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Alternative Assessment

by
Katy Cosgrove

A Master's Thesis

Submitted in partial fulfillment of the requirement of the
Master of Arts Degree in The Graduate School of
Rowan University
April 15, 1999

Approved by _____
Professor

Date Approved May 1999

Abstract

Katy Cosgrove

Alternative Assessment

1999

Dr. Ronald Capasso

Supervision & Curriculum Development

The purpose of the study was to change the way teachers assess student in the mathematics classroom. The teachers worked to find alternative assessment activities that gave students the opportunity to solve problems related to real-life application, allowing for a greater understanding of topics. The alternative assessment program involved many members of the mathematics department at Gateway Regional High School. Teachers were surveyed about alternative assessment before and after they used alternative assessment in the classroom. The conclusions of the study accomplished the goal of making teachers aware of alternative assessment and how it can be implemented into the classroom to make out students independent thinkers.

Mini-Abstract

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Chapter 1

Introduction

Focus of the Study

One of the hot topics in the mathematical classroom in today's schools is assessment, the means of how the teacher is going to determine what the student knows, what the student understands, and what the student is learning. Many teachers determine this by just using a paper and pencil test. "Traditional methods of assessment have contributed to students' pursuits of grades rather than pursuits of learning" (Berenson, 1995, p.) 182). Using traditional methods, standard pencil and paper tests, students learn just to memorize and try to reproduce what the teacher is doing. They do not learn to become independent thinkers.

Our goal as educators is to teach our students to become life-long learners. One way we can do this is by introducing Alternative assessment into the mathematics classroom. Alternative assessment allows students the opportunity to perform, show what they have learned, and highlights their understanding of a topic using different methods of evaluation. Five types of alternative assessment used in mathematics are journals, open-ended questions, portfolios, interviews, and performance assessments. Through alternative, assessment students can apply the mathematical skills learned in class to everyday problems, bringing more meaning to their work and better preparing them for the future.

This study focused on the need to change the way we assess students in the mathematics classroom. The teachers worked to find alternative assessment activities that gave students the opportunity to solve problems related to real-life applications, allowing for a greater understanding of topics, not just rote memorization. To evaluate this study, the intern surveyed teachers and students involved in the alternative assessment project, focusing on the benefits and shortcomings of alternative assessment. The results of the assessment study were then compared to standard pencil and paper tests.

Purpose of the Study

Gateway Regional Mathematics Department must be encouraged to use alternative assessment in their classroom as a means to evaluate students. The students must feel ownership and pride about their own learning. They should be aware of their own progress and be excited to learn. The purpose of this study is to develop alternative methods of evaluation in the mathematical classroom. Good alternative assessment can be used by teachers as a method to change from the traditional evaluation styles.

Definitions

Alternative assessment: refers to different methods of evaluating student progress other than formal written tests. Characteristics include students being evaluated on higher order thinking skills, problem solving, and creativity. Alternative assessment makes students more responsible for their own learning, by making them explain their results. There are five types of alternative assessment:

- a. **Journals:** students use journals to describe the steps they use to solve problems and to write mathematically.
- b. **Open-Ended questions:** questions that allow students to use problem solving methods to arrive at a solution.
- c. **Portfolio:** a packet of the student's work. A portfolio gives the student the ability to analyze and critique his/her own work.
- d. **Interviews:** discussions between the student and teacher. Gives the teacher the opportunity to get a clearer picture about a student's understanding of a topic.
- e. **Performance Evaluations:** knowledge obtained by the teacher by observing the student perform a given task using concrete objects.

Manipulatives- hands-on or concrete objects that students can use to solve mathematical problems.

Middle School Student- a regular education student in grades 7-8 at Gateway Regional School district.

Special Education Student- A student who has been identified through the Child Study Team as being in need of a special instructional program.

Limitations of the Study

This study is limited to the teachers involved in teaching mathematics at Gateway Regional High School, in Woodbury Heights, New Jersey. The study will include students with all different levels of ability in the mathematics classroom. The conclusions that are drawn from this study can be generalized for the entire math department at Gateway High School. The study can not be expanded to other disciplines in the school.

Setting of the Study

Gateway Regional High School District is comprised of one 7th-12th grade school located in Woodbury Heights, New Jersey. It serves the secondary students from the municipalities of National Park, Wenonah, Westville, and Woodbury Heights. Just 12 miles south west of Philadelphia and one mile east of Woodbury, NJ, the Gateway communities combine the convenience of being next to a major metropolitan cultural center with the pleasant suburban/rural surroundings and sense of community that South Jersey offers.

The community government is a borough council/mayor form of government electing six council members and a mayor. The mayor casts his vote only in the case of an even split between council members on an issue.

The community does not have a large amount of industrial tax-base. The ten highest taxpayers in the district are all businesses. There is little land available for new development in the district and the school's enrollment is relatively stable.

The November 30, 1998 student count for Gateway Regional High School was 1071. This count consists of 330 middle school students, 688 high school students, and 53 special education students. The ethnic composition of the students is :

White	97.7%
Black	2.00%
Hispanic	0.03%

The faculty believes all students need to be prepared for the information age. In order to allow the study to cover both academic and non-academic students, it will include all students at Gateway enrolled in a mathematics course and all teachers teaching any math course. Including students from all ability levels will allow the intern to determine if alternative assessment is beneficial for everyone.

Significance of the Study

“Students are more apt to view mathematics positively when they see its relevance to their everyday lives and futures. The soundest way to convince students of the relevance of math is not by saying so, but by offering a curriculum that is relevant to today’s job and life demands, one that builds students’ problem-solving skills, challenges their powers of reasoning, and incorporates technology.” (Kobe, 1991 p. 21). This is what alternative assessment is all about. Finding ways to show students how what they are learning in class can be applied to real life situations. Alternative assessment is being able to formally assess students on more than just pencil and paper tests.

Alternative assessment allows students to come up with several different solutions to one problem. Two students can use different methods to solve a problem and still come up with a correct solution. “Teachers can counteract the perception of math as a fixed set of rules by providing some math activities that provoke thought, such as open-ended problems or problems in which students must weigh a variety of solutions” (Kobe, 1991, p. 25). Evaluating students on more than just the pencil and

paper test gives students who generally do not perform well on written tests an opportunity to be successful in the math classroom.

Organization of the Study

Chapter 2 will review the literature available on Alternative Assessment as it relates to the mathematics classroom. This review will show the importance of using alternative assessment in the math classroom as a method for evaluation. Chapter 3 discusses the design of the study. Chapter 4 will cite the information that was gained and its implication in relation to the goal of the study. Chapter 5 will conclude the study, citing the major findings and their implications. At this point, the direction of future effort will be determined as the results of the study will be examined and their relationship to the leadership development of the intern in this project.

Chapter Two

Review of the Literature

Introduction

In today's math classroom where students show a continual reluctance to learn anything not related to "real life" a new method of teaching has sprung to life. That method is alternative assessment. Walen and Hirstein (1995) explain alternative assessment in their article, *Classroom Vignette: An Alternative-Assessment Tool*, as a tool to ". . . guide students as they examine their individual roles in mathematical learning, extend their ability, communicate mathematically, express their world view in relationship to the classroom, and . . . , self-evaluate their own concepts and principles in today's classroom" (Walen & Hirstein, 1995, p.62). The purpose of this study is to describe and evaluate the effectiveness of alternative assessment as a form of measuring high school students in the mathematics classroom.

Administrators encourage teachers to use alternative assessment because it provides students a way to apply mathematical principles to real-life problems. Alternative assessment allows students to show what they have learned in the mathematics classroom without written tests. Through different forms of assessment, the students play a more active role in their education. This new form of assessment gives students the opportunity to perform and show what they have learned.

Purpose of Alternative Assessment

Thomas J. Cooney writes in his article *The Demands of Alternative Assessment: What Teachers Say* (1996), "The intent of alternative assessment is at least twofold. First, it encourages students to think more deeply about the mathematics they are learning. Second, it is a valuable tool for teachers to use in

revising and redirecting their teaching when necessary" (p. 485) Teachers have found that using alternative assessment gives them a clearer idea of how their students are thinking and what their understanding of a specific topic is. The teacher can redirect a lesson to focus on topics which are giving the students a difficult time. The benefit for the students is the freedom to focus on the mathematical concepts instead of the pressures of taking a "big test".

Kober(1991) writes in his article, *What We Know About Math Teaching and Learning*, alternative assessment is about finding ways to show students how and what they are learning in the classroom can be applied to other situations. Educators believe that the reason to learn math is to make students develop reasoning skills and to become independent thinkers (p.7). Students will be much better prepared for this task if they see meaning in the activities they are doing. Alternative assessment gives students the connection they need order to see the practical uses to everyday life.

Types of Alternative Assessment

The five methods of alternative assessment that mathematics teachers can use are portfolios, open-ended questions, journal writing, interviews, and performance evaluations, which allow students to communicate with each other using mathematics (Berenson & Carter, 1995, 182). By using these different methods students can move to a higher level of thinking and teachers can use a broader scale of assessing their students' knowledge. Many of these methods encourage students to work together and discuss their ideas. By sharing ideas students have the opportunity to see different ways of approaching problems and to discuss possible solutions.

The NCTM standards encourage teacher to assess students on their ability to communicate mathematically. Sarah Berenson and Glenda Carter, professors at North Carolina State University, describe in an article in School Science and

Mathematics(1995) the five forms of alternative assessment and give suggestions on how they can be used in the classroom. In all five forms the characteristics are the same. Students receive high marks for problem solving, creativity, higher order thinking, and different strategies. The students are graded on the process and steps taken to arrive at the solution instead of on the ability to memorize. (Berenson & Carter, 1995, 182).

The first method of alternative assessment is journals. The use of journals encourages students to write in mathematical terms. When introducing journal writing in the math classroom teachers should begin by asking students to write on their feelings. This method of writing is less threatening to the student because there isn't a right or wrong response. Reading the students' journals gives teachers an idea of what the students are thinking and what their understanding is of the concepts being taught (Berenson & Carter, 1995, 182).

The second method of alternative assessment, open-ended questions, are problems which encourage a variety of and different methods for arriving at those solutions. The use of open-ended questions allows students to work through their own solutions instead of trying to guess how the teacher wants the question answered (p. 183).

The third type of alternative assessment is a portfolio, A packet of students' work. Four objectives can be met by using portfolios (a) documentation of student progress throughout the year, (b) location of areas in need of help, (c) motivation of student learning (d) encouragement of student responsibility for their own learning. Portfolios place responsibility on the student to evaluate their own learning. When using portfolios, teachers need to encourage students to reflect on the work they have done. Depending on the objective of the portfolios either the student or the teacher can decide which pieces of work should go into

the portfolio. Using a portfolio gives students the ability to analyze and critique their own work (Berenson & Carter, 1995, 183-84).

The fourth method of alternative assessment is interviews. Many times students have trouble writing down their knowledge on a topic. By interviewing a student, teachers get a clearer picture about a student's understanding on a topic. Interviews do not have to be one-on-one with just a student and the teacher. Interviews can be conducted in many different ways. Teachers can interview students by (a) talking to several students engaged in a group activity, (b) conducting brief interviews during class while the other students engage in a task, (c) conducting informal interviews between classes, at lunch, or before or after school, (d) Taping an interview between two students. Interviews should be conducted in a way that allows the student to feel comfortable talking to the teacher (Berenson & Carter, 1995, 184).

The fifth method of assessing students is by performance evaluations. Performance evaluations allow students to develop certain skills and concepts by doing a task related to the topic being taught in class. Knowledge can be obtained by the teacher in performance evaluations by having the students use manipulatives, models, concrete objects, or problem-solving to aid their investigations. Because teachers assess students on the process used to arrive at the solution, rather than the solution itself, there can be more than one right answer. Performance evaluations allow students to use different ways to complete a given task (Berenson & Carter, 1995, 185).

Open-ended Questions

Out of the five methods discussed in Berenson & Carter's article *Changing Assessment Practices in Science and Mathematics*, open-ended questions are the most commonly used right now in the classroom. In New Jersey students take a standardized test during their junior year of high school. Forty percent of the

math questions on this test are open-ended. What is an open-ended question? Lynn Hancock, a former teacher in North Carolina Public Schools, defines open-ended questions in her article for Mathematics Teacher (1995).

Open-ended questions are often thought of as question for which more than a single correct solution is possible, although this feature is not the only one that distinguishes them from other types of questions. Perhaps an even more important characteristic is that open-ended questions usually offer students multiple approaches to the problem by placing little constrain on students' methods of solution. Also, open-ended questions often engage students in written or oral communication, and responses often can stand alone as meaningful discourses about mathematics (p. 496).

The use of open-ended questions allows students to give a variety of answers to a problem and gives the teacher a better understanding of the students' thinking processes. Open-ended question shows the student that the process used to arrive at the answer is just as important as the answer itself. Open-ended questions open up the opportunity for students to think and not just rely on rote memorization (Hancock, 1995, 496).

Alternative Assessment in the Classroom

As the use alternative assessment in the classroom becomes more widespread questions are being raised about what to look for in a student's math ability, how to look for it, and how to assess it (Clark & Wilson, 1994, 542). Doug Clarke, a teacher at Australian Catholic University, and Linda Wilson, a teacher at The University of Delaware, offer hints in their article Mathematics Teacher (1994) on how some experienced teachers have evaluated students by using alternative assessment.

To answer the question "what to look for" they offered three ideas (a) mathematical content, (b) mathematical processes, (c) mathematical disposition.

Mathematical content is the topic or task addressed in the unit being taught. Mathematical processes are the first four standards in the NCTM. The first one, problem solving, deals with the students ability to determine a method which will answer the problem posed. The second one, communication, asks if the student can explain the method used in either written or oral form. The third process, reasoning, asks if the student can defend the answer by using examples? The fourth process deals with the students connection to the topic. Can the student take what has been learned and apply it to another situation? Mathematical disposition refers to the students' attitude, persistence, and the ability to work with other students (Clark & Wilson, 1994, 543).

The second question posed by Clark & Wilson (1994) is how do we look for progress when the assessment is taking place. Teachers need to document what they observe in the classroom. Teachers should have a checklist of skills to look for (e.g. concepts, process, disposition) while the students are working. Using this checklist, teachers should observe the students actions and processes as they complete the task. Each day the teacher select a few students to observe, and record the observations into a log. After several weeks the teacher will have notes on all the students. The question now is what should be done with the results? (Clark & Wilson, 1994, 543).

Once the teachers have compiled the observation log, they will begin to see if there are common problems among the students. If so, the teacher can address these problems in a different way. Through these observations, teachers will also begin to notice students who have few or no comments next to their names. Teachers need to start concentrating more on those students. By keeping a running log of the students performance throughout the year, the teachers can and see if the students are making progress. The teachers can also share their observations with the student or parents. Having a written log of these observations, gives

both the students and teachers a better understanding of the students' progress (Clark & Wilson, 1994, 545). Once they can see how progress is being made, the students and teachers can work together to reach an understanding of what is meant by quality performance in the classroom (Clarke, 1995, 328).

Education is a project that is in constant revision. Educators are always looking for ways to improve the educational system. The shift to using more alternative assessment models is one change that will improve the learning that takes place in the classroom. The use of alternative assessment gives students a better understanding of the objectives they are striving towards; and allows the responsibility of learning to be shared by both the teacher and the student. Students begin to see what is expected of them and work together to attain the objectives (Lambdin, 1995, 684).

Because most people are fearful of change, the process of incorporating alternative assessment into the classroom, must be done slowly. If the process is introduced rapidly, students may be scared and reject the assessment.

Good alternative assessment allows the teacher to see how the students are thinking and how much they understand. Alternative assessment is geared toward getting students to take a more active role in their own learning. When preparing for alternative assessment, teachers need to stay focused on what it is they are trying to accomplish. Before giving any type of alternative assessment, teachers should to make sure the objective they are evaluating is being met (Berenson & Carter, 1995, 186).

“Students are more apt to view mathematics positively when they see its relevance to their everyday lives and futures. The soundest way to convince students of the relevance of math is not by saying so, but by offering a curriculum that is relevant to today's job and life demands, one that builds students problem-solving skills, challenges their powers of reasoning, and incorporates technology.

Students must see how the skills they are learning can be applied to other situations, and how the knowledge they already have leads to new knowledge”

(Kober, 1991, p.7)

Research has proven alternative assessment to be effective. Now it needs to be put into widespread use.

Chapter Three

Design of the Study

This study applied an action research design. The research on alternative assessment was studied and the theories were incorporated in developing a program for the Gateway Public School District Mathematics Department. The intern was an active participant in the research as a result of her position in the Mathematics Department within the district. The projects initiated were designed to improve the students ability to become independent thinkers.

General Description of the Research Design

Alternative assessment has not be regularly used in the past, and has not been a primary consideration in developing curricula and testing. Alternative assessment is used to reinforce students' understanding of basic quantities and relationships in the context of a familiar personal interest. Some students, through alternative assessment, discovered new subject areas, new research avenues, new ideas in mathematics, and new ways to communicate ideas. Each time alternative assessment was used, students explored new and traditional applications of the mathematics they learned in class. Teachers were willing to support alternative assessment in theory, but felt that much could be accomplished with minimal effort on their part.

Data was collected to determine teacher interest and perception of alternative assessment. Initially, previous tests used by Mathematics Department teachers were reviewed to see how they were assessing students. By looking at these tests, most

teachers required very little critical thinking from their students. Most of the assessment pieces just required the students to recite back information learned in class. Informal interviews were conducted to gain an insight on Gateway teachers' perceptions and beliefs about the use of alternative assessment in the classroom.

Development & Design of the Research Instrument

A survey of the Math Department was conducted and the results gathered to determine the goals of the teachers in relationship to assessment in the classroom. The initial survey included a series of questions where the participant could rate his/her level of knowledge in several areas. The questions were answered in narrative form to obtain the general feeling of the members of the math department in regard to alternative assessment.

The survey first asked four questions that could be answered "yes" or "no" and the respondents circled their answers. The survey's first two questions determined if the respondents knew what alternative assessment was and if they used it in their classrooms. The respondents were then asked if they would like to participate in an alternative assessment program. The final question in this group was to determine if the individuals had plans to use any type of alternative assessment in their classroom. (See appendix A)

The next series of questions required the respondents to rate their level of knowledge in several areas. The scale used was:

- 1 - superior
- 2 - very good
- 3 - adequate
- 4 - poor
- 5 - very poor

These questions were designed to obtain a rating of overall ability and knowledge of the teachers in the mathematics department about alternative assessment. The respondents were asked about the five different types of alternative assessment (open-ended questions, portfolios, journals, interviews, performance evaluations), how much they knew about the assessment and how much the assessment was used in their classrooms.

The third section of the survey required a written response to inquiries and asked for additional comments. The teachers were asked to list three positive qualities of alternative assessment and three negative qualities of alternative assessment. The respondents were then asked to enumerate additional programs that they believed were also alternative assessment activities, and how they used them in their classroom. Finally, the teachers were asked for their input on any other ways to evaluate the student in the classroom. The teachers were also asked what classes they taught and if they used alternative assessment in all their classes or just in certain courses.

An in-service was held giving the teachers an opportunity to find alternative assessment activities to be done in their classroom. The in-service allowed for teachers to articulate with each other on how to implement project into their classroom. The in-service aimed to accomplish more than the individual teachers could do separately.

Data Analysis

A strong effort was made to encourage the teachers in the sample group to use alternative assessment in the classroom. Before using the assessment activities, teachers were asked to hold an informal discussion with their students about their feelings and ideas of what is meant by alternative assessment. Teachers were asked to compare grades of the alternative assessment process to see if students' scores increased as compared to standard written test scores.

Teachers had the opportunity to pick an alternative assessment project and try the project in one (or all) of their classes. After trying the project in the classroom they will have more knowledge of how alternative assessment works and how the projects can be used in the classroom. The post survey will determine if the teachers believed alternative assessment was effective in increasing the students ability to be independent thinkers.

The results of the study is to show how alternative assessment activities are evaluated individually and in relation to each other. The evaluation is a subjective evaluation completed by school administrators, teachers, and the intern. Successful endeavors are the basis for beginning to encourage teachers to use alternative assessment in the classroom. The process will be adjusted and expanded upon in future days,

months, and years. Alternative assessment must continue to be developed at a slow rate so the teachers feel comfortable using the process in their classroom.

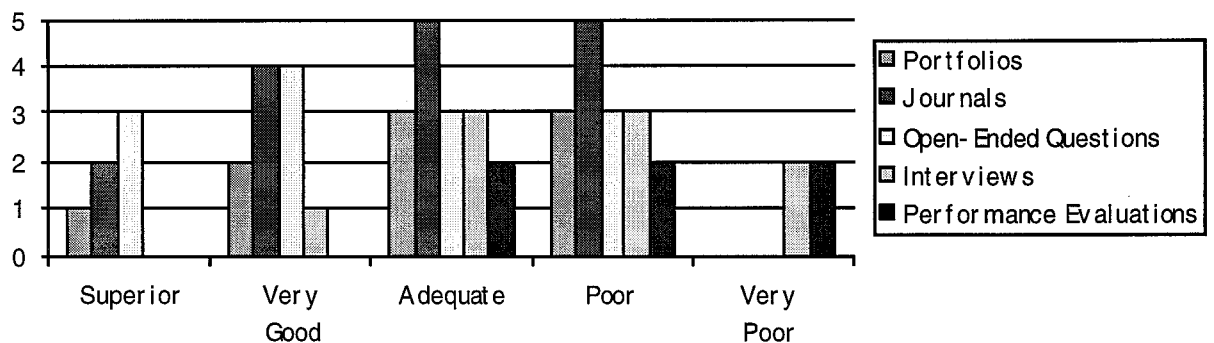
Chapter 4

Presentation of the Research Findings

There are sixteen mathematics teachers in Gateway High School. Of these, four are special education mathematics teachers, two teach seventh grade, two teach eighth grade, and eight teach students in grades 9-12. A review of the pre-survey given to the teachers before they worked with alternative assessment, showed that 10 of the returned 11 surveys (91%) of these teachers had heard of alternative assessment. Five of the ten teachers (50%) stated they had used alternative assessment in the classroom. Seven of the ten (70%) had future plans to use alternative assessment in the classroom and all ten(100%) stated they would participate in a study on alternative assessment.

The participant were asked to rate their overall confidence in using portfolios, journals, open-ended questions, interviews, and performance evaluations. The comparative results were:

Table 1
Alternative Assessment Pre-Survey



The teachers generally felt that they were adequate in the use of alternative assessment. The two types they were the most uncomfortable using were interviews and performance evaluations. The survey contained three open-ended questions that allowed the participants to further explain their feelings about alternative assessment.

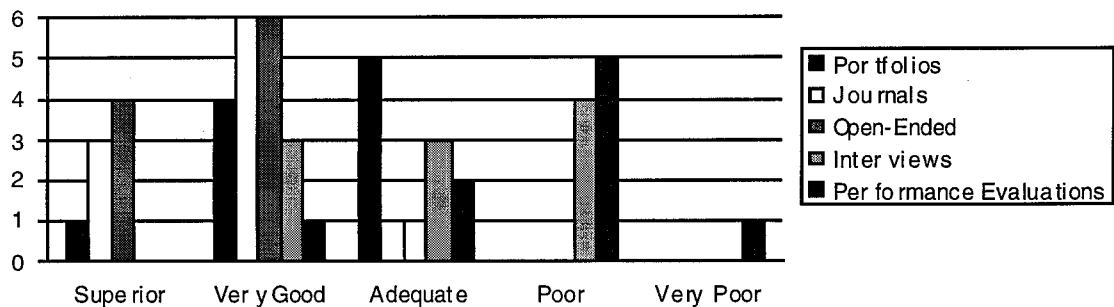
The answers given to the open ended questions provided some insight into the ideas and feelings of the participants about their knowledge on alternative assessment. The responses to these questions indicated that the participants believed alternative assessment was valuable and needed to be included in the curricula but were not sure how to do it. Teachers believed alternative assessment gave students a hands on approach to learning and allowed the students to be more active participants. Teachers were unable to suggest many areas of improvement due to the limited amount of alternative assessment teaching materials available to them. All of the participants expressed concern over the cost of materials and training. They felt the school would not fund workshops and materials. Also, teachers felt they would like to use more alternative assessment but time constraints played a major factor. They did not want to spend more time than they already do on lesson planning and grading papers. The focus of this study was to see what level the teachers are on and what alternative assessment topics will be covered.

Once the surveys were reviewed, regular departmental meetings were held with the teachers involved in the study. The focus of these meetings was to develop with alternative assessment activities that could be used in the classroom. The instructional supervisor and an outside professor gave a presentation on types of alternative assessment. Our plan was to involve assessment activities in the classroom and to find

out what textbooks and supplies, would help in providing these activities. The meetings were interactive and productive, and feedback from the group was positive. The teachers were asked to do an alternative assessment activity in their classrooms and come prepared to the next meeting to discuss their evaluation of these activities and their evaluation of it.

The second meeting went extremely well. The teachers came back with some valuable alternative assessment activities, which they willingly shared with each other. The second survey showed that teachers generally felt more comfortable with alternative assessment. Many of the comments by the teachers indicated that they realized they had been using alternative assessment in their classroom but did not realize that it was alternative assessment. They left the meeting with a clearer understanding of alternative assessment. The comparative results were:

Table 2
Alternative Assessment Post-Survey



Next, members of the study were asked to survey their students about the alternative assessment activities and see if they could get a feeling from the students about the project. The survey consisted of the following three parts. (1) list three positive new

ideas and/or information you learned today; (2) list three things you would have liked to have done differently; and (3) list other activities you would like to see done in class. The teachers were asked to bring the results to the next meeting. (See Appendix B)

Overall comments from the students were positive. Students liked being actively involved and able to work in groups. They believed, for the most part, they were allowed to make more decisions about what the final outcome of their projects or activities would look like. Some of their requests included being able to vote on the activities used in class and participating more hands-on activities.

The alternative assessment program involved many members of the mathematics department, including the special education teachers. The initial phase of the program has accomplished the goals of making teachers aware of alternative assessment and how it can be implemented into the classroom. The efforts must continue to achieve for successful implementation of an alternative assessment program that is ongoing and active. The lines of communication among the teachers must remain open and programs must continue. The teachers and students must have a sense of pride and ownership in their work.

Chapter Five

Conclusion, Implications, and Further Study

This study has proven to the intern that a planned alternative assessment program is a necessary part of the Mathematics Department. Every person who is enrolled in a math course becomes a participant in the program. The program cannot be designed as a punishment to the teachers. The key is to involve the teachers so there is understanding and knowledge to make the students independent thinkers.

The alternative assessment program was successful in that it involved many mathematics teachers in the school. The teachers were given ideas on how to involve alternative assessment in the classroom. Many teachers began to incorporate alternative assessment activities in their classroom. They were not as intimidated about trying to try ideas because the task did not seem as overwhelming and out of reach.

This program was a beginning and, hopefully, a success in relaying the importance of making our students independent thinkers, which is viewed as the key to success with alternative assessment. In addition, the lines of communication were opened among the teachers, leading to more discussion about alternative assessment.

The intern gained an appreciation for the importance of research in developing programs and influencing attitudes within the department. Often teachers become overwhelmed by daily operations and lose sight of their primary concern, the students. The review of research in the area of alternative assessment provided much insight into the many topics and ideas that are successful in the classroom. The intern also realized

that much can be learned from the success of others. Information and ideas were obtained through networking with others who have been successful with alternative assessment in the classroom.

An appreciation was gained for the role of leaders in the school. Because leaders have the ability to influence others in the department, they should be viewed as important. Supervisors should give heed to the feelings they convey to other members of the department. These leaders should also be used as sources for sending the department information. The management of information by the supervisor is a key to success with alternative assessment. As long as teachers do not feel overwhelmed or forced into doing an activity in their classroom they will be more likely to accomplish the objectives.

The intern gained an immense amount of confidence about using alternative assessment in the classroom. The key is to be knowledgeable about the subject. Speaking to members of the math department about trying something different in their classrooms was more easily accomplished when the intern possessed comprehensive knowledge about the subject. The intern always tried a project in the classroom before the meetings.

The importance of effective alternative assessment strategies became more apparent. (It is not only important to use alternative assessment in the classroom, but to do so effectively). The ability of a supervisor to communicate the ideas to the teachers is a requirement for success. These skills have been greatly enhanced through the completion of the internship.

The district and the department cannot become complacent with just knowing that alternative assessment needs to be a part of the curriculum, they need to integrate it into

the curriculum. The use of alternative assessment in the classroom must be viewed as a process that is continually reviewed and revised. The district must continue to spend the time and money to train the teachers on alternative assessment. The goals for the upcoming year should be to involve more teachers in the alternative assessment program, including other departments. The alternative assessment needs to evolve into a district-wide goal.

Alternative assessment has become more widely used in math classrooms at Gateway as a result of the study. The teachers willing to try alternative assessment in their classroom have overcome most of their frustrations with trying new ideas and have found the students to be successful with the projects.

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Appendix A
Research Instruments

ALTERNATIVE ASSESSMENT SURVEY

SECTION 1

PLEASE CIRCLE YOUR ANSWER.

PART I

1. Do you know what alternative assessment is? YES NO
(if yes, please complete the rest of the survey)
2. Have you ever used alternative assessment in your classroom?
YES NO
3. Do you have plans to use alternative assessment in your classroom?
YES NO
4. Would you participate in an alternative assessment study?
YES NO

PART II

How would you rate your knowledge of the following types of alternative assessment.

5= superior 4=very good 3=adequate 2=poor 1=very poor

	5	4	3	2	1
Open-Ended Questions					
Portfolios					
Journals					
Interviews					
Performance Evaluations					

PART III

1. List at least three positive new ideas or feelings you have about alternative assessment in your classroom.

2. List at least three negative ideas or feelings you have about alternative assessment

3. List other ways to assess students in the classroom.

4. What classes do you teach?

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