EXPLORING THE EFFECTS OF DIFFERENTIATED INSTRUCTION AND COOPERATIVE
LEARNING ON THE INTRINSIC MOTIVATIONAL BEHAVIORS OF ELEMENTARY
READING STUDENTS

Sue Flaherty
Rhonda Hackler

Approved Content Designation for Teacher Leader Endorsement: Reading, Sue Flaherty
Approved Content Designation for Teacher Leader Endorsement: Reading, Rhonda Hackler

An Action Research Project Submitted to the Graduate Faculty of the School of Education in
Partial Fulfillment of the Requirements
for the Degree of Master of Arts in Teaching and Leadership

Saint Xavier University

Chicago, Illinois

May 2010

ABSTRACT

TITLE: EXPLORING THE EFFECTS OF DIFFERENTIATED INSTRUCTION
          AND COOPERATIVE LEARNING ON THE INTRINSIC MOTIVATIONAL
          BEHAVIORS OF STUDENTS

AUTHORS: Sue Flaherty and Rhonda Hackler

DATE: May 2010

This research report describes interventions implemented in order to improve the intrinsic motivational behaviors of students. The purpose of this program was to strengthen teacher/student and student/student relationships while also positively involving parents in order to provide a supportive learning environment for all students. The target sample consisted of fourth and sixth grade elementary classrooms in a small Midwestern community. The problem of low intrinsic motivational behaviors was documented through classroom observation checklists, student self-reported surveys, and parent surveys.

Analysis of probable cause data revealed student misconceptions that academics are not as fulfilling as other interests or activities, students not viewing classroom participation as a worthy contribution, low socioeconomic status of students, and a lack of parental involvement/influence. Classroom teachers noted high incidence of incomplete homework, low classroom participation, and lower than expected academic achievement. Parents reported student complaints about school, low motivation to complete homework, poor study habits, and disorganization.

A review of solution strategies suggested by educational practitioners, combined with an analysis of the problem context, resulted in the selection of two intervention strategies: the application of differentiated instruction and the use of cooperative learning strategies in each of the targeted classrooms. The researchers developed lessons incorporating these strategies emphasizing choice, trust, fairness, routines, and structure. Constant reinforcement of realistic, yet high, expectations, along with positive feedback, was included for all students. Differentiated instruction was utilized daily and cooperative learning activities were scheduled at least two times each week.

Post-intervention data showed increased student involvement and improvement in class participation, homework completion, and on-task behaviors during group, full class, and independent classroom activities that led to enhanced overall student intrinsic motivation. Increased levels of academic achievement were also noted. Parents and students both reported increased student intrinsic motivational behaviors and tendencies. The researchers concluded that differentiated instruction and cooperative learning activities were effective teaching strategies that raised student intrinsic motivation levels. The researchers recommend that such instruction be implemented in classrooms of any grade.

TABLE OF CONTENTS

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

The targeted students in this study were fourth and sixth graders who exhibited low intrinsic motivational behaviors that interfered with their overall academic achievement. Evidence of the existence of this problem consisted of low incidence of classroom participation, incomplete or late assignments, teacher observations, and student and parent surveys.

Local Context of the Problem

School A

School A is located in a Midwestern state, in a small community that has two other K-4 school buildings. This public school consists of two buildings that are connected by a large passageway. The first building houses kindergarten through fourth grades and consists of four floors. The lower level houses administrative offices, a computer lab, art room, and two cafeterias. Level 1 houses a counseling office, speech, special education, alternative education, three kindergarten classes and three first grade rooms. Level 2 contains the library, restrooms, three second grades, three third grades, and one fourth grade classroom. Level 3 houses two fourth grades and a computer lab. This building was built in the early 1900s and is not handicap accessible, other than a lift that runs from the first to second level. The gymnasium, restrooms,

music room, and three preschool rooms are housed in a two-story building built in the 1990s. This building is handicap accessible and much more modern. There is a large shared playground and ball field on school grounds.

The typical classroom has approximately 25 students. Students have their own desks, except for the pre-k students who share small tables. Each room is equipped with two computers and a small classroom library. A few of the rooms have small tables in them that hold learning centers. Each room has at least two large bulletin boards and two whiteboards that cover any walls that do not have windows. There is a very large variety of posters, both educational and motivational, in every room. Bulletin boards and walls are highly decorated. Storage is lacking, requiring many items to be stored under tables or on shelves in the rooms.

According to the school report card, student enrollment is approximately 470. About 30% of these students come from economically disadvantaged homes. Two county housing projects feed into this school. Breakfast and lunch are served daily. Mobility rate is 15%. The racial/ethnic background of these students is made up of 83% White, 2% Black, 10% Hispanic, 2% Native American, and 3% multi-racial. There is a high unemployment rate for many of these families, while many others could also be considered "blue collar" workers. A typical classroom makeup consists of a heterogeneous assortment of mainly White students with two or three Hispanic or Black students.

This school has 23 certified teachers, including art, technology, music, and physical education. Of these teachers, 63% hold a bachelor's degree while the other 36% have master's degrees. The average teaching experience is 15 years and the teacher's average salary is $56,000. The classrooms are self contained and many are assisted by certified classroom aides when needed, for behavior and support reasons. Other certified staff include a speech pathologist,

registered nurse, psychologist, and social worker. Custodians, lunch personnel, crossing guards, bus drivers, and secretarial staff account for 15 non-certified staff.

This school has a principal who was recently hired. He has limited administrative experience. Each teacher is expected to serve on at least two school committees and one district committee. Collaboration is important, and teachers work together to inform the principal on all school matters. The principal answers to a district superintendent who oversees all school proceedings. District wide in-service training is offered during the year. Faculty members also have the opportunity to attend other professional development workshops, one per year, as desired. Monthly staff meetings provide opportunity for sharing and growth within the school.

Traditional classes are taught in self contained classrooms. A new reading series was implemented in 2008. Curriculum mapping was also started district wide last year. Math, science, language arts, and social science are the core subjects taught. In addition to the core subjects, band, technology, art, and music give the students a well rounded education. Outside community agencies provide lessons in nutrition and agriculture throughout the year. The philosophy of education at this school is to promote and encourage life-long learning among students who will become active in their own learning experience. This is a very student-centered school.

At this time, the entire school district is facing financial difficulties, with the district incurring a 12 million dollar deficit within the next four years. Staff reduction, extra-curricular activities cuts, and pay freezes have all been discussed. The board recently voted to go to the taxpayers for help, but they have rejected previous requests for tax increases. This has brought rejection from community members. Many newspaper articles and negative propaganda have been circulating that have affected the morale of faculty, staff, and parents. Teacher contracts

will be renegotiated next year. School B, which is within the same district, has assigned students to two different facilities in the town due to recent flooding. This has added to the financial burden. Fuel prices have caused busing concerns, and field trips have been cut to one a year. This is a huge issue, as the opportunities for low income students to have outside experiences that add to their limited background knowledge have been greatly reduced. Student achievement remains an optimistic factor with the school meeting adequate yearly progress (AYP) last year. Implementation of Response to Intervention (RtI) began this year to try to boost positive academic outcomes. Many issues face the administration, faculty, and staff of this school in the upcoming years.

This school has a reputation for being a very student-centered, family-oriented facility. Numerous requests come from parents throughout the district each year inquiring about transfer opening availability. Parental involvement is at a fairly high level. Conference attendance rate is 72%. Parent volunteers help in classrooms and do many organizational tasks both at school and at home. These tasks include cutting, stapling, and collating instructional materials. The Parent Teacher Organization (PTO) is run by parents with school faculty also serving on the PTO board. The PTO activities throughout the year are numerous, and fundraising is a priority that many of the parents get involved in. A school newsletter is sent home quarterly with each child and most classes send home a weekly or monthly newsletter on their own. Parents are encouraged to get involved. Open door communication is also encouraged. Parents are often seen speaking with teachers when they come to pick up their children from school. Third and fourth grade students have a planner that goes home each afternoon. Communication is achieved by writing in the planner. Parents and teachers can communicate on a daily basis utilizing the planner. Surveys are

given during conferences and numerous comments are made by parents commenting on the "caring" staff at the school. Parents feel their children are receiving a good education while also being cared for by staff whose number one priority is the students.

School B

School B is in a Midwestern state located within a small community and is the intermediate grade component of the same school district as School A. It is part of a public school system that encompasses three K-4 elementary buildings and a separate seventh and eighth grade junior high building. It is a two story building that was built in the 1950s as a community bomb shelter. The school building includes the office, a library, an auditorium, a gymnasium, a cafeteria, three restrooms, a large playground and track area. There are eight fifth grade classrooms as well as eight sixth grade classrooms. In addition to the 16 regular education classrooms, there are 4 special education resource classrooms, a behavior disorders alternative education classroom, an EMH/TMH classroom and 2 classrooms for the reading specialists. There is a room that the school psychologist and social worker/counselor share when they are in the building. There is an upstairs arrangement of a portable computer lab, and a downstairs full computer lab, an art room, a music room, and a band room.

The typical classroom in the 5-6 building includes approximately 27 student desks, a teacher's desk, and two small tables for small group learning or re-teaching activities. There is also a small classroom library and two classroom computers and a printer. There is adequate space on the walls for large bulletin board displays that exhibit motivational posters, instructional materials, and completed student work as well as two walls of whiteboards used during instructional purposes.

According to the school report card, the school enrollment is approximately 450 students with the typical student body made up of a heterogeneous group of about 83% White, 3% Black, 8% Hispanic, and 4% multi-racial students. The school population has a 36% low income base, an approximately 11% mobility rate, and a 96% attendance rate. The community has a high unemployment rate and is made up of mostly "blue collar" families of low to middle class incomes. Only lunch is provided, and there are no before school or after school programs designated for extra learning support, although many of the teachers provide such support as needed on their own time. The intermediate grade level does provide an after school sports program for both girls and boys basketball and some intramural activities within the school. Bus transportation is provided for the majority of the students to and from school since this school covers a vast area of town and encompasses dangerous intersections and crossing a bridge from one side of town to the other.

In School B the faculty consists of 28 full-time certified teachers. Of these, 16 are classroom teachers, 4 are resource teachers, 2 are reading specialists, and the remaining 6 other teachers come to the school once a week to teach art, music, band, physical education, and computer lab. These subjects are considered our weekly specials.

The teacher has an average of 15 years of experience, with 65% of the faculty holding a bachelor's degree and 35% having a master's and above. The teacher's average salary is $56,000. The certified support personnel include a school psychologist, a social worker, a nurse, and a speech pathologist. The eight certified teaching assistants support various classrooms throughout the day for students with academic needs and behavioral issues as warranted. Four of these eight teaching assistants are in the EMH/TMH room all day. The non-certified staff includes the custodians, the cafeteria workers, the bus drivers, and the librarian.

*S*chool B has a full-time principal on the premises at all times and an assistant principal who splits duties at this school and at the main office as the curriculum director. Both the principal and the assistant principal answer to a district superintendent and the school board who oversee all school proceedings. The average administrator's salary in this district is $95,000. The secretarial/clerical staff includes two full-time secretaries. The school district offers in-service trainings and staff development opportunities throughout the school year. In addition teachers are encouraged to attend workshops and professional growth opportunities outside of the school district with substitutes hired and costs reimbursed by the district. Teachers are involved in building leadership activities and serve on committees throughout the year, with some of the committees being a two- year commitment, such as the School Improvement Team. Students leave school 40 minutes early every Tuesday so that teachers can attend weekly meetings for about an hour and a half on building issues, technology issues, curriculum mapping, and district programming issues.

In the intermediate grade building, the students are neither self-contained nor are they departmentalized. The students are scheduled for classes with a two-teacher team rotation for social studies and science and a four-teacher team for math, literature, and language arts. The four-teacher team format allows for grouping for an advanced math and an advanced literature and language arts program for students to receive greater challenges beyond the determined mainstream curriculum level. The school is very student-centered, with full inclusion taking place in all but the newly implemented Response to Intervention (RtI) initiative for reading that was implemented in the 2008 school year. Tier two students are pulled from social studies, and tier three students are pulled from both social studies and science for intense reading intervention strategy implementations. The goal of this RtI instruction is to increase students' reading levels

and return these students to the full classroom setting as soon as possible with benchmarking and diagnostic testing done often to check student progress.

The core curriculum is reading, English, spelling, math, science, and social studies. The extra subjects offered to all students are band, music, art, and technology. Curriculum mapping began in this school district in 2007 and is on-going. A new reading series was implemented district-wide for students in grades K-8 in the 2008 school year. The focus and philosophy of the district is to give full advantage to all students to provide them with a well-rounded education to serve students today and beyond so they may become life long learners and contributing members of society.

This school has been recognized for making adequate yearly progress (AYP), despite the many challenges it faces, such as a high mobility rate, low income of many families, the number of single family homes, and the unemployment factor of this blue collar community. The majority of families send their children to this school because it is the only public school in the town supported by taxpayer dollars instead of tuition-based parochial schools in the community that many families could not afford. This school provides field trips, guest speakers and programs, some community involvement by the students and faculty, and quarterly award recognition programs for achieving students. The best thing that can be said about this school is the pride factor in this close-knit community. Many families are involved in the school activities during and beyond the school hours such as attending school band programs, talent shows, and plays.

This school faces a huge financial debt and lack of public support to fund a referendum. With the number of low to middle income families and high property taxes already, many families just can not afford to say "yes" to more expenses from their family budgets. Another

concern for this particular school and the community is the very close proximity to the river. Last year the school incurred minor flooding, and this year the school incurred severe flooding that caused the relocation of all students and teachers for the remainder of the school year and an estimated loss in excess of a million dollars. Teachers face the difficulty of providing the best education possible with limited economic resources. A fear of layoffs and cutbacks with pending contract negotiations in a district of looming debt is another major concern. In addition, faculty often work under extreme conditions due to the displacement relocation situation while trying to focus on meeting No Child Left Behind mandates and making AYP under these conditions. There is no longer adequate space to house all the educational programs at present with the loss of a building that housed 16 regular education classrooms.

This school met the goal of at least one contact during the year with each parent. Parents are invited to volunteer, but volunteering is not mandated or required. The direct involvement of parents is less at this grade level, and may be due to the nature of the age of the students. By the time students reach the intermediate grade, many students do not want their parents volunteering at the school during school hours. This school does have a parent teacher organization (PTO) that is involved in raising funds to support the school and provides the students with the extras that the district may not pay for under tight budget constraints. Parents readily attend open houses, curriculum nights, concerts, plays, talent shows, and other programs that involve their children after school hours. Parents are encouraged to stay in contact with teachers and the administration through phone calls, in person, by email, and by visiting the school website, along with many written notes and newsletters being taken home by the students.

Community Context of the Problem

The school district is comprised of five school buildings. Three of these buildings house students in grades K-4. One of these buildings also contains three preschool classes. The intermediate school building enrolls students in the fifth and sixth grades. At this time fifth graders are located at a local church, and the sixth graders are housed in the junior high school due to recent flooding. Usually the intermediate grades are together in one building, but at this time the building is under renovation until damage from flooding can be repaired. The junior high is comprised of all seventh and eighth grade students and has its own building. Preschool through eighth grade students are served in this district.

The administrative makeup of the district includes a superintendent who oversees the principals of these schools. Both the junior high and intermediate schools have a principal and an assistant principal. These individuals form an administrative team that meets regularly to discuss district related business. Each school building has one or two secretaries who work with that school principal. The superintendent has an administrative staff within his office that includes a district secretary, faculty coordinator, payroll administrator, curriculum director, special education secretary, and head of maintenance. The district employs numerous faculty and staff. The number of teachers in the district is approximately 140.

The strengths of this district are many, including highly qualified teachers, with many holding master's degrees, maintaining open communication with administration, encouraging professional growth and development opportunities, co-teaching, supporting staff training, holding building meetings to keep abreast of current issues, making plans to meet students' needs, encouraging parent involvement, having all schools meet AYP, developing a research-based curriculum, and developing a sense of community throughout the district.

The population of this community is 18,500 with the median age of 38. The work force consists of manufacturing, retail, healthcare, and educational service jobs. The unemployment rate is 7%, with 37% of the population falling into the low income category.

The community in which the district is located is very aesthetic with much history. The community lies between two major rivers and a major interstate that runs through the north end of the town. The area has a small recreational airport, railroad transportation, river transit, and a small scale taxi and bus service. There are several state and city parks within a close proximity that offer many recreational opportunities.

Advantages to living in this community include a sense of family safety and the emphasis of small town values. Service industry, skilled trades, and professional level employment provide a wide variety of opportunities to encourage people to live in this locale. Its location within an hour drive of major cities also entices people to relocate to this area. The area boasts a low crime rate and offers many religious and community involvement activities for young and old alike. While some of these advantages may draw people to the region, the unemployment rate and changing of job classifications to secure employment promotes a high mobility rate within the school system. Property taxes are quite high and discourage a large percentage of the population from voting for tax increases that would benefit the school district.

<center>National Context of the Problem</center>

Beginning with the publication of *A Nation at Risk* in 1983 and continuing into the present, there has been widespread concern about declining student achievement (Voke, 2002). Nationwide, teachers face a daunting task of making learning relevant. Statistics of the silent epidemic of apathy among students today show an annual drop-out rate in American high schools of 1.1 million students; every 29 seconds another high school student quits. One third of

high school students expected to graduate each year do not graduate with their class. For low income students, the dropout rate is six times that of high income students (Foster, 2008). These statistics are staggering for a nation that prides itself on educational values. In this day and age, youth want or need immediate gratification, and they desire to be entertained. Less than a generation ago students did not have the WII, camera cell phones with text messaging, video games, I-pods, and computer graphics of the magnitude of today. Today, everything is fast action, colorfully presented, and interactive compared to an inanimate stationary textbook which must be read. Students no longer passively accept the learning styles of yesterday, nor are these students motivated in the 21st century for today and the future. Because of this, teachers must be innovative, creative, and reach students on a level in which they will achieve successful learning.

Csikszentmihalyi and Nakamura reported that even though the intrinsic motivation should be the desired goal, most of the activities people do are influenced more by extrinsic rewards rather than intrinsic motivation (as cited in Summary of Intrinsic Motivation, n.d.). Lack of motivation has become epidemic not only among students but also for many working class adults as well. Respondents to a national human capital survey concluded that the epidemic in America's workforce is not due to poor health but is factored by low motivation (Lynch, Gardner, Meloniam, & Kleinman, 2007). Reported problems affecting productivity, in schools and in the workplace, are most frequently attributed to low motivation. The prevalence of extrinsic rewards used to motivate students and workers has undermined the value of the work process. Students and workers work to get the prize. Once the prize is attained, the new established goal may not seem worth all that effort again, or the next prize must become bigger and better to put forth the effort. The desire to achieve diminishes unless the person starts feeling good internally about their personal accomplishments.

Another problem that interferes with motivating today's students is a great range of disparity in the learner's capabilities within the same classroom. There may be a few "perfect" students with lofty goals and desires to achieve, but the vast majority of the students do not come to school with self-motivation already instilled within them. As teachers try to motivate all of their students to succeed, some of these students will only be motivated by extrinsic rewards. Without those "carrots" offered, some students may never produce the desired outcome. An incentive that motivates one learner may actually inhibit the behavior of another learner (as cited in Summary of Intrinsic Motivation, n.d.). As full inclusion in the classroom becomes the norm, one student may feel competent and be stimulated to study harder while other students may feel a "What's the use mentality" that would lead them to not try at all. If these students avoid activities because of motivation problems, a type of helplessness can occur and carry over into other areas of their lives as well.

Students who are extrinsically motivated out of fear of punishment or penalties many become resentful, resistant, and disinterested and often disengage themselves from the learning environment. In many instances today this occurs in classrooms across America. Motivation comes from a belief that meaningful rewards can and will result from one's effort (Lynch et al., 2007). Unless teachers channel this motivation into helping students feel good about themselves and their learning, the issues of acting-out behaviors may increase and lead to bullying and outright disrespect for others. Lack of self-esteem and self-worth can and does lead many of these students to eventual drop-out status in their later educational years. If teachers only look at the academic issues trying to raise test scores and reduce drop out rates to improve the academic performance of schools without focusing on the role the student behavior issues play in the lack of motivation, they will continue to fail to meet all students' needs.

According to Rosenblum-Lowden (as cited in Better Teaching Classroom Ideas to Improve Student Achievement, 2008), students have many reasons for not completing homework. For this reason, teachers must use encouragement and praise instead of resorting to punishment or penalties. For most young students they need to see a reason to do the work that affects them immediately, not in the future long-range plans that are too far off to see as having an effect on them.

Many increasing demands, such as the pressures to meet adequate yearly progress goals and No Child Left Behind mandates, weigh heavy on teachers' minds. The requirements to perform many more duties and tasks that take time away from actual teaching force many teachers to give less latitude to the students and to keep more control in their own hands. This in turn becomes a vicious cycle that contributes to low motivation and morale among the student body, and to low quality work produced in return. Research conducted in North America found that extrinsic motivation hinders creativity but has little effect on academic performance (Moneta & Siu, n.d.). The emphasis put on the high stakes tests can also overwhelm the students and decrease any motivation they might have had. Both the stress of these tests and boredom with repetitive tasks and assignments factor in to the extent that neither the students nor the teachers come out in a win-win situation.

According to Voke (2002), educators and education policymakers need to understand the value of student engagement in the process of learning and also the conditions that may encourage or discourage its development. Without incorporating challenging, authentic, and collaborative assignments and assessments that engage students to be responsible for their own learning, the nation may be doomed to fail these future leaders. Society is moving to a more cooperative problem-solving workplace where individuals are expected to work together more

and more, instead of in jobs and occupations of the past where an individual's success in the workplace was determined by work often done in isolation.

Another factor that compounds the role of intrinsic motivation versus extrinsic motivation in schools is the tendency of students to have an either–or idea of success for themselves. While some students really want to understand the material for the satisfaction the acquired knowledge will give them, others want to learn it strictly for the purpose of achieving the desired grade. One focuses on mastery while the other is focused on performance. McKinney (n.d.) reported, regarding intrinsic versus extrinsic motivation, that although educators want students to be motivated by the love of learning, the vast majority are motivated by tangible rewards of grades, points, and class rank for their academic efforts.

Teachers must try to find a happy median or balance, and can only do so by establishing how success will be measured in the classroom. Once again, the standards of success may vary from teacher to teacher, grade to grade, school to school, and on the broader picture – community to community and state to state. Without a national standard or consensus on the definition of successful learning, how can teachers expect students to be motivated to achieve? Voke (2002) stated that schools need to provide learning environments that foster student engagement. Every teacher must see a need to set the bar high enough for all students to not only be challenged but to see them achieve.

In America today, not all educators are totally vested in helping all students show motivation by clearly stating what is expected of them, showing them their effort is worthwhile, and helping them feel they can benefit from a positive performance in the long run. If teachers do not see this step as part of their responsibility and their job, how will students see the need to internally motivate themselves? In the United States a day at the beginning of January is

observed as Motivation and Inspiration Day (January 2nd of Every Year, 2007). In a nation that

prides itself on the work ethic, Americans should be motivated and inspired every day. Wouldn't

it be great if more children would empower themselves to "turn on the juice" and live their lives

to their potential without the reliance on external means?

CHAPTER 2

PROBLEM DOCUMENTATION

Evidence of the Problem

Students who exhibit low or poor intrinsic motivational behaviors are less likely to do

well academically, and their overall learning potential may be affected. For this reason, as

educators we see a great need to address this problem. Unless intrinsic motivation becomes the

individual desired norm, students' academic achievement may remain stifled. Teachers have a

daunting responsibility to pique students' self-motivation, so all students achieve their greatest

potential to become successful contributing members in society in the future.

Evidence used to document low intrinsic student motivational behaviors include student

surveys, parent surveys, and teacher observation checklists that include: class participation,

homework completion, and on-task behaviors during group, full class, and independent

classroom activities.

Table 1

Frequency and Means of Observed Behaviors of Fourth and Sixth Grade Students Prior to Intervention

Behavior Category Prior to Intervention	4th Grade Frequency	Mean	6th Grade Frequency	Mean
Lack of Class Participation	4	.16	7	.28
Incomplete Homework Assignments	12	.48	6	.24
Off-Task Behaviors				
Group	7	.28	5	.20
Full Class	4	.16	4	.16
Independent	12	.48	7	.28
Lack of Home Involvement/Support	12	.48	6	.24

n = 25 Fourth grade students
n = 25 Sixth grade students

When observing fourth and sixth grade students in the classroom at the beginning of the school year, three significant behavioral concerns were found that needed to be addressed. These three prominent detrimental behaviors to students' academic achievement were; incomplete homework assignments, off-task behaviors during independent studies, and lack of home involvement/support. See Table 1 for data of negative observed behaviors prior to intervention.

During the initial two week observational period, 12 out of 25 fourth graders and 6 out of 25 sixth graders had incomplete homework. Teachers would hope that all students were "putting their best foot forward" at the beginning of the school year, so this was a major red flag. Looking at the same statistics for lack of home involvement and support, the correlation provided further insight for a possible reason or theory as to why homework was not completed.

When students were responsible to work independently on a task, 48% of fourth graders and 28% of sixth graders were off-task. Even with two more years of maturity, the numbers did not show the desired decrease educators would hope for.

Table 2

Frequency and Means of Self-Reported Student Work Habits Survey of Fourth and Sixth Grade Students Prior to Intervention

Reported Attitudes Prior to Intervention	4th Grade		6th Grade	
	Frequency	Mean	Frequency	Mean
Putting forth effort **only** to please parents	5	.20	8	.32
Putting forth effort **only** for tangible rewards	2	.08	6	.24
Does not see importance of teachers valuing student work habits	5	.20	16	.64
Does not see importance of implementing positive work habits until they are older	2	.08	6	.24

n = 25 Fourth grade students
n = 25 Sixth grade students

Student self-reported attitudes regarding academic efforts and their own beliefs regarding the importance of teachers valuing their work habits showed relevance to a lack of student intrinsic motivation. Students' poor intrinsic motivational behaviors negatively affect their overall learning potential.

Table 2 demonstrates the following student reported attitudes prior to interventions in the classroom. Thirty-two percent of sixth graders and 24% of fourth graders reported they put forth effort only to please parents, which clearly reveals the lack of intrinsic motivation desired.

Next, a dramatic point of reference exhibited on this student survey was that 64% of sixth graders and 20% of fourth graders do not see the importance of having teachers value their work

habits. In both areas a major increase in negative percentages intensifies the need for

intervention. As academics become more difficult, and if student intrinsic motivation does not

increase, it is likely to be detrimental to any and all future success.

Table 3

Frequency and Means of Parent-Reported Student Motivation Survey of Fourth and Sixth Grade Students Prior to Intervention

Reported Attitudes Prior to Intervention	4th Grade Frequency	Mean	6th Grade Frequency	Mean
My child is disorganized	13	.52	15	.60
My child has poor work/study habits	12	.48	7	.28
My child does not work to his/her potential	18	.72	15	.60
I have to remind him/her to do homework	17	.68	16	.64
My child often complains about school	5	.20	10	.40

n = 25 Fourth grade students
n = 25 Sixth grade students

In reference to Table 3 where parents anonymously reported their child's motivational

behaviors prior to interventions, 72% of fourth grade and 60% of sixth grade parents believe

their child does not work to his/her potential. Sixty-eight percent and 64% respectively also

noted they must remind their child to do their homework. As educators, referring back to the

reported lack of home involvement and support noted in Table 1, is it realistic that these parental

views are accurate? Another surprising point of interest regarding the sixth grade data in

particular, is the factual records showing how many office referrals for lack of homework

completion occurred when these students were fifth graders.

Knowing that organization is an important key to student achievement, it is notably

disheartening to see that 52% of fourth grade and 60% of sixth grade parents admit that their

child is disorganized. This must be an integral piece to the learning puzzle if students are to

improve their intrinsic motivation.

.

Probable Causes of the Problem

One crucial factor that plays a major role in student intrinsic motivation is the extent and

influence of parental involvement. Lumsden concluded that the earliest influences on children's

motivation to learn are parents and others in the home (as cited in Increasing Student

Engagement and Motivation: From Time on Task to Homework, 2008). When the values and

attitudes of these significant role models are contradictory to society's desired norms and goals

for overall success, student motivation may suffer. If parents do not provide constant reinforced

support, structure, and encouragement, students' motivation to learn and succeed often

diminishes. Parents' attitudes and values related to education play key roles in nurturing a

thriving environment.

Student perceived priorities about their own educational learning versus outside

influences and activities is key in determining their intrinsic motivational levels. Seasonal trends

such as sports, holidays, or vacation breaks dictate not only school attendance but work ethic and

overall participation in the classroom setting. For example, if students feel baseball practice or a

game is more important than doing assigned homework, they may not be motivated to complete

the homework. Johns and Lenski (1997) point out that academic studies in general do not

provide the same fulfillment as nonreading activities.

In addition to this factor, students' feelings of worth as contributing members in the classroom may affect motivation. Bransford, Brown, and Cocking pointed out that people are motivated to achieve when they feel they make a positive contribution to the group (as cited in Info Brief, 2002). Students contribute to positive class discussions and participation when they feel needed. If confidence is lacking in this area, perceived negative self-worth often decreases intrinsic motivation. The demands of high-stakes testing may further reduce student confidence and lead to student apathy. When students feel overwhelmed with the pressure of these tests, intrinsic motivation is destined to suffer (Motivation for High Stakes Testing, n.d.).

An underlying factor that teachers have no control over, socio-economic status, is a huge indicator of intrinsic motivation. When students lack access to basic needs, which are the first priority, they can not see or focus beyond fulfilling this immediate need. Parent unemployment, family mobility, single parent households, or substance abuse can impact student motivation. Material advantages such as access to technology, transportation, books, and extended cultural opportunities may widen the gap of socio-economic disparity. Guice reported that children from low income schools have 50% fewer books in their libraries than wealthier school districts, and they are the students most in need of these resources (as cited Teaching Reading in Middle School Theory and Practice, 2000). According to a study done by Australian Government Department of Education in 2003, students with high average socio-economic status had higher levels of student engagement, and thus exhibited more student intrinsic motivation for success.

Erickson said many students are viewed as naturally enthusiastic about learning, but some need or even expect their instructors to inspire, challenge, and stimulate them (as cited in Motivating Students, 1999). This may be an overwhelming concept or feat for teachers to address in light of the many other initiatives educators already face, but it is a responsibility that

cannot be ignored. The simple aspect of the time required to cover the overwhelming amount of curriculum puts time at a premium. To prepare actively engaged student-centered lessons that will motivate students takes time; something teachers just do not have (Peterson, B. n.d.). Meeting the demands of high-stakes testing and adequate yearly progress expectations sadly places teachers in the position of choosing between imposed accountability and fostering student interest in the subject area (Vacca & Vacca, 2008). If students are to thrive in the classroom situations, teachers must find ways to develop and encourage intrinsic motivation for each and every student. Regardless of the level of motivation a student brings to the classroom, teacher attitudes and actions help determine the progress that students made.

CHAPTER 3

SOLUTION STRATEGIES

Review of the Literature

Addressing student motivation within the classroom is necessary and important to the overall achievement and successful development of well-rounded students. "Motivation, the processes used in arousing, directing, and sustaining behavior (Ball, 1977), is integral to learning. It is that force which compels a student to act, continue the action, and move to completion of the task" (Wlodkowski, 1984), (as cited in Into Focus: Understanding and Creating Middle School Readers, p.54, 1998). Extrinsic and intrinsic motivation play a large part in this development, but establishing intrinsic motivation within each student should be educators' primary goal. In order for lifelong learning to take place, intrinsic motivation must be

an individual's internal desire. This will lead students to achieve their highest potential as contributing future members of society.

Educational literature supports the importance of intrinsic motivation to take precedence over extrinsic motivation. Extrinsic motivation starts off to encourage student engagement to achieve rewards but does not support sustainable goals. Once the short term reward has been achieved students no longer have motivation to retain the learning (Failure of Extrinsic Motivation, n.d.). Lepper and Hodell concluded from research of two decades that extrinsic motivation, while focusing only on the material motivator, is likely to have the reverse effect on overall student achievement. On the other hand, intrinsically motivating activities engage students for the sheer interest factor and enjoyment of discovery (as cited in Intrinsic Motivation, n.d.). For these reasons, our literature review focus will be intrinsic motivation.

The three major areas of focus in the literature review that benefit increased student intrinsic motivation include: 1) cooperative learning experiences among peers, 2) differentiated learning instruction to improve student/teacher relationships, and 3) greater parental involvement.

When cooperative learning among peers is encouraged, students have a means to meet social needs while also reaching academic goals. Kagan defines cooperative learning as peer interactions where positive relationships, collaboration, learning and shared participation are used to teach any subject matter (Kagan, 1994). Johnson and Johnson feel that in cooperative learning settings, members learn to rely on each other and accept the group goal of interdependence where they sink or swim together (Johnson and Johnson, 1988). According to McKeachie, classroom discussions enhance learning, elaborate on the subject matter, and increase retention. Opportunities arise for misconceptions and new ideas to be addressed (as

cited in Teaching Central, 2006). Less able students are able to learn from the modeling

provided by the more confident students. This collaboration will spark intrinsic motivation

(Atwell, 1998). Without heterogeneous grouping, frustration may lead to lower intrinsic

motivation. For this reason, encouraging mixed ability cooperative activities will promote an

improved sense of pride that will positively affect student performance. Students are more

willing to participate as confidence rises (Mills, 2007).

Another aspect to building intrinsic motivation is active participation of students in their

own learning. The school environment should facilitate learner independence through the

natural learning process of responding to meet students' needs and interests. Differentiated

instruction offers a balance between independence and guidance (Brewster & Fager, 2002).

When students are involved in problem solving and critical thinking activities in group settings,

they become more involved in the process of the lesson at hand. Because they feel needed and

are contributing, their self esteem rises and therefore, intrinsic motivation also increases (Harris,

1991). Bligh reports that students exhibit improved comprehension, are more productive, and

show greater attention to learning, and are more open to varied instruction in cooperative

learning settings (as cited in Motivating Students, 1999). Building these relationships and the

sense of belonging that cooperative learning provides will instill the value of teamwork over

competition. This intrinsic motivation factor will extend beyond school and into the adult

workplace. Learning to work cooperatively at a young age will be a keystone to establishing and

maintaining strong marriages, stable families, satisfying careers, and lasting friendships (Johnson

and Johnson, 1988).

Differentiated instruction, first and foremost, meets the need of seeing students as

individual learners. With that thought in mind, teachers have the responsibility to create a

supportive teaching environment where each student feels valued. Feeling valued builds intrinsic motivation which in turn leads to students valuing their education. McKeachie confirmed that when teachers plan assignments, giving students choices enhances their sense of control. It supports student autonomy and greater intrinsic motivation follows. Being accountable for their choice of assignment also helps them mature and grow (as cited in Motivation in the Classroom, 2006).

Differentiated instruction helps students reach their academic potential when together, teachers and students, set high, yet realistic, goals. When expectations are high, students are likely to seek activities and outcomes that have more value. Intrinsic motivation is the product when values interact with expectations. In classrooms that use differentiated instruction, learning choices tap into students' developmental levels, interests, and learning styles (Tomlinson, 1995). Differentiated lessons allow students to avoid mundane assignments that seem boring or embarrassing, or even remedial. When work is too easy, students see little need or value in participating (Addressing Barriers to Learning, 2006).

Teacher-student relationships impact student achievement and involvement. For this reason, differentiated instruction should be a major focus because it allows for teachers to give more positive feedback so students see what they do well. This in turn will build better student-teacher relationships (Robb, 2000). Honest, fair, and positive statements from a teacher serve as powerful motivators to raise intrinsic motivation, so teachers need to be consciously aware of not only verbal comments, but also their own body language. This will communicate acceptance and understanding to the student (Helping Students Become Motivated Learners, n.d.).

Lumsden believes that the environment of the child's home forms the attitudes that a child holds toward school and learning. If the environment boosts a child's interest in discovery

and their own inquisitiveness, the child's natural desire to learn increases as well as their inner motivation (as cited in Increasing Student Engagement and Motivation, 2002). Those close to the child can nurture this sense of autonomy. Without that nurturing guidance in the home, students' competency can be undermined, they can become disengaged, and because of that there is then a decrease in the intrinsic motivation for learning. A study done by the Australian Government Department of Education in 2003 found that when parents make a committed effort to be involved, student engagement and achievement increases. This contribution of a positive parent-student relationship significantly builds an important aspect within the desired school culture. For these reasons it is imperative that educators encourage parent involvement as much as possible.

According to Patton, active parent involvement has shown to provide numerous benefits for students, including raising student engagement and motivation in the classroom. By including parents in the educational process there will be a vested cooperative support system for the child where teachers and parents can communicate ways to aid and sustain students' learning in school and at home (as cited in Increasing Student Engagement and Motivation, 2002). Patton feels discussions on such topics as what roles parents should take in regards to homework may encourage parents to become more active participants and thus benefit the student. Parents' use of punitive actions or giving rewards for grades in student performance may inhibit student intrinsic motivation. When students exhibit anxieties about parent expectations or being compared to other students or siblings, their interest in learning will diminish and detract from the desired intrinsic motivation we hope to see achieved (as cited in Increasing Student Engagement and Motivation, 2002).

Renchler stated that parents can play a critical role in all aspects of the school community. Educators need to develop ways to involve parents such as encouraging them to visit the school, inspire them to volunteer to help with classroom projects, and strengthen the idea of keeping the lines of communication open (as cited in Increasing Student Engagement and Motivation, 2002). Communication may be in the forms of phone calls, emails, and letters sent home informing parents and families of school activities, supportive and encouraging ideas to use in the home, and recognition of successes made by the child to celebrate at home. When parents are supportive of the efforts made in the school environment, students and parents feel welcomed. Students are comfortable in taking risks and more confident in the classroom. All of this will foster the increased intrinsic motivation in student learning that educators strive to establish.

Implementing differentiated instruction and cooperating learning so that teacher/student and student/student relationships are strengthened may improve student intrinsic motivation. While focusing on these solution strategies, many interventions will be utilized. Individualized instruction relevant to students' interests and learning styles will offer choices resulting in increased self-expression, creativity, and personal interest. This will lead to increased intrinsic motivation for each individual student while they master the grade level required curriculum. A supportive teaching classroom atmosphere that provides positive feedback and classroom management that emphasizes trust, fairness, structure, and routines will be another focus of intervention to build confidence and motivate students. A final intervention will be to incorporate realistic, yet high, expectations for all students so that they value learning just for the sake of learning. Constant reinforcement of high expectations in regards to classroom academics and behaviors will contribute to students believing in themselves and accomplishing tasks at hand.

These realistic interventions will lead to not only academic, but also overall personal intrinsic motivation as well.

<center>Project Objectives and Processes</center>

As a result of implementing differentiated instruction and cooperative learning within the classroom during the period of September 2009 to March 2010, the targeted fourth and sixth grade students will see increased gains in their intrinsic motivation as indicated by academic performance and classroom behavior as measured by student surveys, academic assessments, and observation checklists.

- Implement individualized instruction within the lesson plans
- Create assignment activities that offer choices based on students' interest and learning styles
- Utilize cooperative learning groups 1-2 times per week for 25 minutes
- Provide supportive teaching atmosphere with positive feedback
- Emphasize trust, fairness, structure, and routines to build confidence and motivate students
- Set high, yet realistic, expectations for students to attain
- Institute a record system to monitor student progress

<center>Project Action Plan</center>

Week 1-September 7-11

- Observe student behaviors and attitudes concerning school work ethic

- Elicit student perspectives regarding attendance, participation, homework completion, grades, and overall value of school through class discussion

- Take anecdotal notes regarding individual student comments and actions

Week 2-September 14-18

- Observe student behaviors and attitudes concerning school work ethic

- Send out permission slips to students

- Discuss goals with students

- Review professional literature on differentiated instruction

- Introduce and practice classroom management routines and expectations

Week 3-September 21-25

- Administer student survey

- Send out parent survey

- Record data of surveys

- Document initial student checklist

Week 4-September 28-October 2

- Reinforce classroom management plan

- Provide instructional assignments that offer student choice

- Implement cooperative grouping activities

- Develop enhanced student participation through team-building lesson

- Documents student checklist

Week 5-October 5-9

- Continued reinforcement of classroom management plan

- Offer constructive criticism and praise often throughout the week

- Reinforce high expectations in regards to classroom academics and behavior

- Document student checklist

Week 6-October 12-16

- Arrange student/teacher conferences to discuss individual progress in meeting classroom expectations

- Continued implementation of student sharing of projects and assignments from team-building lesson

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 7-October 19-23

- Students role play activity within content area to build confidence in the classroom

- Review quarterly academic grades with students and discuss attainable individual goals for the next grading period

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Continued reinforcement of classroom management plan

- Document student checklist and analyze progress

Week 8-October 26-30

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Continued reinforcement of classroom management plan

- Document student checklist

Week 9-November 2-6

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 10-November 9-13

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 11-Novermber 16-20

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 12-November 30-December 4

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 13-December 7-11

- Continued cooperative grouping activities

- Continued relevant instructional assignments offering choice

- Offer continued positive immediate feedback often

- Document student checklist

Week 14-December 14-18

- Send out repeated parent survey

- Administer repeated student survey

- Document final student checklist

- Review and compare individual first and second quarter grades with students to assess whether goals were met

Week 15-December 21-23

- Record and analyze data

- Celebrate student successes

Methods of Assessment

In order to assess the outcomes of the intervention, student surveys were developed by the classroom teachers to be administered during the first and final weeks of the research study for the purpose of documenting perspectives regarding attendance, participation, homework completion, grades, and overall value of school. An observation checklist addressing student behaviors of class participation and on-task actions will be completed weekly by the classroom teacher. In addition, a tally record of planners being signed and homework completion will be retained as further documentation.

OBSERVATION CHECKLIST

Month:

Observable Behaviors	Week One	Week Two	Week Three	Week Four	Week Five
Planner not signed					
Homework turned in late					
Does not participate in class activities					
Not on task during class time					
Not on task during independent time					

STUDENT MOTIVATION SURVEY FOR PARENTS

Please fill out the following survey in order to help us better understand your child. Circle the number that best describes your feelings for each question. Thank you for taking the time to complete this!

My child is very well organized.
Less True – 1   2   3   4   5   - More True
My child has good work habits and study habits.
Less True – 1   2   3   4   5   - More True
My child works to his/her full potential.
Less True – 1   2   3   4   5   - More True
My child always does his/her homework with me having to remind him/her.
Less True – 1   2   3   4   5   - More True
My child likes to put a lot of thought and effort into his/her work.
Less True – 1   2   3   4   5   - More True
My child would rather be seen as 'school smart' than 'street smart.'
Less True – 1   2   3   4   5   - More True
My child rarely complains about school.
Less True – 1   2   3   4   5   - More True
My child works hard in school even if he/she doesn't like the teacher.
Less True – 1   2   3   4   5   - More True
My child has a positive attitude and beliefs about school.
Less True – 1   2   3   4   5   - More True
I believe my child's success in school will enable success in the future.
Less True – 1   2   3   4   5   - More True

Getting to Know Your School Work Habits Survey

Circle one: Male   Female   Grade Level _____   Date_____

Please be very honest in sharing your own true feelings regarding these statements about yourself in relationship to the school environment and your learning. <u>This is not for a grade, and you will not be judged on your answers.</u>

	<u>Agree</u>	<u>Disagree</u>
1. I enjoy school for socializing with my friends but also for the educational learning I receive.		
2. I do not see homework completion and class participation as necessary to my learning.		
3. I only do well to make my parents proud or to keep them from punishing me.		
4. I am motivated to do well in school only if there is some tangible or concrete reward offered for doing well.		
5. I do well so that I can feel proud about my abilities.		
6. I do not need "things" as a reward for doing my best in school. My grades and the learning I receive are enough.		
7. If I want to go to college someday, I know I need to do my best now to set good work habits for myself on my own.		
8. I do not see why my teacher wants me to take a survey about my personal school work habits.		
9, It is okay to have a "what's in it for me" attitude about school.		
10. It won't be until I am older that I will care how I do in school, and that is to be expected.		

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of the project was to improve intrinsic motivational behaviors of fourth and sixth grade students that interfered with their overall academic achievement through the use of differentiated instruction and cooperative learning. To achieve the objective the researchers chose to monitor daily planner compliance in order to actively involve parents to encourage and support their children in taking responsibility for this as a daily routine. This intervention was designed to increase parental involvement, while the following interventions implemented by the researchers, were meant to increase overall academic achievement of all students. The researchers implemented individualized instruction within lesson plans, created assignment activities that offered choices based on students' interests and learning styles, utilized cooperative learning groups once or twice per week, provided a supportive teaching atmosphere with positive feedback and emphasized trust, fairness, structure, and routines to build confidence while motivating students. High, yet realistic, expectations were set for students to obtain, and a record system was instituted to monitor student progress.

Prior to beginning the research, a parent consent form was given along with a letter explaining our research objectives. Parents completed a survey that reported their child's motivational behaviors prior to beginning any interventions. The five criteria that showed evidence of greatest concern were: disorganization, poor work/study habits, not working to his/her potential, lack of student of initiative to complete homework, and student apathy concerning school in general.

Students also completed a self-reported survey regarding their perceived attitudes concerning personal academic efforts and beliefs of their own motivational behaviors. The needs

most evidently displayed resulting from the survey, before implementing interventions were: 1.) Students reported putting forth effort only to please parents. 2.) They reported putting forth effort only for tangible rewards. 3.) Students did not see importance of teachers valuing student work habits. 4.) Students did not see value in implementing positive work habits until they were older.

Prior to initiating intervention, during weeks one and two in the sixth grade classroom discussions the students shared opinions as follows: Male-"These years do not count. It starts counting on your record in high school then grades matter." Three females- "I definitely want my parents to be proud of me doing well, but I want good grades too." A second male commented he gets grounded for every C or lower on his report card. A third male said he gets $20.00 for every A on his report card. Several students felt as long as they made up the work before the report cards went home, they did not see why it mattered if they were tardy or absent. Others chimed in with comments about missing their friends when they are not in school or the fact that it is harder to catch up when you are absent. One student asked me just how high my expectations were. I replied, "High enough to challenge you and make you think."

These extreme variations in responses and beliefs supported a need for intervention, a need to attempt to change their motivational behaviors, and a need to enlighten them to view learning as important. Once these discussions were completed and we started actual content area work, the volunteering and participation was reduced considerably. I took into account that some students were nervous or shy the first weeks of school when not all students in the class knew each other. The fear of not knowing the answers in front of others can also be intimidating until a sense of a safe community environment can be established in the class. In these first two weeks, off-task behaviors in small groups resulted in 11 tallies; independent work time-15 tallies, and full class activities-15 tallies. Many students had late work- 12 tallies and 10 tallies were recorded for student planners not being signed.

Researchers compiled data from a checklist of observed behaviors of fourth and sixth grade students at the beginning of the school year, prior to intervention. The findings were: high incidence of low classroom participation, prevalence of incomplete homework assignments, numerous off-task behaviors in group, full class, and independent settings, and lack of home involvement/support was evidenced by the void of a parent signature in student daily planners. These observations were recorded over a two week period in order to substantiate the need for classroom interventions that would lead to a greater increase in student intrinsic motivation as well as successful gains in overall academic achievement.

To begin the interventions, researchers discussed the goals with students and introduced and practiced classroom management routines and expectations. The fourth grade classroom displayed teacher made posters as reminders of these concepts. References were made to the posters daily for reinforcement. A "peer review board" was initiated in this same classroom and acted as a "jury" when routines or expectations weren't followed. This board gave recommendations for ways in which to remedy "altercations." Students served on the "board" for a two week term and then alternated membership. During weeks three through fifteen, researchers reinforced these established goals and expectations, so that these routines would become standard daily practice.

In week four the researchers initiated instructional assignments offering choice for the students based on interests and individual learning styles. Examples of this were differentiated language arts centers in fourth grade, varied presentational choices of assignments, and alternative group settings such as partners, small groups, and teams as well as full class participation activities. All of these opportunities involving choice enhanced student participation through team building lessons. In the fourth grade classroom an outside "Life Skills Educator" from the local ADV/SAS office came weekly for 30 minutes to build character, social,

and self-esteem concepts. Researchers consistently used a checklist to observe students while

continually carrying out these interventions through week fifteen.

By week four cooperative groups were randomly formed by matching red and black suits

of a deck of cards and numbers drawn. Students completed a review chapter study guide in

which participants chose who would find the multiple choice answers, who would do the

vocabulary section, who would complete the crossword puzzle, and finally which students would

take notes for the short answer questions. Then the group shared their responses and decided if

all answers were correct. All students had a vested interest in succeeding in this activity because

they were responsible to the group for their parts and also to have a fully completed study guide

to use to independently study for the test. On-task behaviors improved considerably.

Beginning week five, with evidence that trust and a sense of community were building

within the classroom, researchers cautiously offered constructive criticism and praise while

reinforcing high expectations about classroom academics and behavior. Role playing was

introduced within content areas to further build confidence within the classroom. Fourth grade

implemented reader's theatre within the science curriculum where students "acted out" the rock

and water cycles. These activities were planned to promote confidence, self-esteem, and

especially trust among the students. Following this positive lead, during week six, researchers

arranged informal student/teacher conferences to discuss individual progress in meeting

classroom expectations and their ability to self-motivate. Along with these interventions,

researchers continued to have students share projects and assignments from team building

lessons through week fifteen.

At the end of the quarterly grading period, within week seven, academic grades were

reviewed and discussed with students both individually and as a class to analyze and show

progress in order to set new attainable goals for the next grading period. For the remainder of

the research period, students showed independence in their choices regarding assignments. For

example, from creating dioramas to poetry to speeches or debates, and even making songs,

skits, or story telling, success and creativeness were evident as students became more motivated

to achieve in their overall academic learning. A Lincoln/Douglas debate was carried out in the

fourth grade classroom during social studies one afternoon. The level of knowledge,

attentiveness, and higher level learning that took place was just one example of how these

students were positively developing intrinsic motivational patterns. Behavior improved as well,

indicating selected interventions were appropriate.

Week 9 was the start of a new quarter to try to earn the reward for this 2nd quarter

incentive party. Instead of students putting their best foot forward regarding their own

motivational behaviors, the opposite effect occurred. Perhaps the immaturity of this particular 6th

grade class combined with the troubles they had in 5th grade concerning work effort, turning in

homework, the lack of parental guidance encouraging or disciplining them played a role here.

Students saw this week as only the 1st week and felt they had lots of time until the next event, so

one negative check was "only 1" so far. This was totally frustrating after past gains and

immediately following one previous week of disappointing results. This was a big review week

for an upcoming chapter test at the end of the week. Partner work on chapter review questions

and creating a few of their own that might be used on the test was challenging for even some of

the best students in the class. Either students showed no cooperation and wanted to do it by

themselves or were just not caring what they wrote down. Three planners were not signed, three

students did not turn in homework which was a crossword review puzzle, and three students who

usually participated did not participate at all. All were on task during the full group review team

competition game, an enjoyable activity, but when students were divided into groups to complete

the study guide, four were off task several times and two were not working during independent

time to fill in planners for the test. They used this as a time to visit.

Week 11-13 proved challenging but students were for the most part up for the task. They were back on track and highly motivated by the choice in topics to research for ancient Egypt. Students had three weeks to complete this significant assignment, write or type a report and include a bibliography to orally present and make an artifact, a 3-D item, a visual aid or a demonstration. Rubrics were given to guide them. Two days a week of in class time work days were provided and the rest was independently done at home on their own time. Choice played a big part in the enthusiasm shown by the students. On the final day, three young inexperienced procrastinators had no project or report to present. Their grade suffered considerably since this was worth three points. During these three weeks other differentiated cooperative learning activities also occurred. One example was a problem solving exercise to come up with ways that King Imhotep possibly was able to build huge pyramids in ancient times without machines of today. The groups had to draw conclusions how the character trait of citizenship entered into this problem solving. Groups were very creative in their presentations from group skits, to posters of step by step explanations, to a news reporter interviewing city council and citizens of that time period.

By the final weeks when surveys were given again to students and parents the growth and maturity shown was substantial. Students viewed their own learning as not only important but their overall responsibility to themselves and their classmates. In the final week of the observation checklist we had only two students not having their planners signed every day, having at least one late assignment that week, and demonstrating off-task behaviors in full class, group, and independent work times. The excitement of the upcoming holiday break at the end of the week, the fact that these two students are special education students, and the acknowledgement that these are my most immature boys in the class with the least amount of support at home, could be the underlying contributing factors for these results.

Overall, by the end of the 15 week study in reviewing first quarter to 2nd quarter, there were far fewer students having late or missing work, grades improved, and their work effort showed greater quality of neatness and pride. The interventions proved to significantly increase student intrinsic motivational behaviors.

During weeks fourteen and fifteen, fourth and sixth grade students were once again given the self-reported motivational behaviors survey. Parents were asked to once again evaluate observations in regard to their child's motivation. Researchers documented a final student checklist and results were analyzed. Individual first and second quarter grades were reviewed and compared with students to assess whether any or all goals were attained. This was an indication of increased student intrinsic motivation leading to overall academic success. Finally, all students participated in celebrating the overall successful completion of the project action plan and the positive results achieved. Lunch together in the classroom was one example of how the fourth grade class celebrated. The teacher shared project results and insights with the class on "their level" and was very surprised at the understanding of the project along with insights they shared such as; "You know, we do learn a lot more when we work together because we have different ideas," "Thank you for letting us do things we like to do because it is more interesting then," and maybe most importantly, "We really can learn whatever we want!"

Presentation and Analysis of the Data

In order to record improvement in fourth and sixth grade students' intrinsic motivational behaviors through the use of differentiated instruction and cooperative learning, several assessment tools were utilized. Students were given a self-reporting motivational survey before the implementation of interventions and after the fifteen week program was completed. Parents also submitted a survey reporting their child's motivational behaviors prior to beginning any interventions and once again when the intervention period had ended. Researchers also documented observed classroom behaviors through the use of a checklist and in addition,

included data that monitored daily planner compliance. Researchers analyzed the differences

between the student and parent responses to the surveys administered before and after

interventions. Finally, differences in classroom checklists were noted.

Table 4
Frequency and Means of Observed Behaviors of Fourth and Sixth Grade Students After Intervention

Behavior Category After Intervention	4th Grade Frequency	Mean	6th Grade Frequency	Mean
Lack of Class Participation	2	.08	2	.08
Incomplete Homework Assignments	5	.20	3	.12
Off-Task Behaviors				
Group	0	.0	2	.08
Full Class	2	.08	2	.08
Independent	2	.08	2	.08
Lack of Home Involvement/Support	3	.12	1	.04

n = 25 Fourth grade students
n = 25 Sixth grade students

Post-intervention classroom observation checklists showed positive changes for 25 fourth

and sixth grade students respectively. Table 4 shows these results of observed behaviors post-

intervention. Concerning lack of class participation, fourth grade students exhibited a rate of 8%

post intervention compared to 16% prior to intervention. Sixth graders also demonstrated

meaningful improvement from 28% prior to 8 % after intervention implementation. Incomplete

homework assignments decreased significantly from 48% to 20% and 24% to 12% respectively

in fourth and sixth graders. A decrease in off-task behaviors was shown in all areas including

group, full class, and independent. The fourth grade class group results dropped from 28% to

0%; full class from 16% to 8%; and a remarkable change in the independent behaviors showed a

reduction from 48% to 8%. It was optimistic to note that the sixth grade class followed the same

pattern in the area of off-task behaviors. Gains were shown as follows: group improvement

from 20% to 8%: full class from 16% to 8%, and independent from 28% to 8%. It was

exceptional to note that home involvement/support increased significantly when parents were on

board with these initiatives to encourage their child's success. This was shown by planners

being reviewed and signed daily. Before interventions, in fourth grade, 48% of parents did not

sign planners, and now, post-intervention, only 12% show a lack of this type of support. It was

encouraging to note that even though sixth graders may seem more independent, the lack of

home involvement/support in reviewing and signing the planners showed a significant drop from

24% to a notable 4%. The interventions appeared to have had a positive effect on all targeted

behaviors. Due to implementing cooperative learning and differentiated instruction, intrinsic

motivational behaviors seemed to rise dramatically. When intrinsic motivational behaviors

showed positive results, the researchers saw gains in academic achievement as well.

Table 5
Frequency and Means of Self-Reported Student Work Habits Survey of Fourth and Sixth Grade Students After Intervention

Reported Attitudes After Intervention	4th Grade Frequency	Mean	6th Grade Frequency	Mean
Putting forth effort **only** to please parents	1	.04	6	.24
Putting forth effort **only** for tangible rewards	1	.04	1	.04
Does not see importance of teachers valuing student work habits	4	.16	7	.28
Does not see importance of implementing positive work habits until they are older	2	.08	3	.12

n = 25 Fourth grade students
n = 25 Sixth grade students

As researchers had hoped, student self-reported work habits survey showed decreases in

frequency of negative reported behaviors and attitudes. For example, 20% of fourth grade

students reported they only put forth effort to please parents. In Table 5, of these same

students, only 4% responded the same way. Meanwhile, sixth graders showed a decrease from

32% to 24% of these comparable feelings. Both groups of students showed a measurable

reduction in putting forth effort only for tangible rewards going from 8% to 4% and 24% to 4%

for fourth and sixth grade students respectively. It could be noted for sixth graders that this

notable decline may possibly be attributed to some maturity on their part as they see the

importance of being intrinsically motivated. In regards to students not seeing the importance of

teachers valuing their work habits, this noteworthy decrease is of value to the research project.

The results for fourth graders concerning this aspect showed the gains researchers had hoped for

with a drop from 20% to 16% and with sixth graders the gap was even greater, dropping from

64% to 28%. The last objective needing intervention, students not understanding the importance

of implementing positive work habits now, instead of waiting until they are older, showed some

improvement with sixth graders falling from 24% to 12%, but fourth graders stayed the same pre

and post intervention at 4%.

Table 6
*Frequency and Means of Parent-Reported Student Motivation Survey of Fourth and Sixth
Grade Students After Intervention*

Reported Attitudes After Intervention	4th Grade Frequency	Mean	6th Grade Frequency	Mean
My child is disorganized	11	.44	9	.36
My child has poor work/study habits	9	.36	5	.20
My child does not work to his/her potential	10	.40	5	.20
I have to remind him/her to do homework	10	.40	12	.48
My child often complains about school	5	.20	5	.20

n = 25 Fourth grade students
n = 25 Sixth grade students

In reporting the findings of our last assessment tool, a parent-reported student motivation survey, see Table 6, optimistic results were also concluded. Parents reported less disorganization after intervention implementation in both classes. While fourth grade parents reported 52% of their children were disorganized before intervention, now only 44% reported feeling the same. In sixth grade the decrease was more prevalent, dropping from 60% to 36%. Concerning poor work/study habits, 48% of fourth grade parents first reported this to be a problem. After intervention, only 36% state this to still be a problem. A 28% to 20% change was noted in this category by sixth grade parents. Researchers were pleased to see fourth grade parents viewed their child not working to his/her potential had diminished 72% to 40%. Sixth grade parent reports in this area noted a change from 60% to 20%. This significant drop in both grade levels shows that individual students, and the classes as a whole, are demonstrating the importance of intrinsic motivation to the point that their parents are noticing their increased work ethic. After intervention, fewer parents reported needing to remind their students to do their homework. This is evidenced by the lower percentages of 68% to 40% for fourth graders and 64% to 48% for sixth graders. Sixth grade parents noted their children complained less about school in general following the research project. Before intervention, 40% of parents reported complaints compared to 20% following the program. Fourth grade statistics stayed the same in this area.

Based on all the instruments used to compile the necessary data to meet researchers' needs for measuring student outcomes, students at both grade levels made progress towards increased intrinsic motivational behaviors that likewise may lead to improved overall academic achievement. These results further supported the need for continued implementation of cooperative learning and differentiated instruction in every classroom.

Conclusions and Recommendations

The overall problem of students who exhibited low or poor intrinsic motivational behaviors affecting their academic and overall learning potential was addressed. Evidence of the problem included information from teacher observation checklists that included: class participation, homework completion, and on-task behaviors during group, full class, and independent classroom activities. Student and parent surveys were also used to obtain the evidence that a need for intervention was warranted. The project objectives and processes used in the interventions were based on the review of professional literature on differentiated instruction and cooperative learning. With that in mind, teachers implemented interventions that included monitoring of daily planners in order to actively involve parents, creating lessons with assignments offering individualized instruction as well as choices based on students' interest and learning styles. Cooperative learning groups were implemented throughout the week with high, yet realistic expectations, expectations set for students to obtain while working together to provide a supportive learning atmosphere with positive feedback.

The teachers concluded the interventions were successful in increasing student intrinsic motivational behaviors that would ultimately affect overall learning potential. Monitoring the daily planner engaged parents in supporting and encouraging their student to take responsibility for daily routines. Daily habits became the norm in increasing student ownership in these proactive efforts. The data showed a substantial decrease in the frequency of late or incomplete homework. A second noteworthy intervention was the creative lesson planning offering choice based on interest and learning styles of the students. Student participation and enthusiasm increased as awareness and motivation to learn evolved intrinsically as confidence and curiosity to learn were piqued. Academic achievement was realized on an individual basis. A third conclusion relevant to the action research process demonstrated that implementing cooperative learning groups offering differentiated instruction played a significant role in students taking

greater responsibility for their own learning as well as the group. Leadership and teambuilding emerged as students realized the benefits of learning to interact well with others while producing a final project or outcome. Self esteem naturally flourished in this atmosphere that emphasized trust, fairness, structure, and routines.

Through the implementation of these interventions, the teachers concluded students were responsive to be more intrinsically and less extrinsically motivated. Satisfaction of "a job well done" left students with a greater sense of pride and accomplishment. This positive self-perception continued beyond mere academics and into a realistic overall view of their own abilities to achieve not only in the classroom but in the real world as well.

After involvement in this 15 week in-depth study to improve and increase the intrinsic motivational behaviors of all students, the teachers also noted recommendations for future consideration. First, teachers would recommend beginning the project implementation a few weeks later in the school year to become better acquainted with the students. Next, an interest inventory completed by all students could guide the individualized instruction of the cooperative learning activities to increase the likelihood of greater student engagement. With the likelihood of greater engagement, motivational behaviors should be of a more positive nature. By offering activities and assignments that not only challenge students, but are in line with their interests, sooner within the implementation period, it is more likely the intrinsic motivational gains would not only be evident sooner, but continue longer in a positive direction. The last recommendation would be to set more frequent target dates to discuss individual student progress not only student/teacher but also include more communication with parents at conferences, phone calls, and emails instead of just via daily planner monitoring. This would increase the likelihood of continued, successful parent involvement.

Professional Reflection

As educators, cooperative learning and differentiated instruction has always been highly valued in theory, but it was not until the actual implementation became purposeful and real within the grade level classrooms that the teachers realized the crucial importance to student overall success academically and personally. The significance of "students buying into" their own ability to learn can not be underestimated. As teachers, the realization that educators are facilitators of learning and not mere transmitters of knowledge became a reality during this project. When students have a vested interest in their own learning, they not only show increased academic achievement, but exhibit a greater sense of overall self worth and accomplishment that will hopefully carry on beyond the classroom. We have decided to continue these interventions with future classes in order to see continued positive results year after year. This project allowed us to grow as educators as we realized the important role we play in helping form positive intrinsic motivational behaviors in our students.

References

Atwell, N. (1998). Making the Best : The Workshop. In L. Bridges (Ed.), *In The Middle New Understandings about Writing, Reading and Learning* (2nd ed., p. 80). Portsmouth, NH: Boynton/Publishers .

Australian Government Department of Education, Employment, and Workplace Relations (Ed.). (n.d.). *Schooling Issues Digest: Student Motivation and Engagement*. Retrieved from http://www.dest.gov.au//_education/_resources/_issues...

Beers, K., & Samuels, B. G. (Eds.). (1998). In *IntoFocu: Understanding and Creating Middle School Readers* (pp. 45, 54-59, 113-114, 207, 218-219). Norwood, Massachusetts: Christopher-Gordon Publishers, Inc.

Brewster, C., & Fager, J. (2002, October). *Increasing student engagement and motivation: From time-on-task to homework* [Pamphlet]. Northwest Regional Educational Laboratory. Retrieved November 18, 2008, from Northwest Regional Educational Laboratory Web site: http://www.nwrel.org/request/oct00/textonly.html

Davis, B. G. (1999). *Motivating students* [Book excerpt]. Retrieved June 22, 2009, from http://honolulu.hawaii.edu//////.htm

Ekstrom, I., PhD. (2006, July). *Motivation in the Classroom*. Retrieved November 19, 2008, from http://www.facit.cmich.edu/teaching-central/issues/july06/motivation-in-classroom.html

Failure of Extrinsic Motivation. (n.d.). Retrieved November 19, 2008, from http://www.engines4ed.org/hyperbook/nodes/NODE-148-pg.html

Harris, R. (1991, March 2). *Some Ideas for Motivating Students*. Retrieved November 19, 2008, from http://www.virtualsalt.com/motivate.htm

Helping Students Become Motivated Learners . (n.d.). Retrieved November 19, 2008, from http://www.ndt-ed.org/TeachingResources/ClassroomTips/Motivating_Students.htm

Hodgdon, P., & Beasley, E. (Eds.). (October 2008). Motivators can help turn in homework. In *Better Teaching Classroom Ideas to Improve Student Achievement Elementary Edition* (Volume 22 No.2 ed., p. 2) [Pamphlet]. Fairfax Station, VA : The Teacher Institute.

Intrinsic Motivation. (n.d.). Retrieved November 19, 2008, from http://education.calumet.purdue.edu/vockell/edpysbook/EDpsy5/edpsy5_intrinsic.htm

January 2nd of every year is motivation & inspiration day. (2007). *Motivation & inspiration day January 2nd~start the year right!* Retrieved November 24, 2008, from http://motivationandinspirationday.com/

Johns, J. L., & Lenski, S. D. (1997). *Improving reading-a handbook of strategies* (2nd ed.). Iowa: Kendall/.

Johnson, R. T., & Johnson, D. W. (1988, Winter). Cooperative learning-two heads are better than one. *Transforming Education, 18*, 34. Retrieved June/, 2009, from http://www.context.org///.htm

Kagan, S. (1994). *Cooperative Learning*. Retrieved from http://www.kaganonline.com//.html

Lynch, W. D., Gardner, H. H., Melonian, A., & Kleinman, N. (2007, May). Human capital, motivation, and productivity. In *Health as human capital foundation* [Brief report from survey 2007]. Retrieved November 24, 2008, from Health as Human Capital Foundation Web site: http://www.hhcfoundation.org

McKinney, K. (n.d.). *Encouraging students' intrinsic motivation*. Retrieved November 19, 2008, from Illinois State University Center for Teaching, Learning and Technology Web site: http://www.cat.ilstu.edu/additional/tips/intMotiv.php

Mills, G. E. (2007). Understanding Action Research -What Motivates Unmotivated Students? In A. C. Benson (Ed.), *Action Research A Gudie for the Teacher Researcher* (3rd ed., pp. 1-2). New Jersey : Pearson Education, Inc. . (Original work published 2000)

Moneta, G. B., & Siu, C. M. (n.d.). *Intrinsic motivation, academic performance, and creativity in hong kong college students*. Abstract retrieved November 19, 2008, from Psychology Department, Chinese University of Hong Kong Web site: http://www.ugc.edu.hk/tlqpr01/site/abstracts/085_moneta.htm

Motivation for High Stakes Testing:Intrinsic Motivation. (n.d.). Retrieved November 5, 2008, from http://sitemaker.umich.edu/.nichols/intrinsic_motivation

Oldfather, P. (n.d.). *When Students Do Not Feel Motivated for Literacy Learning* . Retrieved November 19, 2008, from http://curry.edschool.virginia.edu/go/clic/nrrc/rspon_r8.html

Peterson, B. (n.d.). *Motivating Students to do Quality Work*. Retrieved November 19, 2008, from http://www.rethinking schools.org/archive/12.03/motive.shtml

Renchler, R. (1992). School leadership and student motivation. *ERIC Digest, 71*. Retrieved November 19, 2008, from ERIC Clearinghouse on Educational Management Web site: http://www.ericdigests.org/1992-3/school.htm

Robb, L. (2000). *Teaching reading in middle school*. New York: Scholastic Prof. Books.

Summary of Intrinsic Motivation. (n.d.). Retrieved November 19, 2008, from http://education.calumet.purdue.edu/vockell/edpsybook/edpsy5/Edpsy5_summary1.htm

Tomlinson, C. A. (1995, October/). Differentiating instruction for advanced learners in the mixed-ability middle school classroom. *Eric Clearinghouse on Disabilities and Gifted Education*, (E536), ed389141. Retrieved June/, 2009, from ERIC Clearinghouse Web site: http://www.ericdigest.org//.htm

UCLA School Mental Health Project (Ed.). (2006, Spring). *Addressing Barriers to Learning, 4*(2). Retrieved June/, 2009, from School of Mental Health Web site: http://smhp.psych.ucla.edu///.pdf/

Udell CEO of Penn Foster and Vice Chairman of the National Dropout Prevention Center, S. (2008, April 2). The silent epidemic. Message posted to http://blog.pennfoster.com/post/Silent-Epidemic.aspx

Vacca, R. T., & Vacca, J. L. (2008). *Content area reading-literacy and learning across the curriculum* (9th ed.). Boston: Pearson.

Voke, H. (2002, February). Motivating students to learn. *INFO brief, 28*. Retrieved October 19, 2008, from http://www.ascd.org/publications/newsletters/infobrief/feb02/num28/Motivating_Student...