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AUTHOR	Koelper, Melissa; Messerges, Maria
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ABSTRACT

This report describes the implementation of portfolio assessment in order for students and parents to become more aware of students' academic growth in writing for first/second grade students and math for seventh grade students. The targeted population consisted of elementary and middle school students in two middle class communities, located in the northwest suburbs of a major metropolitan city. The problem of the students and parents not being aware of students' academic growth were documented through parent, teacher, and student surveys, a student questionnaire, and anecdotal records of students' attitudes. Analysis of probable cause review of literature revealed that students, parents, and teachers reported a lack of understanding and awareness of students' academic growth. Professional literature revealed probable causes for the lack of the awareness of students' growth were a lack of communication between the school and home, use of traditional assessments, and the reliance of standardized tests. A review of solution strategies suggested by knowledgeable others, combined with an analysis of the problem, resulted in the selection of implementing portfolio assessment as a means of intervention. Results indicated that parents, teachers, and students became more aware of academic growth in writing and mathematics. Appendixes contain survey instruments, student questions, and forms to record students' goals and reflections on writing and math. (Contains 32 references, 3 tables, and 11 figures.) (Author/RS)

THE POWER OF THE PORTFOLIO

Melissa Koelper
Maria Messerges

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

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This report describes the implementation of portfolio assessment in order for students and parents to become more aware of students' academic growth in writing for first/second grade students and math for seventh grade students. The targeted population consisted of elementary and middle school students in two middle class communities, located in the northwest suburbs of a major metropolitan city. The problem of the students and parents not being aware of students' academic growth were documented through parent, teacher, and student surveys, a student questionnaire, and anecdotal records of students' attitudes.

Analysis of probable cause review of literature revealed that students, parents, and teachers reported a lack of understanding and awareness of students' academic growth. Professional literature revealed probable causes for the lack of the awareness of students' growth were a lack of communication between the school and home, use of traditional assessments, and the reliance of standardized tests.

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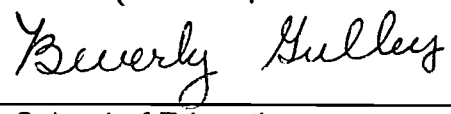
SIGNATURE PAGE

This project was approved by

Advisor

Advisor



Dean, School of Education

TABLE OF CONTENTS

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

"A student portfolio is a carefully selected collection of student work that provides clear evidence to the student, parents, and other educators of the student's knowledge, skills, strategies, grasp of concepts, attitudes, and achievement in a given area or areas over a specific time period," (Vizyak, 1996). The purpose of this study was to make students and parents aware of students' academic growth through the incorporation portfolios as an alternative means of assessment. The targeted students were from an elementary and a middle school. Evidence that the problem existed included anecdotal records, parent/student surveys, and interviews on the effectiveness of traditional assessment measures.

Immediate Problem Context

The two Sites involved were located in the northwest suburbs of major metropolitan city. Site A was an elementary school and Site B was a middle school. Table 1 gives the Site demographics for the two areas.

Table 1

Project School Site Demographics

GENERAL INFORMATION	Site A	Site B
Student /School		
Location	Northwest Suburban	Northwest Suburban
District Type	Public Large Elementary	Public Large Elementary
Grades Enrolled	K-6	6-8
Enrollment	616	860
Mobility	18%	10.1%
Attendance	95.3%	95.6%
Low Income	22.6%	50.6%
Limited-English-Proficient	5.4%	28.3%
Chronic Truancy Rate	0.0%	0.0%
Racial/Ethnic Background		
Caucasian	48.9%	44.7%
Mexican American	14.8%	45.1%
African American	11.7%	5.5%
Asian/Pacific Islander	24.4%	4.8%
Native American	0.3%	0.0%
Instructional Setting		
Average Class Size	24.8	25.0
Contact with Parents	100%	100%
Daily Instructional Minutes		
mathematics	55	40
Science	30	40
English	170	80
Social Science	30	40
Special Services		
Gifted Program	Yes	Yes
Special Education Program	Yes	Yes
ESL Program	Yes	Yes
Staff/School		
Principal	1	1
Other Administration	1	3
Teachers	28	63
Counselors	0	1
Speech Pathologists	1.5	1
Psychologists	2	1
Social Worker	2	2
Nurses	1	1
Aides	9	7
Support Services	3	8

(Source: School Report Card and Teacher Information Sheets)

Site A was an elementary school with grades K-6. This Site represented a diverse ethnic population in a lower socio-economic area. Out of the 616 students, 271 had a

different language spoken at home, representing twenty-four different languages. The population was both economically and ethnically varied, ranging from those in poverty and the working poor to lower middle class families.

The mission statement for Site A was "The School Community will provide a positive learning environment in which all students have the opportunity to acquire and develop universal skills." To help develop a positive school environment, each class participated in Skills Streaming. This program taught students social skills and positive ways to deal with conflicts. In 2001, an After School Academy was initiated. This program extended the student learning day by providing such courses as drama, cooking, author studies, and homework club. The Site also incorporated conflict resolution/peer mediation, student leadership involvement, and parent outreach programs.

All of the classrooms in Site A were self-contained and the teachers taught mathematics, science, social studies, and reading/language arts. The teachers at Site A implemented the Four Blocks of Balanced Literacy in their classrooms. This program included self-selected reading, guided reading, word study, and writer's workshop. In addition to the core subjects, students in Site A received two thirty-minute sessions of music, two thirty- minute sessions of physical education, and one forty-minute session of art. An advanced art class was offered once a week to students in grades four through six. A library resource teacher provided the students with twenty-five minutes a week of instruction and computer training. Site A had one computer lab consisting of fifteen IBM computers with Internet access. Each classroom also had at least one computer with Internet access.

The grading periods of Site A were divided up into trimesters. Site A used a non-graded report card in grades kindergarten through third. The students' skills were assessed

as does not meet, developing, meets, or secure. Parent/teacher conferences were held twice a year. The first parent teacher conference was held during the first trimester and the second conference was held during the second trimester.

In 1999, Site A became a restructured school by bringing back most of its special education students who were in self-contained classrooms in other buildings. Special education support was given to 7% percent of the students and 10% of the population received speech and language services. Social work services were provided to 14% of the students. Site A provided Jump Start, a summer school program, which was offered to underachieving students. In 1999, an all-day kindergarten was implemented in order to provide the students with a stronger literacy base.

Site B was a sixth through eighth grade building in a northwest suburb a major metropolitan city. The students that fed into the middle school came from one of four elementary schools in the same district. The population represented at Site B had students from varied ethnic and socio-economic backgrounds. Fifty-eight percent of the student population fell into the category "non-English background," in which another language other than English was spoken at home. There were 30 different languages represented by this 58% of the student body.

The structure of the building of Site B was a L-shaped two-story with large field areas for outdoor after school activities and physical education classes. Inside the building there were 38 classrooms including two home economics rooms and a technology lab. The building also consisted of two gyms, a band/orchestra room, a student cafeteria, a faculty lounge, a conference room, a main office for three secretaries, offices for the principal, assistant principal, deans and social workers, and a Library Media Center with a computer lab, research center, two class sets of iBook laptop computers, and six rooms

for storage and team meetings. Besides the computers in the library, each classroom was equipped with two or three MacIntosh computers that had Internet access. All the classrooms in the school were in use at every time interval of the day. Teachers shared rooms and some teachers had to switch classrooms throughout the day to help with the overcrowding issue.

The mission statement of Site B stated, "The faculty, staff, students, parents, and community of Site B are devoted to academic excellence and the development of individual strengths and talents in a supportive environment where rights and differences are respected." In order to promote a positive learning environment, the teachers at Site B were put into teams of three to four teachers. All teams also had a bilingual teacher and a special education teacher who held resource and worked with special education students in the mainstreamed classroom. One team at each grade level had a special education teacher who taught a self-contained mathematics and reading class. Most of the classes in the building were mainstreamed classes that had all ability levels. Because the mission statement said all students were to develop individual strengths and talents, the administration encouraged the teachers to differentiate instruction for all the learners.

A typical school day for Site B consisted of core and exploratory classes. Core classes included reading, language arts, mathematics, science, and social studies. The students were divided into three teams per grade level and the curriculum was taught to them by the teachers on their team. All core teams had 200 minutes that they organized for instruction. They also had an additional 40 minutes of advisory time. The philosophy behind the advisory program was to promote stronger teacher-student and peer relationships. Exploratory classes were attended the other 120 minutes of the day. These classes were 40 minutes each and consisted of art, physical education, home economics,

technology, drama, foreign language, and music.

The school year for Site B was set up in trimesters. Two progress reports were sent out during each grading period. Parent/teacher conferences were held twice a year, at first and second midterm. These conferences were student led.

Students at Site B had the opportunity to participate in a variety of after school activities. The seventh and eight grade students were allowed to tryout for athletic teams like basketball, volleyball, and pom pons. Sixth, seventh, and eighth graders were allowed to join cross country and track. All the boys also had the opportunity to join wrestling. Besides team sports, the school offered intramurals based on what was being studied in physical education classes at the time. Throughout the school year, the students could join clubs such as newspaper, yearbook, variety show, ski club, tech club, chess club, student council, art club, and scrapbook club. An after school library program was made available for those students who needed time to do homework or have access to a computer. A teacher was available Monday through Thursday from 3:30 to 5:15 p.m. Students could also be members of the band, orchestra, or chorus and become members of honors club if their grade point averages met the qualifications.

The Surrounding Community

The two Sites involved in this action research were located in communities within a major metropolitan city. Table 2 shows the differences between the two Sites.

Table 2

Project Community Demographics

COMMUNITY DATA	Site A	Site B
Population	49,371	30,542
Racial-Ethnic Background		
White	83.8%	85.6%
African American	2.8%	1.4%
Mexican American	5.3%	8.3%
Other	8.1%	4.8%
Demographics		
Median Family Income	$84,382	$70,297
Education- HS or Higher	90.2%	85.9%
Median Age	34.7	37.0
Housing		
Single-Family Units	73.9%	64.6%
Multi-Family Units	26.1%	35.4%
Number of Households	16,642	12,643

(Source: ChicagoTribune.com, 2002)

Site A had a population of approximately 50,000. This community was made up of ranch starter homes, fancier split-levels and contemporary custom homes. There was also a large number of condominiums, town homes, and rental apartments in different price ranges. In the mid-1980's, officials realized there was a need to support schools, parks and municipal services', therefore they increased the overall tax base. The community consisted of three libraries, 12 places of worship and one health facility. There were also 11 child-care facilities which included two Montessori schools. This community had approximately 25,000 jobs and had an employment rate of 77.9%.

Site B had a population of approximately 30,000. Residents could find housing at affordable prices due to the fact that a variety of styles of housing were available. Housing included apartments, condominiums, ranches, split-levels, and contemporaries that could be bought or rented. In the 1990's, the township built a recreation center

complete with an indoor track, workout facilities, and rooms for activities. At the same time an outdoor aquatic center was constructed. A few years following they added an additional indoor pool. The town had one public library, seven religious institutions, one hospital, and five child-care centers. The employment rate for this community was 77.5%.

Several schools at Site A provided a before and after school child care program. This program was sponsored by the park district, YMCA, school district, and the village. The philosophy of the program was to provide an organized environment that was fun and protected for children in grades kindergarten through sixth.

Site A was the largest elementary school district in the state. This district had 23 elementary schools and four junior high schools. Site A had open enrollment at seven of the schools. Open enrollment provided choice for parents in the selection of their child's school. The schools with open enrollment offered additional opportunities such as learning sign language, Spanish, or Japanese.

An instructional team was assigned to each school at Site A. Each team consisted of an instructional coordinator, a learning instructional facilitator, an assistant technology facilitator, and a gifted resource teacher. These coordinators helped develop and support the best teaching practices in the schools. Every Wednesday, teachers participated in staff development which included grade level articulation and learning new teaching practices. Teachers new to the district were involved in a mentoring program where they were paired up with an experienced teacher. There were mentoring meetings throughout the school year.

The school district that housed Site B had nine K-5 buildings and three 6-8 buildings. Since the district had employed 478 teachers, they believed that it was

important to keep the teachers up to date on the current strategies and information on teaching. Therefore, the district provided ample opportunity for staff development. Numerous workshops and speakers were offered throughout the year. Opportunities were given to learn and write concept-based or engaged learning curriculums. Other presentations included behavior management, stress management, exemplars, instructional strategies, and assessment. The district also had a program called Educational Dateline, where a small group of first through fourth year teachers were assigned to a mentor, a veteran teacher at their school. The groups would meet about once a month and discuss problems and concerns, celebrate successes, and just form a bond beyond the classroom.

The district had an instructional specialist at each of the K-5 buildings who worked with the staff to improve curriculum and implement differentiation strategies. The three middle schools shared three instructional specialists who were based out of the administration building. One of these specialists focused on mathematics and the other two were available to help with the other subject areas. Other instructional specialists at the district level included an elementary mathematics specialist, an elementary reading specialist, and two instructional specialists for the gifted program. The gifted specialists serviced all schools in the district providing strategies that teachers could implement in the classroom. Two technology specialists were available to work with teachers at every school and provided technology workshops on the variety of programs available for teacher and student use on the computer. Each building also had a instructional technology employee who was available to help students and teachers with their computer needs.

Table 3 shows a comparison of the school districts within the two communities.

Table 3

Two-Site Comparison District Data

SCHOOL DISTRICT DATA	Site A	Site B
District Type	Large Elem	Large Elem
Geographic Region	NW Suburban	NW Suburban
Enrollment	15,575	7,264
Total Number of Teachers	1,110	478
Teacher Racial/Ethnic Background		
White	96.7%	94.8%
African American	0.7%	0.0%
Mexican American	1.3%	5.0%
Asian/Pacific Islander	0.8%	0.2%
Native American	0.5%	0.0%
Teacher Gender		
Male	13.1%	12.8%
Female	86.9%	87.2%
Teacher/Administrator Characteristics		
Average Teaching Experience	18.2	13.6
Teacher's with Bachelor Degree	42.9%	50.0%
Teacher's with Masters Degree & Above	57.1%	50.0%
Pupil-Teacher Ratio	18.4:1	17.6:1
Pupil-Certified Staff Ratio	13.5:1	13.0:1
Pupil-Administrator Ratio	245.3:1	324.9:1
Average Teacher Salary	$60,489	$53,943
Average Administrator Salary	$97,538	$114,800
School District's Finances		
Instructional Expenditure per Pupil	$5,207	$4,636
Operating Expenditure per Pupil	$8,678	$7,773

(Source: School Report Card)

Although the size of the two Sites varied, Table 3 shows the similarity of the teacher and administrator backgrounds and characteristics.

Regional and National Context of Problem

Teachers are faced with the challenge of continuously assessing their students' growth throughout the school year. Assessment begins with how children learn, ones role as a teacher, and the instruction that occurs in the classroom (Petty, 2002). "Educators

use the term 'authentic assessment' to refer to the practice of realistic student involvement in the evaluation of students' achievement. Authentic assessments are performance-based and instructionally appropriate" (Grace, 1992, p. 1). Educational practices are always changing and methods of assessment need to evolve to parallel and guide instructional strategies. In order to be useful, assessment should involve the students, parents and teachers to be useful (Grace, 1992). This will provide students the opportunity to take their own beliefs and values and reflect on them. Students should be allowed to evaluate their goals, skills and abilities to show that they understand themselves as a learner (Koca & Lee, 1998). "The perceived benefits for assessment are that the collection of multiple samples of student work over times enables us to (a) get a broader, more in-depth look at what students know and can do; (b) base assessment on more "authentic" work; (c) have a supplement or alternative to report cards and standardized tests; and (d) have a better way to communicate student progress to parents" (Arter, 1995, p. 3).

CHAPTER 2

PROBLEM EVIDENCE AND PROBABLE CAUSE

Problem Evidence

The tools the researcher used in documenting the need to incorporate portfolios as a means to make parents and students aware of academic growth in writing and mathematics included surveys, open-ended questions, and anecdotal records regarding assessment. Parents and teachers will respond to attitudinal surveys based on their feeling on assessing students' growth (Appendices A,B). Seventh grade students will also be given a survey on the assessment of their academic growth (Appendix C). First and second grade students will be given open-ended questions on their understanding of their academic growth (Appendix D). In addition, anecdotal records of students' reactions to traditional assessments will be recorded.

Parent surveys were sent home on September 6, 2002, and were requested back by September 13, 2002. Teacher and student surveys and student questionnaires were completed between September 3 and September 6, 2002.

The parent surveys regarding assessment were completed in the fall of 2002 by the parents of the students in grades one, two and seven. Thirty parents completed the surveys. A copy of the survey and detailed questions can be found in Appendix A. Information shown in Figure 1 and Figure 2 shows the results of parents' feelings towards assessment.

As seen in Figure 1, 53% of the parents felt that their child cannot self-assess his

63% of the parents either disagree or are unsure if their child is responsible for his own learning. When responding to the same survey, 26% of the parents felt that they did not walk away from conferences fully understanding their child's academic growth, as shown in Figure 2. Also, 24% of parents surveyed felt there needs to be other forms of assessment, other than the traditional, to indicate their child's academic growth.

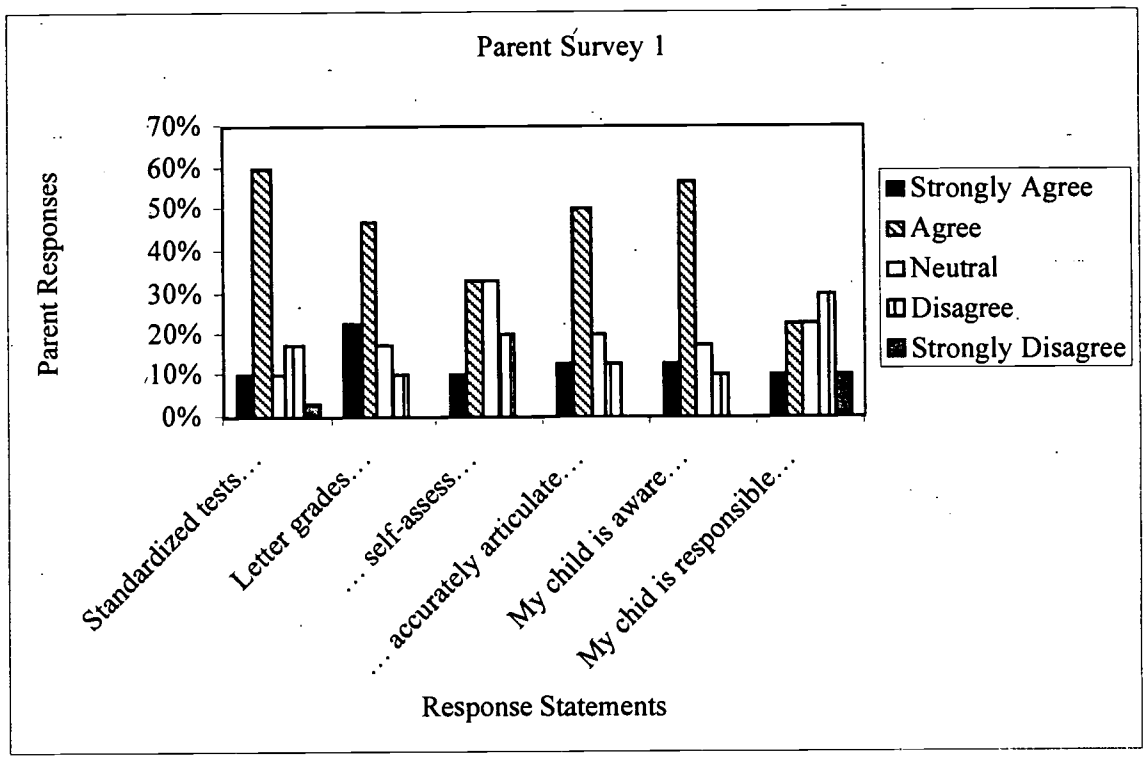


Figure 1: The parents opinions towards assessment.

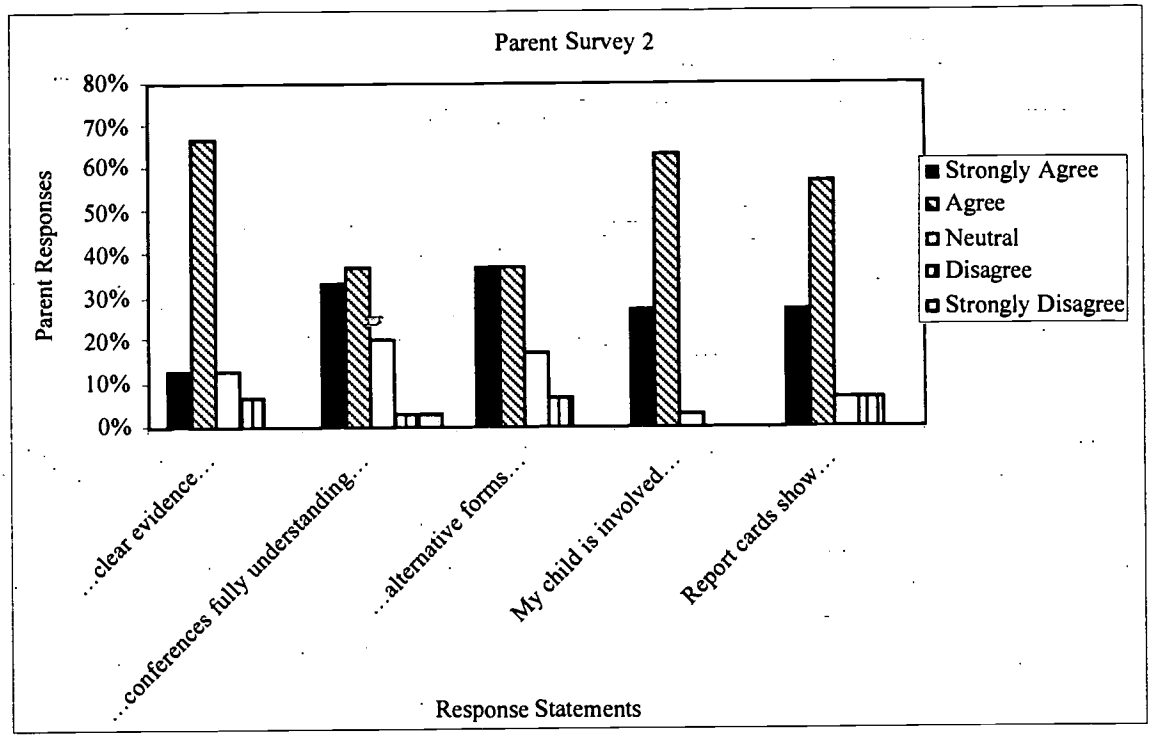


Figure 2: Continuation of parents' opinions towards assessment

The teacher surveys regarding assessment were completed in the fall of 2002. Forty-four teachers from Site A and Site B responded to the surveys. A copy of the teacher survey can be found in Appendix B. Information shown in Figures 3 and 4 shows the results of the teachers' feelings towards assessment.

Sixty-eight percent of the surveyed teachers do not believe that standardized tests show students' academic growth. Also seen in Figure 3, 64 % of the teachers surveyed feel letter grades do not show academic growth. In addition, Figure 4 reveals that 64% of the teachers surveyed felt that parents do not walk away from parent teacher conferences fully understanding their child's academic growth. Seventy-six percent of the teachers believe that report cards do not show students' academic growth.

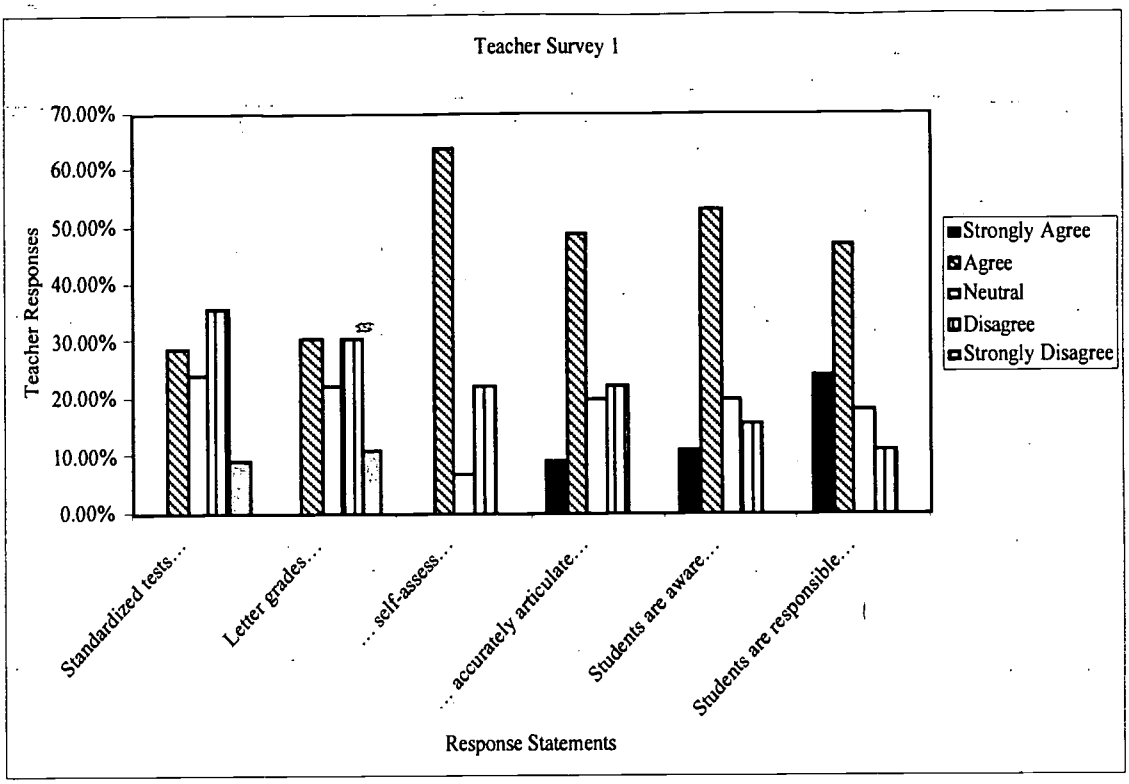


Figure 3: Teachers' opinions towards assessment

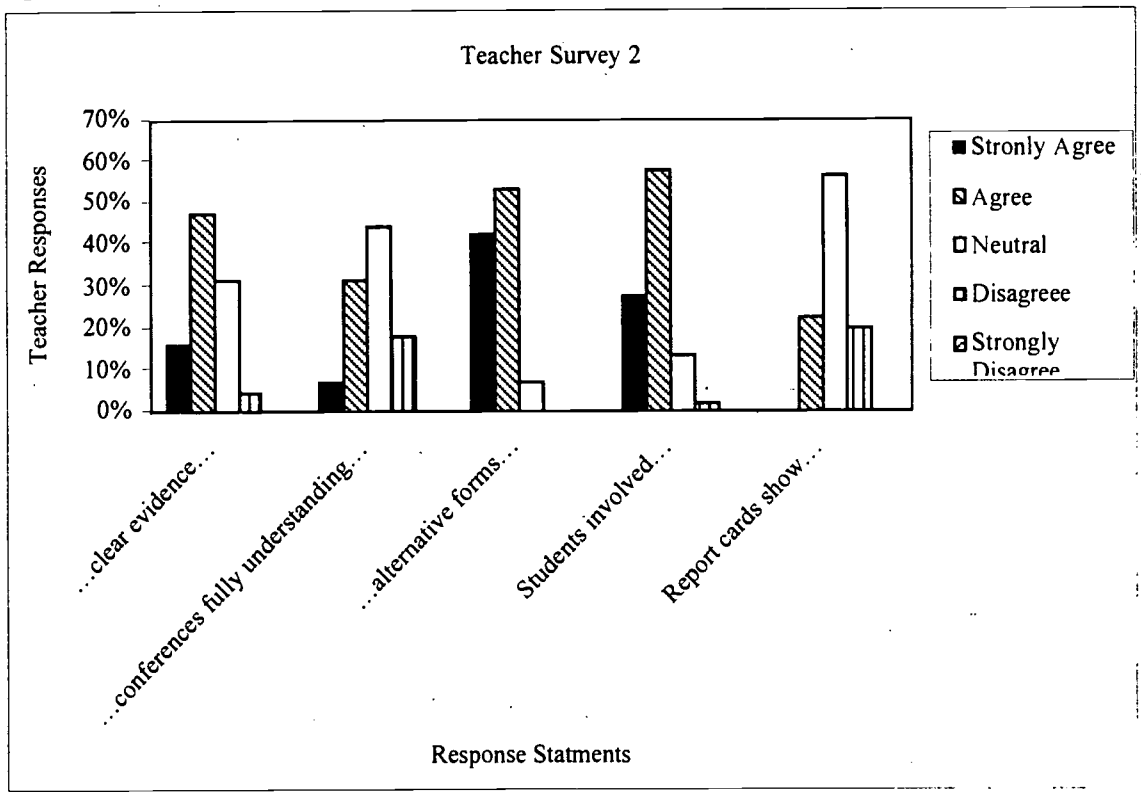


Figure 4: Continuation of teacher's opinions towards assessment

Student surveys were administered to 23 seventh graders at Site B. A copy of the student survey can be found in Appendix C. Information shown in Figures 5 and 6 shows the results of the students' feelings towards assessment.

Figure 5, shows that 22% of the students either feel they can not self-assess or are unsure of how to self-assess their work. It is also made known that 22% of the students find it difficult to articulate their strengths and weaknesses. However, 82% of the students believe that they are responsible for their own learning. Figure 6 shows that 26% of the student population believed that the did not have clear evidence of their academic growth and 18% felt they were not involved in their academic growth.

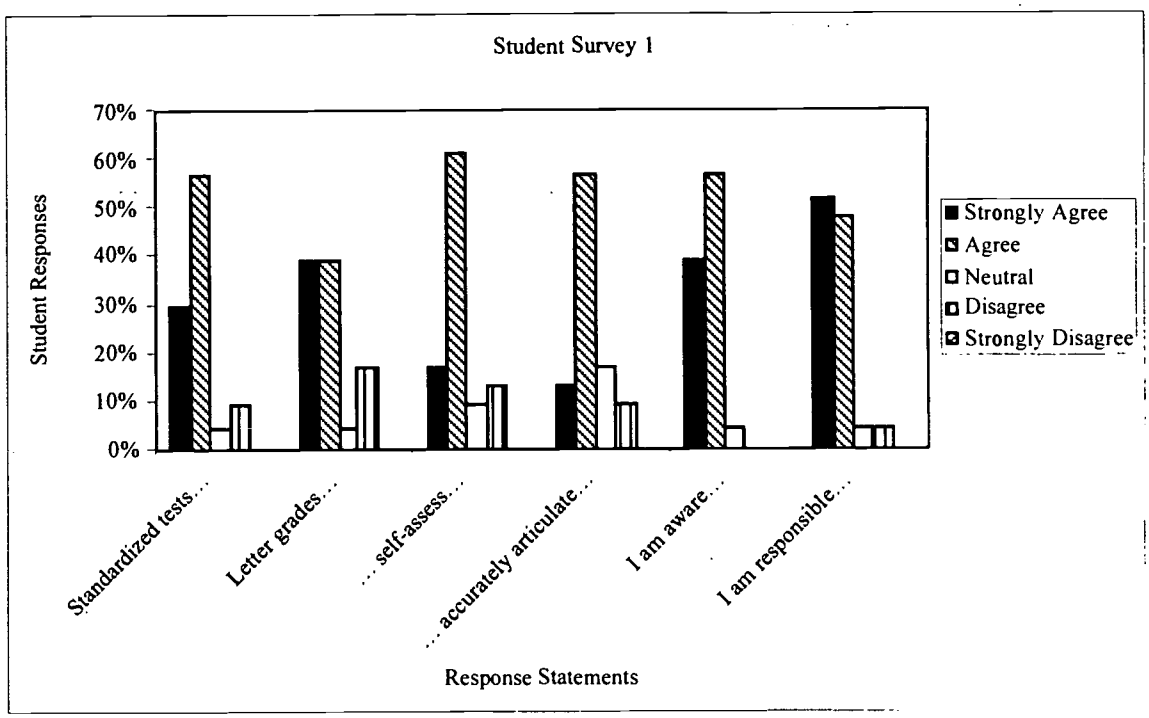


Figure 5: Students' opinions towards assessment

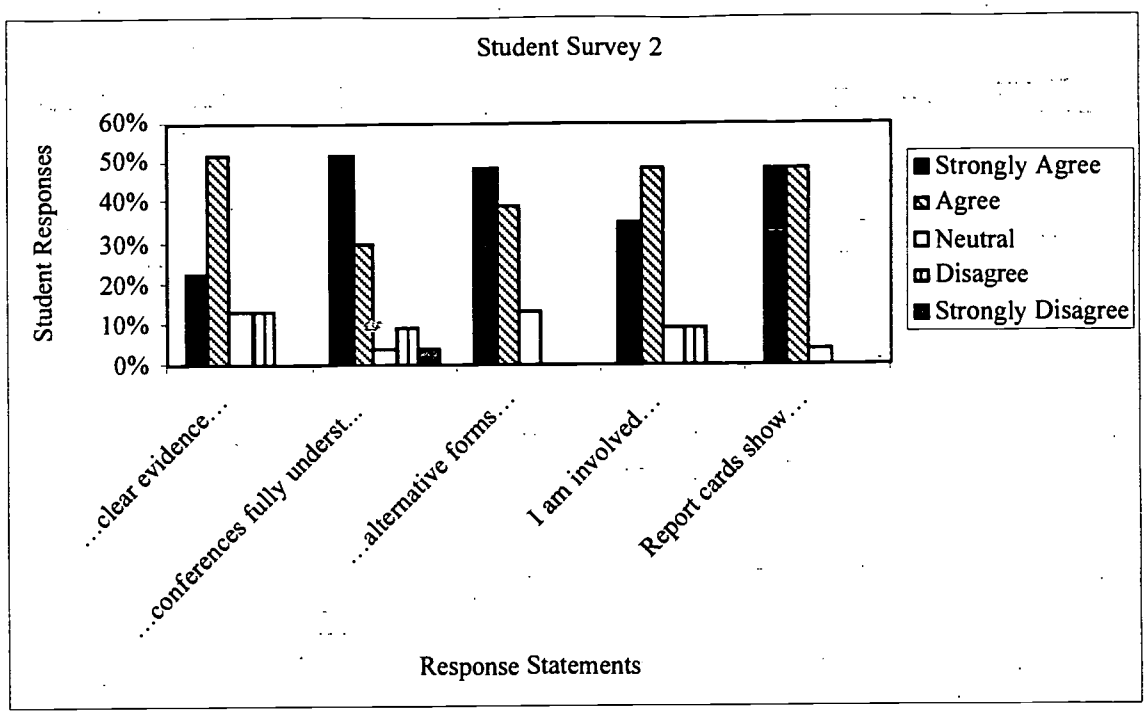


Figure 6: Continuation of students' opinions towards assessment

The students at Site A were given a questionnaire to determine how well they assess their own writing (Appendix D). The first question asked how the students know when they did their best work. The teacher explained to the students that the work they were to think about was their own writing. The majority of the answers the students gave could be grouped into three categories. The first category was related to the specific time the writing was done. The students responded with answers such as "last year", "in January," "during journal time today," and "at night." The second category was related to the length of writing. Two of the responses were, "when I wrote two and a half pages" and "when I wrote a long story." The last category was related to the incentives given after the writing was done. A couple of the responses that fit into the category were "when the teacher gave me an A+" and "when my mom said so." It seems that the students responses were general and they did not comment on the content of their writing.

The second question on the questionnaire asked the students how they know they are getting better at learning. The teacher told the students to think about their writing and how they know they are doing better at it. These responses were also grouped into three categories. The first category had to do with how much practice they did. Some of the responses in this category were "because I practice my homework," "when I practice in my book," and "when I practice a lot and I learn a lot." The second category was made up of students who just repeated the question by responding with answers such as "I am better" and "I know I am getting better." The third category was composed of students who either did not respond at all or wrote "I don't know." Again, these responses were general and the students did not comment on the content of their work.

The teacher at Site B took anecdotal records of the students' feelings towards traditional assessment. As the students were talking during class, the teacher made notes of some of the students' feelings on letter grades. One student said, "Letter grades do not show your progress. They just show if your grades went up down, or stayed the same. I think they should explain why we get what we get." Another student said, "I don't think letter grades are enough because all they show is what your overall knowledge of the subject is. I think a student should be shown exactly what they need to work on and exactly what they are fine in. It would probably help people become better students." A third student mentioned, "I think letter grades are pointless because they cannot tell how smart people are and letter grades are only a matter of opinion." Finally, a student said, "Letter grades don't show me how smart I am. I could get a D+ in mathematics, but I would know that I tried my best in it."

Probable Cause

Several factors may contribute to the probable cause for students and parents

being unaware of the students' academic growth. These factors include the lack of communication, traditional assessment practices, and the use of standardized tests.

According to professional literature, a lack of communication is one cause of the lack of awareness of academic growth in students. Communication between parents and teachers is important in order to build a community of learners (Nathan, 1995). One form of communication is through parent-teacher conferences. The purpose of a conference is to update parents on the progress of their child. Parent-teacher conferences have time limits, and parents are often left with questions about their child's academic achievement and growth (Johnson, 1996).

A common belief among researchers, educators, and parents is that the separation, or lack of connection, between school and home has been harmful to the students and the school (Turner, 2000). There are several factors that contribute to the lack of parent involvement in school. First, there is an increase of children who come from single parent homes (Johnson, 1999). The amount of demands on a single parent prevents him from becoming fully involved with school activities. Secondly, parent involvement often depends on the parents' own educational experiences. Parents who had a negative experience in school often do not feel comfortable being involved in their child's schooling (Dodd, 1998). Thirdly, as students progress through their schooling, the number of teachers they see throughout the day increases. It is difficult for parents to establish a relationship with several teachers (Dodd, 1998). Strengthening relationships between school and parents is a complex task (Shumacher, 2000, p. 1).

Traditional assessment does not always answer questions about a child's progress. Receiving letter grades can be confusing to parents because they do not have the background, education, or training to interpret the meaning of a grade (Culbertson &

Jalongo, 1999). Letter grades or percentages emphasize one particular skill and show what students do not know rather than what they do know (Micklo, 1997). Incorporating letter grades or percentages into assessment does not give the students an opportunity to become involved in their own assessment (Manning & Manning, 1995).

Educators know that the curriculum is constantly changing. Assessment techniques have not kept pace with these curriculum changes (Hillyer & Ley, 1996). Using traditional forms of assessment do not keep up with the changing curriculum (Roe & Vukelich, 1998). Checking work with answer keys and completing workbook pages do not promote self-reflection (Duffy, Jones, & Thomas, 1999). It is necessary for students to be actively engaged in their development and growth of their own knowledge base (Duffy, Jones, & Thomas, 1999).

Traditional assessment in the form of paper and pencil tests is commonly used in the classroom. Students feel a sense of powerlessness and are confronted with pressures when taking traditional tests (Culbertson & Jalongo, 1999). Most traditional tests do not give children a chance to explain what they know and show what they can do (Culbertson & Jalongo, 1999). Assessment should allow students with multiple opportunities to apply their knowledge to real- life situations (Hillyer & Ley, 1996). According to Resnick, traditional tests administered by teachers are often not connected to what students will encounter in the outside world (as cited in Tanner, 2001). Students' evaluations should be based on the quality of their work and not on their ability to recall information (Culbertson & Jalongo, 1999). Traditional tests do not assess the child as a whole. They do not reflect the current theories in learning, do not give a clear picture of how the child performs in a classroom, and do not provide usefulness for the future (Chen & Martin, 2000).

Another type of assessment that does not allow students and parents to understand academic growth is standardized tests. Standardized tests produce results with no useful purpose (Gilman & Hassett, 1995). They give little information about students' strengths (Salend, 1998), and they depersonalize and disempower students (Roe & Vukelich, 1998). Learning is separate from assessment when using standardized tests. The results of a standardized test do not result in a positive connection to instruction, the results of standardized tests are often filed and forgotten, and parents find it difficult to understand their results (Gilman, Andrew, & Rafferty, 1995). The scores do not represent improvement that the students made throughout the year (Roe & Vukelich, 1998).

There are many underlying causes for parents and students not being aware of academic growth. Literature indicates probable causes to be lack of communication, use of traditional assessments, and relying on the results from standardized tests.

CHAPTER 3

THE SOLUTION STRATEGY

Review of the Literature

Students are exposed to different activities in the school day that help aid in their academic growth. These activities are accompanied with assessment measures that can help parents and students become aware of childrens' academic growth.

Teacher-made tests help to assess and understand students' growth. In order for these tests to be beneficial they need to be integrated into daily teaching and constructed to be part of the learning process (Burke, 1999). According to Burke, they allow for students to see their own progress, but they need to be designed to meet students' needs. A drawback to using teacher-made tests is that they often emphasize verbal-linguistic intelligence thus, low readers are at a disadvantage (Burke, 1999).

An ongoing assessment tool that has been in practice for years is the use of journals. The use of journals help students clarify confusion, think about the material, discuss key ideas with group members, and process information. Teachers can assess these journals and students can self-assess their journals using a predetermined checklist or rubric (Burke, 1999).

Performance tasks require students to demonstrate their knowledge and skills by engaging in authentic activities (Cooper, as cited in Chen & Martin, 2000). Using these tasks, students can activate their prior knowledge, recent learning, and use relevant skills (Weldin, Tumarkin, 1998). When looking at the skills students can demonstrate, this

as cited in Chen & Martin, 2000). The tasks also allow students to share their successes in a tangible way with family and peers (Culbertson & Jalongo, 1999). Students love projects and often become more focused in their learning when given a performance task (Nathan, 1995).

Parental involvement in the school system is supported by professional literature and research (Johnson, 1999). A strong parent involvement program promotes frequent two-way communication between parents and teachers (Williams & Chavkin, as cited in Turner, 2000). In 1998, Dodd listed five ways to provide more information to parents:

1. "Regularly publish school and class newsletters--but make them reader friendly...
2. Showcase exemplary student work by posting it on bulletin boards and walls in the school and throughout the community.
3. Organize student exhibitions and curriculum fairs.
4. Make parent conferences more meaningful by having students collect their work in portfolios. Then at the conferences, let students explain them to parents. Not only does this take the pressure off teachers, it gives students a real reason for assessing and reflecting on their own progress (or lack of progress).
5. Make students more reliable by making sure they understand what they are learning and doing and why" (p. 2).

Student involvement, ownership, and empowerment are benefits gained through student-led conferences (Conderman, Hatcher, & Ikan, 1998). In a student-led conference setting, the learners become more responsible for their learning, and in turn increase student achievement (Ricci, 2000). These conferences foster open communication,

increase student participation, and is compatible with the middle school philosophy (Conderman, Hatcher, & Ikan, 2000).

"A portfolio is a multidimensional collection of gathered information that allows the teacher and learner to construct an organized, ongoing, and descriptive collection of the student's learning," (Farr, as cited in Duffy, Jones, & Thomas, 1999). When students use portfolios, they take more responsibility for their own learning, understand their own strengths and limitations, and learn to set goals (Hillyer & Ley, 1996).

Portfolios help students become involved in the evaluation of their own learning (Fenwick & Parsons, 1999). Students set their own learning goals and then are responsible of producing evidence that they accomplished their goals (Ricci, 2000). Students are responsible for selecting items for their portfolios that are desirable and purposeful (Melograno, 1994). After selecting a piece, students reflect on their accomplishment and develop positive self-perceptions of their abilities (Liu, Lin, & Yuan, 2001).

Portfolios foster communication among students, teachers, and parents (Micklo, 1997). Through portfolios, students, teachers, and parents can understand the types of learning that take place in a classroom (Lamdin & Walker, 1994). At parent-teacher conferences, the use of a portfolio can give parents better information about their child's learning and progress (Conderman, Ikan, & Hatcher, 2000). A portfolio sharing night is a way to improve public relations and communication with parents (Johnson, 1996).

Gilman, Andrew, and Rafferty (1998) stated twelve advantages to using a portfolio:

1. "They evaluate both product and process.
2. They integrate learning and assessment.
3. Evaluation is not limited to a single score.

4. They provide more information about a student's progress.

5. They encourage students to take charge of their own learning.

6. Students feel that they are part of the assessment process.

7. They help develop skills necessary for lifelong learning.

8. They may actually reduce the burden of grading papers.

9. Information gained from portfolios is meaningful and substantial.

10. They provide a continuous example of a student's work in a context that is relevant and understandable.

11. They assess global understanding and thinking skills.

12. It is a form of evaluation that is bound to have parent approval," (p. 3).

Portfolio implementation requires a profound change in the roles and responsibilities of students, teachers, and parents (Melograno, 1994). "Are reflective portfolios worth the time and effort? I listened to the confident, enthusiastic voices of preschoolers taking control of their learning, and I can only answer with a resounding, 'Yes!' As a wise preschooler said of his portfolio, 'It's all in here. It's all me,' " (Smith, 2000, p. 6).

Portfolios bring benefits to the classroom. Student involvement and communication amongst teachers, students, and parents are demonstrated with the use of portfolios in the classroom.

Project Objectives and Processes

The following objective reflects suggestions from professional literature and an analysis of the data collected regarding the target group. As a result of the implementation of portfolios, during the period from October 2002 to December 2002, the target group of students and parents at Site A (first and second grades) will increase their awareness of

students' academic growth in writing, and students and parents at Site B (seventh grade) will increase their awareness of students' academic growth in mathematics, as measured by surveys and reviews of student portfolios.

In order to accomplish the objective, the following processes are necessary. The teacher will:

1. Identify the goals of the portfolio.
2. Determine the type of portfolio that needs to be implemented.
3. Establish procedures for organizing portfolio.
4. Create guidelines for artifacts to be included in the portfolio.
5. Inform parents on portfolio assessment.
6. Teach students to create, develop, and organize their own portfolios.
7. Implement portfolios into the classroom.

Action Plan for the Intervention

During the duration of the research intervention two teachers were involved in the implementation of portfolios in the classroom. Both of these teachers designed the action research project and participated in the procedures described.

I. Pre-Intervention

1. Parent consent (September 3-6)
2. Evidence of problem (September 9-13)
    a. teacher survey
    b. parent survey
    c. student survey
    d. student questionnaire
    e. anecdotal records

3. Set goals of portfolio (September 16)
4. Select type of portfolio (September 16)

II. Intervention (September 16-27)

1. Discuss guidelines for artifacts
2. Inform parents on portfolios
3. Prepare and teach strategies
    a. standards/goal-setting
    b. organization
    c. choosing an artifact
    d. reflections
4. Implement portfolios (September 30-October 26)
    a. develop materials in mathematics for seventh grade students
    b. develop materials in writing for first and second grade students

III. Post-Intervention (November/December)

1. Overall reflection by students on the portfolio
2. Review of portfolios by the teacher
3. Post Survey
    a. students survey
    b. student questionnaire
4. Teacher's journal

Methods of Assessment

The results of the intervention will be assessed using data collected from teacher journaling, student reflection, review of final portfolios, post-surveys by parent, teachers, and seventh grade students, and a post-questionnaire by first and second grade students.

Reflections and portfolios will be checked weekly for entries and monthly for content.

The two teachers involved in the action research project will meet weekly to determine the success of the implementation of portfolios in the first and second and seventh grade classrooms.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of this project was to make teachers, parents, and students more aware of the students' academic growth in mathematics or writing. The implementation of portfolio assessment was selected in order to achieve this goal.

At Site A, the first step to implementing portfolios in the classroom was to determine the type of portfolio that was to be used. It was determined that the students would keep writing portfolios. Next, both the students and parents were informed about the portfolios. During parent curriculum night, parents were taught about portfolio assessment and were encouraged to ask questions. The teacher and students at Site A had a discussion about portfolios and the purpose of keeping one.

Before the students at Site A could start collecting artifacts for their portfolios, they needed to learn how to choose and reflect upon a writing piece to put in the portfolio. The students spent several days looking at writing samples. They had discussions about what was good about the writing and what needed to be improved on. The students were then shown how to write a reflection. In the first part of the reflection the students had to write about what they did well and the second part was to set goals for future writing pieces. A sample of the reflection that the students used can be found in Appendix E. Each student picked several writing pieces they had written, and practiced writing a reflection for them. The students spent one week practicing writing reflections.

After the students learned how to select and write a reflection on an artifact for their portfolios they were then ready to begin their portfolios.

Each student at Site A was given a cardboard bin to use for their portfolio. The students decorated their portfolios and were encouraged to personalize them. Throughout the weeks that the portfolio assessment was implemented, the students wrote during writer's workshop. They were given time to select writing pieces to reflect on and put in their portfolios. Once a week, the teacher selected several student-selected artifacts to share with the class. These artifacts were chosen to continue to demonstrate what made a good artifact and model how to write a reflection.

At Site B, portfolios were used to make students more aware of their academic growth in mathematics. The parents and students were given surveys to determine their opinions towards assessment. Surveys were sent home to the parents and were returned within a week's time. Once the surveys were returned, information about portfolios, explaining how students would be creating mathematics portfolios to further their academic growth, was sent home to the parents.

The students were given the survey in class and when they completed it, they were given a manila folder to decorate as they found appropriate. Having the students decorate their portfolio provided more ownership for each student. As a beginning step towards implementing portfolios, the students filled out a reflection form with their initial reactions towards mathematics and their performance in it. They also listed some of the strengths they had in mathematics and set two long term and two short term goals to be reached in mathematics throughout the year. The students selected one or two of the goals and wrote a step by step plan in order to accomplish the goal. A sample of the initial reactions form can be found in Appendix F.

The students worked on their portfolios every Friday for about a half hour. The students were taught to select artifacts to put in their portfolio. A discussion took place explaining how work that was put in the portfolio did not only have to be the ones with high grades. Emphasis on growth and learning was made in this discussion. The students began to realize how mistakes were acceptable because as time progressed their work demonstrated that they were understanding and correcting their previous mistakes. Each time the students worked on their portfolios, they selected two or three additional artifacts. They attached a reflection sheet to the artifact which explained how the artifact showed them as a learner and how the piece demonstrated growth. A copy of the reflection on artifact form can be found in Appendix G. The students completed their portfolios for the mathematics unit in two months. After all of the artifacts were chosen and arranged in chronological order, the students were given a final reflection. The students shared their thoughts on the portfolio process and whether or not they had felt they showed growth as a learner. They also had an opportunity to revisit the goals they had set in order to evaluate the steps they had taken and determine the success they had encountered to date. A copy of the giving it some thought reflection can be found in Appendix H.

Parent-teacher conferences were held fell during the time that the students were working on portfolios and they presented them to their parents at this time. The students showed their parents what they had accomplished until that point and were able to articulate the improvement. Having the students at the conferences with their portfolios again gave ownership to the work and helped promote the sense of academic growth by sharing what goals had been met after the unit was completed.

Presentation and Analysis of Results

In order to see what effect portfolios had on the students becoming more aware of their academic growth, the students at Site A were given a post-questionnaire about what makes a good piece of writing. The teacher also reviewed the reflections the students filled out on their selected writing artifacts. Some of the students' comments from the questionnaire and reflections are shown in Figure 7.

Pre-Questionnaire and Reflections	Post-Questionnaire and Reflections
"I did my best writing in January."	"I did my best writing when I have lots of details."
"I did my best writing when I wrote two page and a half pages."	"I did my best writing when I had a beginning, middle, and end."
"I did my best writing when my mom said so."	"I know I am getting better at writing because I put periods at the end of my sentences."
"I am getting better at writing because I practice my homework."	"This story is good because I used lots of adjectives."
"I am getting better at writing because I know I am getting better."	"This story is good because I stayed focused."
"I know I am getting better at writing because... I don't know."	

Figure 7: Results of student responses on student questionnaires and reflections

After implementing portfolios into the classroom it appeared that the students' comments about their writing skills went from being very general to more specific. The portfolios seemed to have a positive effect on making students more aware of their strengths in writing.

The effect of implementing portfolios to determine academic growth in mathematics at Site B was analyzed through different perspectives. A post-survey was distributed to a the students to see if any of their opinions about assessment had changed. Figures 8 gives the results of the pre-survey that was given to the students, and Figure 9 gives the results of the post-survey that was distributed to the students at the completion of the unit portfolio. Before the implementation of portfolios, 13% of the students at Site B felt they were unable to assess their own work. After the implementation of portfolios 0% of the students felt that the could not assess their own work. The percentage of students who felt that they could accurately explain their strengths and weaknesses went from 70% to 73%.

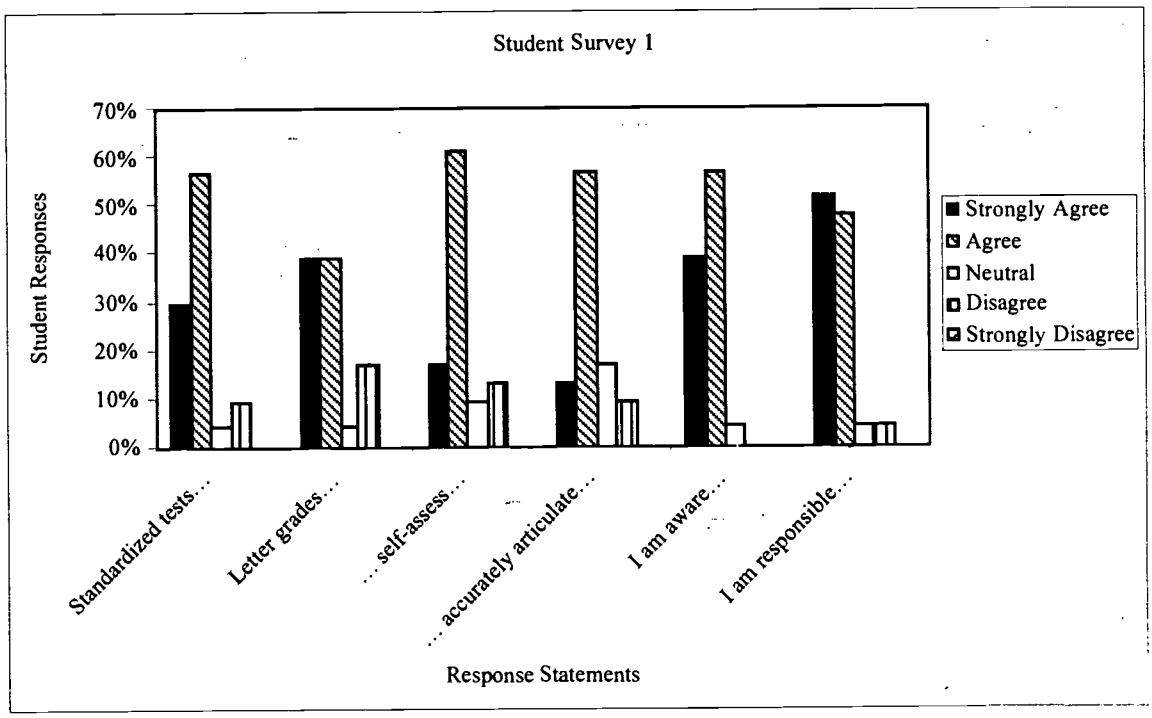


Figure 8: Students' opinions towards assessment pre-data

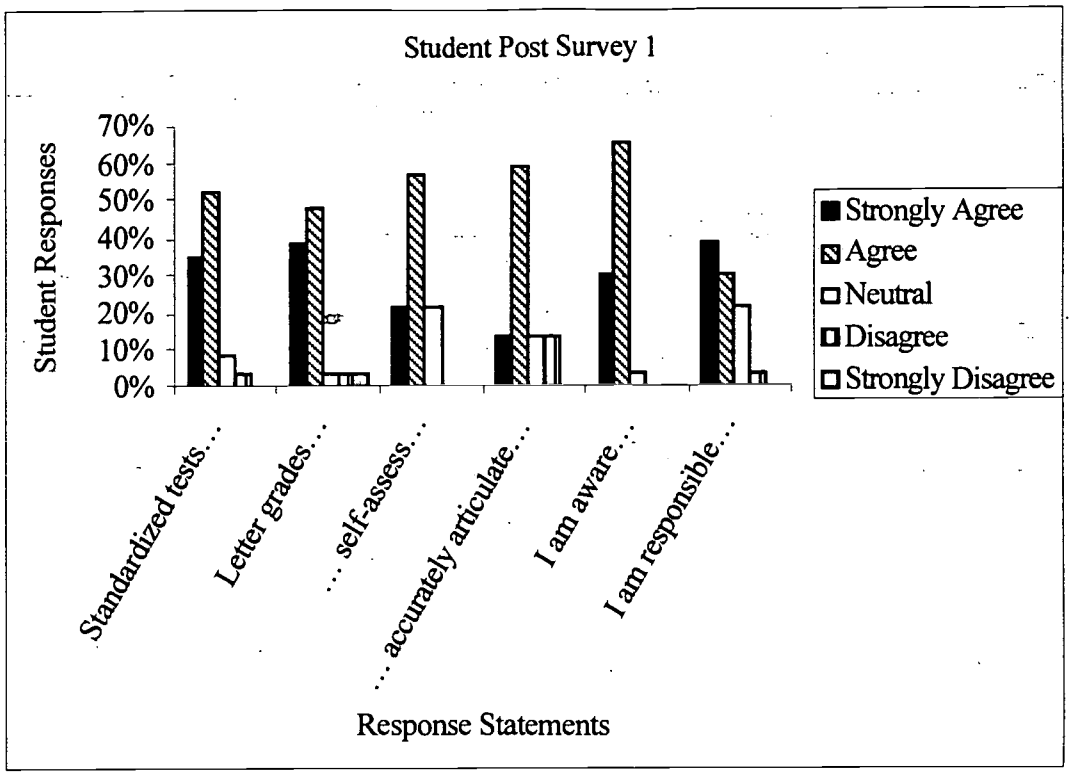


Figure 9: Students' opinions towards assessment post-data

Figure 10 is a continuation of the pre-survey data and Figure 11 is a continuation of the post-survey data. Twenty-six percent of the students surveyed felt that they where unsure or did not have clear evidence of their academic growth. This percentage decreased to 17% after the implementation of portfolios. Before portfolios were used at parent-teacher conferences, 17% of the students felt their parents did not leave conferences fully understanding their academic growth before using portfolios during conferences and this amount decreased to thirteen percent after portfolios were used at parent-teacher conferences. Before the implementation of portfolios, 83% of the students believed that they were involved in their academic growth. This percentage increased to 86% after the students started using portfolios. After the students had portfolios implemented into their mathematics curriculum, 26% were either unsure or felt that report cards did not show academic growth. Before the students had portfolios in their

mathematics curriculum, only four percent believed that report cards did not show academic growth. Looking at the slight changes in percentages for some of the survey questions allowed the researcher to believe that portfolios had a positive effect on helping students understand their academic growth.

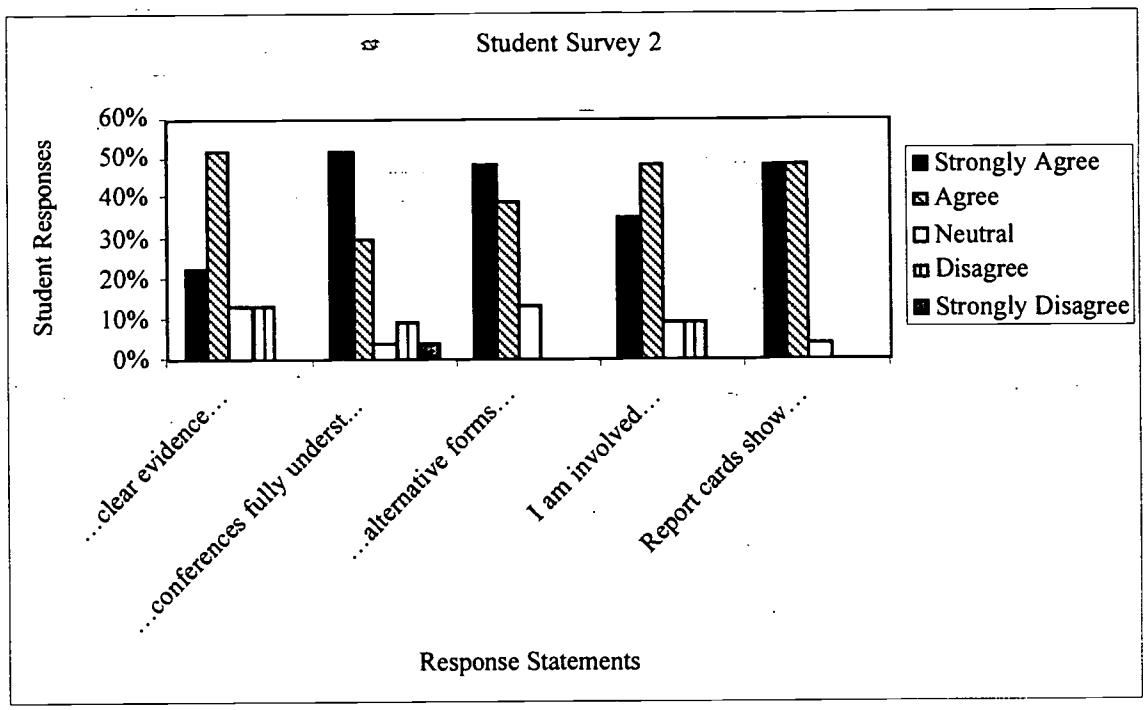


Figure 10: Students' opinions towards assessment pre-data continued

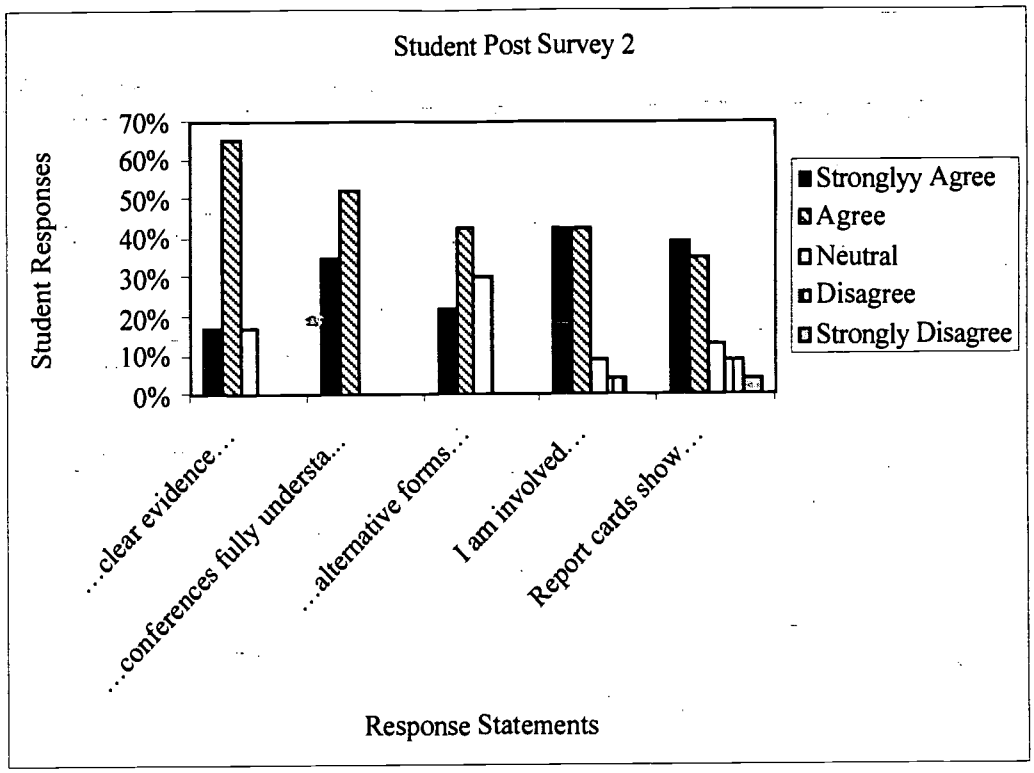


Figure 11: Students' opinions towards assessment post-data continued

The students reflected on each artifact that they decided to put in the portfolio. The reflections at first were general. When asked how the artifact showed the student as a learner responses such as, "I got a good grade," or "I paid attention," were common. The answers later became more specific, such as, "I have improved since the the beginning of the unit because I know can explain my answer." When asked how an artifact demonstrated growth, students described how they may have had a poor score on one assignment or quiz, but, as they continued to work, there scores would improve. The students also mentioned that they knew they were growing because they were understanding better. This was demonstrated by each student's explanation of the problems or procedures. The students wrote a final reflection for the entire unit portfolio when all of the artifacts were selected. One of the questions asked if the portfolio gave them a better sense of themselves as a learner. There were two types of reply to this

question. The first group felt that the portfolios were not beneficial because they did not have enough time to truly reflect and use the portfolio the way they wanted. They felt that the portfolios were on the basic level and did not show anything that they did not already know about themselves. The second reply was positive. Students felt that they could see their growth through the reflections and that the portfolio forced them to go back and look at where they began and ended. Mistakes were more easily fixed because the students had a chance to go back and look at what had been done and make changes in order to be more successful.

The portfolios were also a success with the parents. At parent-teacher conferences, the students shared their portfolios and, after reviewing the purpose of having a portfolio with the parents, there were positive comments given about their use. One parent commented how he felt it was important for his child to be learning and understand that that the child understand he was learning. A set of parents were impressed how their child had grown from the first artifact to the last artifact in their portfolio. The parents could see that their children took time when putting their portfolios together and reflecting on it. The final product helped aid the parents in understanding the academic growth of their child in mathematics.

Conclusions and Recommendations

Based on the presentation and analysis of the data on the use of portfolios in the classroom, the parents, teachers, and students became more aware of academic growth in writing and mathematics. The students learned to make more specific comments about their work. The students also felt more empowered in their own learning and became more reflective about their work. Parents were impressed to see the progress their child had made throughout the time the portfolios were implemented. They liked the idea of being

able to see where their child began and where they finished. The teachers used the portfolios to analyze students' progress and used the information to drive future instruction.

If portfolio assessment is to be implemented, there are some recommendations that should be considered. Portfolios are time consuming, so it is necessary that appropriate time increments are allotted for work. Consistency is also recommended. The use of portfolios should be continued throughout the school year in order to show students' overall academic growth. It is recommended to model self-reflection and provide opportunities during class time for students to reflect on their own work. The more time students have to practice reflecting on reflection, the more comfortable they become with the process. It is also recommended that students share their portfolios with others, such as peers, family, and other teachers. Portfolios require time, but they are an excellent way to show and celebrate students' growth. Each student can show his progress and be proud of his accomplishments.

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Appendix A

SITE: _____

PARENT SURVEY

The purpose of this survey is to determine your attitude towards assessing your child's academic growth. Please circle the answer that best describes your feeling toward each statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Standardized tests show my child's academic growth.	SA	A	N	D	SD
2. Letter grades show my child's academic growth.	SA	A	N	D	SD
3. My child is able to self-assess his/her own work.	SA	A	N	D	SD
4. My child is able to accurately articulate his/her strengths and weaknesses.	SA	A	N	D	SD
5. My child is aware of his/her academic growth.	SA	A	N	D	SD
6. My child is responsible for his/her own learning.	SA	A	N	D	SD
7. I have clear evidence of my child's academic growth.	SA	A	N	D	SD
8. I walk away from parent/teacher conferences fully understanding my child's academic growth.	SA	A	N	D	SD
9. I find a need for assessment that clearly shows my child's academic growth.	SA	A	N	D	SD
10. My child is involved in his/her academic growth.	SA	A	N	D	SD
11. Report cards show my child's academic growth.	SA	A	N	D	SD

Appendix B

SITE: _____

TEACHER SURVEY

The purpose of this survey is to determine your attitude towards assessing your students' academic growth. Please circle the answer that best describes your feeling toward each statement.

GRADE LEVEL: _____ NUMBER OF YEARS TEACHING: _____

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Standardized tests show students' academic growth.	SA	A	N	D	SD
2. Letter grades show students' academic growth.	SA	A	N	D	SD
3. Students are able to self-assess their own work.	SA	A	N	D	SD
4. Students are able to accurately articulate their strengths and weaknesses.	SA	A	N	D	SD
5. Students are aware of their academic growth.	SA	A	N	D	SD
6. Students are responsible for their own learning.	SA	A	N	D	SD
7. I have clear evidence of my students' academic growth.	SA	A	N	D	SD
8. Parents walk away from parent/teacher conferences fully understanding their child's academic growth.	SA	A	N	D	SD
9. I find a need to use alternative forms of assessment in my class.	SA	A	N	D	SD
10. Students are involved in their academic growth.	SA	A	N	D	SD
11. Report cards show students' academic growth.	SA	A	N	D	SD

Appendix C

SITE: _____

STUDENT SURVEY

The purpose of this survey is to determine your attitude towards assessing your academic growth in math. Please circle the answer that best describes your feeling toward each statement.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Standardized tests show my academic growth.	SA	A	N	D	SD
2. Letter grades show my academic growth.	SA	A	N	D	SD
3. I am able to self-assess my own work.	SA	A	N	D	SD
4. I am able to accurately explain my strengths and weaknesses.	SA	A	N	D	SD
5. I am aware of my academic growth.	SA	A	N	D	SD
6. I am responsible for my own learning.	SA	A	N	D	SD
7. I have clear evidence of my academic growth.	SA	A	N	D	SD
8. My parents walk away from parent/teacher conferences understanding my academic growth.	SA	A	N	D	SD
9. I would like to be assessed in ways that help me become aware of my academic growth.	SA	A	N	D	SD
10. I am involved in my academic growth.	SA	A	N	D	SD
11. Report cards show my academic growth.	SA	A	N	D	SD

Appendix D

Student Questions

1. I know I did my best writing when ....

_____

_____

_____

_____

2. How do you know you are getting better at writing?

_____

_____

_____

_____

Appendix E

Writing Piece Reflection

What I did well....

My Goals:

Appendix F

Name: _____

Date: _____

Initial Reactions....

1. Describe your feelings towards math.

2. Why do you have these feelings? Give specific examples from experiences you may have had.

3. Do you feel you are good at math? Why or why not?

4. How do you know you are being successful in math?

5. How do you know you are showing growth in math?

Strengths in Math

-
-
-

Goals for Math

Long Term •

•

Short Term •

•

Choose one short term and one long term goal. What steps will you take to meet this goal?

Appendix G

Reflection on Artifact

1. How does this piece show you as a learner? (either positive or negative)

2. How does this piece demonstrate growth?

Reflection on Artifact

1. How does this piece show you as a learner? (either positive or negative)

2. How does this piece demonstrate growth?

Appendix H

Name: _____
Date: _____

GIVING IT SOME THOUGHT...

1. Now that you have experienced math in seventh grade and have done a portfolio with the first book, describe your feelings towards math.

2. Did putting your math portfolio give you a better sense of you as a learner? Explain.

3. Do you think that your portfolio shows your growth in math so far this year? Explain.

4. Look back at your goals that you set at the beginning of your portfolio. Describe how you have been working on one long term and one short term goal. Tell the steps you have taken and how successful you are being at reaching the goal. (Use the back to answer and reflect.)

Goals for Math

Long Term •

Steps I have taken...

Success I have had...

Short Term •

Steps I have taken...

Success I have had...

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Maria Messerges

Printed Name/Position/Title: Student/FBMP

Organization/Address: Saint Xavier University
3700 W. 103rd St. Chgo, IL

Telephone: 708-802-6219

FAX: 708-802-6208

E-Mail Address: crannell@sxu.edu

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