The Effects of Self-Assessment on Academic Performance

by Kathryn Price

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Table of Contents

Abstract

This study was designed to determine whether self-assessment and self-directed learning impacted student achievement for students in a third grade math classroom. Students were not randomly selected. The students were taught a self-assessment strategy as a whole group and it was reinforced in small group math instruction. At the beginning of the year, they were given a fall MAPP score to determine their baseline in math. During the study, they were given three pretest and posttests, as well as a winter MAPP test to determine their progress. The results indicate that there was a significant change in performance due to being taught self-assessment strategies.

CHAPTER I

OVERVIEW

The topic of this action research is finding effective ways to have students assess their own learning and direct their learning within the classroom. In a third grade classroom, students are assessing their own learning to identify ways that they can improve their own work and show their understanding of a given skill or concept. By self-assessing where they are performing within a skill, they can be more honest about the help they need. This will further their academic performance by allowing them to get the instruction that is needed to demonstrate mastery of the necessary skills. The self-assessments are given by teachers to students to assess their learning on cumulative tests, pretests, and culminating events. These self-assessments are on a 0-4 scale, with 4 being the highest score a student can give themselves.

Not every child is able to self-assess their learning in the classroom. Oftentimes students think they have a better understanding of a concept than they actually do, and therefore rate themselves higher than they are actually performing in the classroom. At this time, the teacher has observed the students writing fours for themselves for every skill, even before the skills have been taught. Instead of marking themselves with a zero or a one which is where they are performing, they will rate themselves a four. Other students will mark themselves a two or a three when they are at a four rating. They are able to verbally teach another student how to do a skill or perform a task. The self-assessments are to identify areas of strengths and areas of weakness. Both of these circumstances present a challenge for the teacher and the learner. The goal is to ensure that all children be aware of their own learning needs and strengths within each unit.

Statement of the Problem

What is the impact of teaching students self-assessment of their learning on their academic performance.

Hypothesis

If students are taught self-assessment strategies and they use self-assessment and self-directed learning in the classroom, there will be no effect on academic performance.

Operational Definitions

The independent variable in this study was teaching strategies for self-assessment that the students will receive in the third grade math class. The entire class will receive one self-assessment strategy. The dependent variable in this study will be the student performance on pretest and posttests. Students will take the post assessment provided by the county, as well as a pre MAP test and a winter post MAP test. The scored tests are defined as the student achievement.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review seeks to explore the impact of student assessment on academic performance in the classroom. Section one provides an overview of the importance of assessments in the classroom. Section two explores the forms of self-assessment and the means of teaching it to students. Section three explores the rationale of self-assessing and the importance of students' engagement in their learning. Section four explores the importance of self-directed learning through self-assessments. Section five explores the idea that self-assessment has an impact on student performance. Section six explores self-assessment as a motivation for students to learn. Section seven explores the teacher's evaluation of a student centered learning environment and students' self-assessing their learning.

The Importance of Assessments in the Classroom

A substantial amount of class time is devoted to student's assessments of learning, which involves exposing students to a variety of assessment tasks. These tasks develop the students beliefs about their performance (Dignath & Büttner, 2008) Students' perceptions of these assessment tasks in terms of difficulty, importance, interest, complexity, and value communicate certain characteristics of the classroom assessment environment , which in turn influences students' motivational beliefs and achievement. Assessments are given by teachers to students, and may even include high stakes state testing given by the state a few times a year to determine success of students and/or schools. High stakes external tests always dominate teaching and assessment; however, they give teachers a false model from which to derive their own assessments. These poor models for formative assessment are due to their limited functions of providing overall summaries of achievement rather than meaningful diagnosis. The grading and

giving of marks are overemphasized, while giving meaningful advice and the learning function are underemphasized. This lack of feedback that teachers give low achieving pupils causes these students to think that they are not able to learn. Rote recall tests that are used by teachers encourage rote superficial learning, even when teachers say that they want to develop understanding. Many teachers seem unaware of the inconsistency (Black & Wiliam, 1998).

Although assessments are a necessary component of teaching, they must be used in a meaningful way to both students and teachers. Teachers could use this information to derive their daily lessons and students could use this assessment to determine if they were successful in learning the necessary content for a given class. Assessment practices can encourage students to perceive their classroom assessment environments as instrumental learning. First, teachers must be clear about how students' learning will be evaluated. Second, teachers must provide specific feedback, and finally, teachers can show students how mistakes can show that learning can be improved. The use of moderately difficult assessments is necessary to gain growth. Many different types of assessments are utilized in classrooms. Some teachers may elect to use alternative assessments and use pre-established criteria for evaluating the students' work prior to giving the evaluative task (McMillan & Hearn, 2008).

Forms of Self-Assessment and Teaching Self-Assessment

Self-assessments are defined as development portfolios which may contain artifacts like pictures, documents, photos, and videos. The portfolio may document successes or even failures. It may further develop skills that are weak (Kicken, Brand-Gruwel, van Merrienboer, & Slot, 2009). Over the past three decades, the framework for understanding the basis of learning has shifted gradually from a teacher centered to a student centered classroom. This type of approach has put more responsibility on the students for their learning. During this type of learning,

students may conceptualize more about what they have learned and construct more solutions to problems. Hence the students do not depend on the teacher for their learning, but instead seek to find knowledge on their own (Sungar & Tekkaya, 2006).

Students monitoring and evaluating the quality of their thinking and behavior when learning and identifying the strategies that improve their understanding and skills may also be another form of self- assessment. Self-assessment can occur when students are able to judge their own performance and identify areas that they still need to work on in order to get the desired grade for their performance (McMillan & Hearn, 2008). Assessments can affect the motivation and self-esteem of pupils and the benefits of engaging pupils in self-assessment deserves careful attention (William & Black, 2010). Teachers often collect marks that fill their record books and give them higher priority than the analysis of pupils' works to discern learning needs, but teaching and learning should be more interactive. By giving assessments, teachers should gain information and knowledge about their students' performance, as well "as their progress and difficulties with learning so that they can adapt their own work to meet their pupils 'needs – needs that are often unpredictable and that vary from one pupil to another." (Black & Wiliam, 1998, p.4).

Self-regulation is the process in which students can activate their prior knowledge, sustain their thoughts, manage their resources for learning, and monitor their own progress. Students who possess the qualities to initiate learning tasks, set goals, and then monitor their progress towards these goals, are more likely to reach higher levels of achievement than are students who rely on teachers to do these things for them.

In order for students to reach this ability to self-assess and self-regulate their own learning, certain behaviors must be present. These behaviors are driven by students' desire or

motivation to want to learn. This motivation then in turn allows them to create the necessary goals in order to gain the knowledge they are seeking. Self-regulated learners appear to be self-efficacious about their own abilities to master a goal. They also appear to possess the ability to think about their own thinking, which is referred to as metacognition. They may also possess perseverance to persist in difficult tasks that require them to use their cognitive abilities to problem solve (Sungar & Tekkaya, 2006). Other components of self-regulated learning may be a time ordered sequence of regulatory activities, such as an overview of an assignment and resources that are available, performance on the task, and then a reflection about the learning.

It is interesting to note that when a study was done about how students felt about this type of learning, one group of students felt excited about the ability to choose one's own literature, while others had feelings of uncertainty. Still others noted that they felt a sense of confidence in the process of selecting learning resources. Studies found that students who are high achieving do have a sense of self-regulation as well as the skills of self-directed learning. They also have the ability to reflect upon their own achievements and their own crucial role in achieving their own goals. They have the ability to initiate their own learning and undertake it (Bannert, Riemann, & Sonnenberg, 2014)

Rationale for Self-Assessing Learning

Educators in most recent years have encouraged learners to become more independent with their own learning by taking on the responsibility for their own learning, addressing the gap between what has been learned and what may be need to be learned. In addition to this training, learners need to self-assess and recognize their own learning gaps, to peer assess, and to use teacher feedback conferencing and other ongoing, learned strategies which empower the learner.

Most recently, formative assessment practices have been refined into a dynamic and reflective approach called "assessment for learning," which involves interactive learning. During this type of learning, the learner is asked to be more actively involved with and participate in their learning to set goals and to assess and carry out their own assessments as well as peer assessments. The assessment for this learning model asks students to understand their assessment goals, for teachers to provide feedback useful to the learner, and for students to adapt their daily lesson planning in consequence of their assessment outcomes. (Colby-Kelly & Turner, 2007).

In classrooms where self-assessment is occurring, cooperative learning has proven to be more effective. As students become more aware of their own learning, they are better able to work with others to find ways to share and use inquiry based learning to gain more knowledge (Dignath & Büttner, 2008). Self-regulated learning implies a set of three characteristics, which are systematic patterns of thoughts, action, and feelings directed at attainment of personal learning goals. A self-regulated learner is one who achieves academic success through delayed gratification, who has developed academic identity, who monitors feedback on their own performance, who sets goals, who has expectations concerning his/her own performance in relation to the contexts of tasks, who maintains focus regardless of distraction and who masters academic challenges using self-verbalization, construction and choice applying appropriate tools and strategies.

The Importance of Self-directed Learning through Self-Assessments

Self-directed learning is important to daily learning in the class room. Self-directed learning includes self-reflection of students' own performances, which requires that students possess a specific set of skills in order to direct their own learning. These set skills are not inherent, and therefore must be taught to students in the classroom. In a self-directed learning

classroom, students are informed of the requirements and are led to complete the tasks through feedback from the teacher. Reflection reports and feedback are indispensable in this type of learning (Kicken et al., 2009). Development portfolios, with a focus on the learning process, are full of progress reports, and reflections and are used for formative assessment purposes. Artifacts that show growth over time can be used to develop skills, and this is where the student's progress begins. In self-regulated learning, students become more efficient in determining their own learning needs. More studies have found that self-regulated learning has a positive impact on students' academic performance (Dignath & Büttner, 2008). In order for teachers to be able to foster self-regulated learning, more information must be given to teachers about how to implement this type of learning in their own classrooms. This constructivist model of learning fosters a more active role in student learning, rather than a reactive role, where teachers utilize data that has already been covered and then move on without making any instructional changes. Students who are actively engaged in their own learning are viewed as cognitively motivated and active participants in their own learning.

Self-regulated learning can be seen in three different forms. It could occur in cognition, metacognition, and motivation/affect. Cognition is concerned with different cognitive strategies, applied learning, and performance on a task that refers to informational processing. Metacognitive strategies are used to control and regulate cognition. Lastly, motivation and affect concern themselves with all motivational beliefs about oneself related to that specific task (Dignath & Büttner, 2008). It has been found that these types of monitoring skills begin as early as 4 years old and develop through the age of 16. In the beginning, these skills take form as classical rote recall at the young age of 4, while they are further developed at age 11 and 12, and can be used by students to regulate their own learning. As children become increasingly aware

of their own thinking, they develop more strategies to monitor their learning. In order for students to fully develop their self-regulated learning, feedback is necessary. The effect was found to be greater when feedback was provided, as well as when students were taking control of the learning process.

The Impact of Self-Assessment on Performance

Self-assessment has been found to be a powerful educational tool for learning. Students are encouraged to participate in a legitimized, elaborated, and systematic process that supports learning. The students take ownership of their learning. Participating in self-assessment helps prevent unfair judgments. Students are also more highly motivated and engaged when they understand the criteria and standards. Through participation in this collaborative community, students are more cooperative and able to peer evaluate and support each other's learning. Self-assessment has been found to have a profound impact on students' performance in the classroom. Assessment involves two inter-related activities. First, there is a development of knowledge and an appreciation of the appropriate standards which may be applied to any given work. Students learn something and know what counts as good work. Second, there must be a capacity to make judgments about whether or not the work involved does or does not meet these set standards (Kicken et al., 2008).

By students participating in their own learning, and thereby understanding this knowledge, they are capable of then assessing if they met the standards of learning. Research has shown that classroom based assessment suggests that student learning and higher task performance are achieved by providing task oriented feedback to students. Students elicit discussion through their assignments and discussions. The teacher gathers evidence during this time of progress towards the goal (Sato, Wei, & Darling-Hammond, 2008).

In addition, there has been a considerable interest in understanding and advancing evidence based practices that facilitate, validate, and support the involvement of students with cognitive disabilities in meeting standards of learning within the general education classroom. By promoting self-determination as a means of meeting these learning demands, more students can effectively progress in the general education classroom. By teaching problem solving skills, decision making, and self-directed learning strategies, more students can make progress within the standards of learning. By teaching goal setting, decision-making, and choice making, students are learning the components of self-directed learning and self-determined behavior. There has been an established literature base for validating the effect that teaching these components has on students with cognitive disabilities. Students with cognitive disabilities can learn to direct their learning and instruction in the context of learning within a general education classroom. It is interesting to note that there have been studies completed that found students with cognitive disabilities did not make the same gains in self-contained classrooms as they did within general education classrooms with same age peers. For example, one study was done in a middle school where they taught five middle school students a specific set of learning behaviors to be exhibited each day during their learning. These behaviors were called "classroom survival skills". These behaviors included being in class when the bell rang, having appropriate materials for learning, greeting the teacher and other students, asking and answering questions, sitting up straight and looking at the teacher and other students when they made comments, and using a planner. Positive behaviors were noted during the study as well as a positive changes in their learning. In a similar study of four high school students, they taught the students to set goals, monitor their work completion, and evaluate their performance towards their goals. Improvements were noted for all students. (Agran, Wehmeyer, Cavin, & Palmer, 2008). A self-

directed learning classroom has been shown to empower students with greater autonomy, establish a more positive approach, increase achievement, and to better help teachers to identify what a learner knows and needs to still learn (Colby-Kelly &Turner, 2007).

Self-Assessment Motivates Students for Learning

Once students have identified whether or not they have met the criteria to have learned content, then they can begin to assess what learning still needs to be completed, and how to go about getting the information needed in order to learn the information. Self-assessment allows students to design a path or model for their learning. This new found knowledge thereby forces the student into self-directed learning. Some students find the self-selection to be challenging and interesting, while others found that freedom creates uncertainty. Training programs that promote self-regulated learning have been found to be motivating for students, as they involve various processes including goal setting, metacognition, and self-assessment, all of which have an influence in various ways. The goal of self-directed learning is to have students take part in their own assessments. This type of program aims to help students construct a flexible knowledge base, become effective collaborators, develop effective problem solving skills, and lastly, be intrinsically motivated to learn (Loyens, Magda, & Rikers, 2008). Teachers give descriptive feedback during goal oriented learning. As a result, students are given specific attainment goals as well as specific improvements, construct achievement, and construct progress (Colby-Kelly & Turner, 2007).

One way a teacher can also assist students in promoting the acquisition of knowledge and skills is to help students regulate their learning by becoming more metacognitively, motivationally, and behaviorally responsible for their learning (Labuan, Zimmerman, & Hasselhorn, 2010).

Teacher's Evaluation of Students Self-Assessing

Student centered learning has begun to shape and change teachers' ideas of what a typical classroom should look like. In the past, teachers would put desks into groups and would teach to the class in a lecture style. Today teachers are seeking ways to teach students in a more interactive, motivating environment. Giving students marks is conscientious but often fails to offer guidance on how work can be improved (Black & Wiliam, 1998) Teachers may find another benefit of self-regulated learners is that they become highly collaborative students. Students seek other student's feedback as they become metacognitive and develop their own sense of self efficacy.

Self-regulated students need to develop a strong sense of self-efficacy and acquire effective study habits in order to engage in productive work, plan for more learning, monitor their time, and use social resources effectively. Students who are not engaged in learning will be at risk (Clark, 2012).

Most empirical studies have found that the vast majority of students lack skills to estimate their performance accurately. Findings suggest that many students are overconfident about their capability to perform on certain tasks. Overconfidence is found to be related to lower performance levels. Miscalibration of learning is a severe problem because the students' own view of how they learned is critical in self-regulating. Those students who overestimate their performance are not likely to spend the required effort to accomplish a task. They may neither engage in effective comprehension, monitoring nor develop appropriate strategies. Moreover they may be unwilling to change their efforts or study methods (Winne, 2010). In order for recalibration to occur, feedback from an external source must provide learners with information about how well they are performing, and can influence how the task is reassessed and how

progress is monitored. As an educator, a teacher must give this type of feedback often for a recalibration to occur in the learning. Students must understand what they did not accomplish, and be given strategic feedback about how to meet these skills or learning goals. Feedback does not inform the student of how to self-regulate, but it does promote the self-regulation process. This makes students more aware of the quality of their achievement, and it motivates them to take a course of action and may thereby influence their performance and their capability. Winne states that students must have multiple experiences and practice with feedback. In order for students to use feedback efficiently, it should be provided continuously on learning tasks (Winne, 2010).

Summary

The literature review examines a wide variety of assessments and students self-assessing their own learning. The literature promotes teachers teaching students how to self-assess their own learning and the benefits behind this type of classroom. The literature agrees with implementing this type of assessment in the classroom to increase student achievement. By creating an environment that allows students to assess their own learning, the teacher is able to better give feedback to students about the quality of their performance. Lastly, the literature tells how to best implement this type of directed learning in the classroom on a daily basis.

CHAPTER III

METHODS

The purpose of this study was to investigate whether or not self-assessing and self-directing learning would have an impact on academic achievement for students in a third grade math classroom.

Design

The study consisted of a quasi-experimental study of the acquisition of math skills. A Baltimore County pretest and posttest was given in math, at the beginning of each math unit to measure the acquisition of skills within a unit of math. It was created in the Baltimore County Math Office by Larry Sizemore. Units 3 through 5 were given. The study took place over 8 weeks. The independent variable in this study was teaching strategies for self-assessment that the students will receive in the third grade math class. The entire class will receive one self-assessment strategy.

Participants

The study was conducted in a third grade classroom in the Baltimore area. This classroom is heterogeneous and consisted of 30 students. The students were from middle class to upper class families. Twenty five students were white, 2 were multi-racial, and 3 were from the other racial group. Eleven of the students were males and nineteen students were females. Within this group there were advanced learners, average learners, and special education students with various needs.

Instrument

The MAP test was used in this study. The teacher compared their performance from the fall test to the winter test. The MAP test is given to every third grader in Baltimore County

Public Schools. It has been tested for validity and reliability by the county Northwest Education

Association assessments, were guided by the Standards for Educational and Psychological

Testing that were developed jointly by the American Educational Research Association (AERA),

American Psychological Association (APA), and the National Council on Measurement in

Education (NCME).

To ensure test reliability, validity, and fairness across all populations tested, the NWEA

Research team regularly conducts a variety of studies and analyses such as: pool depth analysis,

test validation, comparability studies, and Differential Item Functioning Monitoring item quality

to ensure that functioning remains constant across subgroups of students when ability is

controlled.

Procedure

The students were given a Baltimore County pretest for math units 3, 4 and 5 at the

beginning of the unit. This consisted of six questions. This same pretest was given at the

culmination of each unit. The teacher gave each pretest prior to teaching. Then the teacher gave

the same pretest as a post test. The teacher placed the students into groups. Within the classroom

there were three definitive groups of students. Each group was given the same self-assessment

before the units of math were taught. At the end of each unit, a summative assessment was given

to determine their achievement within each unit of mathematical study. Each group was

assessing their academic performance during the units of study and determining if they needed

more re teaching, more skill practice, or challenge work upon completion of daily lessons.

Within the classroom, there are also two other teachers who help deliver daily instruction due to

the grouping and the size of the class. As a result, students were grouped according to their own

self assessments and their daily performance within the day's lesson. In small group math, the teachers further developed their ability to self-assess their performance within the classroom.

Each group was taught the same strategy each week. Since, there were three groups of students, the teacher taught one whole group strategy and three individual strategies. These individual strategies were based on their ability to self-assess about their academic performance and then make changes in their daily performance by seeking out re teaching, skill repetition, or challenging work.

At the culmination of each day's lesson, the teacher gave an exit ticket, which the students used to self-assess their performance. This self-assessment system matched their whole group assessment strategy. It is color coded. Red means "Nope" I did not get today's lesson and need assistance with another strategy or more practice, blue means "Not sure" I need the teacher to grade my work and give me personal feedback about whether I am on the right track or not. Yellow means "Almost" I think I need some more practice to feel strongly about it, but I think I am almost there. Green means" Got It!" I think I did well and I am ready to apply this skill to a more challenging piece of work or application of this skill. Green can also mean that the student feels that they can tutor someone else in the class who is having trouble.
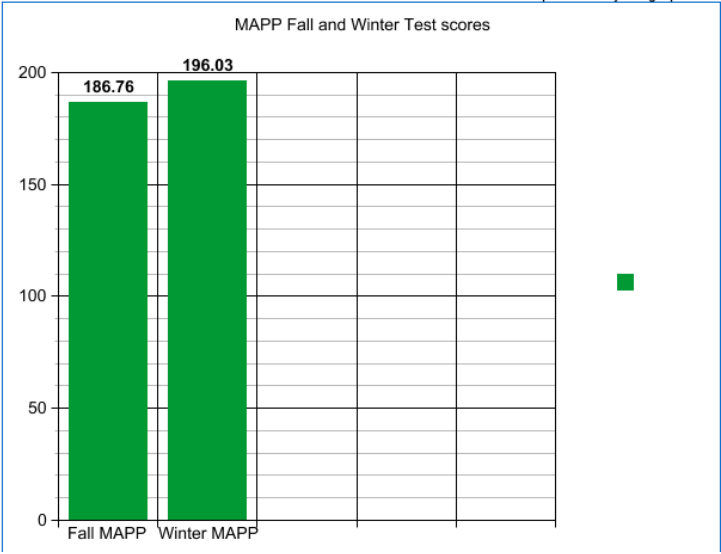
CHAPTER IV

RESULTS

This study was designed to determine if self-assessment strategies and self-directed learning methods impacted student's academics for the third grade math class.

The analysis of the Fall MAPP and winter scores revealed a significant difference of $t(29) = -9.79$, $p < .05$. During the research, the researcher found that students were responding to the intervention. When Fall MAPP test results were compared to Winter MAPP test results, there was a significance difference of $.t(29) = -9.79$, $p < 05$. The mean of the MAPP Fall score was 186.76, which increased to a 196.03. The intervention had a significant result on student performance. Therefore, the null hypothesis is rejected.

In addition to the MAPP test, three tests were given throughout the course of the study. The first pre-test was given on February 8, 2016, and the mean score was 1.06, which significantly increased on the posttest, to 3.88, $t(29) = -13.02$, $p < .05$. The second pre-test was given on March 16, 2016, with a mean score of .133, which significantly increased to a 3.72 on the posttest, $t(29) = -16.6$, $p < .05$. The third pre-test was given on April 19, 2016, with a mean score of .90, which significantly increased to 4.06 on the posttest, $t(29) = -14.83$, $p < .05$.

Table 1: *Fall and Winter MAPP scores*

MAPP Fall and Winter Test scores

	Fall MAPP	Winter MAPP
	186.76	196.03

CHAPTER V

DISCUSSION

The null hypothesis that self-assessment and self-directed learning would have no impact on student academics was not supported. The results indicated a significant change in student's academic scores on posttests. There were significant differences in the fall and Winter MAPP tests, as well as the pre-test and posttests following instruction on self-assessment strategies. Due to there being a significant change in the pre-test and posttest results, there was an indication that the intervention was the cause of the outcome on student's performance.   Due to this significant change in the results, the null hypothesis is rejected.

Theoretical Consequences

During the Black Box study in 2010, Wiliam and Black found that student's performance was enhanced when they were given direct feedback about their work. This enhanced feedback allowed students to become more involved in their own learning. As students became more involved, they became more aware of their own progress and more driven to work on their own to meet goals for learning. Assessment was found to be a motivator, and impacted their overall self-esteem as a result. Students felt more confident to take risks, and more growth occurred as a result of self-assessment and self-directed learning.

In addition to having a positive effect on learning, students who were at risk began to score better on assessments and made more gains than other groups of students who were not as low performing. Frequent assessment feedback greatly impacted students overall performance within the classroom. By being engaged in their own learning, students were more driven to participate in their overall learning. This in turn strengthened their scores on formative

assessments. Students as young as five and as old as undergraduate age, were able to show

significant gains on formative assessments upon engaging in self-assessed and self-directed

learning models within a classroom. During this study, they found that students were very honest

about their performance and were often harder on themselves than their peers were. During the

Black Box Study, the researchers found that students were only able to assess their progress if

they had a clear, decisive understanding of the learning goals. Students must be trained in how

to self-assess their own work in order to be honest about their progress towards goals as well.

During the instruction, the teacher must pick clear tasks that further student's skills to self-assess

and direct their own learning. Not only does the teacher have to create meaningful tasks, the

teacher must also listen to conversations by students, mark work consistently, and provide

meaningful feedback to further the students' understanding of their progress towards learning

goals. During the study, the researcher noted the importance of the teacher being quiet during

work time. Asking too many questions or giving too much information stops the students from

thinking on their own. Instead, the students spoke to one another about their thoughts and ideas,

shared their work with their class or collaborative group, or reflected aloud what they had

learned. By the teacher taking a step back, students were more responsible for their work. This

process evoked thoughtful reflection of the students meeting learning goals. The teacher is there

to give guidance about how much of the goals has been met with meaningful feedback. The

researcher found that this was indeed true. As the study was done in the third grade classroom,

the researcher found that students responded when direct feedback was given, as well as self-

assessments occurring on a daily basis.

Threats to Validity

There are many possible threats of validity in a study of this nature, but no serious threats to this study. Due to the sample being from the researcher's classroom, the selection of students was not random. In addition, the MAPP test was given on the same day and time to each student. It is computerized and not graded by the researcher. As a result, there were no margins of error on the researcher's part. In addition, students were given the same pre-test and posttest. The threat to validity was differential. Students were taught the same self-assessment strategy as a class.

Connections to Previous Studies

The Wiliam and Black 2010 study indicated that self-assessment and self-directed learning would have an effect on student's academic performance. In a similar study done by Wiliam and Black, results indicated that the teaching of self-assessments as well as self-directed learning strategies would yield stronger academic performance on daily learning objectives as well as formative assessments. The researcher completed the same study in third grade. The class was given a self-assessment strategy and they were given direct feedback on a daily basis about their performance, as well as given pre-test and posttest. In addition, students were also given the fall MAPP and winter MAPP test to determine their progress. The researcher followed the same class guidelines and was quiet during work time and careful not to ask too many leading questions that would divert students from making their own assessments of their learning for the day.

Implications for Further Research

While this study did indicate a significant impact on academic performance, it is important to continue research of further impact on student's academic performance. Other studies have yielded results that prove teaching metacognition within the classroom can impact students' performance as well. As educators seek to involve students more and more in their learning, a study of resources that would help the teacher choose a self-directed learning strategy would be helpful. There are many strategies to teach self-assessment as well as self-directed learning. It is important as a teacher to know which ones have proven to be more effective in yielding self-taught, self-assessing, highly motivated students. Self-assessment is becoming more and more important in a classroom environment that is highly rigorous, as well as customized. A perception survey of how students and teachers feel about self-assessment as well as self-directed learning may indicate which strategies students and teachers felt was most effective. It may also reveal trends in student performance in regards to their perception of their performance as well.

Conclusion

Self-assessment and self-directed learning strategies can be taught. As they are taught and monitored, they can have a positive impact on student performance.

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