

Increasing Mathematical Test Scores in Sixth Grade

Students using a Student and Parent Selected

Goal

---

A Special Project

Presented to

Dr. Audrian Huff

Heritage College

---

In Partial Fulfillment

of the Requirement for the Degree of

Masters of Education

---

Jason Landram

Spring 2009



FACULTY APPROVAL

Increasing Measures of Academic Progress

Test Scores with a Student and Parent Selected

Goal

Approved for the Faculty

\_\_\_\_\_, Faculty Advisor

\_\_\_\_\_, Date

## ABSTRACT

The purpose of the research was to decide the impact of student and parent conceived goals on academic progress. The researcher was trying to show there was significant growth in the students who set goals with parents. The data analysis was to make a correlation between high expectations of parents and the students rising to the parents' expectations or even possibly surpassing parental expectation. During the study, seventeen students and parents were sampled. Based on student's past performance history on the Measures of Academic Progress and current ability level, the parents and students were then instructed to combine efforts and formulate a goal for the spring assessment knowing that 223 was grade level equivalency.

PERMISSION TO STORE

I, Jason Landram, do hereby irrevocably consent and authorize Heritage College Library to file the attached Special Project entitled, Increasing Mathematical Test Scores in Sixth Grade Students with a Student and Parent Selected Goal, and make such paper available for the use, circulation and/or reproduction by the Library. The paper may be used at Heritage College Library and all site locations.

I state at this time the contents of this paper are my work and completely original unless properly attributed and/or used with permission.

I understand that after three years the paper will be retired from the Heritage College Library. If I choose, it is my responsibility to retrieve the paper at that time. If the paper is not retrieved, Heritage College may dispose of it.

\_\_\_\_\_, Author

\_\_\_\_\_, Date

## TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	ii
ABSTRACT.....	iii
PERMISSION TO STORE.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES .....	ix
LIST OF FIGURES.....	x
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	1
Purpose of the Project.....	2
Delimitations.....	2
Assumptions.....	3
Hypothesis.....	3
Null Hypothesis.....	3
Significance of the Project.....	4
Procedure.....	5
Definition of Terms.....	6
Acronyms.....	6

	Page
CHAPTER 2.....	8
Review of Selected Literature.....	8
Introduction.....	8
Parental Conferences.....	9
Parent Involvement.....	12
Goal Setting.....	16
Measures of Academic Progress.....	21
Summary.....	25
CHAPTER 3.....	27
Methodology and Treatment of Data.....	27
Introduction.....	27
Methodology.....	27
Participants.....	27
Instruments.....	28
Design.....	29
Procedure.....	29
Treatment of the Data.....	31
Summary.....	31
CHAPTER 4.....	32
Analysis of the Data.....	32
Introduction.....	32
Description of the Environment.....	32

	Page
Hypothesis.....	33
Null Hypothesis.....	33
Results of the Study.....	34
Findings.....	36
Discussion.....	36
Summary.....	36
CHAPTER 5.....	38
Summary, Conclusions and Recommendations.....	38
Summary.....	38
Conclusions.....	39
Recommendations.....	39
REFERENCES .....	41
APPENDICES .....	44



## LIST OF TABLES

	Page
Table 1, <i>T</i> – test of Pre – Post Results for Students Setting Goals with Parents .....	34

## LIST OF FIGURES

	Page
Figure 1, 2007 – 2008 6 <sup>th</sup> Grade WASL Results.....	4
Figure 2, 6 <sup>th</sup> grade classroom Fall/Spring NWEA data.....	35

## CHAPTER 1

### Introduction

#### Background for the Project:

Academically, the students of a rural middle school in eastern Washington have been struggling in mathematics. Low test scores and failing grades have been issues surrounding and engulfing the students. Improvement in the mathematics program has been needed for some time. The students needed to have some interventions or tools that would support the academics the students were being taught. Declining mathematic scores have been an overlooked problem that needed to be addressed.

The involvement of parents in children's education has been very essential to the academic success of students. The fact that parent involvement has been missing has caused a sense of alarm. Implementing parent involvement in new and innovative ways was at the center of attention for the middle school. School staff devoted a lot of time and energy to improving parental involvement. Getting parents involved and active in the children's education was a necessity of top priority.

Academic goals have been in the past very important for success. Goal setting has provided clear and focused direction. Goal setting allowed for growth in areas of self-worth and self-control. The ability to set a goal and achieve that goal has been a great way for students to take on challenges and excel independently (Donohue, 2007).

#### Statement of the Problem

The students of the targeted sixth grade class exhibited difficulties in making improvements within mathematics. Using the Measures of Academic Progress, the

targeted students have shown to be below grade level and struggling in many of the mathematical strands. The *Washington Assessment of Student Learning* also showed students were low in mathematical achievement.

### Purpose of the Project

The purpose of the project was to involve parents in student learning and improve student scores on the mathematics portion of the Measures of Academic Progress assessment. The students' ability levels would improve by one, two, or sometimes even three grades because of increased student motivation due to parents' high expectations (Pate & Andrews, 2006). For some of the students, the ability level increased to grade level or above level. For other students, the improvement was not all the way to grade level but still was a significant increase.

### Delimitations

The research was conducted at a middle school located in a rural city in eastern Washington. The middle school had sixth, seventh, and eighth graders. The middle school was a two story, brick building built in 2003. The school had one central play area with two full court basketball courts.

According to the Office of the Superintendent of Public Instructions report card (2007), the total enrollment for the building was 818 students. The racial ethnic distribution of the students was 0.2% American Indian/Alaskan Native, 0.1% Asian, 1.8% Black, 94.7% Hispanic, and 3.1% White. The special program distribution of the students was 95.4% free or reduced-price meals, 11.8% special education, 44.1% transitional bilingual, and 29.8% migrant.

The class studied was a sixth grade mathematics and science block. The weekly minutes allotted to each subject were mathematics 300 and science 300. Twenty-two students were in the class. Six of the students were girls and eighteen of the students were boys. The class consisted of all Hispanic children. The students' ability levels ranged from second grade to sixth grade. Two students performed at grade level on the fall Measures of Academic Progress assessment. Out of the twenty-two students in the class, three students were not able to complete the goal setting process due to scheduling conflicts which prevented the teacher to meet with the students and parents.

### Assumptions

The teacher was highly qualified in mathematics and was using teaching techniques found to be appropriate for the high amount of second language learners. The curriculum taught was research based and aligned to state standards. The students and the parents of the students in the class were willing to participate in the study. The flex schedule, which allowed for teacher discretion of time allotted for mathematics and time allotted for science, was also conducive to the learning environment.

### Hypothesis

Sixth grade students in mathematics class that are setting goals with parents will make gains on the Measures of Academic Progress when measured with a non-independent *t*-test.

### Null Hypothesis

Sixth grade students in mathematics class that are setting goals with parents will not make greater than expected gains on the Measures of Academic Progress when measured with a non-independent *t*-test at the .05 level of significance.

Significance of the Project:

Based on the Office of the Superintendent of Public Instruction for Washington report card (2009), the school district, school, and sixth grade students were very low in mathematics and needed significant support to help student achievement in mathematics. The data tables for the districts 6<sup>th</sup> grade mathematics scores as well as the studied school's mathematics score in the 2007-2008 school year were constructed based on the data provided by the Office of the Superintendent of Public Instruction. As a district the sixth grade had produced a 26.2% passing rate and the targeted school had a 17.5% passing rate. With such a low percentage passing, the district and studied school showed great need for interventions.

Figure 1

2007 – 2008 6<sup>th</sup> Grade WASL Results

<b>District Results</b>				
<b>Grade Level</b>	<b>Reading</b>	<b>Math</b>	<b>Writing</b>	<b>Science</b>
<b>6<sup>th</sup> Grade</b>	50.4%	26.2%		
<b>Specific School Results</b>				
<b>Grade Level</b>	<b>Reading</b>	<b>Math</b>	<b>Writing</b>	<b>Science</b>
<b>6<sup>th</sup> Grade</b>	32.2%	17.5%		

The implications of students excelling due to parent expectations had limitless promise. Positive results had profound impact on classroom policy, school policy, and possibly district policy. Many of the student's parents had high student expectations. Academic gain for the student was the goal of all parents. Implementing goal-setting procedures would have been beneficial for the school and district if the research showed significant gains.

## Procedure

In order to document the mathematical level of students within the targeted classrooms, the teacher administered teacher created surveys to parents and students and gathered data using the fall Measures of Academic Progress assessment. The surveys and Measures of Academic Progress helped determine mathematic ability, previous exposure to goal setting, attitudes toward mathematics, and the importance of parental involvement.

The parallel surveys were distributed to students and parents at fall parent-teacher conferences on November 12 and November 13 in the year 2008. The students completed surveys regarding attitudes towards mathematics, importance of parental involvement, and knowledge of goal setting responding to the questions with either a yes or a no. The parents completed surveys regarding children's attitudes towards mathematics, importance of parental involvement, and knowledge of goal setting responding with a numerical value of 1 strongly disagree, 2 disagree, 3 undecided, 4 agree and 5 strongly agree.

In order to determine the mathematical level of all students in the class, each student took the Measures of Academic Progress mathematics assessment on October 13, 2008. The assessment results were returned with a Rasch unit scale score, which was used to determine the grade level equivalency of each student in mathematics. The measurement scale was developed by Northwest Evaluation Association to simplify the interpretation of test scores.

During November parent-teacher conferences, the results from the fall test and previous achievement from earlier grades were used to help review student potential and

gains from previous years. At the conference, students and parents were also informed of current grade level ability based on the Rasch unit scale. Parents and students were also informed that the student needed to obtain a score of 223 on the spring test to be considered on grade level. Students and parents were then put in charge of making an informed decision based on the data and information presented to set a spring Measures of Academic Progress goal. The parents and students then filled out a goal setting form outlining current Rasch unit scale score, current grade level ability, mathematical area of strength, mathematical area of weakness, spring goal, and three things that could be done throughout the year to achieve the goal.

Definition of Terms:

goal. A goal was a specific, measurable occurrence, object, or accomplishment that an individual would like to achieve, or obtain in the future.

parent involvement. Parent involvement was the act or fact of parental participation.

parent-teacher conference. Parent-teacher conference was a meeting with a child's teacher to discuss grades and school performance.

RIT. The RIT was a scale developed by NWEA to measure student achievement and growth.

Acronyms:

AYP. Annual Yearly Progress.

ESEA. Elementary and Secondary Education Act of 1965.

MAP. Measures of Academic Progress.

NCLB. No Child Left Behind Act.



NWEA. Northwest Evaluation Association.

OSPI. Office of the Superintendent of Public Instruction.

WASL. Washington Assessment of Student Learning.

## CHAPTER 2

### Review of Selected Literature

#### Introduction

Due to the pressure from legislature to enhance student performance, the researcher had an interest in two distinct areas that possibly led to greater student achievement. The researcher decided to take a look at parent involvement and goal setting. The idea was to see the positive impact created when both parent involvement and goal setting were combined and implemented.

No Child Left Behind was an act signed into law on January 8, 2002, by President George W. Bush. The law represented an education reform plan and contained the most drastic changes to the Elementary and Secondary Education Act since 1965. The purpose of NCLB was to help close the achievement gap between disadvantaged and minority students and other students. The four basic principles the reform called for were stronger accountability for results, increased flexibility and local control, expanded options for parents, and emphasis on teaching methods that have been proven to work. As a result, states have taken a greater role in monitoring and maintaining academic standards, communities have been watchful of the expense of public education, and local schools have had a tough time providing highly qualified teachers (Parent Leadership Associates, 2002).

Parent involvement with the schools had become a major educational issue in the 21<sup>st</sup> century. Parent involvement in the educational system had increasingly become an

area of concern because of the changing of the family dynamics. Parent involvement needed to be increased in the school system in order to benefit the students' education (Pate & Andrews, 2006).

Goal setting was a powerful tool that gave a person direction. Goal setting allowed efforts to be concentrated towards places of emphasis. The goal setting process also allowed possible pitfalls to be identified which might deter the goal setter from completing the goal. Properly set goals were incredibly motivating. Getting into the habit of setting and achieving goals would build self-confidence and promoted academic success (Donohue, 2007).

### Parent Conferences

Parent-teacher conferences were an important component of ongoing home to school communication and family involvement. Research has demonstrated that family involvement in education led to positive benefits for children. The benefits included increased school attendance, higher academic performance, and improved attitudes about school. Parent-teacher conferences were an integral part of the family getting involved in the educational process (Harvard Family Research Project, 2007).

Some parent-teacher pre conference steps were essential for a good parent turnout. The importance of conferences was communicated to the entire school. All school staff understood the impact conferences had on student achievement. Parents and teachers knew about the goals and logistics of the conferences. Awareness of child care, transportation, alternate scheduling options, and translation services were important

issues to be addressed. The conferences needed to be publicized. Information was disseminated throughout the community which helped overall attendance. Educating the teachers was important because the teachers were then equipped with best practices in conducting effective parent-teacher conferences. Lastly, a welcoming school environment was created. The pre-conference steps were an important part of the process of making parent-teacher conferences successful (Harvard Family Research Project, 2007)

Parents needed and wanted to confer with teachers. Past research results showed parents and teachers were in consensus in regards to goals and ideas for the child's academic performance. Conferences with parents concerning academic performance were positive. Teachers who spent time with parents consulting about home studies, academic accomplishments, achievements, and learning strengths, often benefited by creating long term positive relationships with parents. Conferences were important for establishing trust and rapport with parents. When interactions with parents were positive, parents' attitudes toward school were generally more positive and supportive as a result (National Education Association, 1991).

The primary purpose of a conference was to keep parents informed of academic standing and to determine problem areas. Meeting with parents to discuss grades and academic progress accomplished several goals. Parents were included in the educational process. Parents were provided opportunities for input in improving the child's performance. Parents helped by working with the teacher and the child to improve learning. The link between home and school became stronger (National Education Association, 1991).

Including the children in the conferencing process has been proven to be effective in improving academic performance. Students included in the conferences developed greater understanding of educational goals. Investing time with the students setting goals and working towards those goals was very beneficial. The teacher's role in a conference that included parents, student, and teacher was to facilitate discussion, promote partnerships among all participants, and encourage input for alternative plans of action (National Education Association, 1991).

At conferences, parents were enlisted as colleagues in the collaborative effort to educate children. The importance of the teacher being sensitive to the parents' feelings was important. The conference on academic performance needed to be used to cultivate partnerships that promoted a better understanding of school goals, parental expectations, teacher expectations, and strategies for effective learning. Parents appreciated a teacher who made each learner feel special, and a teacher who helped each learner grow academically and display proper classroom behavior (National Education Association, 1991).

Harvard Family Research Project has certain principles to follow during conferences. The following principles created an effective parent-teacher conference. Specific data, examples, and evidence were used to guide the conference. All participants were actively engaged and active listeners. Respect for all was demonstrated between parent, teacher, and student. Finally, a dedication to follow-up was mutually understood. Following the principles caused a smoothly flowing, beneficial, and productive conference for all participants (Harvard Family Research Project, 2007).

The Harvard Family Research Project had some approaches for conducting a productive parent-teacher conference. The researchers found a two-way conversation between parent and teacher was best. The parent-teacher conference was an opportunity for parents to learn about the children's progress in school and for teachers to gain insights into the students' home and community lives. Parent perspectives on student strengths and needs, learning styles, and non-school learning opportunities helped shape teachers' classroom practices. According to the researchers, learning needed to be emphasized. Research showed family involvement was most effective when family involvement was linked to learning. An important goal of the parent-teacher conference was to develop new strategies to support student learning at school and at home. Teachers were prepared to discuss the academic progress of the student by using examples of student work and assessments during conferences. The tone of parent-teacher conferences was balanced so that all participants involved understood student strengths and student weaknesses. Achieving balance sent the message the school valued student strengths and had high expectations for all (Harvard Family Research Project, 2007).

### Parental Involvement

Parent involvement was the most important factor to the educational success of a young adolescent and yet generally declined as a child progressed through school. Parent involvement was described as having an awareness and involvement in schoolwork, understanding of the relationships between parenting skills and the student's success in school, and a commitment to consistent communication with teachers about student progress. Evidence from research has shown the value and effectiveness of parental involvement (Cotton & Wikeland, 2001).

Involving parents instilled pride and interest in schooling, increased student achievement, and enhanced a sense of community and commitment. Parent involvement proved to be very beneficial throughout a child's educational career. Parent involvement in predominantly minority and lower income communities was linked to educational success. Research has shown the earlier the parents became involved in children's education, the better (Michigan Department of Education, 2002).

Parental involvement had a positive effect on student achievement (Cotton & Wikelund, 2001). Parental involvement was shown to positively affect student attitudes, self-concepts, classroom behaviors, and attendance. Parent involvement led to improved educational performance and fostered better student classroom behavior. Parent involvement also improved school attendance. When parents have been involved, studies have shown that the students have less chance of dropping out and the schools saw an improvement in academic achievement as well. Parent involvement has led to better performance in school (Pate & Andrews, 2006).

Parents, who participated in decision-making, experienced greater feelings of ownership and were more committed to supporting the school's mission. Parent involvement increased support of schools. Types of parent involvement and quality of parent involvement affected results for students, parents, and teachers. Results of successful parent involvement restored confidence among parents in the children's schooling (Henderson & Berla, 2002).

Parents have become more involved in helping students' improve schoolwork by providing encouragement, arranging a study time and a study place, being a positive role model, reviewing homework, and actively helping tutor the children at home. Parent

involvement included several different forms of participation in education with the schools. Parents supported children's schooling by attending school functions and attending parent-teacher conferences. The research also clearly showed the most effective form of parent involvement was the type of parental involvement which engaged parents in working with the children and learning activities in the home (Cotton & Wikelund, 2001).

Parents proved to be excellent advocates for the school outside of the home. School parent programs, which involved parents in reading with the children, providing support in class, helping with homework assignments, or tutoring the students using materials and instructions provided by teachers showed greater academic gains. Researchers have also discovered parents actively involved with students produced greater student achievements. Being an active parent meant attending and supporting school activities and helping in the classroom. Active parent involvement was best but a reduced role proved to be better than no parent involvement at all. (Henderson & Berla, 2002).

Cotton and Wikelund's study concluded parent involvement programs that included orientation or training opportunities enhanced the effectiveness of parent involvement. The research indicated parents generally wanted and needed direction to participate with maximum effectiveness. The results of the studies pointed to the schools with successful parent involvement programs were the programs which offered a variety of ways parents could get involved. Recognizing parents differed greatly in willingness, ability, and available time for involvement in school activities, schools provided a multitude of options for parent participation (Cotton & Wikelund, 2001).



Research from Michigan's Department of Education (2002) showed parents often doubted the involvement could make much difference. The parents ended up very happy to discover the contribution made with effort made a difference in the children's academic success. The quality of parent had nothing to do with the successfulness of the parent involvement. Parent involvement of any type worked and worked well (Michigan Department of Education, 2002).

Researchers have examined three essential parts of parent involvement. The first was communication. The second was supervision. Finally, the researchers looked into parental expectations and parenting style. Communications were the discussions that occurred between parents and student in regards to schoolwork. Supervision dealt with the parents' ability to monitor the students' activities at home after school. Supervising included overseeing time spent on homework and the amount of television the children watched. Parental expectations and parenting style was found to have the greatest impact of the three areas. Parental expectations and parenting styles included the manner and extent to which parents communicated academic aspirations to the children. Pate and Andrews found high expectations of parents and student perceptions of expectations were associated with enhanced achievement. The researchers concluded that parental expectations were a critical aspect of parent involvement (Pate & Andrews, 2006).

Three specific aspects of parenting proven to produce higher student achievement were actively organizing and monitoring a child's time, helping with homework, and discussing school matters. The educational process had some simple but effective ways parents could get involved. Some effective ways parents got involved included reading to the child, checking homework, discussing progress with teacher, limiting television

watching, and speaking to the child everyday about school. Talking about school everyday sent a message school and schoolwork were important and the students were expected to learn (National Education Association, 2008).

Multiple studies have proved the importance for parents to be actively involved in the education process. The family has had a crucial influence on student achievement from preschool through high school (National Education Association, 2008). The earlier parents got involved the better. Creating a home environment that encouraged learning has been proven to be more important than income, educational level, or cultural background. Just talking about school on a regular basis has proven to help student academic performance. Michigan Department of Education (2002) proved the more involved parents got, the more positive the achievement effects. Parents and families had to understand the importance of consistently getting involved in the process because the effort given made an important difference in the life of the child.

#### Goal Setting:

Top-level athletes, successful business-people and achievers in all fields have used goal setting. Goals provided long-term vision and short-term motivation. Goals focused the acquisition of knowledge and helped organize time and resources to assure production. Setting sharp, clearly defined goals permitted measurability and the ability to take pride in the achievement of the goals. Goal setting has allowed the individual to see progress in a seemingly endless voyage. Setting goals raised self-confidence, and the goal setter recognized the ability and competence used in achieving set goals (Steers & Porter, 1974).

Researchers developed a number of steps to follow when setting goals. First, the student or person needed to establish a goal. A good idea for the student was for the teacher and parent to be involved. All the people involved in selecting the goal agreed upon the selected goal. The next step was to have the goal setter evaluate the goal for appropriateness and possibility. The goal setter needed to select as difficult a goal as possible but reachable while erring on the side of being too difficult rather than too easy. When an individual set the goal for greatness and fell short, the individual probably accomplished some great things because of the high goal. The goal selected was aimed at improving performance, not merely maintaining performance or causing performance to regress. And finally, the goal setter selected a goal that was measurable. When a goal was selected, the goal was analyzed to make sure that the goal contained only individual self-control items, was expressed positively, was appropriate for the student, and was measurable and observable (Donohue, 2007).

Factors that impacted the effectiveness of the goal setting process were developed. Each goal was stated as a precise, positive statement. The more precise the outcome, the more efficient the goal setter would become. Setting precise goals allowed knowledge of achievement or failure. Goals were written in the positive rather than the negative. Thinking positively also helped the goal setter's growth as a human being. The more focused the goal setter was, the more likely the goal setter would accomplish the goal (Donohue, 2007).

Goals needed to be documented so the goal needed to be written down. Writing down the goal created a bridge to success. Getting the goal down on paper set the process in motion and allowed the goal setter to come back and review the goals frequently. Part

of the reason goals were written down was to create a set of instructions to be carried out. Working with a detailed set of instructions gave the goal setter a clear and direct focus (Pincham, 2006).

Goals were objectives the goal setter had as much control over as possible. The goal needed to be based on personal performance. Setting personal performance goals allowed the goal setter to keep control over the achievement of the goal and draw satisfaction when the goal was achieved (Rushall, 1995).

In Dimitova's study, the researchers found that the ability to apply voluntary effort in getting over difficulties played a decisive role in the realization of education achievements. Studies have shown the greater the goal set, the greater the voluntary effort. The consideration of quitting before the goal was achieved was always present, no matter the difficulty of the goal. Overcoming the feeling of defeat involved extreme voluntary effort.

As soon as the test subjects realized no matter the effort, failure was eminent, the test subjects voluntary effort decreased. The volume of work increased when public commitment to goal-achievement was demonstrated. The volume of work was greatest when public commitment to goals occurred and when concurrent feedback was provided as the task progressed. Goal setting increased work output by as much as 50% over conditions where no goals were set. The implication of Dimitrova's findings were effective goals should be detailed and associated with high self-efficacy for goal-achievement (Dimitrova, 2007).

In another study researchers found the factors that determined how and why goals affected performance. The researchers found that vague, distant, or broad goals had little

effect on the quality and level of performance. The higher the student's self-efficacy for achieving the goals, the greater was the improvement in performance. The choice of the goal had to be natural and not forced. The researchers in the study had also identified a set of factors that were very influential. The more difficult the goal, the higher was the performance standard. Participation in goal setting also impacted attainment. When students were able to contribute to the determination of the goals, the higher was the performance standard. Feedback on goal effort also impacted accomplishment. One further variable, peer competition, was considered and found to have no effect upon performance (Steers, 1974).

A third study found setting directed attention. The more specific and behavioral a goal, the greater the control a student had. Goals were coupled with feedback. Knowledge of results or goals alone was not as effective as results and goals together (Locke, Shaw, Saari, & Latham, 1981).

Goals served two general functions in an educational setting. The goals were used as a reference standard for students to assess and goals were also used as the focal point for a student to determine areas of strength and weakness. Goals influenced two important factors in education. The goal affected how a student viewed the objective and then personal performance in reaching that objective. The student's appraisal of what was to be done, preparedness, and self-confidence, affected the quality of a performance. Goals underlied the majority of performance applications made in the learning and class work. A student without goals lacked direction, purpose, and adequate assessment

criteria, deficiencies that would degrade the motivational qualities of an educational experience (Rushall, 1995).

In another study, researchers found the teacher and student equally affected goals. Performance information as a consequence of the performance trial was the main ingredient for determining if the goals were or were not achieved. A failure to achieve the goals usually resulted in some alternative approach being tried in order to produce the desired outcome (Pincham, 2006).

The researchers discovered specific goals needed to be related to a student's personal performance. Students needed to focus on performing the skill elements. Focusing on skill elements resulted in the best performance possible rather than attempting to achieve a more general end. Goal ownership was a difficult concept for some teachers and students to grasp. Creating effective goals required concentration on the process of performing academics rather than striving for high-test scores. Put simply, if the skills and strategies were in place, the test scores would have been good. Goals had to focus on what had to be done in the content area, not what the result would be. Goals needed to be restricted to performance expectations over which a student had control. For goals to be effective, the goals needed to involve aspects of academics that could be controlled by the student (Pincham, 2006).

Many advantages arose when the goal setter had self-control over goals. The student had to compete against personal individual performance. No person could have prevented the student from reaching the goal. The student knew in advance what needed to be done in the classroom. If strategies and knowledge had developed adequately, uncertainty would be reduced and the student had a high likelihood of reaching the goals.

Self-control of goals directed the content of learning and performance and established a high level of self-efficacy. The probability of achieving a self-control goal could be calculated. The periodic reference points were self-determined and so were very relevant to the student. The students used the reference points to indicate progress toward a performance goal (Dimitrova, 1970).

With goals that relied on the ability of students to control learning and performance, testing became a challenge between student and pre-defined goals. The students were able to have a clear purpose behind learning and practice. In the student-centered context, the students were totally responsible for personal performance. Goal setting was one classroom strategy that positively influenced at-risk middle school student (Pincham, 2006)

Goals were an important part of growth for anybody. All the research and studies showed goals were great for giving direction and motivation. Another commonality within the research was the idea that goals needed to be set high to promote a learning experience. Based on the research, goals were good for the students.

#### Measures of Academic Progress:

Measures of Academic Progress was a series of tests that measured students' knowledge in reading, language usage, mathematics, and science through a state-aligned computerized test. The Northwest Evaluation Association developed MAP, a computerized assessment program that provided educators with the information needed to improve teaching and learning. MAP tests were adaptive tests that assessed the

instructional level and growth of each student. The MAP test had many benefits. The test allowed schools to gain insight into the effectiveness of the general education program. The test helped with improving curriculum and student achievement (California Department of Education, 2008).

Students took the MAP twice every year. In the school studied, the MAP test was administered in the fall and spring. The test was an electronically administered and scored achievement assessment designed to measure growth for individual students, classrooms, schools, and the district. The test measured students' general knowledge in four-subject areas: mathematics, reading, language usage, and science. The studied school district administered the test to grades 3 – 10 and administered the tests in October and March. The students took a test in the fall to identify areas needing improvement and to obtain a general idea of knowledge and ability level. The students then took another MAP test in the spring to determine the amount of academic growth students made in the specific school year.

MAP assessment was found to be very useful. The test helped teachers, schools and districts to monitor growth in student achievement over time. The test was also beneficial because the test aided in monitoring the progress of all students toward state standards, placing students into appropriate courses or instructional settings, providing instructional focus, screening students for gifted programs, and communicating to parents and the community.

The MAP test results were used in multiple ways. The MAP helped measure and document program effectiveness. The test also allowed students, parents, and teachers to assess student proficiency in core academic skill areas to identify strengths, weaknesses



and opportunities to improve curriculum and instruction. Individual student reports were distributed after all testing was complete. The MAP testing results helped teachers see areas that might be more challenging for students. Allowing the teacher to see deficiencies allowed the teacher to adjust lesson plans in order to improve student's understanding. The academic contents were broken down into goal performance subsets. For instance, the mathematics goals were number sense, measurement, geometric sense, probability and statistics, and algebraic sense (California Department of Education, 2008).

The MAP also had other positive factors that made the test very usable. The test saved time and money. Teachers used the growth and achievement data from MAP to develop target instructional strategies and to plan school improvement. The MAP test was available to be administered up to four times a year and the data derived from the assessment-helped educators make student-focused, data-driven decisions (California Department of Education, 2008).

Within 24 hours of testing, teachers obtained the results of the MAP test which allowed the teacher to quickly diagnose student needs and make instructional decisions. Within 72 hours of the district completing testing, educators' accessed reports comparing district wide results. Educators were allowed to get a broad view of the whole district or a targeted view of an individual student. Principals had a variety of reports to help with decision-making at the school level. The reports had growth and instructional information at grade, school, and district levels meant to be shared with parents, the school board, and the local community (California Department of Education, 2008).

There were many benefits of using the MAP test. The MAP tests were state-aligned and were often used as an indicator of preparedness for state assessments. The tests were grade independent allowing educators to monitor a student's academic growth as the student moved through the district. The assessment adjusted to each student's performance level and provided an accurate indication of the student's instructional level.

Northwest Evaluation Association provided a variety of meaningful resources that helped teachers understand and use the test data. The resources helped organize materials, programs, and staff to meet the needs of individual students. Based on students' performance in specific goal areas the teacher recognized the skills and concepts that challenged the students, selected appropriate curriculum to ensure academic growth for all students, engaged students in setting academic goals and tracked the progress. The teacher also was able to oversee growth when compared to state standards, and shared academic needs with parents (California Department of Education, 2008).

The creator of the MAP assessment program, NWEA, was a non-profit organization dedicated to supporting school districts and education agencies all over the United States. The products and services provided by NWEA helped to measure and promote academic student growth and school improvement. Creating quality assessments, enhancing student learning through better use of data, and revealing the characteristics of effective teaching and learning was NWEA dedication. The MAP was designed to assess general education student learning in public education institutions in order to improve the quality of instruction and learning (California Department of Education, 2008).

Reliability and validity were two of the words most commonly associated with tests. Reliability was an index of a test's consistency. The consistency refers to performance of the test across time, across forms, or across the assessments items. The answer to reliability was found using a Pearson product-moment correlation coefficient. The minimum acceptable correlation was considered to be .80 with 1.00 being a perfect correlation. During the study, the researchers found the reliability only dipped slightly below .80 twice, both at the grade two level. Most coefficients were in the mid .80's to the low .90's. Validity spoke to the idea of the test testing appropriate content. If the test was valid, then teachers had the ability to draw accurate inferences and the ability to make generalizations about a population. Content validity of NWEA tests was assured by carefully mapping existing content strands from a district or a state into a test blueprint. Test items were selected for a specific test as to assure a match to the content standards as well as difficulty level. Also, efforts were made within a strand to select items with a uniform distribution of difficulties. Most of the documented validity evidence from NWEA tests came in the form of a Pearson correlation coefficient. A strong relationship was indicated when the correlations were in the mid .80's. (Northwest Evaluation Association, 2004).

### Summary

The research validated how important parents and goal setting were to student achievement. The students' and parents' ability to set a high goal did meet the requirements of NCLB and Washington State requirements for involving parents and

impacting student performance. Parental involvement was essential to the success for students. The goal setting process was an effective way to actively involve parents in the educational process.

## CHAPTER 3

### Methodology and Treatment of Data

#### Introduction

The researcher used parent-teacher conferences to help parents and students set goals for the MAP assessment test. At the conferences, parents and students were presented with the facts associated with student performance, the MAP assessment program, and academic expectations. The study was designed to determine the impact parents' expectations had on students' performance. Data was collected from a pre-test in fall and a post-test in the spring. Data analysis was supposed to prove the impact parent expectations had on student academic achievement.

#### Methodology

The researcher used quantitative research methodology to help answer the research problem. A cause-and-effect relationship was looked at with a quasi experiment model. . The independent variable was setting goals with parents and the dependent variable was student performance on the spring MAP assessment. Generalization process from sample to population was the intention of the research. In this research, only one sample of subjects was studied and based upon performance of the sample, generalizations were made with the population of the entire school (Mokhtar, 2007). The test group was a random sample. The students were placed into the mathematics class using a computer that randomly places students.

#### Participants

At the beginning of the year, the class had 23 sixth grade students. As the year passed, one student changed schedules and two students moved to Mexico. The rest of the students took the fall MAP test and the Spring MAP test. Out of the 20 students still in

the sample, 3 were unable to make fall conferences and set goals due to scheduling conflicts. The research was then based on the 17 students who took the fall and the spring MAP assessment and set goals at fall conferences. Out of the 17 students, 5 were girls and 12 were boys. The mathematical ability of the group ranged from 2<sup>nd</sup> grade to 6<sup>th</sup> grade based on RIT scores produced from the fall MAP assessment. The mean RIT for the class was 204.5 which was equivalent to a 4<sup>th</sup> grade ability level. The class's weakest content strand was in number sense where the class's mean was 200.3 which was equivalent to a 3<sup>rd</sup> grade ability level. The class's strongest content stand was within probability and statistics with a mean score of 210.7 which was equal to a 4<sup>th</sup> grade ability level. The class had 3 students on IEP's and 1 student on a 504 plan. The class was a random sample of the general population of the entire middle school.

### Instruments

The researcher used the MAP test which was created by NWEA. The Northwest Evaluation Association offered a number of assessments called the Measures of Academic Progress. The MAP was designed to provide both summative and formative assessment information. The MAP was a series of tests in several subject areas. For the research, the mathematics MAP was administered under uniform conditions to all students in the sample.

Reliability and validity were two of the words most commonly associated with tests. Reliability was an index of a test's consistency. The consistency refers to performance of the test across time, across forms, or across the assessments items. The answer to reliability was found using a Pearson product-moment correlation coefficient. The minimum acceptable correlation was considered to be .80 with 1.00 being a perfect

correlation. During the study, the researchers found the reliability only dipped slightly below .80 twice, both at the grade two level. Most coefficients were in the mid .80's to the low .90's. Validity spoke to the idea of the test testing appropriate content. If the test was valid, then teachers had the ability to draw accurate inferences and the ability to make generalizations about a population. Content validity of NWEA tests was assured by carefully mapping existing content strands from a district or a state into a test blueprint. Test items were selected for a specific test as to assure a match to the content standards as well as difficulty level. Also, efforts were made within a strand to select items with a uniform distribution of difficulties. Most of the documented validity evidence from NWEA tests came in the form of a Pearson correlation coefficient. A strong relationship was indicated when the correlations were in the mid .80's. (Northwest Evaluation Association, 2004).

### Design

The researcher used pre and posttests to help answer the research question. Parent and student surveys were also administered to get input on awareness and feelings towards education and goals. The MAP assessment program was used to administer the pre and posttest and the research showed a strong correlation between the MAP assessment and the WASL (Dahlin, 2007).

### Procedure

In order to determine the mathematical level of all students in the class, each student took the Measures of Academic Progress mathematics assessment on October 13, 2008. The students were then given a RIT score which was used to determine the grade

level equivalency of that student in mathematics. The measurement scale was developed by Northwest Evaluation Association to simplify the interpretation of test scores.

The research started at fall parent-teacher conferences. At the conferences, the teacher started by talking about current grade and participation in mathematics and science to the guardian and student. After the report on current progress inside the classroom, the teacher introduced and discussed the MAP assessment program and explained the assessment was used to guide instruction and helped place students in supportive environments. The teacher then gave a goal organizer to the student to fill out while the following details were discussed. The teacher then proceeded to tell the fall MAP assessment score that was achieved by the student and connected that score with a grade level equivalent. The student was required to fill out the facts on the goal organizer. If the student had been in the district a while, the teacher presented previous mathematical achievement based on the MAP test results from previous grades. The student and guardian were shown the strongest area of mathematics and weakest area of mathematics based on a detailed teacher report provided by the NWEA website. The area of strength and the area of weakness were recorded on the goal organizer as well. After discussing the areas of strength and weakness, the guardians and students were then presented with the fact that to be considered on grade level at the end of the 6<sup>th</sup> grade the student needed to obtain a 223 on the spring MAP test. Based on all the information provided, the parents and students were then left to determine a goal for the spring MAP assessment to be taken in May.

After student, parent, and teacher had agreed on a goal, the students needed to think of three things that could be done to achieve the goal chosen. After a goal had been



chosen, the guardians and students completed parallel surveys which helped the researchers to gain insight into attitudes and awareness toward school and of goals. The parallel surveys were distributed to students and parents at fall parent-teacher conferences on November 12 and November 13 in the year 2008. The students completed surveys regarding attitudes towards mathematics, importance of parental involvement, and knowledge of goal setting responding to the questions with either a yes or a no. The parents completed surveys regarding children's attitudes towards mathematics, importance of parental involvement, and knowledge of goal setting responding with a numerical value of 1 strongly disagree, 2 disagree, 3 undecided, 4 agree and 5 strongly agree. Throughout the year leading up to the spring MAP assessment, the teacher had the students reflect on progress towards the chosen goal.

#### Treatment of the Data

The data was analyzed using StatPac survey software. Using the software, the researchers ran a non-independent *t*-test to check for significance. The *t*-test was used to determine if the two mean averages were significantly different from each other. The non-independent *t*-test was used in research to examine pre- and post-test differences to discover the difference between the two data sets. StatPac quickly performed *t*-tests for the matched pairs.

#### Summary

Using a valid and reliable test, the researcher was looking to prove the positive impact created when parents help students set goals. A random sample was chosen and tested using the MAP assessments. A pre and posttest analysis using StatPac was used to determine the impact of parents' expectations has on student achievement.

## CHAPTER 4

### Analysis of the Data

#### Introduction

At the targeted middle school, 6<sup>th</sup> grade students were in need of academic improvement in mathematics. State test scores had shown more than three fourths of the sixth grade students at the targeted school were not meeting standard in mathematics. The MAP assessment results also showed a deficiency in mathematics scores as well. The MAP assessment results showed that 238 out of 303 were below a 6<sup>th</sup> grade level which ended up being 79% of students not on grade level.

#### Description of the Environment

The research was conducted at a middle school located in a rural city in eastern Washington. The middle school had sixth, seventh, and eighth graders. The middle school was a two story, brick building built in 2003. The school had one central play area with two full court basketball courts.

According to the Office of the Superintendent of Public Instructions report card (2007), the total enrollment for the building was 818 students. The racial ethnic distribution of the students was 0.2% American Indian/Alaskan Native, 0.1% Asian, 1.8% Black, 94.7% Hispanic, and 3.1% White. The special program distribution of the students was 95.4% free or reduced-price meals, 11.8% special education, 44.1% transitional bilingual, and 29.8% migrant.

The class studied was a sixth grade mathematics and science block. The weekly minutes allotted to each subject were mathematics 300 and science 300. Twenty-two students were in the class. Six of the students were girls and eighteen of the students

were boys. The class consisted of all Hispanic children. The students' ability levels ranged from second grade to sixth grade. Two students performed at grade level on the fall Measures of Academic Progress assessment. Out of the twenty-two students in the class, five students were not able to complete the goal setting process. Two students could not complete the process because of late enrollment and moving out of district and three could not complete the process due to scheduling conflicts which prevented the teacher to meet with the students and parents.

### Hypothesis

Sixth grade students in mathematics class that are setting goals with parents will make gains on the Measures of Academic Progress when measured with a non-independent  $t$ -test.

### Null Hypothesis

Sixth grade students in mathematics class that are setting goals with parents will not make greater than expected gains on the Measures of Academic Progress when measured with a non-independent  $t$ -test at the .05 level of significance.

## Results of the Study

Table 1

*T* – test of Pre – Post Results for Students Setting Goals with Parents

MAP Assessment	N	Mean	Standard Deviation
Pre Test (Fall)	17	206.24	8.14
Post Test (Spring)	17	211.06	11.26
Df = 16		$t = 2.54$	$p < 0.05$

Since the probability of 2.54 was greater than the significance level, then the null hypothesis was rejected. The mean score increased from the pre test to the posttest by 4.84 points. The data showed that the standard deviation also increased which means the sample went from a medium variability to a high variability. The *t* value was 2.54, which showed significance.

Figure 2

6<sup>th</sup> grade classroom Fall/Spring NWEA data

	Student	Pre-Test Score	Post-Test Score	Gains / Loses	Met Goal
1.	A	211	207	-4	No
2.	B	196	186	-10	No
3.	C	205	221	+16	Yes
4.	D	209	220	+11	No
5.	E	206	204	-2	No
6.	F	208	225	+17	Yes
7.	G	203	214	+11	No
8.	H	207	213	+6	No
9.	I	209	216	+7	No
10.	J	220	230	+10	Yes
11.	K	205	211	+6	No
12.	L	201	202	+1	No
13.	M	204	210	+6	No
14.	N	184	193	+9	No
15.	O	214	206	-8	No
16.	P	202	210	+8	No
17.	Q	210	208	-2	No
18.	R	194	202	+8	NA
19.	S	NA	222	NA	NA
20.	T	189	198	+9	NA
21.	U	202	NA	NA	NA
22.	V	217	NA	NA	NA

Twelve students had positive achievement. Five students regressed based on the test results. Three students met or exceeded the goal that was set. The gains and losses ranged from -10 to a +17. The pre-test had a range of 184 – 220. The post – test had a range of 186 – 230. Five students were unable to participate in the goal setting program. Student R and S had scheduling difficulties at conference time. Student S moved into the district half way through the year. Students U and V moved out of the class at some point during the year before the fall post test.

## Findings

To test the hypothesis of the study, the researcher used StatPak computer software. After inputting the data from the pretest and posttest group scores, the *t*-test value obtained was 2.54. The *t*-tests used a significance level of 0.05, a standard level used in research as the criterion for rejecting the null hypothesis.

The parent and student survey results came out as expected. The parent survey results had 91.6% of the answers as agree or strongly agree. The parent survey data demonstrated the positive attitudes the parents had towards the children's education. The student's survey results had 93.3% of the answers as a yes. The student survey data demonstrated the positive attitudes the students had towards school. The results from the parent and student surveys were as expected.

## Discussion

The quantity and quality of research on goal setting and parent involvement, and the positive impact found in studies clearly established that goal setting and parent involvement were highly effective in increasing student achievement. The results from the research did nothing but validate previous studies and beliefs. Expectations of having students making significant gains was accomplished and proved via the test analysis.

## Summary

The student results reported here summarized a study conducted about implementing a goal setting program that involved parents. The report covered two important topics essential to the success for students: goal setting and parent involvement. As a result of the research and data analysis, the data clearly showed with great certainty that goal setting with parents was an effective educational intervention that

improved academic achievement. The hypothesis was supported based on the data analysis.

In short, goal setting with parents was a motivating and effective educational intervention. The study confirmed that the students involved in goal setting had greater than expected gains in mathematics. The performance of the students led the researcher to conclude that goal setting, combined with parent involvement, effectively raised mathematical achievement in students.

## CHAPTER 5

### Summary, Conclusions and Recommendations

#### Introduction

At the targeted middle school, 6<sup>th</sup> grade students were in need of academic improvement in mathematics. State test scores had shown more than three-fourths of the sixth grade students at the targeted school were not at standard in mathematics. The MAP assessment results also showed a deficiency in mathematics scores as well. The MAP assessment results for the fall test showed that 238 out of 303 students were below a 6<sup>th</sup> grade level. The results showed 79% of the 6<sup>th</sup> grade students were not on grade level in mathematics.

#### Summary

In sum, goal setting was a valuable activity for students of all ages. Goal setting allowed students to show up to class with a purpose. The goal setting process enabled students to focus efforts and control learning.

The goal setting activity provided a number of useful insights. Engaging the students and parents in conversation about goal setting permitted students and parents to realize having a target to aim for was important. The conferences opened a venue of communication for students and parents to understand the goal setting process and benefits that resulted would allow the students to be better mathematicians in the future. The goal setting process gave some students an opportunity to push personal ability level to full capability in mathematics. A few of the students readily enjoyed the challenge of trying to beat the previous MAP score. The goal setting activity focused the efforts of students who would have otherwise not taken mathematics seriously.



However, not all students felt that setting goals was beneficial. Students expressed feelings of stress, frustration and pressure at trying to meet the predetermined score. The class as a whole had an average increase of 8 points per student, further research would need to be done to see if goal-setting truly contributed to the result, or if the increase was simply the product of maturation or teacher instruction.

### Conclusions

In conclusion, for students to increase ability in mathematics, more attention needs to be focused on strategies that encouraged mathematical knowledge retention. Goal setting in mathematics was a useful tool to focus student efforts, but students also need to be provided with the tools and skill set to allow mathematical development. Goal setting was one part of a student being successful in mathematics.

### Recommendations

Goal setting programs were beneficial and should be implemented in every educational setting. Goal setting should be implemented in the best academic school in the state and the worst academic school in the state. Goal setting should be implemented in schools with a high socioeconomic student population and schools with low socioeconomic student population. The goal setting process has proved to be beneficial for every type of student. All types of classes should have a way students can assess the personal growth that occurred and compare the personal growth to preconceived expectations. The students' should have the ability to understand and utilize the goal setting process.

Any school that decides to implement a goal-setting program needs to be mindful of the different parts that lead to the success of the program. Parents, teachers,

curriculum, and the different environments can make all the difference in the success or failure of a student attaining a goal. The goal-setting program needs to take into account the curricula and methods of education are not always attuned to the needs and aspirations of the participating students. Recommendations include introducing goal setting strategies and practices to staff, students, and students' parents in all schools across the state. Combining learning, training, and action, a goal setting programs would enhance intellectual and emotional development of the students.

A few recommendations if the research was to be conducted again include more student reflection and more parent involvement. The students needed to be reflecting on progress towards goal attainment at least once a week. Parent contact and communication in regards to goal attainment needed to be done once or twice a month. To create a true learning experience, a closing conference with parents, teacher, and student needed to be conducted to reflect on results and think about the actions or lack of actions that led to the produced results. The research needed more attention and needed to be a point of emphasis. The recommendations apply to all stages and forms of education.

Having students reflecting and keeping parents updated would lead to even greater gains and even more success in mathematics. A top priority for teachers is to increase understanding in regards to mathematics. If the test scores go up and mathematical retention is occurring, then the teacher is becoming better and more successful. Teachers rate personal ability on student achievement. Goal setting with parental influence was proven to positively influence student achievement and any additions to the program would only lead to greater student achievement and a great way to better a teacher's ability.

## References

- California Department of Education, (2008). Electronic learning assessment resource. Retrieved November 15, 2008, from Measures of Academic Progress (MAP) Resource Description Web site:  
<http://www.cln.org/elar/details.cfm?section=description&elarid=61>
- Cotton, K., & Wikelund, K.R. (2001). Parent involvement in education. *School Improvement Research Series*, Retrieved November 15, 2008, from  
<http://www.nwrel.org/scpd/sirs/3/cu6.html>.
- Dahlin, M.P. (2007) A study of alignment of the NWEA RIT scale with the Washington assessment system. Retrieved November 15, 2008, from  
<http://www.nwea.org/assets/research/stat/Washington%20Alignment%20Report201.18.08.pdf>
- Dimitrova, S. (1970). Dependence of voluntary effort upon the magnitude of the goal and the way it is set in sportsmen. *International Journal of Sport Psychology*, 1, 29-33.
- Donohue, G (2007). Top achievement. Retrieved November 15, 2008, from *Goal Setting Powerful Written Goals in 7 Easy Steps!* Web site:  
<http://www.topachievement.com/goalsetting.html>
- Harvard Family Research Project. (2007). *Parent-teacher conferences: A tip sheet for principals* [Brochure]. Cambridge, MA: Harvard Graduate School of Education.

- Henderson, A.T., & Berla, N. (2002). Summary of research on parent engagement. Retrieved September 21, 2008, from *Parent Involvement Tool Kit* Web site: [http://www.k12.hi.us/~konawahs/summary\\_of\\_research\\_on\\_parent\\_engagement.htm](http://www.k12.hi.us/~konawahs/summary_of_research_on_parent_engagement.htm)
- Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin*, 90, 125-152.
- Michigan Department of Education, (2002). What research says about parent involvement in children's education: In relation to academic achievement. Retrieved September 21, 2008, from [http://www.michigan.gov/documents/Final\\_Parent\\_Involvement\\_Fact\\_Sheet](http://www.michigan.gov/documents/Final_Parent_Involvement_Fact_Sheet)
- Mokhtar, Ismail (2005). *Quantitative research methodology*. Retrieved April 15, 2009, from <http://www.scribd.com/doc/98286/Analysing-Quantitative-Data>.
- National Education Association, (2008). National education association. Retrieved November 15, 2008, from *Getting Involved in Your Child's Education* Web site: <http://www.nea.org/parents/index.html>
- National Educational Association. (1991). *Parent-teacher conferencing in early childhood education* (106p.). Washington, D.C.: NEA Professional Library.
- Northwest Evaluation Association. (2004). *Reliability and validity estimates* Lake Oswego: Northwest Evaluation Association.
- Parent Leadership Associates, (2002). No Child Left Behind Act, title I, section 1118: Parental involvement. *No Child Left Behind: What's in it for parents*, Retrieved September 21, 2008, from <http://www.k12.hi.us/~konawahs/NCLBlaw.pdf>
- Pate, P. E., & Andrews, P. G., (2006) Research summary: Parent involvement. Retrieved

3-22-2008 from <http://www.nmsa.org/research/researchsummaries/parentinvolvement/tabid/274/default.aspx>.

Pincham, Linda (2006). Individualized goal setting for at-risk students. *Middle Ground: The Magazine of Middle Level Education*, 10, Retrieved September 21, 2008, from <http://www.nmsa.org/Publications/MiddleGround/Articles/August2006/Article6/tabid/830/Default.aspx>

Rushall, B. S. (1995). Introduction to goal-setting skills. In B. S. Rushall, *Mental Skills Training for Sports* (pp. 3.1-3.6). Spring Valley, CA: Sports Science Associates.

Superintendent of Public Instruction School Report Card. Retrieved April 18, 2009, from Home Web site: <http://www.k12.wa.us/default.aspx>

Steers, R. M., & Porter, L. W. (1974). The role of task-goal attributes in employee performance. *Psychological Bulletin*, 81, 434-452.

## Appendices

## Goal Organizer

Name: \_\_\_\_\_

School Year: \_\_\_\_\_

### Math

My fall MAP score in math is \_\_\_\_\_.

Grade Level Equivalent of MAP score: \_\_\_\_\_.

Mathematical Area that needs most improvement: \_\_\_\_\_.

Strongest Mathematical Area: \_\_\_\_\_.

My Parents and My goal for Spring Map: \_\_\_\_\_.

- Three Things I can do to work on achieving my goal this year are:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Parent Survey

Question	5 Strongly agree	4 Agree	3 Undecided	2 Disagree	1 Strongly disagree
My child is a good student.					
My child can be successful in math.					
I can help my child with math homework.					
My student does his/her homework.					
I know what is going on with my student at school.					
I know what goals are.					
My involvement in my student's education is important.					

Primary Language Spoken at Home:

What time of day is the best time to contact you?

What is the best contact phone number?

Are there any days that you would be willing to help in the classroom? If yes please indicate what days.

Additional Comments:

Student Survey

Question	Yes	No
I am a good student.		
I can do well in math.		
My parents can help me with math homework.		
I do my homework.		
My parents know what I'm doing in school.		
I know what goals are.		
My parent's involvement with school and me is important.		



### Parent and Student Survey Results

Question	5 Strongly agree	4 Agree	3 Undecided	2 Disagree	1 Strongly disagree
My child is a good student.	11	5		1	
My child can be successful in math.	14	2	1		
I can help my child with math homework.	13	2		1	1
My student does his/her homework.	10	5	1	1	
I know what is going on with my student at school.	11	4	2		
I know what goals are.	15	1	1		
My involvement in my student's education is important.	16		1		

**Primary Language Spoken at Home:**

Espanol +1+1+1+1+1+1+1=8

Spanish +1+1=3

English+1+1=3

**What time of day is the best time to contact you?**

4PM

A toda hora

Anytime

After 3 pm

Anytime at work and or after 5pm

3:00

8:00am 4:00pm

Todo el dia

Evening

8/7

En la tarde 3 pm

Any

4:00pm

12:00 – 5:00

Are there any days that you would be willing to help in the classroom? If yes please indicate what days.

Martes y viernes 7:30am 9:00am

If I knew how to read I would love to help

I'm working 6-2

Any day

Any day aside from Wednesday

Any don't work

Lo siento mucho pero aorita ne puedo

Additional Comments:

I am very pleased that you would inform me about my son. Thank you.

Thank you for helping my kids at school

Solo gracias por toda

#### Student Survey

Question	Yes	No
I am a good student.	16	1
I can do well in math.	16	1
My parents can help me with math homework.	16	1
I do my homework.	15	2
My parents know what I'm doing in school.	15	2
I know what goals are.	17	
My parent's involvement with school and me is important.	16	1