Promoting student self-efficacy through assessment

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PROMOTING STUDENT SELF-EFFICACY THROUGH ASSESSMENT

by
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A Thesis
Submitted in partial fulfillment of the requirements of the Master of Science in Teaching Degree of The Graduate School at Rowan University
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Approved by ___________________________________________________________________

Dr. Susan Browne

Date Approved __________

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ABSTRACT

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PROMOTING STUDENT SELF-EFFICACY THROUGH ASSESSMENT
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The purpose of this exploratory study was to examine the impact of using alternate assessment methods as a means of promoting student self-efficacy. The study was conducted in a preK-8 public school located in Camden, NJ. The participants were 18 fourth grade students from a co-taught inclusion classroom. Two units of study were taught – one using traditional assessment methods, and one using alternate assessment methods. Students completed self-efficacy surveys before and after each unit, and were interviewed individually to obtain data about their opinions regarding the various alternate assessment techniques used. Student commentary and researcher observations were also analyzed as sources of data.

Significant findings point out that after the various alternate assessment methods were implemented, the overall self-efficacy ratings of the class improved. Additionally, the higher-functioning students of the class displayed less effort during the second unit of study and also preferred test-taking over portfolio assessment when it came to determining their grades. Implications for future research include exploring the topics of assessment and self-efficacy specifically for higher-functioning students.
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Chapter 1

Introduction

Just recently, I was observed teaching a health lesson to the fourth grade class with whom I spent my clinical internship. My cooperating teacher asked me to pick up where they last left off reading in the text about the skeletal system, and to continue on to cover the section on the muscular system. So I drew up a graphic organizer, brought in props, and taught the class about bones and muscles with great enthusiasm. Together we completed the graphic organizer as we read, filling it in with information we determined to be essential to understanding about both bodily systems. My objective was to focus on main concepts, important terms, and significant facts, and when we were through, I felt confident that my students had a firm grasp on the content I emphasized. Before the end of the day, my cooperating teacher advised the students to study “Miss McGrath’s” graphic organizers for their routine quiz the following day.

The next day, when the time came, I glanced over the questions my cooperating teacher included on the quiz. It was all fill-in-the-blank, and the required responses consisted of insignificant words that were irrelevant to the main ideas of the lesson. It was immediately obvious to me that in order for many of the students to perform well on this quiz, that the teacher had clearly used for years now, they would have needed to been told to study the specific answers sought for in these questions. I was right.
Story of the Question

My students’ opinions of themselves matter a great deal to me, and so not-surprisingly, I have chosen the topic of student self-efficacy to research. As a teacher, I want my students to feel like they can succeed, as well as to know that I feel like they can succeed. This is very important to me. With the previous experience I just reflected upon, it occurred to me that the way in which many students are regularly assessed does not do them academic justice. Traditional approaches to assessment and grading often times seem to fail to reflect the level of knowledge a student actually has about a particular subject. As seen in the case of my described experience, students often are given poor grades which fail to provide any evidence of what the students have learned. This often results in parents not being provided with accurate measurements of their child’s ability, and what’s more is that over time the students are led to believe that they are not knowledgeable enough to succeed in a particular subject, or school in general.

Continuing to build on the opening vignette, I, for one, believe my students have a firm understanding of the skeletal and muscular systems. Yet, by looking solely at their quiz grades, one would think quite differently. Based on this experience and belief, I asked myself: If by changing the way we assess our students, can we increase their academic self-perceptions of themselves? Further, how are we as teachers supposed to challenge our students to take chances, think outside of the box, and actively engage in learning if these same students are continuously branded with grades that represent failure, making them less likely to do this.
**Purpose Statement**

The way assessment is widely used – that is, the traditional recitation format of lecture, read, test, grade – reinforces a performance goal equating to many students that grades indicate learning (Walker, 2003). However, research argues that no two students are alike in the way they learn and apply knowledge, and therefore, a grade cannot apply to several students in the same way (Marshall, 1954; Anderson, 1998).

Furthermore, in today’s school culture, education for the sake of learning is secondary to the competitive game of obtaining good grades (Moll, 1998). In fact, research argues that low efficacious students place too much emphasis on outcomes, such as grades (Walker, 2003; Linnenbrink & Pintrich, 2003). Because of this, Margolis and McCabe (2004) notes the importance of making progress explicit, and providing feedback about what students are doing right.

Additionally, low efficacious students feel as though they have no control over their learning. This causes them to develop a “what’s the point?” kind of attitude (Margolis & McCabe, 2004). They participate less, extend less effort, give up more easily, and achieve at a lower level (Schunk, 2003). Margolis and McCabe (2004) explain that “students do not engage in activities they believe will lead to negative outcomes,” because they are fearful of revealing ignorance (p.241). Thus, Margolis and McCabe (2004) recommend that teachers need to foster the belief that competence or ability is a changeable, controllable aspect of development. In other words, low efficacious students need to learn how to make proper facilitative attributions.

Walker (2003) suggests that “changing the assessment context to reflect a learning orientation rather than a performance orientation can help low efficacious
students focus on what they are learning and what they can do” (p.183). Additionally, teachers should strive to consider the role that students can play in the assessment process (Wells, 1998). Research shows that having students evaluate themselves, and their peers, positively impacts student performance through enhanced self-efficacy and increased intrinsic motivation (Rolheiser & Ross). This is supported by the positive relationship shared between engagement and self-efficacy, as well as the notion that low efficacious students lack a feeling of control over learning.

Instructional rubrics for self and peer-evaluation, portfolio systems, and student-led conferences are three aspects of an approach to alternate assessment that may benefit students’ academic self-perceptions. Saddler (2003) argues that instructional rubrics to self and peer-assess promotes self-regulation by giving students some of the responsibility for judging written work instead of placing that responsibility solely on the teacher. Further, teaching them to use the instructional rubrics will help them to internalize the standards of quality (Andrade, 2001). Portfolios, as suggested by Walker (2003), help students evaluate their success on various activities and show them their progress over time. In general, portfolios provide students with a sense of completion and accomplishment. Additionally, when student-led conferences are coupled with the use of portfolios, students assume more responsibility for their learning and see connections among and between their learning in and outside of school (Conderman, et al., 2000). Tasks in the past that would have been considered a failure experience are used to describe what students need to develop when participating in these conferences (Walker, 2003).
Overall, this study attempts to explore alternate assessment as a means of promoting students’ academic self-perception and a sense of self efficacy.

Statement of Research Problem and Question

I hope to instill within my students a sense of self-efficacy so that they may be more motivated, willing to put forth effort, and engaged within in the classroom. However, continuously receiving failing grades, as a result of traditional methods of assessment still widely used, certainly does not help attain this goal. Instead, it only causes these low efficacious students to think of themselves as less and less capable.

Based on the research problem at hand, the question I address in this study is as follows: Can assessment be used to increase student self-efficacy?

Organization of the Thesis

Chapter Two takes a more in-depth look at the related research on self-efficacy and assessment methods. Topics discussed include: the problems related with traditional assessment, the characteristics of and implications for students with high and low self-efficacy in the classroom, and the advantages of alternate assessment methods in relation to self efficacy, along with a brief overview of rubrics, portfolios, and student-led conferences as three aspects of alternate assessment. Chapter Three discusses the context of the study and describes the research design and methodology. Chapter Four and Five discuss the results of this study and it implications for further research.
Chapter 2

Review of Related Literature

This chapter is a review of the related literature that addresses the research question that asks if alternate assessment methods can be used as a means of promoting student self-efficacy. The specific areas that will be discussed include the disadvantages to more traditional forms of assessment, self-efficacy, and the relationship between the two, according to what existing literature and research suggests.

Disadvantages to More Traditional Forms of Assessment

The purpose of school, in theory, is to learn. When the concept of school first came about, there existed no grading system. Grades were eventually developed as a way to assess and enhance learning. Unfortunately, the ideals of education have been reversed. That is, in much of America today, learning is often merely a way to enhance grades. Education for the sake of learning is now subordinate to the competitive game of obtaining good grades (Moll, 1998).

Research suggests that while good grades might make parents happy, make teachers happy, and produce other rewards, none of these factors instill a desire to learn—rather, just the desire to get good grades (Moll, 1998). This would not necessarily present a problem if grades were truly indicative to learning, but as argued by Marshall (1954), no two students are alike in the way they learn and apply knowledge, and therefore, a grade cannot apply to several students in the same way. The debate about the validity of grades is not a new one, as Marshall wrote over a half-century ago about the advantages
of descriptive grading over traditional forms of grading. (Of course over time the issue of assessment has expanded and become increasingly more complex than descriptive versus criterion-based grading.) He asserts that the symbols used to grade are restrictive in that they do not outline the student’s actual progress in class or application of skills learned (Marshall, 1954). Furthermore, grouping of students into certain grades such as “John is an A student” puts students into categories that are irrelevant and unproductive (Marshall, 1954).

Similarly, Anderson (1998) speaks about traditional assessment, which she describes as students being tested on information fed to them through lecture, via objective tests, and evaluated on the information presented in class or in assigned readings. Like Marshall, Anderson describes traditional methods of assessment as assuming knowledge has universal meaning. She claims that traditional methods separate process from product, meaning that the final outcomes (or grades) are assumed to be representative of learning. In this respect, the why and how of learning is not taken into consideration (Anderson, 1998). Moreover, traditional assessment methods treat learning as a passive process which involves students memorizing the knowledge dispensed by the text or instructor, rather than inquiry and interaction. Traditional assessments focus on mastering discrete isolated bits of information, and they assume that the purpose is to document whether learning has occurred. Traditional assessment methods embrace a hierarchical model of power and control whereby the teacher alone has the power to decide what is learned and how it is assessed, and finally, they view assessment as objective, value-free, and neutral (Anderson, 1998).
The way assessment has been traditionally used – that is, the recitation format of lecture, read, test, grade – reinforces a performance goal, equating to many students that grades indicate learning (Walker, 2003). With the primary focus in school now being on grades, and with a debatable relationship between grades and actual learning, one may wonder about the effects assessment has on our students’ academic perceptions of themselves, otherwise referred to as their self-efficacy. Furthermore, how important are these perceptions? In order to investigate this issue, let us examine what research says about self-efficacy in general.

Self-Efficacy

Self-efficacy refers to beliefs about one’s capabilities to learn or perform at designated levels (Schunk, 2003; Bandura, 1997). Research shows that students who feel efficacious for learning or performing participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level (Schunk, 2003, p. 161). This is because, as research has shown, learners’ self efficacy sustains motivation and promotes learning (Schunk, 2003, p. 162). Consequently, students with high self-efficacy are much more likely to be engaged in learning (Margolis & McCabe, 2004; Linnenbrink & Pintrich, 2003; Walker, 2003).

Individuals with weaker self-efficacy, on the other hand, tend to give up more easily. It is widely believed that without sufficiently high self-efficacy, many struggling learners will not make the effort needed to master academics. They will give up or avoid tasks similar to those previously failed (Margolis & McCabe, 2004, p. 241; Walker 2003). Reasoning behind this finding lies within the notion that students who are convinced that they lack ability to succeed or control their outcomes will not make the
effort in the first place. (Akey, 2006) Because these students do not feel that they have control over their learning, they facilitate any success to luck, and their failures to ability (Margolis & McCabe, 2004, p. 245). Furthermore, as Margolis and McCabe (2004) put it, “students do not engage in activities they believe will lead to negative outcomes,” because they are fearful of revealing ignorance (p. 241).

Thus, Margolis and McCabe (2004) recommend that teachers should foster the belief that competence or ability is a changeable, controllable aspect of development; that is, teach students to make proper facilitative attributions. Facilitative attributions associate successes with controllable factors such as effort, persistence, and use of strategies. They stress what students did. Similarly, they attribute poor performances and failures to the same controllable factors, but stress what students did not do. They link success to ability, and divorce poor performance from ability. (Margolis and McCabe, 2004, p. 245)

Just as self-efficacy has thus far been described as being a motivational construct for engagement, we must acknowledge that in the same way, engagement is a motivational construct for self-efficacy (Linnenbrink & Pintrich, 2003). In other words, although much research shows that students’ self-efficacy beliefs influence choice of tasks, effort, persistence, and achievement (Schunk, 2003, p. 160), the converse is true as well, in that students’ behaviors can alter self-efficacy beliefs (Linnenbrink & Pintrich, 2003). As students work on tasks, they note their progress toward their goals. Goal progress and accomplishment convey to students that they are capable of performing well, which enhances self-efficacy (Schunk, 2003, p. 160).
Making progress explicit for students to see – which traditional assessment lacks – will positively impact a student’s academic self-perception. In relation to this, Margolis and McCabe (2004) notes the importance of providing feedback about what students are doing right, in addition to task-specific feedback about how to correct errors. Teachers should be specific and provide students with learning opportunities that will foster the development of self-efficacy (Linnenbrink & Pintrich, 2003).

Making progress explicit, in addition to emphasizing process, is especially important since low efficacious students place too much emphasis on outcomes, such as grades (Walker, 2003; Linnenbrink & Pintrich, 2003). Moreover, when students expend effort yet receive low grades, they begin to believe their effort is not commensurate with their grades, and so they decrease effort which, in turn, reduces achievement and lowers self-efficacy (Walker, 2003). Social cognitive theory predicts that students who have suffered countless academic difficulties and failures will have low self-efficacy for academics (Margolis & McCabe, 2004; Walker, 2003). Students develop self efficacy when emphasis on grades, competition, and performance are at a minimum. (Walker, 2003)

**Linking Self Efficacy with Alternate Assessment**

Walker suggests that changing the assessment context to reflect a learning orientation rather than a performance orientation can help low efficacious students focus on what they are learning and what they can do (Walker, 2003, p. 183). Unlike traditional methods of assessment whereby struggling learners are essentially punished with bad grades for what they didn’t learn, alternate assessment methods focus on what students have learned. Additionally, as teachers strive to determine what students know and are
able to do, they might consider the role that students can play in the assessment process (Wells, 1998). When teachers encourage students to become more actively engaged in the evaluation process they “relinquish complete control, embracing a more democratic stance” (Anderson, 1998, p.7). The educational benefits to this are numerous (Wells, 1998). Students’ assessments of themselves not only give teachers a meaningful indication of what students have learned and provide information for improving instruction and assigning grades, but they give students ownership of their own learning and provide them with a means for evaluating their growth and setting goals for the future (Wells, 1998). Self-evaluation is a potentially powerful technique because of its impact on student performance through enhanced self-efficacy and increased intrinsic motivation (Rolheiser & Ross). Furthermore, analysis of probable cause data shows that negative attitudes towards assessments have a direct effect on students' attitudes about learning. Students experience frustration due to the lack of choices they are given about being assessed; they experience anxiety because of the pressures to achieve, and they demonstrate low self-esteem as a result of low test scores (DeMauro, et al., 2001).

Several aspects of alternate assessment contribute to establishing a classroom that is both learning-oriented and student-empowering. For instance, rubrics for self and peer-evaluation, portfolio systems, and student-led conferences, all might serve to promote student self-efficacy.

**Rubrics:**

Self-evaluation is defined as students judging the quality of their work, based on evidence and explicit criteria, for the purpose of doing better work in the future (Rolheiser & Ross). These explicit criteria may be provided through the use of a rubric.
Saddler (2004) emphasizes rubrics as a student’s, rather than a teacher’s, tool for self and peer-evaluation and empowerment. With that in mind, students should share ownership in creating the rubric. Rubrics should also always be written in language that students can understand (Andrade, 2000).

Saddler (2004) explains that rubrics teach as well as evaluate. Students use them as checklists and guides when working and when assessing. Further, the scaffolding provided by the use of a rubric helps to increase self-efficacy through strategy instruction. One prime characteristic of struggling learners and low efficacious students is that they do not know what strategies to use or how to use them (Walker, 2003, p. 179).

Using rubrics to self and peer-assess promotes self-regulation by giving students some of the responsibility for judging written work instead of placing that responsibility solely on the teacher. In regards to editing as part of assessing, Jacobs (2006) argues that the teacher’s job is to teach the students how to edit, not to edit for them. Jacobs also states that the revision and editing process is not only true for written products, but for visual and oral performances as well (2006).

Further, teaching them to use the instructional rubrics will help them to internalize the standards of quality (Andrade, 2000). As Jacobs (2006) says, “A rubric is not a grading system. It is a lesson in what constitutes quality. It is a declaration of expectations and a means of self-assessment for the student. Students are more likely to be able to perform well if they know what constitutes quality performance. A rubric can become a self-fulfilling prophecy.” Evidence about the positive effect of self-evaluation on student performance is particularly convincing for difficult tasks, especially in academically oriented schools and among high need pupils (Rolheiser & Ross).
Portfolios:

Another way assessment may be approached so as to positively impact student self-perception is through a portfolio system. Teachers can use portfolios to help students evaluate their success on various activities and show them their progress over time. Students revisit their work, discussing things that they did well, contributing to building confidence. This rethinking of the learning process involves students in evaluating their learning and establishing future goals for learning rather than performance. They select artifacts or pieces of work that demonstrate what they know and can do. Students also write a reflection statement explaining what each artifact demonstrates. Portfolios give students the opportunity to share their successes. Teachers and students focus on strengths and students define their successes, thus cultivating self-efficacy (Walker, 2003). Although disadvantages to portfolio assessment may include the amount of time they require to grade in addition to the subjectivity that is difficult to avoid, overall they may provide students with a sense of completion and accomplishment.

Student-led Conferences:

When student-led conferences are coupled with the use of portfolios, students assume more responsibility for their learning and see connections among and between their learning in and outside of school (Conderman, et al., 2000). When the parents come to the conference, the students review their work, showing their parents what they can do. The student-led conference creates a context where students discuss goals in terms of what they are learning rather than the grades they are receiving (Walker, 2003). Tasks that, in the past, would have been considered a failure experience are used to describe what students need to develop (Walker, 2003). Successes are demonstrated to parents, as
well as the reading and writing the students are doing in class. Both portfolios and student-led conferences focus on what students are learning rather than a performance goal of getting better grades than others. This focus develops self-efficacy because all students are focusing on what they can do and how they are achieving their goals (Walker, 2003).

**Summary**

In summary, a review of the related literature begins with the notion of grades being overemphasized and more importantly, not truly indicative of learning. Additionally, research about self-efficacy has proven the positive relationship it has to student effort, motivation, and achievement. Low self-efficacious students are less engaged so as not to reveal ignorance, and they also extend less effort as a result of feeling without control over their own learning. Contrastingly, when students are engaged they note their own progress, which enhances self-efficacy. Thus, both engaging students and making progress explicit should be important goals for teachers to maintain.

Assessment should be learning-oriented rather than performance-oriented, emphasizing what students have learned, and how they have progressed. Finally, students should also be involved in the actual assessment process, engaging them and empowering them.

Self and peer-assessment, portfolio systems, and student led conferences are suggested ways of accomplishing these requirements. They actively involve the students in the assessment process giving them responsibility, and they stress and display what the students have learned, while de-emphasizing grades. Further, instructional rubrics for self and peer-assessing serve as a guide and checklist to help students help themselves perform better.
This study will use this body of work as a basis for examining the impact of alternate assessment methods, such as those previously discussed on student’ self efficacy.
Chapter 3

Research Design

Context and Setting

School District:

This study was completed in a school located in the city of Camden, in southern New Jersey. Camden, which is approximately 9 square miles of land, was estimated to have a population of 79,904 people according to the US Census Bureau in 2000. The racial makeup of the city was 38.82% Hispanic or Latino, 16.84% White, 53.35% Black or African American, 0.54% Native American, 2.45% Asian, 0.07% Pacific Islander, 22.83% from other races, and 3.92% from two or more races, while 8.9% were foreign-born. There were 24,177 households out of which 42.2% had children under the age of 18 living with them, 26.1% were married couples living together, 37.7% had a female householder with no husband present, and 27.9% were non-families. (Wikipedia, 2007)

For residents 25 years and over in Camden, 51% have completed high school, 5.4% have a bachelor’s degree or higher, 1.9% have a graduate or professional degree, and 15.9% are unemployed. Based on 2006 data from the United States Census Bureau, 44% of the city's residents live in poverty, the highest rate in the nation. The city had a median household income of $18,007, the lowest of all U.S. communities with populations of more than 65,000 residents, making it America's poorest city. (Wikipedia, 2007)
Camden has been also been ranked as the nation's most dangerous city in 2004 and 2005. Despite this however, this historic city has many positive things to share educationally, including several historic preservation areas, the Walter Rand Transportation Center, a medical school, major health care facilities, and the urban campuses of Rowan University, Rutgers, the State University of New Jersey and Camden County College. The Thomas H, Kean New Jersey State Aquarium at Camden and its Camden Children's Garden, and the W.W.II Battleship, USS New Jersey are additional educational attractions.

Camden’s K-12 district has about 19,000 students attending 23 elementary schools, five middle schools, two traditional high schools, two magnet high schools and an alternative high school. District educational programs include computer-supported classroom instruction, well-defined curriculum and instruction for average, academically talented and special needs students, as well as, specialized study in allied health and the creative and performing arts in the magnet high schools. (Sims-Foster)

A full range of school-to-career education is available to our students, including work experiences, and the high schools all maintain traditional college preparatory programs. All district schools value the importance of community service and engage in community-oriented projects and programs throughout the school year. Extracurricular activities also serve to highlight the district commitment. (Sims-Foster)

**School Community:**

Cooper’s Poynt Professional Development School is a preK-8 school that works in conjunction with Rowan University to serve the children of North Camden. There are 707 students in the school (51% male, 49% female), with a teacher-to-student ratio of
There are currently three heterogeneously-mixed classes for each grade level, one of which is an inclusion classroom. There are also three self-contained multiage classrooms within the school as well. The percentages of students by ethnicity are 59% Hispanic, 40% Black, and 1% White. Further, 82% of students are eligible for free lunch, while 9% receive reduced lunch.

Cooper’s Poynt is divided into smaller learning academies. The Creative Learning Academy is home to grades Pre-K to 2, the Rising Star Academy serves students in grades three through six, the Middle School Preparatory Academy consists of 7th and 8th grades, and the Visual and Performing Arts Academy provides instruction in art, dance, and vocal and instrumental music, as well as a music theater workshop. In the technology training room teachers are trained to integrate the curriculum through the use of technology. The two technology labs students are receiving instruction to prepare them to function in this technological world.

Strengthening the home-school relationship is an important goal of Cooper’s Poynt. There is a Parents’ Center and a Parent Advisory Council which work together to offer parents and guardians’ workshops, informational meetings, and volunteer opportunities throughout the learning community.

Classroom Community:

The classroom in which this study was conducted was the student teaching placement of the teacher researcher. It is a 4th grade inclusion classroom, co-taught by a male and female, that contains 19 students total. Four of these students have IEPs, while there are about three or four others who significantly struggle as well.
Research Design

This research design is closely related to what one would call a "phenomenological study" whereby people's perceptions and perspectives are the focus of the project.

Using a qualitative data collection approach, I began by recording informal observations of students in their daily routines into my teacher field observation journal. In order to get a feel for those students who maintain low self efficacy and confidence, I made note of student actions and comments that portrayed low participation, low effort, and low persistency with their work. I compared my observation findings to the class grade book and IEP list to determine if low efficacy corresponded with poor grades.

In order to compare the self-efficacy impacts of traditional assessment methods to those of alternate assessment methods, I chose two units of study to teach – the first by using traditional methods (lecture, read, test, grade) and the second using alternate assessment methods that I previously discussed. These methods include the use of instructional rubrics, portfolio assessment, and student-led conferences in order to empower students, give them choice, and promote learning rather than solely grades.

Using a survey that I created personally for this project, the students rated their self-efficacy prior to instruction of the first unit of study. I took these survey results and compared them to my prior observations and predictions. At the end of the chapter, the students filled out a second survey which I created for post-assessment ratings. These survey results provided me with the student self-perceptions of their knowledge base for this topic after having taken the formal test. I then compared these student opinions with their results to see how accurate they were in predicting their performance level.
Just as before, the students took the self-efficacy survey again, prior to beginning the second unit of study. I asked myself, “Did students alter their perceptions after receiving the grades from the previous test?” Before I started instruction for the second unit of study, I explained to the students how and why we would be doing things differently this time around. We engaged in a discussion about multiple intelligences and various learning styles. Comments made by students during this discussion serve as an additional source in data collection. Additional data was added to my teacher journal based on the observations and anecdotes I recorded about my instruction and explanation of assessment methods to the students – that is, about rubrics, peer editing, and most importantly the portfolios we created and the student-led conferences.

Once the students completed their portfolios and student-led conferences, they took the post-assessment survey a second time – this time, individually while at the conference with me. Following the conference and survey, I ended my data collection with student interviews. While the surveys provided information on how students felt about themselves, these interviews provided insight on how students felt about the various activities, assignments, and methods of assessment used.

Data Sources:

For this study, I have included four different sources of data, as I explained in detail above. The first source is made up of my observations which I recorded in my teacher researcher journal. These include the initial observations about student participation, effort, and persistence, as well as any other observations of the same sort that I recorded later in time.
My second data source consists of the student self-efficacy surveys taken before each unit, and after the unit assessment.

My third source comes from student comments that I recorded during or directly after our class discussions about multiple intelligences, different learning styles, and the portfolio system we would be using for the unit of study.

Finally, the student interviews that I conducted after the student-led conferences became my fourth and final data source. These interviews provided personal and truly qualitative information that can be used to help determine if the alternative methods of assessment had some impact on the student self efficacy.

Documents such as IEPs and student records might also be included in my data sources since I used them for various comparisons throughout the project.

Data Analysis:

Once I collected all my data, the next step was organizing it. Taking each source one at a time, I developed ways to separate important information, and to compare data. I collected all the surveys, keeping all four sets separate. Using my own rating scale, I determined a level of self efficacy for each survey and organized that information into a chart. I did this for all four surveys, allowing me to easily compare results across surveys.

As for the interviews, I went through the responses and highlighted those that seemed particularly insightful. This helped me filter out less important information. I used the same technique for my teacher research journal. With three different colors, I highlighted significant student comments, some of my anecdotal notes, and my personal observations that seemed useful.
Once this filtering process was through, I was better able to look at my data more comprehensively – make comparisons, correlations, and determine some overall findings.
Chapter 4
Research Findings

Introduction

The following chapter presents the results of the surveys and student interviews, as well as the student commentary and observational data collected. Some of the data is described through charts while other data is described in narrative form with quotations and transcripts of student views and opinions. The findings of the study based on these data sources revolve around the two major themes of self-efficacy and alternate assessment. The data collected show the opinions of students toward using the alternate forms of assessment as they expressed their likes and dislikes, as well as how it made them feel. The data also attempts to show whether the use of alternate assessment tools had any impact on the students’ self-efficacy, through the use of the self-efficacy survey results. Pseudonyms are used to replace actual student names.

Observational Data

"Today I spent a good portion of the day watching Sara. The class was being taught a new concept in math and so all eyes were on the board. She sat quietly and at first, stared intently at the teacher trying to follow along. Not long after though, she glanced out the window and let out a breath of air as if to say ‘forget this.’ She turned her head back to the board and squinted for a just a moment to give it one more shot, but then blatantly lost all focus. It’s obvious that she didn’t understand what was being taught, and it’s obvious that, to her, learning was a lost cause.” (Teacher-researcher journal, February 22, 2007)
This excerpt from my teacher-researcher journal describes one student who
displayed low effort, low persistence, and very little participation while in class. This
student, along with 3 others, was predicted initially, through observation, as having very
low academic self-efficacy. Together, these students generally represented the first
students to stop paying attention, start conversation with others, stare blankly away from
the teacher, or doodle/fidget. When I reminded one student to pay attention to the teacher
at the board, she whispered, "But I don’t get it!" It was obvious that little effort was put
forth, and even less persistence was evident. At another point in time, while walking
around helping and checking up on student progress during a writing assignment,
students made comments such as "I don’t care, whatever," "I don’t know what to do. This
is all I’m doing."

After having checked the academic background for these pupils, it turned out that
3 of the 4 of them were classified students, while the other was another low-functioning
student without an IEP. Taking into account that low efficacious students often show
little effort and persistence, I predicted that these four students would show low self-
efficacy when taken the surveys at a later point in time. As both Akey (2006) and
Margolis & McCabe (2004) describe, students convinced that they can’t, don’t even try.

The following is an excerpt from my teacher-researcher journal written on a day
that the students were working on a writing assignment for the research unit of study.
This excerpt presented an intriguing situation. While the higher-functioning students
were typically efficacious, it seemed as if when presented with a challenge – something
they weren’t sure they could excel at – their effort level dropped. If this was consistent, would it affect their self-efficacy?

“Today while working on the writing assignment, I noticed a few of the higher-functioning students performing under-par. They seemed to be putting much less effort into the writing assignment than they usually do. I was surprised because the rest of the class was really focusing and progressing with good work. I explained to them that this work is not their best nor their average, and that I needed to see more. But they just sat there with their cheeks in their palms. They sighed, rolled their eyes, and whined about having to add more or fix what they had. I asked myself, ‘Are they not comfortable with this type of assignment? Is it out of their comfort zone?’ Perhaps they have gotten too confident in their normal work that something different – a challenge – is actually un-motivating and undesirable to them? It reminds me of children quitting a board game when their not winning.” (Teacher-researcher journal, April 19, 2007)

Discussion Commentary

Before the second unit of study commenced, a discussion was held with the class about what sort of activities and assignments would be taking place in the weeks to follow. The portfolios and the student-led conferences were explained in detail, as were the instructional rubrics and peer-editing checklists (both of which were referred to as “Check-Mates.”) After explaining the portfolio assessment and student-led conferences, and introducing the other tools to the students, a more in-depth discussion took place about the reasons for, and advantages to using these new procedures.
In a somewhat inspirational, motivational way, I spoke to them about Gardner's theory of multiple intelligences (in terms a fourth grader could understand, of course). I emphasized the idea that each person is smart in his/her own way, and each person has something to offer another person and the world. Similarly we spoke about how sometimes it's easier to focus on what we do wrong, but we should really try and recognize all the things we do well, and all the knowledge we _do_ have. The class then participated in a small group exercise that required each group member to compliment another member by pointing out something the student is good/smart at. Volunteers were then called on to share some of the remarks with the class. The following are some remarks noted in my teacher-researcher journal:

“I said that Brian is really smart at making plays for basketball...He is...I wish I could make those plays.”

“Danielle is really good at making friends. I’m more shy so it’s harder for me.”

“I said that math comes really easy for Jon. And I like reading better than math, so lots of times I ask him for help.”

“Layna is smart when it comes to art, because some of her drawings are really good and I couldn’t ever do that.”

On a different day, prior to using the instructional rubrics for the first time in the unit of study, a discussion revolving around the topic of taking ownership over learning came about. I spoke to them about how all of them can learn and grow, and although everyone needs help, each of them can take on challenges on their own. I explained to the students that using these rubrics will help them succeed with less help than usual.
Students were asked, for homework, to reflect upon a time when they did something on their own that they originally thought they wouldn’t be able to do. The next day students came in with some interesting anecdotes – running a certain time in track, cooking a surprise dinner for parents, getting a perfect score on a spelling test, etc. I emphasized to the students that if they put their minds to something, they can achieve their goal. This discussion was influenced by the literature, as Margolis & McCabe (2004) suggest that teachers should stress that competence is a changeable variable.

Survey Results

Table 1. Bar Graph of Self-Efficacy Survey Results

(x-axis = surveys, y-axis = # of students)

18 students took a total of four surveys that consisted of questions related to their self-efficacy and academic self-perceptions. The first and third surveys were given prior to starting a unit, and they posed slightly different questions than did the second and fourth surveys which were given post-unit assessments. Hence, there were two different surveys. (Appendix A: Student Surveys)

During the first survey (taken before the 1st unit of study was taught), 4 students ranked with high self-efficacy, 6 with medium, 7 with low, and 1 with very low self-efficacy. After the second survey (following the assessment) the numbers virtually
stayed the same, except for one student dropping down from low self-efficacy to very low self-efficacy. By the third survey, which was taken prior to the start of the 2nd unit of study (and used the alternate assessment methods), the graph results mimicked the results from the first survey. However, by the end of the unit, after the portfolios were completed and the student-led conferences were through, the numbers on the graph changed somewhat. The fourth survey shows 5 students with high self-efficacy, 8 with medium, and 5 with low.

When comparing the surveys taken after the alternate assessment methods were implemented to those taken previously, one can see that the class self-efficacy scores increased overall, as the high and medium numbers increased and the low and very low numbers decreased. The high self-efficacy numbers increased by 1, the medium self-efficacy numbers increased by 2, the low self-efficacy numbers decreased by 2 (compared to surveys 1 and 3), and the very low self-efficacy numbers dropped to zero from previous numbers of 1 and 2.

Of course, it is reasonable to question whether the self-efficacy scores increased solely because of the assessments themselves, or if there were other influencing factors. Perhaps the discussions about multiple intelligences and taking ownership over one's own learning might have opened some of the students' eyes or given them a boost of confidence. Either way the surveys showed that self-efficacy scores went up after the end of the unit of study taught in the less traditional manner. The interview questions, of course, give more personal insight as they come straight from the students. The responses may help one to understand why the survey results show what they do.
Interview Responses

Once the second unit of study (which utilized instructional rubrics, peer-editing checklists, portfolio assessment, and student-led conferences) was completed, individual interviews were held with each student in the class. The purpose of the interview questions was to reveal students’ personal opinions about the various alternate assessment methods used. This type of data is important because it helps explain “why” the survey data shows what it does.

When asked about the use of instructional rubrics and peer-editing checklists, both of which were known to the students as “Check-Mates,” 16 out of 18 students felt them to be helpful, while 2 students expressed their disinterest in them. One student in favor of these tools stated, “I liked them because I didn’t have to ask the teachers for help that much.” Another commented, “It [the instructional rubrics] helped remind me how to fix my story and what I was writing.” In reference to peer-editing, one student responded, “Sometimes it was annoying because I couldn’t understand what the other person was writing and there were a lot of mistakes to correct. And I couldn’t fix them all. But I thought it was good to use them because it lets us help each other write better.” When encouraged to comment on the way these tools made them feel while using them, one boy shared, “I felt like I could get a good grade on my own without needing help because I knew what I had to check over.” Another girl mentioned that she felt “more confident” using these tools. In fact, upon inquiry, all 16 that favored the instructional rubrics claimed they felt they would have done more poorly without them. Furthermore, these same 16 of the 18 total students said that they enjoyed checking other students’
work. The two students who did not favor either of these self-assessment tools felt that they were “annoying” and “too much work.”

Students were then asked to share their thoughts regarding the portfolio assessment. A total of 17 out of the 18 students stated that they enjoyed creating the portfolios for one or more of the following reasons: it was fun; it allowed them to do a variety of assignments that differed from the usual routine; it allowed them to choose which assignments they wanted to include in their portfolio to be graded on; it challenged them to be creative. However, when asked the question, “Do you think you would receive better grades by using portfolio grading or by taking regular chapter tests?” only 15 of the 18 students felt they would perform better using the portfolio system.

The three students who felt they faired better with regular tests were actually higher functioning, bright students. When asked to explain why they felt this way, I received responses such as, “I just think tests are easier for me,” and “I always do really good on tests, and I barely have to study. So I think I would probably do better on tests.” Interestingly, these results somewhat support my previous observations that predicted a resistance from the higher functioning students to types of assignments outside of their comfort zone. It seemed very likely that these students have become so used to excelling without effort, that effort was frustrating and discouraging to them.

The students were next asked to express their opinions regarding the student-led conferences. The conferences themselves were not done as parent-teacher conferences. Rather, it was solely the student and the teacher (in this case, the teacher-researcher). The student presented, explained, and reflected upon the accomplishments he/she selected to include in the portfolio. Note that these conference presentations were rehearsed, and the
students practiced and role-played with one another in preparation to present his/her portfolios properly.

Student responses to the interview question that asked them to give their opinion of the student-led conferences reflected a generally positive view on the subject. Multiple students stated that they were very nervous giving the informal presentation, but noted that since they practiced and rehearsed for days beforehand, they were able to handle the pressure. There were 4 students who each had missed at least one rehearsal due to absences. These four expressed less of a liking toward this procedure than the other students – most likely because he/she felt unprepared or nervous. Overall, upon inquiry, 16 of the 18 students claimed to like the student-led conferences, and would willingly do them again.

The following are some excerpts from the student interviews about student-led conferences: “I liked it because we got to practice, and I got to explain everything I learned about.” “I was nervous but I knew what I was going to say, so I think I did good.” “I like it because I was proud of my work and I wanted to explain all about it.”

Findings

The results of this study seem to support alternate assessment as a means to promote student self-efficacy. In summary, according to the survey outcomes, the class self-efficacy increased on the whole after the implementation of alternate assessment tools used in teaching a unit of study. The survey showed the number of students who ranked with high and medium self-efficacy increased, while the number students who ranked with very low self-efficacy dropped to zero.
Student interviews were held in hopes to find out what caused the students to rate themselves with higher self-efficacy after the unit of study was taught with alternate assessment methods in place. Interview data showed that almost all the students (and all the lower-functioning students) preferred the alternate assessment methods. Students predicted that they would receive better grades because of these assessment techniques. Interview data also showed that some of the higher-achieving students seemed to either prefer test-taking, or simply felt that they performed better on ordinary tests, even though they liked the portfolio assessment and other tools used.

According to observation data, students who show less effort and persistence generally do have lower grades, while at the same time higher-functioning students seem to show less effort when challenged to do something that required much more thought on their part than usual in order to perform at the level expected of them. Finally, according to data collected from student commentary during discussion, students seem to grasp the concept of multiple intelligences and variety in learning styles. This discussion was held with hopes that students internalize the fact that people can offer intelligence in many ways.
According to research, low efficacious students place too much emphasis on grades, and feel they have no control over their learning. (Walker, 2003; Linnenbrink & Pintrich, 2003). It is also said that low efficacious students display little effort or persistence as a result of these feelings. Traditional assessment, as research suggests, only puts these students at more of a disadvantage. It is said that traditional assessment methods separate process from product, and suggest that grades are representative of learning. Traditional assessment treats learning as a passive process.

Margolis and McCabe (2004) note the importance of making student progress explicit, and providing feedback about what students are doing right. Additionally, they recommend that teachers need to foster the belief that competence or ability is a changeable, controllable aspect of development. This study attempted to explore alternate assessment as a means of accomplishing these recommendations, and thus promoting students' academic self-perception.

This study examined alternate assessment methods as a means of improving student self-efficacy by recognizing various learning styles, empowering students, and by establishing a learning orientation that focuses on what students have learned instead of what they have not. These goals were all worked toward throughout the research. Progress was made explicit through informal means such as group discussions and
teacher praise, and more formal means, such as the student-led conferences themselves. Emphasis was placed on what the students did right, rather than wrong, as well through group discussions about multiple intelligences and activities that recognized the various "smarts" of the class. Furthermore, good work and correct answers were made public to the class frequently, especially if they came from a student with low self-efficacy. Additionally, some informal assessments that were implemented required students to list a certain amount of facts they learned – leaving which facts up to them. Students were empowered as self and peer assessment techniques were used throughout the unit of study. Students were also empowered by being given a choice when it came to selecting assignments to be included in their portfolios.

The results I found after all of this took place suggest that assessment may, in fact, impact self-efficacy. Surveys indicated that the self-efficacy of the class increased after a unit of study utilized various alternate assessment methods. Student interviews showed that the vast majority of students preferred the alternate assessment tools and felt they performed better with them.

Other data showed that some of the top students in the class put forth the least amount of effort when it came to the assignments required in the second unit of study. These students understood that the purpose of the variety in assignments was to accommodate different learning styles, but they expressed that they were more comfortable taking the types of assessments they were used to. These students claimed they would rather take regular tests than use the portfolio assessment as their means of obtaining grades. The lower-functioning students, on the other hand, preferred the portfolio assessment and felt it would benefit them grade-wise.
Finally, students revealed a positive reaction to the discussion and activities that focused on recognizing strengths and smarts off all kinds in peers. They also responded well to discussions about taking ownership for one’s learning, and having confidence in one’s self.

Implications and Recommendations

After examining the data I collected from observations, student commentary, student surveys, and student interviews, I have identified a few ideas and implications for future research on the topic of self-efficacy and assessment.

For one, it would be beneficial to conduct similar research regarding assessment and self-efficacy in other grade levels. It may be much more difficult to alter the self-perception of an older student, than a younger one. Students in younger grades are just beginning to build self-perception, and so adjusting the assessment context at a young level might prove to be most beneficial. Certainly it would be interesting to see what further research would find in regards to this area of study.

Future research of this kind also might focus solely on higher-functioning students who typically have high self-efficacy. In this study, the majority of the class was much lower-functioning than the few top students. Perhaps because of this, the brighter students fell into a comfort zone where they were accustomed to receiving high grades with little effort. I would be curious to see what further research on the self-efficacy of high-functioning students, in this type of situation particularly, would find.

As far as recommendations go, I think there is something to be said of the higher-functioning students preferring the regular routine assessment over the alternate assessments, and declining in effort when it came to a new type of assignment. It seems
necessary to prevent these students from becoming too comfortable and losing motivation. When effort becomes discouraging, it is surely a problem. It would be a shame for bright students to lose self-confidence when faced with a challenge. Thus, I recommend that we as teachers continually look to challenge all students according to their instructional levels so they become immune to taking on new and exciting assignments with effort, and experience success in doing so.

In regards to portfolios and student led conferences in general, although I found that they were beneficial assessment tools, it is unrealistic to use them routinely due to time restraints. However, as teachers we should take what the research on self-efficacy suggests, and the experience from this study that supports it, and attempt to meet the goals other ways. Instructional rubrics for self and peer editing seem to help empower students and properly facilitate attributions. Also, making speeches and holding discussions about these topics with one’s students are important and necessary. Especially at a fourth grade level, students need inspiration and encouragement consistently so that they may internalize and believe that they have what it takes to succeed.

In conclusion, this study showed that there are many students out there that have low academic self perceptions. As teachers, we need to ask ourselves why this is. While there might be an array of factors that stem from home-life or past experiences, we teachers should make it our goal to help these students build the confidence and self-efficacy they need to learn. We should be aware of which students show little effort, persistence, or participation. We should strive to make their learning known to them, and we should be overtly impressed by what students have learned.
We should ask ourselves, “Are the high-functioning students being challenged enough? Am I allowing them to get by with ‘just good enough’ or am I pushing them to succeed?” We should aim toward getting them accustomed to “stepping up to the plate” and taking on new obstacles, so they may find out for themselves that they can succeed with effort. At the same time, we must challenge the low-functioning students on their own instructional levels so that they may discover the same.

Overall, whether or not it is completely possible, we should still strive to create a class full of students who believe in themselves, and who experience well-earned success to keep this belief alive throughout their education.
References


Walker, B. J. (2003). The Cultivation of Student Self-Efficacy in Reading and

Appendices
Appendix A

Student Self-Efficacy Surveys
Self Efficacy Survey 1 & 3 (pre-instruction)

1. How smart do you feel in school right now?
   
   0 1 2 3 4 5

2. How much do you think you will understand about this next chapter?
   
   0 1 2 3 4 5

3. How well do you learn about new things?
   
   0 1 2 3 4 5

4. How hard do you try to pay attention when learning new things?
   
   0 1 2 3 4 5

5. What grade do you expect to receive after learning about this next chapter?
   
   0 1 2 3 4 5

Self Efficacy Survey 2 & 4 (post-assessment)

1. How much smarter do you feel about this subject?
   
   0 1 2 3 4 5

2. How much do you understand about this chapter?
   
   0 1 2 3 4 5

3. How hard did you try during this past chapter?
   
   0 1 2 3 4 5

4. How much of what you learned do you think you will remember?
   
   0 1 2 3 4 5

5. What grade do you think you will receive?
   
   0 1 2 3 4 5
Appendix B

Self-Efficacy Survey Results
Survey Data

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0-5 = virtually no self-efficacy
5-8 = very low (v)
9-13 = low (L)
14-17 = medium (m)
18-21 = high (h)
22-25 = very high
Appendix C

Student Interview Questions
Interview Questions

- What did you think about using the Check-Mates/instructional rubrics?
  - Do you think you would have done just as good without them? Why?

- What do you think about peer editing?
  - Did you like helping correct others’ work?
  - Do you think you made good suggestions for your peers?
  - Did you receive good suggestions from others?
  - Did you feel smart correcting other students’ work?

- Did you enjoy the portfolio project?
  - What are some of your likes and dislikes?
  - Did you like choosing your assignment? Why?
  - Which assignment was your favorite? Why?
  - Would you rather take a test or use the portfolio system for a grade? Why?

- What did you think of the student-led conferences?
  - How did they make you feel?
  - Would you want to do them again?

- What makes you feel smart?
Appendix D

Interview Results
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<td>Did you feel smart correcting other students’ work?</td>
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<td>Did you enjoy making the portfolio?</td>
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<td>Would you like to do the student conferences again at another point in time?</td>
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