The Use of Goals to Influence Student Achievement

Dana M. Sorensen
Regis University

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THE USE OF GOALS TO INFLUENCE

STUDENT ACHIEVEMENT

by

Dana M. Sorensen

A Research Project Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Education

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Chapter 1

INTRODUCTION

“Personal success in life comes from being able to set and achieve realistic positive goals” (Mountain, 1998, p. 1). Even though many people understand the power of goals in their personal lives, typically, goals are ignored in education, and educators miss the chance to harness the power of goals to increase student achievement. It takes a conscious effort to establish, assess, and keep the language of the goals in the forefront of academic discussions during the year. Teachers must be able to have difficult conversations and focus on student learning and as Reeves (2004a) stated: “no teacher or staff member will be more accountable than the leaders in the system” (p. 4). The stakes are high with the push for increased student achievement as a result of the mandates in the Federal No Child Left Behind Act (U.S. Department of Education 2006).

Statement of the Problem

As each school year begins, committees of teachers come together to examine pages of data to determine how they can improve student achievement. Numerous hours are spent in the examination of data, the determination of areas of benchmarks for progress to be monitored during the year, and the identification of instructional strategies labeled, best practices, in order to attain the ultimate level of achievement for the students. Yet, usually a week later, the entire document is filed away and rarely examined during the rest of the year. Goals have to be attainable, measurable, and set just a little beyond what is expected. Well communicated goals will ensure that this
accountability ritual will become a more powerful activity because the goals will be appropriate and serve as the compass for the members of a school in search of excellence.

Purpose of the Project

The purpose of this project will be to present the staff at North Mor Elementary with more comprehensive information about goals. The staff will explore the purposes for goals and how to set an achievable goal. Based on this more indepth information, the group will work together to identify effective goals for the school math plan. Also, each member will develop a plan of action for implementation of the goals with their students. It is the author’s intent to link academic goals to improved student performance.

Chapter Summary

Schmoker (2006) stated: “Without goals, we will never work as hard or as smart to accomplish what is important to us, and for our students” (p. xix). Goals should be at the forefront of almost all of the work that teachers do when they plan and reflect on lessons and student achievement. Many terms have become synonymous with the term, goals, so there is a degree of confusion about the purpose of goals. The terms and ideas need to be clearly defined to ensure the successful implementation of goals.

In Chapter 2, a review of literature will clarify key terms and list the required steps educators must complete to determine appropriate goals. Research is presented to support the correlation of effective goals to improved student achievement. In Chapter 3, components of the teacher training and peer assessment are explained.
Chapter 2

REVIEW OF LITERATURE

The purpose of this project will be to develop an inservice for teachers to learn about the effectiveness of goals when they are used to improve student achievement. Schmoker (2003, as cited in O’Neill & Conzemius, 2006) identified 50 schools and districts where the staff adopted a process of data analysis, goal setting, and team work to achieve improved student performance. This compelling information supports the exploration of goals and effective goal setting by educators.

The Use of Data with Standards

One of the first critical steps teachers must take to set attainable goals is to analyze data. Many terms get overused during data discussions so teachers must have a clear sense of purpose and direction in order to process student information. There are several factors the influence teacher perception of data.

With the inception of No Child Left Behind (U.S. Department of Education, 2006), educators have had to make data collection and review a priority. Being data driven is not always easy. Lashway (2002/2003) reported that effective data driven schools: “consistently use objective information to enhance human judgment” (p. 3). There must be a willingness to challenge individual assumptions and beliefs when presented with a wide range of statistical information. Teachers, who can verbalize how they believe the data will look, before they look at it, will be able to better relate the data to their belief system. Teachers will be more willing to change and develop more
effective goals when they have challenged their beliefs and are open to new techniques. Teachers, who work in this type of atmosphere, can be considered data driven.

“Used correctly, good information leads to smarter decisions, defuses the emotion in controversial issues, and provides fuel for meaningful dialogue within the educational community” (Lashway 2003/2004, p. 4). There are many different types of data available for educators, and Lashway made the point that the available data, such as demographics or curriculum, should be used to ensure that informed judgments can be made. Once teachers create a clear picture of reality, they can begin to determine what goals would be most appropriate to enhance that reality.

“Sensitivity to the many perspectives that group members bring to the table is another important reason for accessing multiple data sources” (Wellman & Lipton, 2004 p. x). When groups of teachers sit down to analyze data, the more differentiated the data available to them, the greater chance that all members will engage and participate in discussions about it. If groups of teachers are to establish effective goals, all members of the group must be involved in processing the data.

“Outcomes imply what learners take away from their course; while the term standard seems commonly to... imply... the goals of courses may be measured... when used to specify what learners should achieve at various levels” (Ingram, 1999, p. 5). Once educators understand the current reality for their school, they can begin the process to set goals for themselves and their students. First, teachers need to understand the difference between outcomes and standards, and how these ideas relate to goal setting. To identify an outcome for a student is to be able to identify the goal for that student, and
it may include more than just the goal. The standard relates to how well the student achieves the goal or to what degree that goal will be achieved.

Ingram (1999) made the point that, an arbitrary score on some arbitrarily selected test to serve a political purpose, does no one any good. As a team of teachers work to establish goals for its students, it needs to keep in mind that the set standard cannot be an arbitrary number. It must be justifiable if it is to be of any value to the people involved with the goal. Yet this seems to be exactly the scenario that plays out when educators attempt to meet the NCLB (U. S. Department of Education, 2006) goal of 95% by the year 2007. If students in a grade level perform at 50% on a reading test in 2005, it may seem statistically reasonable to aim for 73% the next year, in order to close the percentage gap by one-half. However, the teachers not only find this percentage to be arbitrary but truly unobtainable and, therefore, resist the adoption of the goal.

Reeves (2004b) stated: “Standards allow every student to move toward success because the definition of that benchmark is clear and transparent” (p. 3). Educators have to be knowledgeable in this difference to be able to determine clear standards in which to focus educational goals. This means the traditional concept of the bell curve must be replaced. It is no longer acceptable to have most students fall in the average range with some above the average and some below the average. In No Child Left Behind (U. S. Department of Education, 2006), it is mandated that 95% of students be proficient. When students work to meet a clearly defined standard, the outcome of a bell curve is minimized. The use of standards informs the teacher when each student has achieved success as opposed to the purpose of a bell curve which is to identify who did not achieve success.
Also, Reeves (2004b) pointed out that the faculties of effective schools with a high poverty level ignore the theory behind the bell curve and do not accept low scores. Educators must maintain high expectations for all students and not accept the position that some students have to fail. The use of explicit standards can provide an atmosphere where all students can achieve the standards successfully and not make exceptions for low income or less experienced students. The implications for teachers as they set goals are clear in that they must understand the proper definition of a standard to be able to utilize its power in order to establish effective goals.

“Standards promote emotional intelligence because they require that students not only understand complex information for their own needs, but also that they empathize with colleagues who are experiencing difficulty in mastering the material” (Reeves, 2004b, p. 4). Teachers must be able to determine fixed standards that do not change as they work towards the creation of power goals. Once the student has performed the task, his/her performance can be immediately compared to the standard to determine why the student met or did not meet the standard. The process is very complex and requires monitoring and adjusting. Even though the idea is to have a fixed standard, the quality of the standard must be authentic and measurable.

“For school and classrooms to meet that goal, teachers must understand what experiences students need to have to attain the identified standards” (Carr & Harris 2001b, p. 1). The standard may be that a first grade student will be considered at grade level if they can read a Reading Recovery book level of 14. Each student will have the opportunity to meet that standard without being compared to other students. It will not be an issue of who can the read the level 14 better, but who can use reading and
comprehension strategies to read the level 14. Each student could quite possibly arrive at the level 14 in completely different ways so the teacher has to have the knowledge to take each student down his/her path toward the level 14. To be able to set goals becomes increasingly more complex each time a layer is pulled away.

“People who have developed expertise in particular areas are, by definition, able to think effectively about problems in those areas” (Bransford, Brown, & Cocking 1999, as cited in Wellman & Lipton, 2003, p. 43). Many of the terms that are used in discussions about data have specific meanings and connotations, but those get lost when the terms are used interchangeably. It is imperative that the distinction be made for each of the terms highlighted in this section. Only then can educators have authentic discussions about the progress of the students and be able to determine an appropriate course to take and set realistic goals for both the staff and students to work toward.

Schmoker (2006) stated:

Our best plan is to arrange for teachers to analyze their achievement data, set goals, and then meet at least twice a month for 45 minutes or so. That way, they can help one another ensure that they are teaching essential standards and using assessment results to improve the quality of their lessons. (p. 34)

The definition of both the terms and the process will enable teachers to attain a better idea of the necessary steps to achieve increased student success.

What Are Goals?

According to Reeves (2004a), “Either we are reduced to a set of test scores or we seize the opportunity to tell the real story of education accountability, sharing the subtleties and complexities of the world of teaching and learning” (p. 7). Teachers communicate a more accurate picture of a student’s knowledge when they are given the time to analyze data and set obtainable goals for the students. Also, Reeves made the
point that teachers must have time to measure fewer things, but on a more frequent basis, rather than focus on the results of an annual test. Goals have to be a part of this process.

“A goal is a standard or level of proficiency that you work toward or want to attain” (O’Brien, 1997, p. 1). Most teachers are able to identify personal goals and the process they use to reach the goal, but the power of a goal rarely transfers back into the classroom setting. “They [goals] remain the single most underestimated and underutilized means of improving student learning” (O’Neill & Conzemius 2006, p. 2).

Leaders and teachers in a school have to make a conscious effort to keep goals at the forefront of academic discussions.

Also, O’Brien (1997) identified the different types of goals. An outcome goal is one that reflects a final result. Outcome goals are very visible in the education world with report cards, examination scores, and state mandated assessments. Although these are necessary goals, the score or percentile is final, and after the learning takes place. A teacher may be able to adjust pedagogy, but either the end of the year or the end of a unit signals the fact that there is no more time to address that particular goal.

“Performance goals allow you to increase your own personal standards of performance based on previous experiences” (O’Brien, 1997, p. 1). Performance goals would be very effective when one teaches a first grade student how to read. The student would be able to progress through the reading levels by improvement in his or her ability based on previous reading experiences. The goal is for the student to acquire reading strategies, not an ultimate book level. The teacher would have to have the knowledge of the incremental steps that a student must achieve to improve his/her reading ability. Another example would be a student’s writing ability. A student may receive a final
grade on a writing piece but, also, there would be smaller goals to attain to improve proficiencies.

O’Brien (1997) stated: “Finally, process goals focus on the steps you need to take in order to attain the desired outcome” (p. 1). An older student may set a process goal of increased reading time each night to build stamina and endurance. The same process would be applied to improve writing endurance. If a student had a smaller performance goal, that is, to use more strategies while reading, then a process goal would be to try a strategy each time the student encountered a difficult word or idea. A teacher may be excited to try a new innovation or program with the students.

Senge (1990, as cited in O’Neill & Conzemius 2006) wrote:

Those with high level of personal mastery regularly spend time reflecting on their vision, skills, and practices. They clarify what is important to them, and are clear about the current reality. They are extremely focused, but in a very particular way: “They focus on the desired result itself, not the ‘process’ or the means they assume necessary to achieve that result. (p. 8)

Senge cautioned about being more focused on the process rather than the end result. Many teachers become excited about teaching a unit, but neglect to state the purpose and the final outcome of the unit. DuFour and Eaker (1998) referred to these outcomes and goals as essential questions and essential outcomes. There has to be a clear balance of the three categories of goals as described by O’Brien (1997).

O’Neill and Conzemius (2006) stated that: “SMART goals have been in use by other industries for more than 20 years, but they are only now beginning to be valued in school settings” (p. 13). The SMART term is an acronym for: (a) Strategic and Specific, (b) Measurable, (c) Attainable, (d) Results-based, and (e) Time-bound. The SMART goal framework provides a guide for educators to establish an academic focus for
students and teachers. O’Neill (2000) noted that teachers can personalize and internalize goals they develop.

To be strategic and specific, educators need “to focus on just the vital few . . . high leverage areas where the largest gaps between vision and current reality exist, and therefore the greatest gains will be seen” (O’Neill & Conzemius 2006, p. 14). Teachers might identify reading comprehension as the area with the largest achievement gap and then target comprehension through all content areas; therefore, the results equal the greatest gains. Layering the goals at different levels, with the use of the Pareto analysis tool, will better identify the best way to target a particular aspect of the goal. A Pareto chart is used to graphically summarize the importance of the differences between groups of data.

Measurable goals should be measured according to formative and summative assessments. O’Neill and Conzemius (2006) explained that “School goals should focus primarily on summative measures, while classroom level goals should be both summative and formative in their focus” (p. 15). The uses of multiple measures allow educators to construct a more accurate picture of student learning and achievement.

An attainable goal would motivate teachers to strive higher with goals that are almost within reach but require an extra effort to achieve (O’Neill & Conzemius, 2006). There must be time for discussion centered on goals that are not too easy to accomplish but also not too high and impossible to reach. This task becomes trickier when Federal mandates are imposed on school systems. Ideally, a low performing school may have to improve student performance by double digit percentages while another, more affluent
school, may only have to increase by a couple of percentage points. Either situation runs
the risk of teacher commitment.

O’Neill and Conzemius (2006) stated that: “We learn more through results based
goals because we have concrete benchmarks against which to measure our efforts” (p. 16). Use of the results gives the teacher the opportunity to see the effectiveness of his/her
teaching and help to build that teacher’s efficacy. Educators are better able to emphasize
the purpose of the learning, if the instruction met the intent for which it was designed. Teachers have the opportunity to congratulate themselves or to go back to the drawing
board and take another look at the work they are doing.

“Setting a goal that is time bound builds internal accountability and commitment”
(O’Neill & Conzemius, 2006, p. 17). With all the other potential issues that surface
during a school day, week, month, or year, it would be easy to put off the work on a
particular goal. The use of an established timeline would improve the results based
aspect of SMART goals, because it would be that moment when a teacher would be able
to determine whether students were successful with a goal. The teacher would have the
opportunity to acknowledge and learn from the experience and then determine the next
course of action.

The establishment of all the components of the SMART (Sparks, 2004) goals
allows teachers to “hold challenging goals for all students and continuously reflect on
multiple forms of evidence regarding student learning” (p. 1). The atmosphere at school
becomes more professional and collaborative. Teachers can focus on assessment for
learning and not just of learning. They want to know how students learn and not just how
to teach something.
How Are Goals Determined?

When educators meet to plan for areas of focus, McKenzie (1991) stated that: “the important step is the identification of fewer than six priorities which will be the primary focus for school improvement efforts” (p. 1). If there are too many areas of focus, there is little chance that teachers and students will be impacted. For every area identified as a need, there must be training and staff development to facilitate change. Otherwise teachers may be pulled in too many directions, and the information will become fragmented when it is implemented in the classroom.

Walberg (1991, as cited in Marzano, Pickering, & Pollock, 2001) reported an effect size of -.20 on unintended outcomes when a teacher sets an objective or goal that is too specific. Very specific goals can be too confining and suggest to the learner that, once the objective is met, the job is accomplished, and no further work is necessary. Goals should be written in such a fashion that students are encouraged to look further into information and not ignore details that may not pertain to the goal.

“Objectives become powerful learning tools when they give direction to students but allow them some flexibility to further define their own interests within a topic” (Marzano, Pickering, Norford, Paynter, & Gaddy, 2001, p. 175). This would apply for teachers as well. The goal to use cooperative groups to increase student achievement in mathematics may not facilitate the desired progress, as well as a goal in which it is stated student participation will be increased during mathematics to improve achievement. The latter goal lends itself to more possibilities and accounts for different teaching styles and strengths. The ultimate objective is still the same, but the pathway to this outcome can look many different ways and still be effective.
Well communicated goals serve an important purpose as well. The staff of Blythe & Associates (1998, as cited in Rose, Meyer, Strangman, & Rappolt 2002) stated:

Making these through lines [clear goals] explicit for students helps to ensure that the students stay focused on developing the most essential understandings. By making such goals explicit for students, you give them the opportunity to monitor their own growth and the power to separate the relevant from the irrelevant, the useful work from the interesting-but-distracting work. (p. 9)

Goals set at the district or building level should be communicated with the same intent. Teachers can utilize the same process when they work on the goals for a particular unit. It is easy for teachers to get distracted from the purpose for achievement with new ideas or prized lessons taught previously. When conditions are established that allow teachers to collaborate and work around the goals, these goals stay at the forefront of the discussions and the work that teachers do.

Rose and Meyer (2000, as cited in Rose et al. 2002) stated: “When goals are too tightly tied to methods, the logical result is that some students encounter barriers that prevent them from working toward these goals and others are not offered an appropriate challenge” (p. 3). Educators need to be wary of setting goals that automatically eliminate the few students at each end of the spectrum. If the goal is to understand the reasons for the explorers to move West, the goal should be written so that the most capable students can challenge themselves to understand these reasons at a deep level. On the other hand, the struggling student should be able to communicate his/her understanding in a medium that is appropriate for that student’s abilities. To require that all students will be able to write the reasons for exploration would automatically exclude and ignore the abilities of those students on both ends of the continuum. Broadening the goal from write to
communicate will allow all students access to the knowledge and allow the students to go as indepth as they desire.

There are three types of goals that educators need to be aware of when they determine the direction, which will lead to greater student achievement. Rose et al. (2002) identified three types of goals.

1. Recognition goals ask students to identify who, what, when, and where and refers to learning specific content. Content is emphasized.
2. Strategic goals ask students how to do something and emphasize skills and strategies. Process is emphasized.
3. Affective goals speak to the idea that students should enjoy and appreciate the content or activity they are involved in. Value and emotion are emphasized. (p. 5)

When teachers understand the types of goals, it is easier to ensure that certain aspects of those goals stay constant as they work through academic units.

The use of “Clear goals allow teachers to determine the best methods and materials for reaching our objectives and also enable us to establish appropriate criteria for assessing students’ success” (Rose et al., 2002, p. 3). The power of goals demands that educators take note of the intricacies to determine an area of focus and to word the goal in such a way to foster the best in students.

The Process

O’Neill and Conzemius (2006) encouraged teams of teachers to set goals to address for 2-3 years beyond their present situation to foster a long term strategic focus in order to result in greater student achievement. Teachers need to compare results from a series of years to determine the greatest area of need. The examination of multiple years allows teachers to identify patterns and overall trends for a particular topic. The purpose is not to figure out why but to identify the focus.
“Indicators are the evidence we look for to see if the goal is being achieved” (O’Neill & Conzemius, 2006, p. 20). Once an area has been targeted for focus, educators must determine the areas of weakness within that target area. If a group of teachers decide that writing is the greatest area of need, then the next step would be to decide what indicators within writing would provide the evidence. Students’ use of voice and organization would be appropriate evidence to inform teachers the students’ progress toward the writing goal. Targeted indicators should impact other areas of curriculum as well.

According to O’Neill and Conzemius (2006), the next step in the process is to identify the measures. Measures are simply the assessments that will best indicate how the students perform on the identified indicators. It may be the district assessment or the state test. However, classroom measures should be timely and provide useful information for the students to apply to future learning.

Reeves (2004a) suggested that the holistic measures teachers could use to plan a unit for the students might include: (a) frequency of writing assessment, (b) frequency of collaborative scoring, (c) percentage of lessons that integrate technology, (d) frequency of feedback to students for their direct action based on that feedback, and (e) frequency of updates in a student’s portfolio or collection of work. These measures help teachers to know when they are doing the right thing.

O’Neill and Conzemius (2006), stated, “Finally, establishing improvement targets for each measure allows you to track improvement not only by overall average, but also by subgroup” (p. 20). Students with Individual Education Plans (IEPs) might be identified as a target group, and the goal for this group of students might extend beyond
the first year of the goal implementation. Also, teachers can establish smaller classroom
targets or essential learning outcomes for their own students for a grade level of students
with a particular unit of study.

The development of a strategic plan means that, “student performance may be at
the center, but the overall strategic plan includes other aspects of the school improvement
process” (Carr & Harris, 2001b, p. 3). Therefore, the action plan developed from the
steps listed previously becomes a subcomponent of the strategic plan of the school
community. The action plan requires the establishment of teams of teachers, usually, five
to eight members from various representations of the system. Also, Carr and Douglas
suggested that, if individuals have areas of expertise such as content, facilitation, and data
analysis, the ability of the group to process information and form a plan can be greatly
enhanced.

The Effects of Goals

According to Marzano et al. (2001), “Broadly defined, goal setting is the process
of establishing a direction for learning” (p. 93). They cited several researchers who
established moderate effect gains for students in reference to goals: (a) Wise and Okey
(1983) reported an effect size of .48, (b) Walberg (1999) reported an effect size of .46,
and (c) Lipsey and Wilson (1993) reported an effect size of .55. These findings reflected
an 18-21% increase in student achievement. This means that a student, who scored a
67% on a test, would receive a score of 85-88%, if the student was involved in the
process of goal setting.

Meader (2000) conducted her study on goals with her General Education
Development (GED) students and found, “that for some of my Math Concepts students,
goal setting was an important part of their commitment to succeed” (p. 5). She used a pre and postsurvey to determine how goals affected the GED students’ attitudes and performance in her mathematics class. She found that most students were very articulate about the reasons they valued goals and, for 71% of her day class, goals helped students stay focused to complete the course.

“Recent research on achievement motivation has focused on identifying different types of goal orientations among students, the motivational processes that are associated with these different goals, and the conditions that elicit them” (Ames & Archer, 1988, p. 260). Ames and Archer conducted a study to investigate how students’ motivation patterns and classroom perceptions correlated to mastery and performance goals. Mastery goals are related to the personal learning of a student while performance goals are related to how a student learns in comparison to other students.

Ames and Archer (1988) focused on an examination of the relation between each student’s perception or interpretation of the classroom and the individual student variables. The students’ scores on the provided scales were matched to: (a) learning strategy, (b) task choice, (c) attitude, and (d) attribution measures. Students, who identified the emphasis on mastery goals: (a) scored learning strategies higher on the scale, (b) selected a preference for more challenging tasks, and (c) scored higher with a positive attitude. Students’ perceptions of performance goal orientation were not related to their use of learning strategies or task choices, but they were negatively, although not strongly, related to attitudes and self-perceptions of ability.

According to Ames and Archer (1988), another finding in the correlational analyses showed a significant ($p < .001$) correlation to students’ attribution to their
teachers when they performed well, and when there was a perception of master goal environment. According to the findings, students, who perceived a performance goal type of environment, were found to a greater degree to attribute failure to personal ability and the task difficulty.

Also, Ames and Archer (1988) conducted a group comparison among students who perceived their classrooms to be of high mastery and high performance vs. students who perceived their classrooms to have low mastery and low performance goal orientations. The analysis of variance (ANOVA) findings showed significant ($p < .01$) differences on several measures, and the group comparisons showed a rather consistent pattern of differences for the: (a) learning strategy, (b) task choice, and (c) attitude measures.

Ames and Archer (1988) found that the use of mastery and performance goals provided a meaningful way to differentiate students’ perceptions of the classroom learning environment. Seemingly, the students’ perception of a mastery goal classroom environment supported thinking strategies that led to their greater engagement. Students were observed in the use of more effective learning strategies, and they attempted more challenging tasks. These findings supported those of previous researchers (Covington, 1984; Covington & Omelich, 1984; both cited in Ames & Archer), who demonstrated that the impact of learner characteristics on achievement behavior can be moderated in a mastery learning paradigm.

Ames and Archer (1988) reported that, although high achieving students may be expected to be more knowledgeable and aware of effective learning strategies, their reported use of strategies was dependent upon how they perceived the emphasis on goals
in the class. The results from the Ames and Archer study suggested that not enough attention is given to learning conditions and, therefore, there may be a need to focus more on how a student perceives the goal orientation in the classroom.

The findings from the Ames and Archer (1988) study emphasized mastery, rather than performance by the student, to reflect how that student internalized a particular task and connected with the learning. In addition, they emphasized that it was important to design interventions to allow student to establish realistic and challenging goals to foster achievement when a mastery structure is in place.

Chapter Summary

As described in this chapter, educators, who can: (a) analyze data, (b) match their current reality to standards, (c) write goals to accommodate all students, and (d) help students internalize the goals, will experience increased student achievement. School leaders, who effectively utilize the strength of the staff have a greater chance to determine effective goals and direction for the entire school community. In Chapter 3, this author will identify the steps for teacher training and describe the steps for peer assessment.
Chapter 3

METHOD

The purpose of this project was to present the staff at North Mor Elementary with information and evidence that the use of effective goals leads to increased student achievement. Marzano and Pickering (2001) stated, “It is a skill that successful people have mastered to help them realize both short-term and long-term desires” (p. 93). Goal setting can provide the desired direction for school communities but it is not always utilized as it could be.

Target Audience

At North Mor Elementary, there are three teachers in each grade level from kindergarten to fifth grade. These teachers, in addition to support staff and the librarian, received the training because each of these staff members is involved in the development and use of goals and using them with students.

Outcomes and Procedures

The desired outcome from the training was for teachers to understand the power of the use of goals and develop increased strategies for writing goals that address all student abilities. It is this author’s belief that the staff at North Mor Elementary work diligently to institute best practices in all content areas, but they neglect the necessary differentiation techniques and opportunities for students to personalize and internalize the goals.
After the staff wrote three personal goals for teaching and three goals for their students, they will received information about: (a) the types of goals, (b) the development of goals to include all types of ability levels, and (c) the research about how the use of goals leads to improved student performance. Finally, the participants edited and revised their original goals and shared the student goals with grade level team members. These student goals will facilitate the focus for the grade level teams during their work in Professional Learning Communities throughout the remainder of the year.

The author worked with one team for the Spring semester. The team worked to collect and analyze evidence that correlated the goals for the mathematics training with the assessments that teachers designed. The team looked for trends and patterns that reflect the impact of the use of goals for each mathematics unit.

Peer Assessment

For assessment of the training, the Power Point was given to five colleagues with experience in staff development and goal setting. Each colleague was invited to provide informal feedback and suggestions to enhance the training. Also, this author sought additional ideas for further research from colleagues who assessed the project.

Chapter Summary

“Brain research supports the idea that clear goals are essential for learning but teachers often lack clear goals for students, in part because our reliance on traditional, fixed media leads us to believe there is only one path to learning” (Rose, Meyer, Strangman, & Rappolt, 2002, p. 1). When teachers are provided with compelling evidence to support the use of goals, they will achieve greater gains in student achievement. It was this author’s intent to provide the necessary information and support
for the teachers as they collaborate to see how the use of goals affects student achievement.
Chapter 4

RESULTS

INTRODUCTION

The purpose of this project was to present the staff at North Mor Elementary with information and evidence that the use of effective goals leads to increased student achievement. In Chapter 2, O’Neill and Conzemius (2006), stated, “Finally, establishing improvement targets for each measure allows you to track improvement not only by overall average, but also by subgroup” (p. 20). The goal setting the staff will do in this training will allow the teachers to track their progress with the goals they set in reference to the Add + Vantage Math program.
“Welcome everyone! We’ve had a great opportunity for most of us to be trained with Add + Vantage Math. This afternoon we will have a chance to integrate our training with the training some received last year and match it with some new information I have about goals. By the time we are finished we will have a shared vision of what we believe about students’ math understanding, and you will be able to set some goals to help you raise achievement and help us support your work with your students. The other point I wanted to make is that it doesn’t matter if you have had the Add + Vantage Math training because we just want to focus our conversations around goal setting and talking about the strengths of the students.”
Although most of us acknowledge the power of goals in our own lives, they
remain the single most underestimated and underutilized means of
improving student learning.

If there is no vision, or if the vision is only understood or shared by a few, goals
will not have a context in which to thrive.

In cases where the values are being espoused but are not reflected in either
the goals or the actions of the people inside the organization, there can be
no authentic commitment toward achieving them.

The collaborative process of developing data-based, results-oriented goals
generate and feeds the will to achieve them.

“Read the following quotes. Decide which one resonates most with your belief system. Find
an ‘eye’ partner and take turns sharing your quote. Find two other groups of partners and
share. Listen for overall patterns or trends in your conversations.”
(provide time for sharing)

“What are some big ideas you discovered as you shared with others?”

Discussion follows.
“By the time we are finished this afternoon, there are a few outcomes we want everyone to be comfortable with. Having another opportunity to look at students during assessments will help us gain clarity on our understandings of the Add + Vantage Math continuum. You will be able to have conversations with other grade levels and realize what concepts need to be supported and how that support will look. You will also have some additional information about goals and have a chance to do some goal setting for your specific students and for yourself.”
“We will break into small vertical teams to share a small segment of video and the scored assessments that were done last week. The teachers who were trained last week will share the new assessment with the other teachers and answer any questions based on the new understandings from this training. We will come back together in forty-five minutes and have you sit as a grade level team. You will revisit the goals you just wrote and revise them as you see appropriate. Then have a conversation with your grade level team to develop a plan focused on the goals and also to let us know how we can support you as coaches and administrators with meeting the goals you have written.”
We are going to do an activity now to gain some insight into effective goal setting. This activity is called Text Rendering Process and you will also be able to incorporate this into your classroom and use it with your students. Your group will select a facilitator who will keep the group moving and on track. Each group participant will read the article I give you and make notes as you are reading. Things you may want to notice are certain phrases or ideas that jump out, a particular sentence, or a power word. Pick one sentence, one phrase, and one word that you feel are the most important after reading the entire article. Take three strips of paper and write each thing on a strip of paper.”
“Share your strips with your group. Share all sentences, all phrases, and all words and talk about why these ideas were important. Finally, your group must come to consensus and select one word, one phrase, and one sentence that best represents the whole group. Post the strips of papers around the room for everyone to see. We will debrief as a whole group and share insights. Let’s take about this many minutes to work.” (I will hold up ten fingers)
Some Ideas About Goals

- Wise & Okey, 1983 found a percentile gain of 18-41 points.
- Walberg, 1999 found a percentile gain of 18 points.
- Lipsey & Wilson, 1993 found a percentile gain of 21 points.

What would 18 percentile points mean for our bubble students?


“Our district places a huge amount of emphasis on the McRel strategies. These percentile scores are directly from Marzano’s research which it the same as what McRel uses. I think the increase in percentile points is compelling and is worth consideration as we continue to work on implementing this math program.”
More thoughts

- Make sure the wording of the goal does not automatically limit some students from ever reaching the goal. Example: Students will write a description of how they solved the math problem. What about the students who understood the math but are not proficient writers?

- Goals should be developed with the belief that all students can attain the goal even if it looks completely different from other students.

- Be aware of results oriented goals and performance goals

“I think the first bulleted idea will be easy if we work closely with the math continuums. It’s a nice thing to keep in mind and something we can be aware of so that we don’t dummy down a task. It used to be a bell curve was standard and expected. But with the new learnings we have about reading and math, bell curves are no longer the norm. It is possible to elevate each student to a standard but understanding that each child may need a different path to get there. Results oriented goals are measurable goals. Performance goals are more like the journey a student will take or ‘perform’ to get to the end result. Neither goal is bad but results oriented goals will give us more information right now about how we are doing with passing along our understandings to the students.”
Setting Goals

Create three goals for yourself:

1. a personal goal for you with Add + Vantage Math.

2. a classroom goal for you with Add + Vantage Math.

3. a student goal for a student or students with Add + Vantage Math.

“Now we are going to work mostly in vertical teams to look at some recent Add + Vantage math assessments that 4th, 5th, Kindergarten and the Learning Specialists did yesterday. Before we form these groups, take a minute and write three goals for yourself based on the information I just gave you about goals. The first two may be the same goal or you may have a goal for yourself as far as doing something personal with the Add + Vantage like reading Teaching Number in the Classroom or collaborate with your teammates to create new activities. The second goal might be around something you are actually implementing or doing in the classroom. The third goal would pertain to a particular student and what you hope that student would be able to do because of your new understanding with math.”
I will have groups already established by dividing the entire staff into three groups. Each group will have one teacher from each grade level. I also divided the three specials teachers and seven interventionists into the three groups. Three classrooms will have TV’s for the vertical teams to meet in and watch the assessment videos.

“You will watch just part of one video so the first grade teacher can see her student working. From there the group can ask questions, look at the other assessments and just talk about what the group values and would like to see carried forward from today. Please make sure the discussion centers around what the group sees the child capable of and not what they are not doing. I know it’s tempting because some of these students are the ones we work the hardest. Then come back to the library and we’ll revisit the goals you wrote and have a group discussion about our next steps.”
Some Guiding Questions

- How does EDM support what we are learning in Add + Vantage Math and Count Me In Too?

- How can my goals support students’ understanding of math?

- What are we understanding better because of Add + Vantage Math and Count Me In Too?

“These are some questions for the group to consider as you discuss the students and the training we have all received. These questions will help us determine what our next steps will be as a school.”
Assignment

- Monitor the goals you wrote at the beginning of the session and revise them if necessary based on what you are seeing in the classroom.

- We will revisit these goals March 1 during early release.

“Because we have time in two weeks to look at these goals, try them in your classroom. Remember your student goals should just pertain to one student as our intent is not to overwhelm you every student. When we return on March 1st, please bring a work sample that relates to the goal you’ve written. Even if the goal didn’t work the way you had hoped, the sample will still allow for great conversation and for us to continue to build on our knowledge.”
Complete this sentence:

Setting instructional goals is like

Because

“To wind things up for today, take a minute at your table to finish the metaphor. We’ll share out when everyone is done.”

Using a metaphor is a nice closing activity to synthesize the information gained from the inservice.

One example:

Setting goals is like running a marathon because it takes dedication, energy, and patience.
SUMMARY

The teachers at North Mor Elementary were very excited to receive the training because the training gave them the template to create a plan for implementation of the Add + Vantage Math training. Because the teachers received information on effective goals, they were able to set attainable goals that they can check and revise when the staff meets again. The attention to goals allowed the teacher conversation to be more focused and guided to maintain an atmosphere of empowerment. Goals allowed the teachers to visualize future success instead of discuss drawbacks or concerns that may keep the staff from the next steps forward.
Chapter 5

Discussion

The in-service designed for the teachers at North Mor Elementary definitely addressed the issue of using goals to enhance student achievement. The design of the training allowed teachers to present their assumptions prior to being given any information about goals. The participants were allowed to read and construct meaning from an article that addressed the use of goals. The teachers were given time for personal reflection and then the opportunity to collaborate with colleagues to build a shared understanding of what the teachers at North Mor Elementary believed true about the power of goals. From there, the teachers were able to apply their new understandings of goal setting to the new math training the entire staff received.

To have teachers set mutual goals for themselves and their students allowed for a larger picture to take hold for the staff. Teachers were able to envision success and look beyond just their new knowledge of math to how this knowledge should affect the students. It actually added an interesting dynamic because the focus of the paper was on student goals but it became obvious that teachers are rarely given opportunities to set goals for themselves.

As stated in Chapter 2, the purpose of this project was to develop an in-service for teachers to learn about the effectiveness of goals when they are used to improve student achievement. The teachers at North Mor Elementary were very excited about implementing the new math information but the establishment of goals created an
additional sense of empowerment and immediately created a way to measure the effectiveness and impact of the new math information. Teachers walked away from the training with a place to begin with their students. Even the art teacher was excited about her role in the process and the effect she would be able to have to enhance student understanding about certain areas of math.

Resolution of the Problem

The original problem as stated in Chapter 1 referred to the number of hours teachers spend on data with little or no carryover into an action plan for the classroom students. A large amount of teacher energy is used to determine the current reality of a school community but little of that energy results in a focus for the next day or next week. This in-service put a new emphasis on how to make a plan for the next day. It provided the need to establish measurable goals as benchmarks of progress.

“For school and classrooms to meet that goal, teachers must understand what experiences students need to have to attain the identified standards” (Carr & Harris 2001b, p. 1). The fact that the information on the power of goals was presented in conjunction with new math knowledge, resulted in additional buy-in for the teachers because they could immediately see the value and the purpose of setting goals. According to the teachers, it focused the conversations and guided the teachers in a more productive direction than in previous trainings. The math training provided the resource of experiences and then the teachers could effectively set performance goals around those experiences so each student will have the opportunity to reach the standard even if would be in a completely different manner than any other classmate.
The staff will be able to meet in about a month to revisit the performance goals they set and reflect on the process to see what needs to change and what the teachers need for continued support. Had the teachers walked away from the training without a few goals, it would be more difficult to establish a focus for a later meeting. Each teacher would have taken a different understanding of the math back to his or her classroom and there would have been a greater chance that any action taken would be put to the side as new emergencies and issues arose. The use of goals allowed the staff to leave with a more common focus and a topic to incorporate into hallway and lounge talk. Instructional coaches and teams of teachers had a topic to pay attention to during coaching sessions and grade level meetings.

Contributions

The establishment of all the components of the SMART (Sparks, 2004) goals allows teachers to “hold challenging goals for all students and continuously reflect on multiple forms of evidence regarding student learning” (p. 1). Even though most school staffs would not have the math training the teachers at North Mor Elementary were able to utilize, there are other focuses for teachers. The information on goals provided significant information to spark productive conversation around student achievement.

The establishment of all the components of the SMART (Sparks, 2004) goals allows teachers to “hold challenging goals for all students and continuously reflect on multiple forms of evidence regarding student learning” (p. 1). This in-service served as the catalyst for the North Mor staff to continue collegial conversations focused on student achievement. This training could be adapted to coincide with any content area of focus.
Limitations to the Project

Although the in-service was well received by the teachers, there was no concrete proof from the school that goals were making a difference at North Mor Elementary. Teachers were receptive to the McRel research and the effect size when the use of goals was utilized. There is a sense at North Mor Elementary that the staff has to deal with a certain kind of student and that the teachers are at the mercy of many outside forces. There is not a sense of collective efficacy for the teachers. An effective way to address the lack of collective efficacy is to demonstrate strengths with the current students or a demographic similar to the one at North Mor Elementary.

If one teacher or a group of teachers had piloted the use of goals prior to the in-service, there would have been additional evidence and information to provide the justification for the use of goals. The staff would be able to see the immediate application and power for the students at North Mor Elementary. Teachers get excited about methods that are proven to work. There would have been additional motivation to use and reflect on instructional goals.

Another limitation would be the timing of the in-service. “Setting a goal that is time bound builds internal accountability and commitment” (O’Neill & Conzemius, 2006, p. 17). The coordination of schedules, content, and teacher time allotted by the teacher’s union made the schedule more complicated that originally planned. There is some time left before school is over for the year but very little of that time will be able to be entirely committed for follow up. There will be end of the year tasks, other content areas to be addressed and data to report in the form of report cards and end of the year assessments. Had this training been done right at the beginning of the year, there would
have been ample opportunities to schedule team planning, data days, and afternoons focused on the progress of the students in relation to the goals that were developed.

Recommendations

The leadership team at North Mor Elementary has already put plans in motion to begin the year with the same focus and continue the work around the math training and the use of goals. There will be sufficient time devoted to the study of these ideas.

A questionnaire or survey would allow the teachers to assess their knowledge and application of goals. The leadership team along with the principal could then use the results as a needs assessment to design additional trainings or time to collaborate to continue to refine the process the teachers have incorporated into their daily work. Again, to begin at the start of the school year would provide adequate time to assess the implementation of goals during the year.

If at least one team would elect to make this the focus of their grade level planning, there would be an opportunity for ongoing assessment and collaboration around students. The team would be able to meet at least twice a month to develop common assessments and craft goals for the students as the teachers progressed through the math units. They would be able to have conversations around student achievement to determine if the goal needed to be reworded or if the pedagogy should be altered to be more in-line with the intent of the goal. There would be a greater chance that the conversations would remain purposeful and centered on student learning and not just teaching.
Assessment and Feedback

Five colleagues with extensive backgrounds in staff development and Title 1 schools received the Power Point along with a rubric to measure the effectiveness of the training. Additional comments were encouraged as well as common criteria to measure and provide feedback. Each colleague liked the variety of activities and felt the activities were appropriate in assisting the teachers to better understand the power of goals. One reviewer asked me if I would do the in-service with another school. Three of the reviewer particularly liked the protocol used to process the article.

All five reviewers felt the information about goals was appropriate and based on good research. By looking at participants’ original goals and then comparing them to the revised goals, each could see the growth of the teachers during the training.

The Title 1 coordinator was particularly pleased because she had provided monies to add to a grant we received to allow for all teachers to receive the math training. She felt the money had been spent well and really appreciated the way the school had incorporated a way for teams to continue to plan and focus on math instruction.

Project Summary

The purpose of this project was to present the staff at North Mor Elementary with more comprehensive information about goals. The staff explored the purposes for goals and how to set an achievable goal. Based on this more in-depth information, the group worked together to identify effective goals for the school math plan. Also, each member developed a plan of action for the implementation of the goals with their students. It was the author’s intent to link academic goals to improved student performance.
The staff at North Mor Elementary definitely received the information about goals with enthusiasm and open minds. They responded by setting measurable goals for the math training the entire building received and provided positive feedback and requests for further training. The leadership team will work to schedule additional time for the remainder of the school year so teachers can actually determine if the goals they developed directly affected the achievement of the students.
REFERENCES


APPENDIX A

ARTICLE
Set goals for learning with a sense of urgency

Most schools can make progress in creating high-quality professional learning in a single school year.

By Dennis Sparks

Results, May 2004

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The welfare of young people and the future of our nation requires that all students have quality teaching and supportive relationships with peers and adults. Unfortunately, in virtually all schools, poor quality or mediocre teaching in too many classrooms constrains the life choices of at least some students—usually those who are most vulnerable—by not providing essential skills and by diminishing the sense of possibility these students have for their lives. In addition, too many students lack meaningful relationships with their peers and with adults. This is true, in my experience, in well-financed suburban schools as well as in those challenged by poverty and racism.

A related problem is that too many teachers continue to experience professional development that numbs their minds, demeans their professionalism, and creates dependency. When the workshop or course component of "pull-out" models is well executed, the effort seldom extends to the classroom nor is sustained over a sufficient length of time to change instructional practice. Even the most successful forms of traditional types of professional development seldom affect more than a handful of teachers in a school, and those effects are usually short-lived because these programs typically have little affect on a school's culture.

The solution to these problems is high-quality, school-based professional learning and collaborative work that affects all teachers every day, the kind of staff development that NSDC wants for all teachers in all schools by 2007. In such schools:

- Teachers hold challenging goals for all students and continuously reflect on multiple forms of evidence regarding student learning.
- Teachers share planning and learning time that promotes meaningful collaboration within the broad context of a professional learning community. Teachers participate in one or more learning teams in which they are mutually accountable for student learning.
- The organization's culture fosters mutual respect, high levels of trust, and innovative solutions to problems. Teachers experience the emotional and social support such cultures provide.
- Teachers are intellectually stimulated by their work. Their interactions with peers and with outside resource people deepen their understanding of the content they
teach and broaden the range of instructional strategies they bring to their classrooms.

- Methods such as classroom coaching, demonstration lessons, lesson study, the examination of student work, and action research ground professional learning in daily practice and focus teachers on improving student learning.
- Teachers pursue professional learning through courses, institutes, and conferences when their content is important for the achievement of school goals. They also participate in cross-school or district networks that strengthen content knowledge and pedagogy.

The National Staff Development Council's Standards for Staff Development, the Council's Code of Ethics, and other professional literature available on this web site provide information that will deepen your understanding of these approaches.

Fortunately, virtually every school can make significant progress in creating such forms of professional learning in a single school year. The first important step is for school and district leaders to declare high-quality professional learning for all teachers as part of their daily work a priority goal within their settings and to set about achieving it with the sense of urgency it deserves.

Students pass through our schools only once, and they will be the ultimate beneficiaries of the quality teaching such professional learning can produce. Let's do it for them, now.