result of this, there are many students in the classroom today who are not learning. These students are labeled at risk, low achievers or unmotivated (Chapman, 1993). Students need to be further motivated to read without being told or having it suggested (Coleman, 2005).

Some students are naturally motivated, while others expect the motivation to come from their teachers. What is going on in the classroom, good or bad, will effect the motivation of the students. There is no magic formula for motivating students. Many factors affect the motivation level of students. Being self-motivated is not being taught in the classroom and should (Davis, n.d.). Attitudes about reading and interest in reading vary. Motivational constructs can influence reading engagement. Whether or not students like reading should effect how much they are motivated to read. Lack of reading motivation could come from reading efficacy, reading challenge, reading work avoidance, reading curiosity, reading involvement, the importance of reading, competition in reading, reading recognition, reading for grades, social reasons for reading, and reading compliance (Wigfield, 1997).

The probable causes for lack of reading motivation in elementary and middle school students were found in the teaching methods used in the traditional classroom, the wide variety of learning abilities, the lack of interest which leads to a lack of skill, and decreased reading enjoyment.

CHAPTER 3

THE SOLUTION STRATEGY

Review of the Literature

After reviewing literature on reading motivation, the teacher researchers have determined two major solutions. These solutions are multiple intelligences and differentiated instruction. Multiple intelligences gives students an opportunity to tap into their dominant intelligences, while differentiated instruction is based on providing learning opportunities at students' individual skill levels.

Due to the abundance of literature covering multiple intelligences, the teacher researchers have chosen to use this as their primary solution in increasing reading motivation in elementary and middle school students. Multiple intelligences incorporate eight major intelligence areas. These areas, as defined by pioneering educators Howard Gardner and Thomas Armstrong, are titled: linguistic intelligence (word smart), logical-mathematical (number smart), spatial intelligence (picture smart), bodily-kinesthetic (body smart), musical intelligence (music smart), interpersonal intelligence (people smart), intrapersonal intelligence (self smart), and naturalist intelligence (nature smart) (Lash, n.d.). The intelligences reflect the structure of individual languages; the power restraints in yourself, expectations of others, cultural pressures, and accepted norms of thinking; and work to solve a problem or make a product (Chapman, 1993). Each person is born with all eight intelligences (Chapman, 1993) and it is therefore recommended that teachers use a variety of ways to teach a lesson (Safi, 1996). This recommendation is attributed to the fact that choosing how you learn has a beneficial outcome (Cluck, 2003). All strengths and weaknesses can be separated into these eight multiple

intelligences. Teachers should create an inventory to help determine the mix of intelligences in their classroom. Identifying an area of intelligence will further help teachers understand themselves as well as others. It is essential to be aware of the reality that everyone has a unique blend of the eight intelligences (Lash, n.d.).

Some schools have applied MI theory to their curricula and have reported success in improving performance on achievement tests. According to Rettig (2005), there are four ways to teach to the "whole brain". First, immerse the children with toy and playthings that lend themselves to the multiple intelligences. Second, incorporate the different multiple intelligences into lesson planning. Third, introduce learning centers that focus on the multiple intelligences in your classroom. Lastly, when using multiple intelligences spotlight the different careers which use each intelligence (Rettig, 2005). In one study, utilizing the multiple intelligences in the classroom led the students to better retention of knowledge (Ozdemir, 2006). In another study the use of multiple intelligences in the classroom improved assignment completion, class participation, and engagement of learners (Cluck, 2003). There has been increasing interest in the role and assessment of multiple intelligences in relation to learning and achievement. Gardner's MI theory has created much interest in more diverse teaching strategies, balanced programming, and matching instruction to learning styles (McMahon, 2004).

Teachers have the undaunting task of understanding, embracing, and mastering the many facets of the multiple intelligence theory. Embrace in the contributions of multiple intelligence teaching will allow teachers to see children in a different light. Instead of a "one size fits all" mentality, teachers will be able to cultivate the complete child (Eisner, 2004). In a multiple intelligence classroom, teachers continuously shift teaching styles (Stanford, 2003). They

respond to individual needs and remember that every child has a special ability. Educators need to help find that special ability and design lessons to help everyone achieve their goal (Chapman, 1993). Teachers also must make sure to tap into all of their students' interests to ensure engagement and persistent learning. Once teachers know their different learner profiles, they are able to offer choices for demonstrating mastery (Corley, 2005). Teachers need to continue to incorporate more intelligence rather than traditional verbal linguistic and logical-mathematical (Ozdemir, 2006). Using multiple intelligences helps teachers broaden their range of methods and techniques to reach a more diverse range of learners (Stanford, 2003).

After grasping the ideas of the Multiple Intelligence Theory, educators have the challenging assignment of implementing appropriate strategies. These strategies are many, endless, and lend to motivating learning. Teachers should build on the students' interests and curiosity (Metsala, 1996/1997). Encouraging students to write down what they are saying and feeling at any moment helps class discussions, as well as involving the class to make connections. This leads to students relate in and be in a part of the learning experience (Glazer, 2005). Intrapersonal learning also holds a valuable role in the reading process. Teachers should be emphasizing reading as a technical skill as well as emotional, according to Armstrong (2004). Teachers should be asking students to connect the text with their personal lives, their own emotions, and memories. Armstrong proposes that phonics and blending be taught using comic strip words that contain emotional vitality such as, thud, bonk, and scrunch. The multiple intelligence teaching strategies can be used to increase reading achievement and reading skills. Reading centers would be developed to use the multiple intelligences to provide student choice and stimulate student motivation. Lesson plans will be designed around the use of multiple

intelligences (Uhlir, 2003). Finding something the child likes and uses helps create a form of literacy that will help them feel successful. Keeping that in mind, teachers need to create a lesson using familiar material they know and then help the students meet their challenges in reading and writing. This way, every student should have the opportunity to be creative and to learn in their own familiar way (Williams, 2004/2005; Metsala, 1996/1997). Designing lesson plans, surveys, and checklists to measure reading skill achievement helps establish a multiple intelligence reading center (Uhlir, 2003). More literacy experiences mean more pleasure for students in reading and writing (Glazer, 2005).

Phi Delta Kappa Fastbacks state that poorest readers are peer oriented or bodily kinesthetic. Allowing these children to read in pairs, or to move around while reading can be very beneficial. For children that respond to bodily/kinesthetic learning, Armstrong suggests that teachers use gestures to teach phonemes and have students act out the reading material (2004).

Another way to increase reading motivation is to allow the reader to choose their material. Start by filling the classroom with high-interest books (Phi Delta Kappa Fastbacks, 1999). Finding books that display zingers within the first few words that grab the reader's attention, on the first couple of pages, is a motivational key for children (Coleman, 2005). Promoting nonfiction, sports, adventure, and fantasy type books in the classroom helps give boys the freedom to choose their own type of book (Sullivan, 2004). When the opportunity arrives, take advantage of sporting events like the Olympics, World Series, Final Four, the Superbowl and so on. Continue to complete the classroom library with some of these books to help grab the students' interests (Sullivan, 2004). The ideal reading environment for a boy is with peers, through dancing, singing, and an activity afterwards that satisfies their need to build and create.

A multi sensory approach gives boys an opportunity to respond by acting out the story, writing their own version of the story, or creating a mural. This keeps students motivated and interested in the lesson (Sullivan, 2004).

There are a variety of ways to teach reading skills, one being to utilize nursery rhymes. Print them for visual learners, chant them for auditory learners, and make plays for children that are bodily kinesthetic learners. Design a tic-tac-toe game with words in each space as oppose to the traditional X and O. Then have students read the word correctly to place an X or O in the appropriate spot (Lombardo, 2005). Have children identify the parts of speech in a zinger, illustrate it, or find their own way to identify the word.

Picturing words, performing calisthenics, using visuals, or singing the lesson will help the lesson be remembered for some students (Safi, 1996). Armstrong states that in order to read we have to “see” the words using visual spatial intelligence. The reader often needs to visualize the word or passage to make meaning clear. Teachers can simply ask students to close their eyes and visualize what they have just read. Reading comprehension would improve, especially for picture-smart children (Armstrong, 2004).

Another idea is to create a beanbag game where you would write words in squares, have the students throw a beanbag, and then have them read the word it lands on (Lombardo, 2005). Use scented candles, plastic play food or small food samples in your centers to create a different, yet fun environment (Lombardo, 2005).

Song, role play, posters and bookmarks are also some techniques that students enjoy (Marcell, 2005). Armstrong also states that the act of reading is somewhat musical. Students can learn to read through song lyrics (Armstrong, 2004). Armstrong also suggests that there be a

space for musical learners to read by singing or chanting while others are engaging in silent reading.

Selecting short passages for lessons on poetry helps keep students interested (Glazer, 2005). A new reading strategy that was discovered was to have four animal puppets. Each animal represented a reading strategy that helped the students remember clues in reading. There are also suggestions for the newly named Naturalist. Armstrong believes that more reading should take place outside and using nature-themed books (2004). Most of all use plenty of teacher modeling. (Marcell, 2005).

Journals, graphic organizers, checklists, rubrics, and portfolios are a great alternative assessment. Assessments that are beyond measuring knowledge and skills, but rather that are measuring the use of knowledge and skills will better meet the needs of students (Stanford, 2003). Verbal praise instead of grades may build the students curiosity to learn.

It is important for educators to provide a variety of activities incorporating multiple intelligences for students to choose from. This can help students play a role in how multiple intelligences are used in the classroom. Students should have opportunities to take ownership and create ideas on how they could incorporate all the intelligences into an activity or idea. Students should also have choice when it comes to assignments. Over time, they can choose assignments based on their strong intelligences, rather than on friends (Rubado, 2002). With that choice, students should also have the option to work alone or in small groups, choosing from four or five different products to create (Corley, 2005).

In another study, the results provided evidence that student learning is enhanced through multiple intelligence instruction. These students were more involved during the instruction; they

gained more insights, and self efficacy (Ozdemir, 2006). According to Phi Delta Kappa Fastbacks, students learn best when they are allowed to learn through their preferred learning style. The article also states that accepting individuality is they key to success in reading (Phi Delta Kappa Fastbacks, 1999).

There are countless creative ways that teachers can help motivate students to read through the use of all eight multiple intelligences. In some cases, students wrote letters and e-mails to authors or persons mentioned in the stories and they also wrote and performed skits from their stories. That same article showed that 62% of 6th graders prefer teacher read-alouds. Read-alouds motivate children to read the book again on their own time and it helps them understand the material better. As a part of fostering Interpersonal learning Armstrong says that students should become critical readers and begin thinking about the social meanings of the texts they read. They should be asked to step into the shoes of the author, or a character in the story, and take other points of view.

Logical learners can be encouraged to treat reading comprehension as a time for hypothesis testing and logical problem solving. Students enjoy reading nonfiction because it relates to real life situations (Meehan, 2006). Over time, students can build a portfolio system for artifact collection of multiple intelligence activities to demonstrate their growth and show their strengths (Uhlir, 2003).

Differentiated instruction is the solution to maximizing student learning potential while recognizing individual differences. Through differentiated instruction, teachers plan and adjust their lessons to meet the needs of their learners. Teachers must understand and know their learners skill levels, strengths, challenges, interests, needs, preferences, and goals. Active

planning is essential in differentiated instruction while the teacher transforms into a facilitator (Corley, 2005; Saldana, 2005). The students are then able to work individually, at their own level. With students working hard individually, the teacher is allotted more time to work with struggling students. Differentiated workshops prove to be beneficial and inspiring. Differentiated instruction is a better form of teaching resulting in better students (Saldana, 2005).

The teacher strategically plans instruction that meets the learners where they are and offers multiple avenues which students can take to access and apply their learning. One solution to address the readiness levels of students is to have all students study the same concept, but complete different activities based off their levels. Students also can partake in group sessions, or one-on-one teacher or peer coaching. Teachers also must make sure to tap into all their students' interests to ensure engagement and persistent learning. Once teachers know their different learner profiles, they are able to offer choices for demonstrating mastery (Corley, 2005).

When more options are offered, students are more likely to complete their assigned tasks. A key solution in differentiated instruction is flexible grouping. Students can be grouped by their readiness, interest, or profiles and if the groups are varied, labeling will no longer occur. When assigning final products, choices work best. Students should have the choice to work alone or in small groups and choose from four or five products to create (Corley, 2005). As an example using a typical writing assignment, rather than assigning everyone the same article and assignment, students would have choices. They would choose a book or topic of interest to them and have options as to how they could write the report. Higher level students could write a five paragraph essay, where beginning learners could copy sentences from the book or even illustrate pictures (Saldana, 2005). In addition to writing, teachers must foster within students that they can

read. Teachers should provide successful reading experiences for students. Choice should be built into the student's reading program (Metsala, 1996/1997). Teachers could use kids' magazines to capitalize on children's interest and curiosities with magazines that are at their level (Motivating young minds, 2006).

Overall, a classroom that uses differentiated instruction challenges learners individually by their abilities, interests, and preferred styles of learning, thus maximizing all learning potential (Corley, 2005).

The literature has helped determine multiple intelligences as a primary solution to use as a method to increase reading motivation. Although Differentiated Instruction offers feasible solutions, the teacher researchers have found that Multiple Intelligences would better serve the students. Multiple Intelligences provides a better opportunity for students to find out their dominant intelligence and utilize it throughout their learning.

Project Objective and Processing Statements

As a result of using multiple intelligences, during the period of January 22 through May 11, 2007, the students of Teacher Researchers at Sites A and B were to increase their reading motivation.

Processing Statements

Reading instruction was differentiated through the use of multiple intelligences. These lessons were created prior to and during the intervention, as necessary. Self-discovery, venn diagrams, a variety of art materials used in learning centers, frequent stretching/exercising throughout structured classtime, thinking music during writing periods, nature walks and talks, creative group tasks such as mobiles, and collages, a poetry unit.

Project Action Plan

The following were tasks that had to be accomplished during each week of the research project.

Pre-Week: Week of January 22–January 26, 2007

- Design activities and lessons that incorporate the eight multiple intelligences.
- Obtain parental consent to use students data research
- Make copies of documentation tools.

Pre-Documentation Week: Week of January 29–February 2, 2007

- Administer, collect, and analyze students' surveys.
- Observe and tally student behaviors displayed in class during silent reading time. (Twice a week)

Pre-Documentation Week: Week of February 5–February 9, 2007

- Administer, collect, and analyze teachers' surveys.
- Observe and tally student behaviors displayed in class during silent reading time. (Twice a week)

Week of February 12–February 16, 2007

- Focus Intelligence: Intrapersonal Intelligence. The ability to understand your own feelings.
- Introduce the whole class to the Intrapersonal Multiple Intelligence.
- Encourage self-discovery in the classroom.
- Model and assign reflective journal writing.
- Independently students will reflect on focused intelligence using journal log.

Week of February 19–February 23, 2007

- Focus Intelligence: Verbal/Linguistic Intelligence. The variety of using language.
- Introduce the whole class to the Verbal/Linguistic Multiple Intelligence.
- Model and practice using manipulatives in mathematics.
- Create student-centered learning areas in the classroom.
- Independently students will reflect on focused intelligence using journal log.

Week of February 26–March 2, 2007

- Focus Intelligence: Logical/Mathematical Intelligence. The ability to incorporate mathematics and reasoning.
- Introduce the whole class to the Logical/Mathematical Multiple Intelligence.
- Introduce and stress the importance of Venn diagrams.
- Familiarize students with several types of calculators and its possible uses.
- Independently students will reflect on focused intelligence using journal log.

Week of March 5–March 9, 2007

- Focus Intelligence: Visual/Spatial Intelligence. The ability to see form, color, shape, and texture in your perspective.
- Introduce the whole class to the Visual/Spatial Multiple Intelligence.
- Distribute the variety of art materials that can and will be used in the learning centers for assignments.
- Model cognitive organizers that can be a useful tool with vocabulary words.
- Independently students will reflect on focused intelligence using journal log.

Week of March 12–March 16, 2007

- Focus Intelligence: Bodily/Kinesthetic Intelligence. Incorporating movement into lessons.
- Introduce the whole class to the Bodily/Kinesthetic Multiple Intelligence.
- Incorporate frequent stretching/exercising throughout structured class time.
- Role play characters from stories
- Independently students will reflect on focused intelligence using journal log.

Week of March 19–March 23, 2007

- Focus Intelligence: Musical/Rhythmic Intelligence. The ability to utilize one or more element of pitch, tone, or rhythm.
- Introduce the whole class to the Musical/Rhythmic Multiple Intelligence.
- Create and use songs, poems, and raps for a variety of subject areas.
- Incorporate "Thinking Music" during writing periods.
- Independently students will reflect on focused intelligence using journal log.

Week of March 26-March 30, 2007

- Spring Break

Week of April 2–April 6, 2007

- Focus Intelligence: Naturalist Intelligence. Surrounded in one's environment.
- Introduce the whole class to the Naturalist Multiple Intelligence.
- Enjoy a nature walk and talk around your school building.
- Conduct a variety of science experiments.
- Independently students will reflect on focused intelligence using journal log.

Week of April 9–April 13, 2007

- Focus Intelligence: Interpersonal Intelligence. The ability to understand others as individuals.
- Introduce the whole class to the Interpersonal Multiple Intelligence.
- Design creative group tasks such as mobiles, collages, comic strips, and poems.
- Model and practice think-pair-share activities.
- Independently students will reflect on focused intelligence using journal log.

Week of April 16–April 20, 2007

- Introduce poetry unit with description of projects and due dates.
- Incorporate all eight multiple intelligences into our poetry unit.

Week of April 23–April 27, 2007

- Introduce poetry unit with description of projects and due dates.
- Incorporate all eight multiple intelligences into our poetry unit.
- Allow students to choose an assessment from a list of choices that include all eight multiple intelligences.

Post-Documentation Week: Week of April 30–May 4, 2007

- Observe and tally student behaviors displayed in class during silent reading time. (twice a week)

Post-Documentation Week: Week of May 7–May 11, 2007

- Administer, collect, and analyze students' surveys.
- Observe and tally student behaviors displayed in class during silent reading time. (twice a week)

Methods of Assessment

The first tool that the teacher researchers used for post documentation was the observation tally sheet. The purpose of the observation tally sheet was to observe the frequency of problem behaviors related to lack of reading motivation. The observation tally sheet was used during four, 20 minute sessions of SSR, between the dates of April 30, 2007 and May 11, 2007. During these sessions, teacher researchers at Sites A and B observed student behavior. Each time a problem behavior was witnessed, the teacher researcher made a tally mark in the appropriate column. The observation tally sheet was used to measure the amount of change in problem behaviors related to lack of reading motivation. There was approximately 33 eighth graders and 45 sixth graders observed at Site A, and 26 second graders and 26 fourth graders observed at Site B.

The second post documentation tool was the student survey. The student survey contained nine questions designed to assess the students' feelings towards reading. Each question had a pictorial lichert scale in which the students circled whether they loved, liked, left, or loathed reading. The purpose of the student survey was to help the teacher researchers gather information on student reading habits. The student survey was used to measure the amount of growth in participants reading motivation. The survey was administered on April 30, 2007. This questionnaire was distributed to 32 eighth graders and 45 sixth graders at Site A. It was also distributed to 26 second graders and 26 fourth graders at Site B.

CHAPTER 4

PROJECT RESULTS

The purpose of this research project was to increase reading motivation in elementary and middle school students. The behaviors used to define this problem included movement and non-movement behaviors. The movement behaviors that were observed are flipping through book pages, tapping pencils, placing hands inside of desks, fidgeting, getting out of seat frequently, complaining, doodling/drawing, and doing other work. The non-movement behaviors included staring into space, placing head on desk, saying "I'm bored", lack of interest, not paying attention, wasting time, and students indecisive on book selection (Refer to Appendix A). The interventions implemented were the use of Howard Gardner's eight multiple intelligences. There were 26 second graders, 25 fourth graders, 46 sixth graders and 33 eighth graders used in this study, for a total of 133. The second and fourth grade teachers taught all general subjects and the sixth and eighth grade teachers taught communications (reading and language arts). The research study began on Monday, January 29, 2007 and concluded on Friday, May 11, 2007.

Historical Description of the Interventions

During weeks one and two the teacher researchers administered, collected, and analyzed student and teacher surveys (Appendices B and C). Twice each week we observed and tallied student behaviors displayed in class during silent reading time (Appendix A). From the information gathered from the observation tally sheet, teacher researchers found it interesting that there were more non-movement behaviors (n=430) demonstrated than movement behaviors (n=293). Out of the 15 off-task behaviors, four behaviors made up 54% of the total behaviors observed. These behaviors were staring into space, fidgeting, lack of interest, and not paying

attention. The student and teacher surveys provided positive insight in that we were more aware of our student's reading interest and we learned of the variety of strategies that other teachers currently use. Conversely, the teacher survey showed that there was not an equal distribution of intelligences being used in the classrooms. Therefore, students that were dominant in a non-traditional intelligence were not getting the chance to reach their fullest potential.

During week three, the focus intelligence was intrapersonal, which is the ability to understand your own feelings. We introduced self-discovery and reflective journal writing. Self-discovery activities included self directed and critical thinking centers, i.e. puzzles and projects. Journal writing included prompts and free writing. Table 13 below displays the positive, negative, and interesting information observed during week three.

Table 13

	Pluses (+)	Minuses (-)	Interesting (?)
Self-Discovery	*Students learned at their own pace. *Students were able to see their progress.	*Students gave up easily when faced with something difficult. *Students struggled to think outside the box.	*Middle school girls put more effort into self-discovery.
Journal Writing	*Early elementary students enjoyed journal writing. *Allowed students to be more creative.	*Some students did not like writing. *Some students struggled with free writing.	*Middle school girls enjoyed free writing more than boys.

During week four, the focus intelligence was verbal/linguistic, which is described as the variety of using language. During this week we introduced manipulatives in mathematics as well as creating students centered learning areas. Table 14 below displays the positive, negative, and interesting information observed during week four.

Table 14

	Pluses (+)	Minuses (-)	Interesting (?)
Manipulatives	*Helped those students in need.	*Some students played with them instead of using them appropriately.	
Student-Centered Learning Areas	*Students enjoyed making their own choices. *We enjoyed seeing the students' progress.	*Students lacked prior knowledge. *Difficult for some students to work independently.	

During week five, the focus intelligence was logical/mathematical, which is the ability to incorporate mathematics and reasoning. We introduced and stressed the importance of venn diagrams and familiarized students with several types of calculators and its possible uses. Table 15 below displays the positive, negative, and interesting information observed during week five.

Table 15

	Pluses (+)	Minuses (-)	Interesting (?)
Using Calculators	*Students enjoyed using calculators. *Students were intrigued how numbers turned into words.	*Some students did not know how to properly use calculators. *Sometimes it was difficult to read/decode the words.	*Early elementary students thought that using calculators was cheating.
Venn Diagrams	*Helps students list and organize better. *Opened some students' eyes to differences.	*Students had done venn diagrams before. *Venn diagrams were not very effective in large groups.	

During week six, the focus intelligence was visual/spatial, which is the ability to see form, color, shape, and texture from your own perspective. We introduced a variety of art materials that can and would be used in learning centers for assignments. We also modeled cognitive organizers that can be useful tools with vocabulary words. Table 16 below displays the positive, negative, and interesting information observed during week six.

Table 16

	Pluses (+)	Minuses (-)	Interesting (?)
Art Materials	*Students loved using art materials and creating projects from them.	*Art materials can be messy.	*The end projects were cool and different.
Cognitive Organizers	*Test scores increased the week students used cognitive organizers. *Students could relate to the process. It seemed helpful and interesting to them.	*Students lacked background knowledge, making parts of the organizer difficult. *These may be time consuming.	

During week seven, the focus intelligence was bodily/kinesthetic, which incorporates movement into lessons. We incorporated frequent stretching/exercising throughout structured class time, and role played characters from stories. Table 17 below displays the positive, negative, and interesting information observed during week seven.

Table 17

	Pluses (+)	Minuses (-)	Interesting (?)
Stretching/Exercising	*Students were less fidgety when given frequent exercise.	*The stretching was distracting for some students. *Difficult to transition back to work.	
Role-playing	*Students were attentive and engaged. *Role-play helped comprehension.	*Some middle school students were afraid or embarrassed to perform. *Some students lacked expression	*It was surprising that some quieter students used expression and had loud voices.

During week eight, the focus intelligence was musical/rhythmic, which is the ability to utilize one or more elements of pitch, tone, or rhythm. We created and used songs, poems, and raps for a variety of content and academic areas, and incorporated “thinking music” during writing periods. Table 18 below displays the positive, negative, and interesting information observed during week eight.

Table 18

	Pluses (+)	Minuses (-)	Interesting (?)
Thinking Music	*Helps creativity. *Relaxed students. *Set a volume and mood.	*Distracted some students. *Some students became disruptive during certain music styles.	*We believed that the music worked for most children.
Create songs, raps, and poems	*Students had an opportunity to show their creative side.	*Some students wrote stories without anything interesting.	

During week nine, the focus intelligence was naturalistic, which is surrounding one in their environment. We enjoyed a nature walk and talk, as well as conducted a variety of science experiments. Table 19 below displays the positive, negative, and interesting information observed during week nine.

Table 19

	Pluses (+)	Minuses (-)	Interesting (?)
Nature walk and talk	*Students were engaged and on task during assignments.	*Inclimate weather and too many outdoor distractions.	*The middle school students could not handle being outside as well as the elementary students could, possibly due to recess.
Science experiments	*More parental involvement. *Impressive end results. *Students were engaged and enthusiastic in these hands on activities.	*Students did not understand the different between an experiment and a demonstration. *Required a lot of work and materials.	

During week 10, the focus intelligence was interpersonal, which is the ability to understand other as individuals. We designed creative group tasks such as mobiles, collages, comic strips, and poems, and also modeled and practiced think-pair-share activities. Table 20 below displays the positive, negative, and interesting information observed during week 10.

Table 20

	Pluses (+)	Minuses (-)	Interesting (?)
Mobiles/Collages	*Hands on and creative.	*Time consuming, messy, and required a lot of outside materials.	
Think-pair-share	*Student assessment increased within small group interactions. *Great social skill activity.	*Middle school students lacked social skills. *Students need practice in groups.	

During weeks 11 and 12, we introduced poetry units that incorporated all eight multiple intelligences. In week 12, we allowed students to choose an assessment from a list of choices that included all eight multiple intelligences. Table 21 below displays the positive, negative, and interesting information observed during weeks 11 and 12.

Table 21

	Pluses (+)	Minuses (-)	Interesting (?)
Poetry Unit	*Brought out individual creativity. *Helped students with rhyming and literary elements. *Students were dedicated and took ownership. *Students could pick and choose what poems they wanted to do. *Students put their thoughts and feelings into their poems.	*Students struggled with Concrete and Abstract Poem. *Students had difficulty following directions and patterns. *Students lacked prior knowledge. *Students lacked poetry reading.	*The end results were fantastic.

During weeks 13 and 14, twice each week we observed and tallied students behaviors displayed in class during silent reading time. In week fourteen, we also administered, collected, and analyzed students' surveys.

One pattern that we noticed was that students who did not ordinarily excel in reading had opportunities to shine when incorporating different intelligences other than traditional reading styles. In addition to that, we found that when students were given more choices and able to engage in a variety of hands on activities, they were more motivated, creative, dedicated, and enthusiastic. This yielded a more creative product that students took pride and ownership of their work. Through this research, we expected that students would find intelligences that they were more successful with and that they would also progress and show positive growth in those intelligences they were previous lacking.

We chose to use the theory of multiple intelligences as the intervention increase reading motivation in elementary and middle school students. Multiple intelligences incorporate eight major intelligence areas. These areas, as defined by pioneering educators Howard Gardner and Thomas Armstrong (Lash, n.d.), are titled: linguistic intelligence (word smart), logical-mathematical (number smart), spatial intelligence (picture smart), bodily-kinesthetic (body smart), musical intelligence (music smart), interpersonal intelligence (people smart), intrapersonal intelligence (self smart), and naturalist intelligence (nature smart). The following table displays each intelligence and provides an example activity.

Table 22

Intelligences	Example
Intrapersonal	Journal writing
Verbal/Linguistic	Student centered learning areas
Logical/Mathematical	Venn diagrams (Appendix E)
Visual/Spatial	Cognitive organizers (Appendix D)
Bodily/Kinesthetic	Role play
Musical/Rhythmic	Create songs, poems, and raps (Appendix F)
Naturalistic	Nature walks and talks
Interpersonal	Think-pair-share

Appendices D, E, and F are examples of artifacts used during the research period. Appendix D is a vocabulary cognitive organizer used as an introduction to a new unit in the fourth grade classroom located at Site B. Appendix E is a venn diagram, used in the sixth grade classroom located at Site A, comparing and contrasting a movie to a book. Appendix F is a book report in the form of a song created by a second grader at Site B. Through this intervention, each of us became less of an instructor and more of a facilitator. Students were able to engage in more creative, hands on activities and the teachers used less of the traditional teaching methods.

I, the second grade teacher researcher from Site B, feel that I have learned a great deal about my students through the implementation of the action research project. There was a boy in my classroom who had struggled in reading all year long. He was always getting in trouble for talking too much during class. Before beginning this project this student had an average grade of

a 69% on class reading assessments. At the end of the project his average on class reading assessments had increased to an astonishing 85%. When I stopped to analyze the data, the score of 100% on the week eight assessment jumped out at me. After looking back at our project action plan, the light bulb suddenly turned on. Week eight was the week that we introduced the interpersonal intelligence (people smart). The majority of reading activities that week were done in pairs or small groups. This child turned out to be from a close family with two other siblings less than a year apart from him. He thrived on cooperative learning and being able to talk things out with his peers. Through the implementation of this project, I have seen the effect of motivating my students by making personal connections to their lives. I was able to take into consideration the different learning styles of my students. I believe that I am more tuned into my student's body language and behaviors. I have also learned the benefits of greater preparation with more time devoted to planning activities that include the different intelligences and take into account student's prior knowledge. The end result being increased motivation, which ultimately leads to increased achievement.

I, the fourth grade teacher researcher from Site B, was very interested to see how engaged most of my students were throughout this experience. Their responses on the student questionnaire were much better, and during silent reading their behaviors decreased across the board. I found myself revising a lot of my lesson plans to incorporate all eight multiple intelligences after we finished our research. I began to reevaluate my teaching style and started to utilize what I learned from the research and the data. I noticed my students were more involved, ready for instruction, more engaged during the lessons, and had a positive attitude during group activities. On a personal level, I am glad I was part of this experience. I now find myself making

sure I do my best to cover all eight intelligences throughout my daily curriculum to best fit the needs of all of my students. I understand that all students have different abilities and learning styles, and that they may need a variety of different instruction through the use of the eight multiple intelligences. I plan to continue to change my curriculum to fit the needs of my students to my best ability.

I, the 6th grade teacher researcher at Site A, have learned from this project that students do not learn in the same way. I cannot rely on a single, universal multiple intelligence to educate all my students. I have come to realize that if my students are to be successful, I will have to implement all the multiple intelligences into my teaching. This realization has taught me to be a more tolerant educator. In the past, I have always been a "traditional" teacher in that I tend to lecture. I taught this way because that was the way I grew up and learned best. Implementing these multiple intelligence interventions into my classroom allowed me to capture students who had blank, cold stares on their faces. I saw my students come alive when given a lesson where they could perform, create, or invent. This process took some time because my students have also been rooted in "traditional" education, but eventually my students came to enjoy this process and looked forward to working with the different intelligences. As a teacher, I realized the importance of implementing the multiple intelligences into my lessons. I stopped complaining about the extra time it took and began to see what else I could use in my lessons. I will not go back to being just a "traditional" teacher. I will make it my goal to incorporate several multiple intelligences into each of my lessons, so that I can touch as many of my students as possible. I do not want to leave any child behind.

I, the 8th grade teacher researcher at Site A, have learned valuable information on the various strengths and weaknesses of my students. Through the study of multiple intelligences it became apparent that my students learn material in a variety of ways. A typical reading/language arts class lends itself to learning through verbal/linguistic strategies; however, it turned out that the majority of my students strengths dominated in the bodily/kinesthetic, musical/rhythmic, and interpersonal intelligences. Therefore, in order to reach and teach them effectively, I had to stretch myself creatively and focus on the best strategies to fit their needs. Through this process, I was forced to take a look at what I had done in the past, what I was currently doing, and how I could improve for the future. Although it may be more difficult or time consuming to teach to the multiple intelligences, it proves to be beneficial in the long run. Not only are the students gaining motivation and enjoying learning, I found my most creative lessons to be entertaining for me as well. I was actually excited to create and teach the lessons I planned because I was proud of them and felt that I was finally teaching in a way that my students preferred. Now that I have completed this action research project, I plan to implement it in years to come. Knowing the intelligence strengths of my students from the beginning will help me plan the year effectively. Overall, I think the process of this research project had a positive effect on the students and myself. Highlighting an intelligence each week was a great way to introduce them to the students, engage in a variety of new activities, and recognize those students that excelled in that area. Some intelligences were more popular than others, but overall it was a nice way to change from the traditional teaching methods.

Presentation and Analysis of Results

In order to assess the impact of the interventions, we administered an observation tally sheet (Appendix A) during SSR to record the frequency of behaviors, and a student survey designed to assess the feelings students have towards reading. The purpose of this research project was to increase reading motivation in elementary and middle school students. There were 26 second graders, 25 fourth graders, 46 sixth graders and 33 eighth graders used in this study, for a total of 133. The second and fourth grade teachers taught all general subjects and the sixth and eighth grade teachers taught communications (reading and language arts). The three tools used to document the problem evidence included reading observation tally sheet (Appendix A), a student survey (Appendix B), and a teacher survey (Appendix C). These tools were used within a two week time frame beginning Monday, January 29, 2007 and concluding on Friday, February 9, 2007.

There was a total of 452 behaviors observed, the data has been divided based upon movement and is represented between Figure 20 and Figure 21. Of 452 observed behaviors, 213 were non-movement behaviors and the remaining 239 involved movement. Though the behaviors are separated between the figures, percentage calculations are based upon the total of 452. Overall, there was a 50% decrease in non-movement behaviors from pre-documentation to post-documentation. Out of the 15 listed behaviors, the four most prevalent behaviors from pre-documentation markedly decreased during post-documentation. Staring into space during pre-documentation (n=119) decreased 58% during post-documentation (n=50). Fidgeting during pre-documentation (n-113) decreased 36% during post-documentation (n=72). Lack of interest during pre-documentation (n=81) decreased 48% during post-documentation (n=42). Not paying

attention during pre-documentation (n=82) decreased 35% during post-documentation (n=53). Three out of these four most prevalent behaviors are non-movement behaviors.

Each behavior displayed in Figure 20 showed an overall decrease in occurrences. The most noteworthy change occurred with students placing their head on their desk (n=70 pre-documentation; n=15 post-documentation).

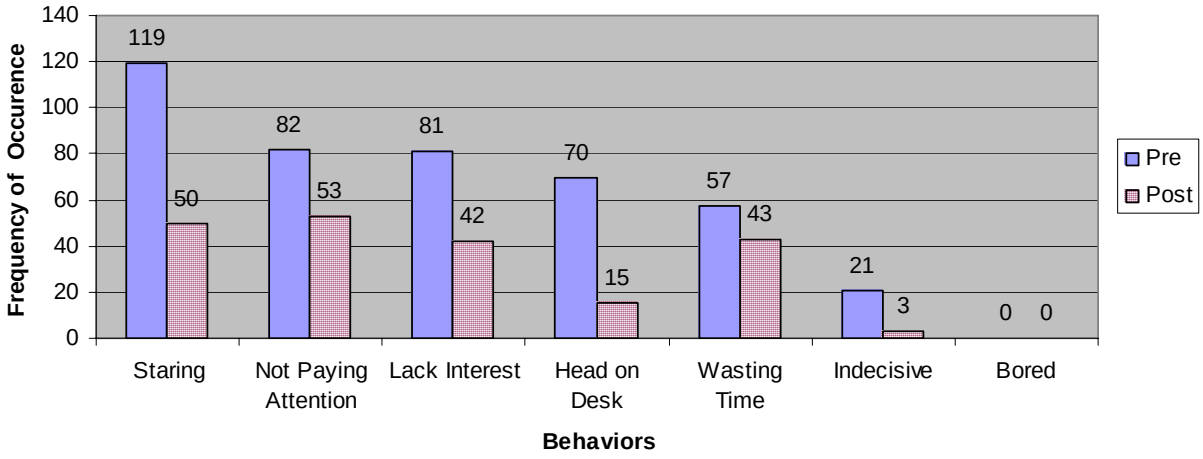

Figure 20: Silent Reading Behaviors: Non-Movement (n=213)

Figure 21 shows that all of the movement behaviors decreased from pre-documentation to post-documentation with the exception of complaining (n=14 pre-documentation; n=20 post-documentation) and tapping pencils (n=4 pre-documentation; n=24 post-documentation). Although, tapping pencils increased by 600%, teacher researchers are more tolerant of this due to the information researched on multiple intelligences.

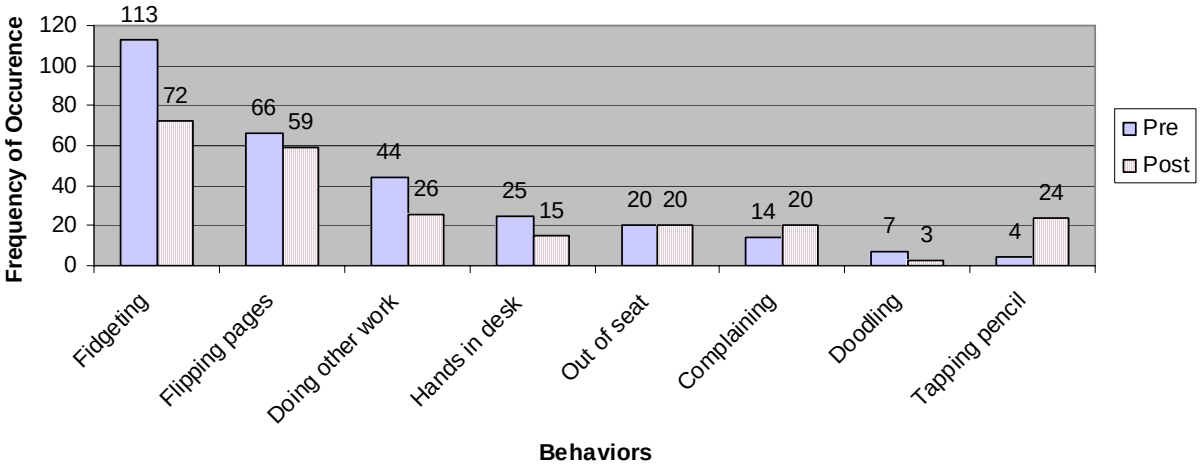

Figure 21: Silent Reading Behaviors: Movement (n=239)

Student Survey

The purpose of the student survey was to help the teacher researchers gather information on student reading habits. The survey was given on Thursday, February 1, 2007. This questionnaire was distributed to 33 eighth graders, 46 sixth graders, 25 fourth graders, and 26 second graders for a total of 133. All participating students completed the survey given to them by the teacher researchers. The survey included nine questions created to determine students' feelings towards reading (Appendix B). Students were asked to circle the facial expression that best described the way they felt. The expressions were labeled love it, like it, leave it, or loathe it. In each graph, the love it and like it data was grouped together and the leave it and loathe it data was grouped due to the importance of the meaning.

As seen in Figures 22 and 23, there was a 4% decrease in students loving or liking reading during free-time, and a 10% increase in students leaving or loathing reading during free-time.

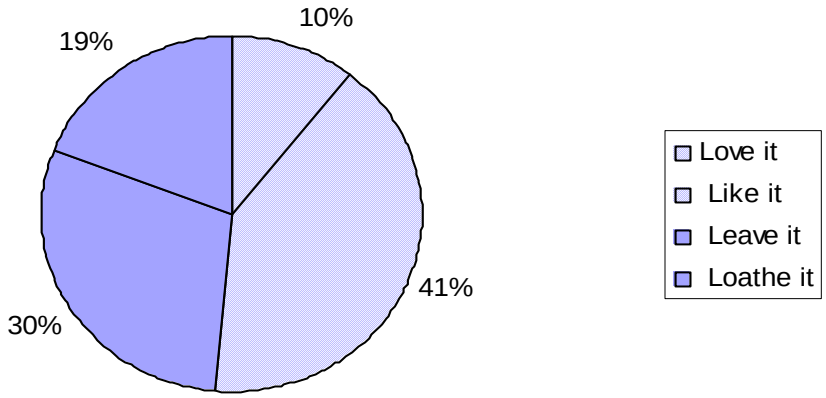

Figure 22: Reading During Free-Time (Pre-Documentation) (n=105)

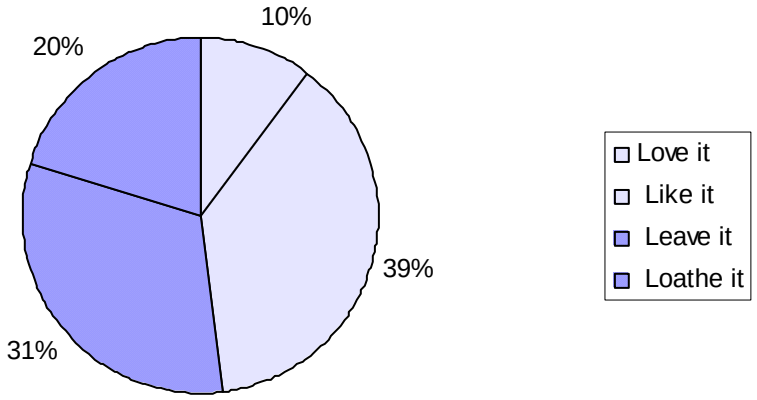

Figure 23: Reading During Free-Time (Post-Documentation) (n=108)

Figures 24 and 25 demonstrate a 33% increase in students liking or loving to read for fun at home. There was a 13% decrease in those that did not enjoy reading for fun at home.

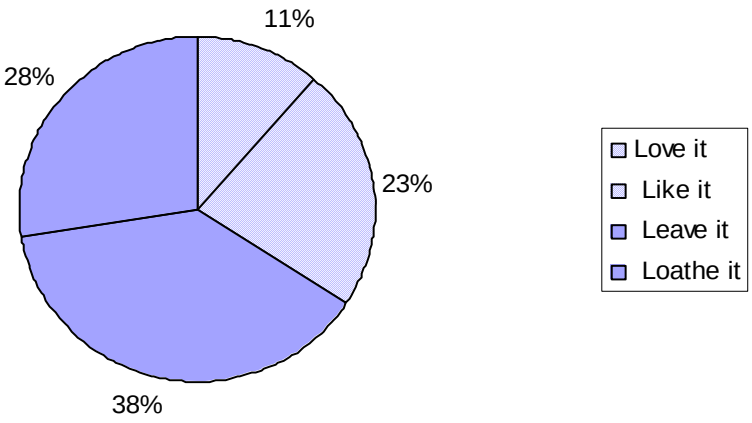

Figure 24: Reading for Fun at Home (Pre-Documentation) (n=105)

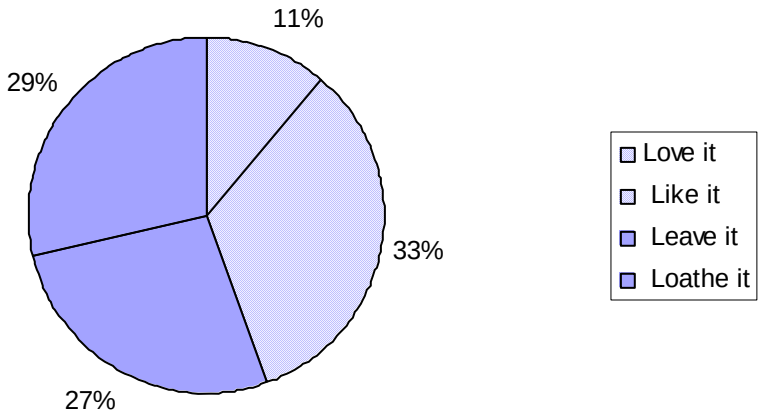

Figure 25: Reading for Fun at Home (Post-Documentation) (n=108)

Figures 26 and 27 show a 23% decrease in those that love or like reading instead of playing, and a 10% increase in those that would leave or loathe reading instead of playing.

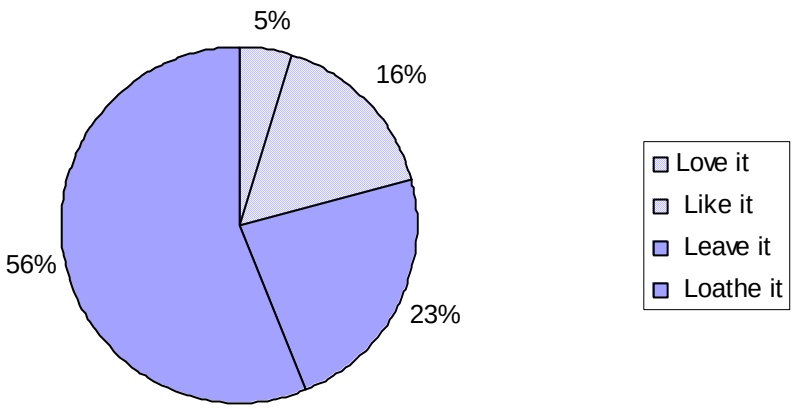

Figure 26: Reading Instead of Playing (Pre-Documentation) (n=105)

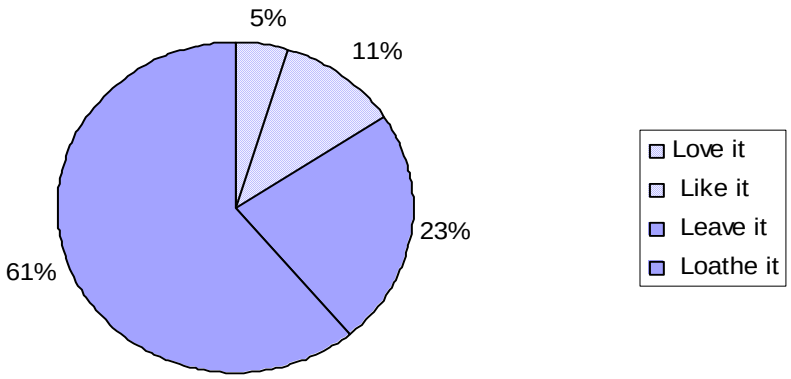

Figure 27: Reading Instead of Playing (Post-Documentation) (n=108)

There was a 4% increase in students that enjoy reading a variety of books displayed in Figures 28 and 29. There was no change in those that would not enjoy reading a variety of books.

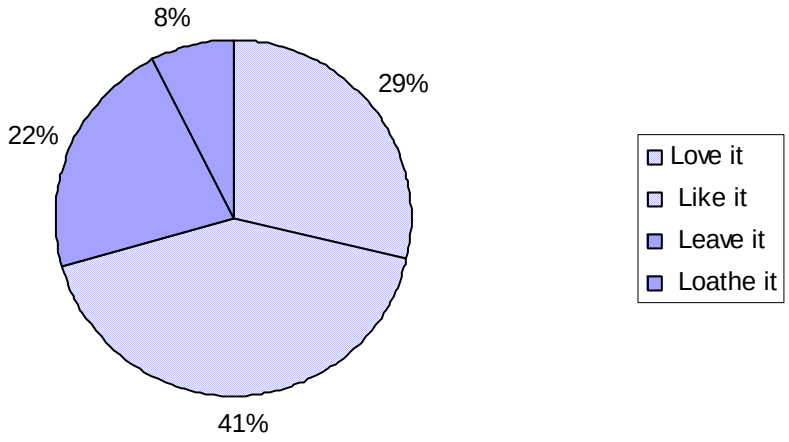

Figure 28: Reading a Variety of Books (Pre-Documentation) (n=105)

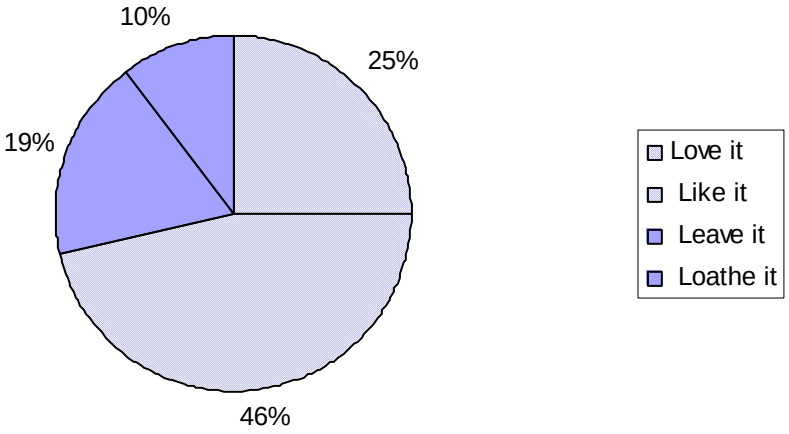

Figure 29: Reading a Variety of Books (Post-Documentation) (n=108)

Figures 30 and 31 showed a 6% increase in the number of students who felt comfortable with how well they read, whereas there was a 10% decrease in students who felt uncomfortable with how well they read.

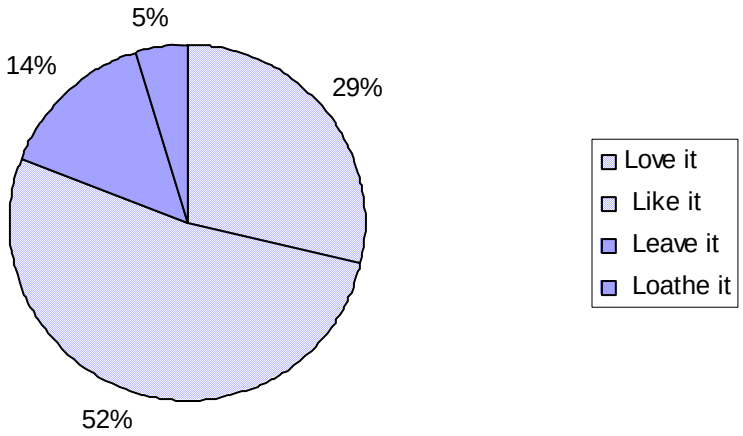

Figure 30: How Well Students Feel They Read (Pre-Documentation) (n=105)

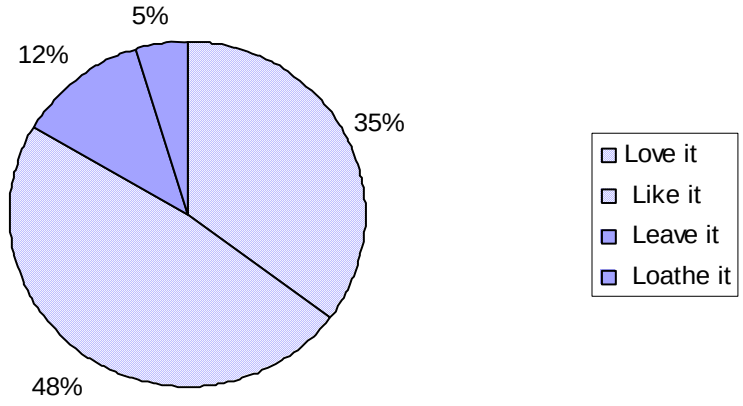

Figure 31: How Well Students Feel They Read (Post-Documentation) (n=108)

Figures 32 and 33 show a 5% increase in students who enjoyed teacher read-alouds and a 5% decrease in those who did not enjoy when their teacher reads aloud to them.

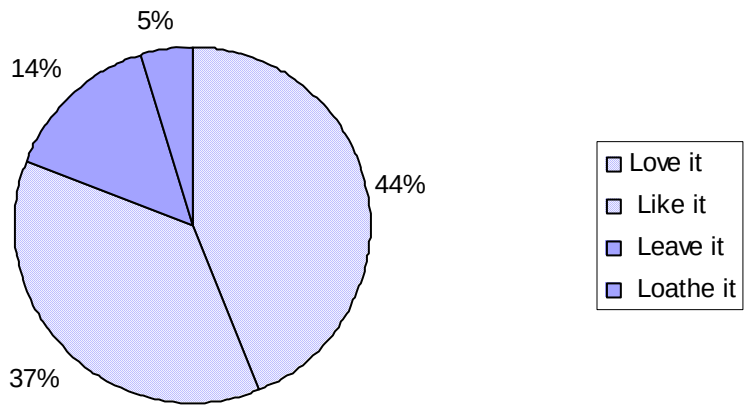

Figure 32: Teacher Read-Alouds (Pre-Documentation) (n=105)

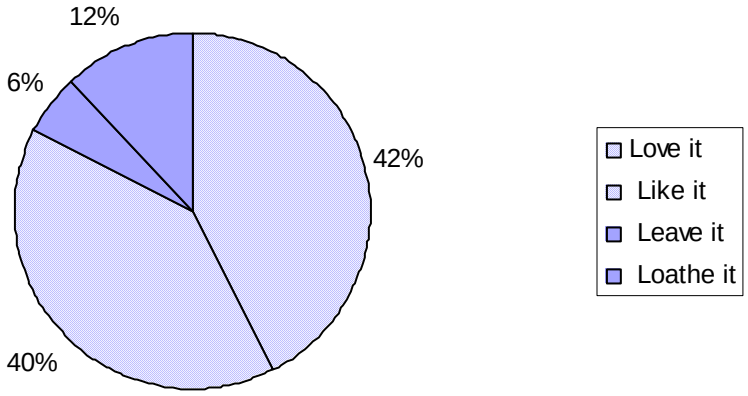

Figure 33: Teacher Read-Alouds (Post-Documentation) (n=108)

Figures 34 and 35 showed a 10% increase in students who felt comfortable when coming to a new word in reading and a 4% decrease in those students who do not feel comfortable.

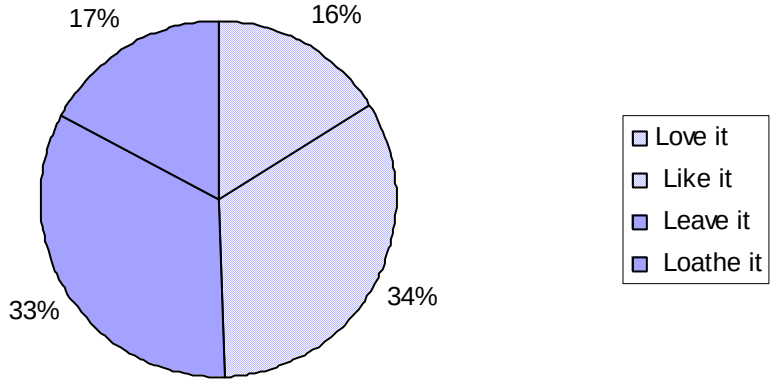

Figure 34: New Words in Reading (Pre-Documentation) (n=105)

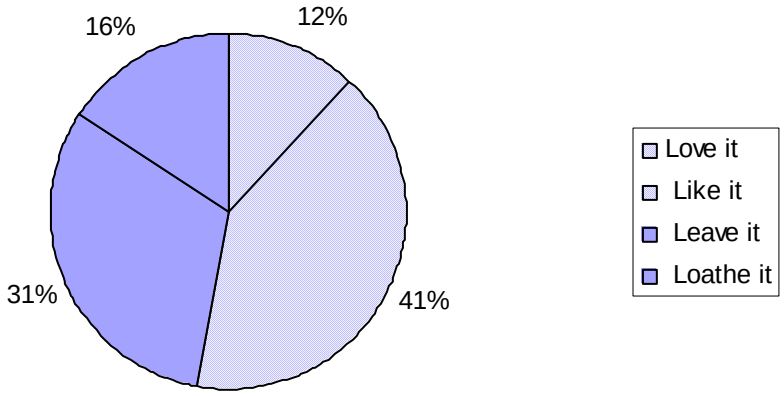

Figure 35: New Words in Reading (Post-Documentation) (n=108)

Figures 36 and 37 display a 25% increase in students who enjoyed it when someone at home read to them. On the other hand, there was a 13% decrease in those that did not enjoy being read to at home.

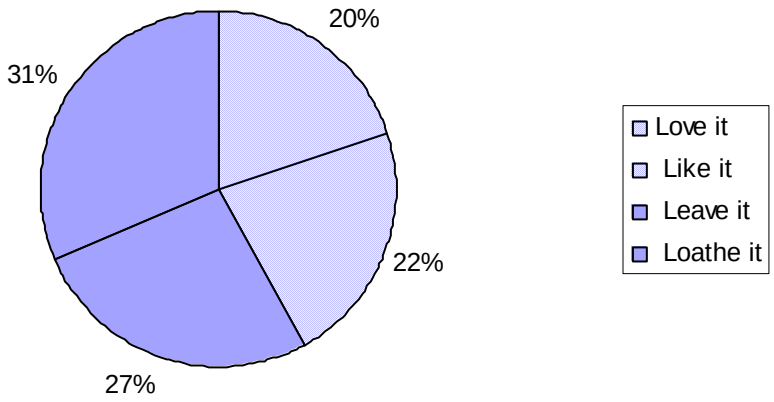

Figure 36: Someone at Home Reads Aloud (Pre-Documentation) (n=105)

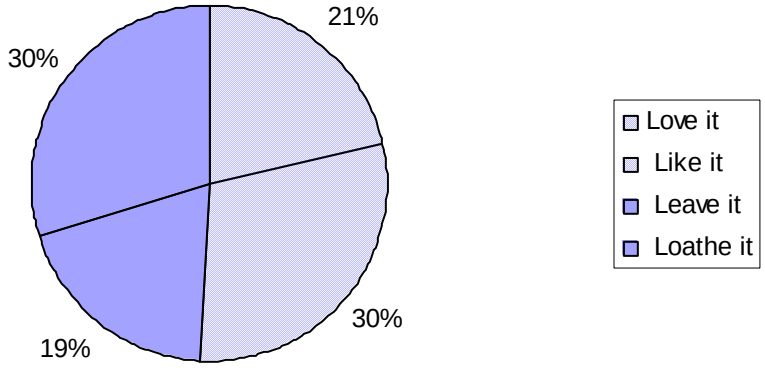

Figure 37: Someone at Home Reads Aloud (Post-Documentation) (n=108)

Figures 38 and 39 show a 23% increase in students who enjoyed visiting a library, whereas there was a 36% decrease in those that did not enjoy visiting a library.

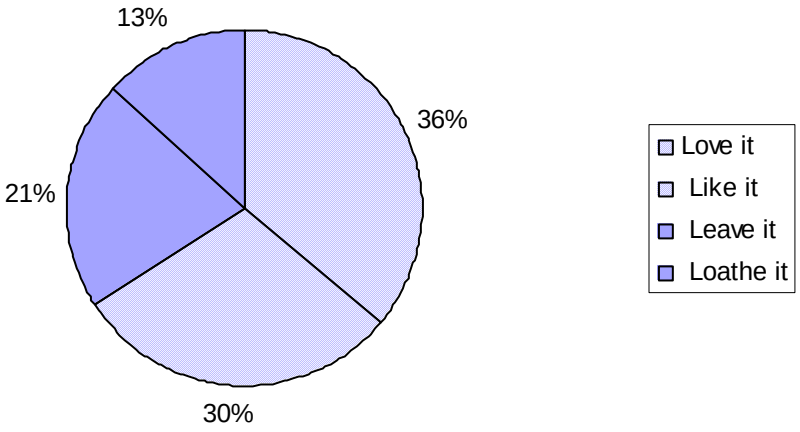

Figure 38: Visiting a Library (Pre-Documentation) (n=105)

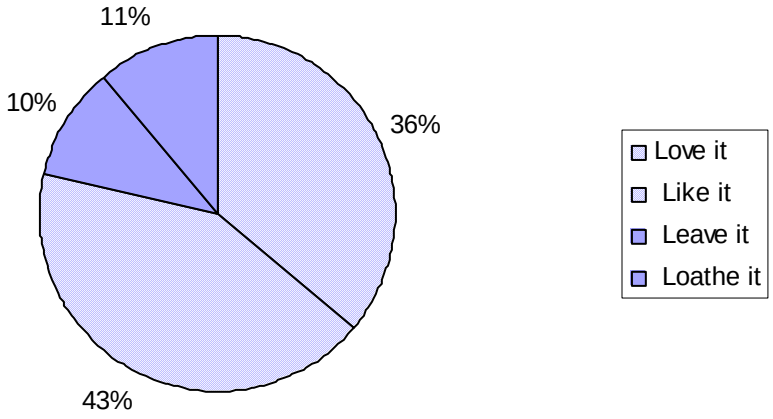

Figure 39: Visiting a Library (Post-Documentation) (n=108)

Conclusions and Recommendations

After the analysis of pre-documentation and post-documentation data from the observation tally sheet, we have observed and interpreted some notable changes. One major change was the 50% decrease in non-movement behaviors (n=430, pre-documentation; n=213, post-documentation) and the 18% decrease in movement behaviors (n=293, pre-documentation; n=239, post-documentation). Now that the students have learned about the eight multiple intelligences, they have become more skilled in selecting the type of book that suits their intelligence. The students have developed the ability to choose activities and texts that suit their dominant intelligence, therefore becoming more engaged in silent reading. Due to the vast literature review we conducted on multiple intelligences, we feel that our increased understanding of our students' individual needs contributed to only a slight decrease in the movement behaviors. We have become more tolerable of the need for students to engage in movement during SSR.

There have also been some important changes shown through the analysis of the student survey. First, we noticed that their feelings about how well they read (refer to Figures 30 and 31) and how comfortable they feel when coming to a new word positively increased (refer to Figures 34 and 35). We feel that this is important because it helps literacy, fluency, and shows a growth in their confidence. Another positive result is that students are no longer associating reading as a school activity, but they are able to enjoy reading as a recreational activity at home (refer to Figures 24, 25, 36, and 37). The survey also showed that students are now more willing and enthusiastic about visiting a library (refer to Figure 38 and Figure 39) and choosing books that appeal to their dominant intelligence.

In some instances, there was no recognizable change. For example, in the observation tally sheet, students getting out of their seat frequently remained at 20 overall instances throughout the pre-documentation and post-documentation (refer to Figure 21). Two other behaviors that had a slight decrease was flipping through pages and doodling (refer to Figure 21).

Now that the research is concluded, we have decided to continue this intervention strategy. Incorporating all eight multiple intelligences in the classroom will help students receive a variety of instructional methods to best suit all of their abilities. Multiple intelligences can be beneficial to all students as traditional classroom methods no longer serve the needs of our diverse students. We realize that some students will need modifications, and one major accommodation will be made in student assessment. In addition to creating lessons based on the students' individual intelligences, we will also create individualized self-assessments around students' intelligence strengths. Another modification would be to change some of the listed behaviors on the observation tally sheet. We feel that some of the listed behaviors were difficult to observe and some were very similar and could be compiled. There were also some questions on the student survey that could be modified to better assess the interests and needs of our students. Some of the questions were rather elementary so the 8th grade students mocked them, therefore not providing proper assessment. Some of the elementary students liked the pictorial representation of the lichert scale and circled based on that rather than the actual question. Modifications may be adjusted per grade level. Overall, throughout this action research project we learned about our students and the additional needs and modifications they individually require.

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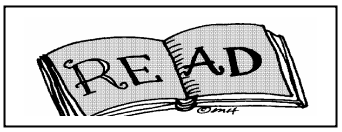
APPENDICES

Appendix A: Observation Tally Sheet



Date: _____

Observation Tally Sheet

(The teacher will observe their students during a 15-minute period of silent reading. They will be looking for behaviors that indicate a lack of motivation to read. The teacher will make a tally each time a listed behavior is seen.)

Behavior	Frequency of Occurrence
Flipping through pages	
Tapping/beating pencil	
Staring into space	
Placing hands inside of desk	
Fidgeting	
Placing head on desk	
Saying "I'm bored"	
Getting out of seat frequently	
Lack of interest	
Complaining	
Doodling/drawing	
Not paying attention	
Doing other work	
Wasting time	
Indecisive on book selection	

Total # of tally marks: _____

Appendix B: Student Survey

Student Survey: Reading Habits

Circle the facial expression that best describes how you feel.

Love it! Like it. Leave it. Loathe it.

---

1. How do you feel when you read a book in school during free-time?

2. How do you feel about reading for fun at home?

3. How do you feel about reading instead of playing?

4. How do you feel about reading different kinds of books?

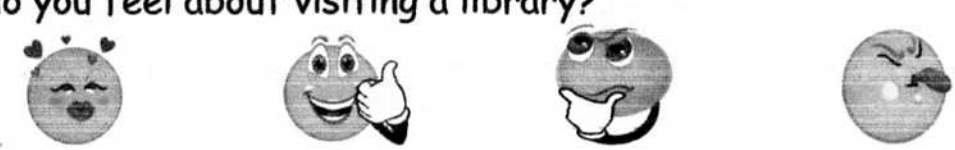
5. How do you feel about how well you read?

6. How do you feel when your teacher reads aloud?

7. How do you feel when you come to a new word in reading?

8. How do you feel when someone at home reads a book to you?

9. How do you feel about visiting a library?



Appendix C: Teacher Survey

Teacher Survey

Please answer the following questions based on your experiences in the last three academic years.

1. Circle the behaviors you have seen students display in your classroom during instruction, reading, and/or discussion time.

*placing head on desk
*saying, AI=m bored.@
*placing hands in desk
*staring into space
*wasting time
*working on other work
*fidgeting
*complaining
*following words, yet not understanding
*Lack of Interest
*getting out of seat frequently
*tapping/beating pencils
*indecisive on book selection
*doodling/drawing
*Flipping through book pages
*not paying attention

2. Circle the strategies that you have USED in your classroom.

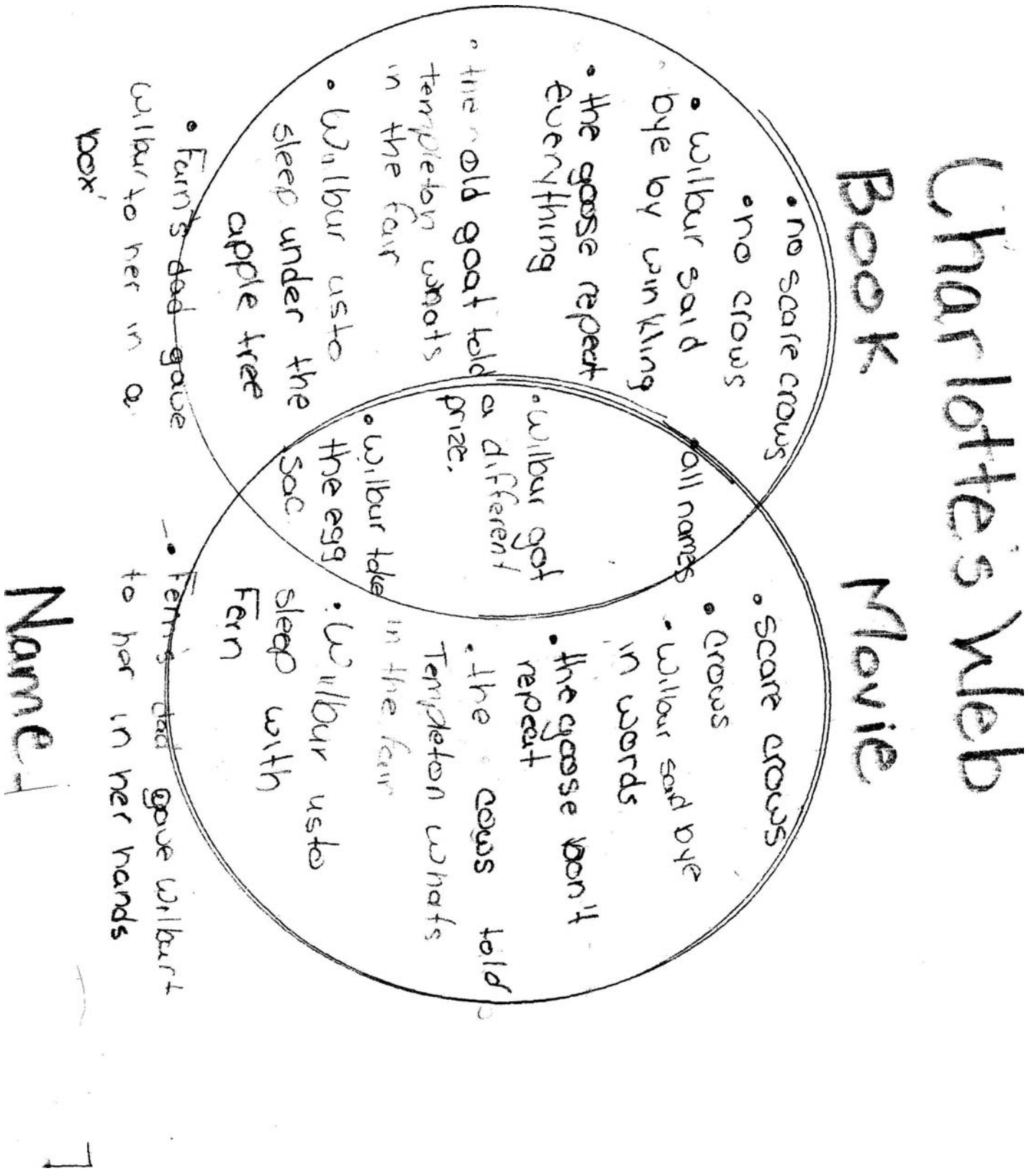
*student-centered learning
*using manipulatives
*journaling
*venn-diagrams
*variety of art material
*role-playing/simulations
*science experiments
*cooperative learning
*playing background music
*self-discovery
*using calculators
*cognitive organizers
*frequent stretching/exercising
*use of nature walks and talks
*Creative group tasks such as mobiles, collages, comic strips, songs & poems
*Creating and using songs, raps, cheers, jingles, and poems

3. From the strategies you have circled above, which strategies have worked in your classroom? Please write them below.

_____ _____ _____ _____
_____ _____ _____ _____

Additional Comments: *(you may use the back if necessary)*

Appendix D: Venn Diagram



Appendix E: Graphic Organizer

Reading a-z **Graphic Organizer** **Word Meaning Map I**

Name: _____

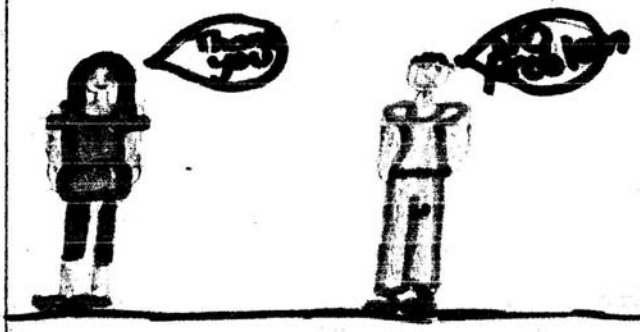
Word: Commend

Definition: to praise someone or something

Synonym: congratulate

Antonym: criticize

Draw a picture of the word.



Use the word in a sentence.

I would like to commend my brother for helping me clean.

INSTRUCTIONS: Have students write a vocabulary word in the oval. Then have them fill in the boxes with additional information about the word.

Appendix F: Intrapersonal Activity