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The effect of rubrics on second grade students' abilities to write a personal story

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THE EFFECT OF RUBRICS ON SECOND GRADE STUDENTS' ABILITIES TO WRITE A PERSONAL STORY

By
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ABSTRACT

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The purposes of this study were to (a) evaluate the effects of a student-generated instructional rubric on second grade students' (n = 21) abilities to write personal stories and their understanding of the qualities of good writing; and (b) assess student metacognitive behavior resulting from the use of a rubric. Student writing assignments prior to and after rubric instruction were assessed in order to determine the effects of rubrics in improving writing skills. Student interactions and behaviors were observed and noted in order to determine metacognitive performance. A questionnaire gauged student impressions, management, and application of a rubric while writing a personal story. Analyses revealed that the students' writing skills and metacognitive behaviors significantly improved as a result using student-generated instructional rubrics as a tool for teaching how to write a personal story.

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Scope of the Study

Introduction

In many ways rubrics are considered to be somewhat controversial among today's educators. While rubrics are usually among the anticipated topics at educational seminars across the nation, their value as teaching/learning tools continues to be widely debated. Some of the questions that are routinely asked about rubrics are as follows: What is a rubric? What is the purpose of a rubric? How is a rubric designed? What educational value, if any, does a rubric have? (Wenzlaff, Fager, & Coleman, 1999).

According to the growing amount of literature on rubrics, this study is particularly timely for several reasons. First, consider the trend toward open-ended questioning in order to facilitate a two-pronged outcome: (a) to foster the student's critical thinking skills, and (b) to obtain an authentic assessment of the student's skills and knowledge. Now consider how a teacher can more accurately and effectively advance both these goals. As instructional tools, rubrics offer teachers a different and improved method for developing critical thinking and creativity skills. As assessment tools, they provide a consistent basis for grading performance-based student assignments and examinations (Andrade, 2000). According to Skillings and Ferrell (2000):

> Over the past decade many states in the U.S. have mandated fundamental revisions of their assessment practices to include learning tasks that are open-ended, aligned more closely to real-life learning situations and the nature of learning, and involve a variety of measures that inform students of their progress. (p. 452).

Rubrics are quickly becoming the tool of choice for many educators who seek to accurately and fairly measure open-ended or subjective student performance (Skillings and Ferrell, 2000).

Many of the New Jersey state standards, as well as district curriculum goals and objectives, imply that classroom learning experiences should focus on and result in improved critical thinking and creativity skills. Many experienced educators agree that a fair evaluation of such skills would require more unique testing measures. "Rubrics also may be used as part of student portfolios to help students, teachers, and family members reflect on student work, identify process and product skills mastered and not mastered" (Whittaker, Salend, & Duhaney, 2001, n.p.).

Rubrics, especially those designed with student input, serve to empower the student in the learning process. Students who have contributed to the design of a rubric feel a sense of ownership in the product they have helped create. Therefore, not only has the process to develop the rubric been a valuable learning experience, but also as studies have proven, students who feel a sense of ownership are significantly more inclined to internalize and benefit from the experience (Tuttle, 1996).

As the need to develop new teaching strategies for students with learning disabilities grows, rubrics offer an innovative and successful means to that end. Rubrics ultimately empower learning-disabled students in much the same way they empower any other student. For learning-disabled students, the established set of standards provided by rubrics acts as a focal point in their effort to complete an assignment or take a test. As a result, student frustration levels are minimized, and, more importantly, students are better equipped to put forth a quality product (Finson & Ormsbee, 1998).

Finally, because the criteria necessary for completing an assignment or grading a test is clearly indicated on a rubric, parents and students are much less inclined to challenge a grade on the basis of teacher subjectivity or lack of clear instruction. In essence, because rubrics clearly define teacher expectations, issues of this nature are drastically reduced (Callison, 2000).

Statement of the Problem

The purpose of this study was to determine whether instructional rubrics assist students in improving their writing skills and their understanding of the traits of good writing. The study also explored the effect of a student-generated rubric in improving writing skills.

Students who do not have a clear understanding of their teacher's expectations for a well-constructed assignment are clearly in danger of completing unacceptable work. While the thought of this situation occurring in a classroom seems unlikely to many people, the reality is that too many students are uncertain of the criteria required for completing a top quality product. Instructional rubrics eliminate this problem by clearly establishing and delineating specific criteria in an organized and understandable format. As a result, students are increasingly likely to put forth a quality product as well as develop a long-term improvement in or understanding of the skill or concept taught (Goodrich, 1997).

Without a doubt, students across the country continue to struggle in their efforts to improve their writing skills and their understanding of the elements of good writing. While some of the current literature states that rubrics only serve to stifle the writer's creativity and personal voice (Mabry, 1999), other literature supports the use of rubrics

because they establish a clear set of necessary guidelines from which all students may benefit in improving their writing skills (Andrade, 1999).

In response to the criticisms, it is important to bear in mind that rubrics are *guidelines*; their purpose is to provide students with a focus for correctly completing assignments. The skills and concepts captured on a rubric are the same skills and concepts taught in the classroom. The appreciably difference in using a rubric is that specific criteria has been effectively organized and formatted so that a student not only understands what it required to complete a quality writing assignment, but also gains a long-term understanding of the qualities of good writing. These concepts are particularly important to consider when teaching writing skills to students in the primary grades. As budding writers, they need a strong foundation upon which they can understand the qualities of good writing. Ultimately, the final product is true to each student's individuality because a rubric's purpose is to guide the student in effectively organizing his or her unique ideas, sense of style, and personal voice that can only come from within—and not from a rubric (Andrade, 1999).

The nature of self-assessment and reflection upon one's work has proven to be an effective strategy for developing those concepts and skills necessary to perpetuate our decision to become life-long learners. When used properly, rubrics allow students to self-assess and reflect upon their work—strategies aimed at the ultimate goal of improving the concepts and skills targeted in the lesson's objective. The educator's goal to improve writing skills and the student's understanding of the elements of quality writing through the self-assessment process may be facilitated through the use of a rubric (Hart, 1999).

Statement of the Hypothesis

When used as student-created instructional tools, rubrics improve learning because they allow students to reflect on and self-assess their work (Hart, 1999). Additionally, as task-specific, criterion-based instruments, rubrics provide students with clear guidelines for completing high quality assignments (Callison, 2000). Furthermore, feeling a sense of empowerment from having contributed to the creation of a rubric, students are much more inclined to effectively utilize them and enhance their academic performance (Skillings & Ferrell, 2000). This study focused on the following hypotheses:

(1) Student-designed instructional rubrics will significantly improve second grade students' ability to write personal stories and their understanding of the qualities of good writing.

(2) Second grade students, who use student-designed rubrics for completing a writing assignment, will significantly improve in their metacognitive behavior.

Limitations of the Study

The limitations of this study were as follows:

First, due to the nature of the student-teaching experience, the researcher had limited exposure to the students and limited knowledge of each student's ability level. Due to the partially qualitative nature of this study, a greater understanding of each student's capabilities would have enhanced the outcome of this study.

Second, a lack of teaching experience may have limited the researcher's ability to effectively design, teach, and implement a rubric that could validly and reliably test the hypotheses. The question considered in evaluating this limitation was: How did the lack of experience as a classroom teacher impact student learning in terms of (1) personal knowledge of subject matter, (2) classroom management skills, and (3) assessment capabilities?

Thirdly, the element of time is essential to the development of instructional techniques and strategies that might have enhanced this study. Again, due to the nature of the student-teaching experience, the researcher had a limited amount of time for conducting the study. Stringent curriculum requirements prevented the researcher from developing and implementing a more comprehensive instructional plan. Time constraints placed upon the study impacted the validity and reliability of this study. The ability to conduct this study within a more flexible time frame might have resulted in very different conclusions.

Definition of Terms

The terms generated by this study have been defined by the researcher as follows:

Rubric – a device for organizing and interpreting information necessary for completing a specific assignment, which differentiates between levels of development from excellent to poor. Along one side of the rubric are listed the criteria to be mastered in the lesson. Across the top of the rubric are listed the rankings that will be used to assess how well students understand each of those criterion. The rubric also indicates how much importance should be given to each criterion, based on its importance to the overall lesson.

Instructional Rubric – is usually a one or two-page document that describes varying levels of quality, from excellent to poor, for a specific assignment. Its purposes are to provide students informative feedback about their works in progress and to provide detailed evaluations of their final products. The gradations of quality allow students to

spot weaknesses in their writing and give them concrete ways to improve their shortcomings.

Metacognition – the process in which students think about their own thinking; the process in which students reflect on their own work or performance for the purpose of increasing learning.

Authentic Assessment – a measure of student achievement that reflects higher-order thinking and learning; for example, students must demonstrate that they can actually do something, rather than simply picking the "right" answer.

Self-assessment – the process in which students take on the responsibility of evaluating their own work or judging their own performance for any given assignment.

Student-designed rubric – a carefully designed ratings chart that is drawn up *jointly* by teacher and students.

Chapter II

Review of Literature

Introduction

This study focused on whether student-designed instructional rubrics improve the second grade student's ability to write a personal story and his/her understanding of the qualities of good writing. Additionally, this study hypothesized that the metacognitive behavior of second grade students improves when using student-designed rubrics for completing a writing assignment.

While much of what has been written over the past decade has been very supportive of rubrics, the term is often met with either a quizzical expression or outright indifference from educators and parents alike. It is no surprise then that a good portion of the literature attempts to shed light on defining rubrics and providing information on how to design them. There is also a significant amount of information on how rubrics are quickly becoming an asset in the classroom. As a result, much of the literature on rubrics deals with the following:

1. The definition of a rubric and the types that are used in the classroom;
2. The benefits of rubrics as instructional tools in general education and inclusive classrooms;
3. The value of rubrics as guides for assessing *authentic* performance;
4. Student-generated rubrics as effective teaching and learning tools;
5. Designing and creating effective rubrics;

6. Some of the drawbacks and disadvantages of using rubrics.

When used as student-created instructional tools, rubrics improve learning because they allow students to reflect on and self-assess their work (Hart, 1999). Additionally, as task-specific, criterion-based instruments, rubrics provide students with clear guidelines for completing high quality assignments (Callison, 2000). Furthermore, feeling a sense of empowerment from having contributed to the creation of a rubric, students are much more inclined to effectively utilize them and enhance their academic performance (Skillings & Ferrell, 2000). This study focused on the following hypotheses:

(1) Student-designed instructional rubrics will significantly improve second grade students' ability to write personal stories and their understanding of the qualities of good writing.

(2) Second grade students, who use student-designed rubrics for completing a writing assignment, will significantly improve in their metacognitive behavior.

Defining Rubrics

The literature defines a rubric in several ways. First, in order to provide the reader with a clearer understanding of the term *rubric*, many articles provide an explanation of the origin of the word. That is, it was first used to describe the section headings of mid-fifteenth century literature that was meticulously transcribed by Christian monks. The section headings were marked with large red letters that became known as rubrics since the Latin word for *ruber* is red (Wenzlaff, Fager, & Coleman, 1999). More recently, however, educators have used the term to describe a

predetermined set of rules used for guiding assessment or assigning a score to a given project, assignment, or task. In many instances educators recognize the value of rubrics as instruments that clearly outline a set of expectations. These expectations are beneficial to both the teacher and student in that each party is fully aware of how an assignment is to be completed and the basis on which it will be assigned a final grade. While it is evident that many educators recognize and, in some cases, utilize rubrics as a tool for guiding or scoring performance, others are under the misconception that rubrics in themselves function as assessments. Unlike tests or other devices that capture information for assessing knowledge or skills, rubrics are similar to checklists that "specify the essential elements of a process or product" (Rickards & Cheek, 1999, p. 9). According to Dr. Andi Stix (1997), rubrics are guides that contain specific criteria against which teachers compare products or assignments that require grading.

Grading depends on the type of rubric being used: analytic or holistic. As a scoring guide, analytic rubrics provide several separate scores that are averaged into one final score.

Holistic rubrics provide a single total score. According to Cynthia Jackson and Martha Larkin, an analytic rubric "is more process oriented, and a holistic rubric is more product oriented, which is used when the components of an activity are too interrelated for easy division" (2002, p. 41). Analytic rubrics are used to analyze assignments involving multiple concepts and/or skills, and as a result, provide feedback on all such components. While both instruments are valuable guides for assessing the quality of a product, the analytic rubric is preferred because it grades a variety of skills, concepts, or knowledge (Jackson & Larkin, 2002).

The Benefits of Rubrics

A significant portion of the literature on rubrics describes how and why they are effective instructional tools in general education and inclusion classrooms. This segment of the literature addresses how rubrics are being used and how effective have they been in the process of teaching and learning among general education as well as special needs students. While many individuals may be familiar with rubrics as a guide for completing an assessment, they may be less inclined to think of them as instructional tools. According to Heidi Goodrich Andrade, "At their very best, rubrics are also teaching tools that support student learning and the development of sophisticated thinking skills. When used correctly, they serve the purposes of learning as well as of evaluation and accountability" (2000, p.13). As teaching tools, rubrics improve student achievement by establishing a set of expectations to which a student can aspire. Essentially, rubrics take the guessing out of what the teacher expects on an assignment or project. As a result of establishing a clear set expectations, the quality of student work and learning are both improved (Andrade, 2000).

A teacher could use an instructional rubric in a variety of ways. He or she could present samples of both high quality and low quality student work to the classroom and compare and contrast the level of proficiency of each assignment in relation to the rubric. Learning ensues as the students begin to internalize the essential elements required for developing a high quality product (Stix, 1997). Another effective way of using a rubric to teach is to complete an assignment with the students by using the rubric as a guide for developing a quality product. By modeling how to use a rubric for completing an

assignment, students are exposed to valuable life-long learning skills and strategies such as the ability to organize thought processes and information, to reflect meaningfully upon one's work, and to self-assess in order to improve the task at hand (Coray, 2000).

The advantages of instructional rubrics are essentially the same for exceptional or special needs learners. As one third-grade teacher at Bayview Elementary School states, "Rubrics help me teach all the children at whatever ability level they are at, and I can actually see the areas I need to work more on with them. And I can work with all different levels of ability at the same time" (Use Rubrics and Reach All Learners, 1998, p. 39). Also, according to Jackson and Larkin (2002), instructional rubrics improve the accuracy and quality of assignments completed by learning disabled students because they provide a systematic approach to learning. Like most students, special-needs students' awareness and understanding of the necessary criteria for developing a high quality product is critical to its completion. Working with rubrics also allows these students to slow down and focus on the assignment so that they are able to follow the steps more clearly and accurately (Jackson and Larkin, 2002).

As discussed earlier, the ability to self-assess is a very important skill in the process of becoming independent learners. During this process students are actively engaging in the various parts of the work they have completed. Recognizing errors and being able to correct them clearly indicates an increase in learning. Furthermore, students are much more likely to remember and improve or build upon the learning that has occurred as a result of self-reflection. According to Goodrich, "Repeated practice with peer assessment, and especially self-assessment, increases students' sense of responsibility for their own work and cuts down on the number of 'Am I done yet?'

questions" (1997, p.14). Students are also engaging in formative assessment as they use rubrics to complete an assignment, project, or task. By regularly consulting a rubric that has been used as a classroom instructional tool in completing a writing assignment, the student has made significant strides in becoming an independent learner (Goodrich, 1997). Special needs students, too, are afforded the opportunity to improve academic achievement through self-assessment. The skills that a student is building in this process will serve him or her for a lifetime of learning. With rubrics as guides, the student is better equipped to experience meaningful learning, which oftentimes paves the way to academic successes and the desire to continue in this positive direction (Calfee, 1994).

Consider the following "Benefits to Students of Using Rubrics" by Jackson and Larkin (2002, p.41):

- Students know before beginning an assignment what the expectations for performance will be. The expectations may be assigned by the teachers or may be determined through class discussions.
- Students monitor their own progress as the assignment progresses.
- Students become aware of the quality of work through judging their own and their peers' assignments against the standards set in the rubric.
- Students use the rubric as a final checkpoint before turning in the assignment.
- Students with special needs have the rubric tailored to their learning styles and specific needs.

Rubrics as Guides for Assessing Authentic Performance

The value of rubrics as guides for assessing authentic performance has become a popular topic of discussion among educators in recent years. State and national standards require that students improve problem-solving skills and ability to think critically and creatively. Additionally, standards require that student learning experiences are meaningful by relating them to real-life situations so that students will be better prepared to meet the challenging demands our diverse and changing society (Boston,

2002). As a result, educational leaders and administrators are requiring assessments that measure the higher-order thinking ability as expressed in state and national standards. It is for this reason that Skillings and Ferrell (2000) support the use of rubrics as authentic assessment tools:

> Performance-based assessments, such as rubrics, are not new to the educational community. Over the past decade many states in the U.S. have mandated fundamental revisions of their assessment practices to include learning tasks that are open-ended, aligned more closely to real-life learning situations and the nature of learning, and involve a variety of measures that inform students of their progress in reading performance goals. (p. 452)

As guides for assessing student learning, rubrics differ from the more traditional assessment instruments because they provide more meaningful information about what the student has actually learned. In a sense, rubrics allow educators to search the depth and breadth of student learning; whereas, objective testing containing true/false, multiple-choice, or matching response questions may only reflect the ability to memorize information (Martin-Kniep, 2000).

A fourth-grade teacher at Lake Sybelia Elementary School believes that "because rubrics set forth precise criteria, teachers are better able to assess skills that may fall outside the scope of traditional testing" (Rose, 1999, n.p.). To some extent, this attitude is consistent with the notion that rubrics provide a larger, more accurate picture of a student's ability to use higher-order thinking skills. Whether rubrics are deigned to explore a broad range of numerous skills and concepts or fewer more specific ones, they provide teachers and students alike with the tools to assess authentic knowledge. That is, a student demonstrates the ability to engage with subject matter in some critical, creative, and new way that suggests that his or her knowledge has surpassed the ability to simply memorize facts and details. If we consider that an "authentic assessment should engage

students in real problem-solving tasks with self- and peer-assessment activities" (Taggart & Wood, 2001, p.57), then rubrics, in fact, answer the call.

"Perhaps the greatest potential value of classroom assessment is realized when we open the assessment process up and welcome students into that process as full partners" (Stiggins as cited in Skillings & Ferrell, 2000, p. 452). While many teachers have long recognized the positive effects of engaging students in the teaching and learning process, few are comfortable with the idea of students having an active role in creating instructional and assessment instruments for the classroom. Nonetheless, another increasingly popular aspect of rubrics among educators who seek alternate motivational methods is their ability to be student-created. A study including three college professors whose desire it was to evaluate the use of rubrics in their classrooms reveals the success of student-developed rubrics among their college students: "As stakeholders, not only had these students defined what was important but they had also increased their understanding of the assignment" (Lewis, Berghoff, & Pheeney, 1999, p. 188).

Student-Generated Rubrics

Much of the literature supports student-generated rubrics for the fundamental reason that they often foster a sense of student ownership as a result of having contributed to their development. Like most adults, children also feel a sense of ownership for something they have created. These feelings of ownership are extremely effective in producing positive learning experiences that, in turn, improve student learning. The actual process of designing the rubric increases learning because students are engaging in the material as they consider and describe the criteria levels necessary for development. In his article on

student-generated rubrics, Joseph A. Eppink describes the learning process: "As they create a rubric, students will be engaged in the process of understanding what needs to be done to perform a task well and how it is to be done" (2002, n.p.). Additionally, the added benefit of a developing sense of community is fostered when students become involved in the process of creating rubrics. In essence, the classroom is transformed into a learning environment with a life of its own.

Designing and Creating Rubrics

The literature is replete with information on how to design and create effective instructional and assessment rubrics. This point is ironic considering that most educators who shy away from rubrics do so because they are overwhelmed at the prospect of designing them. In their book, *Scoring Rubrics in the Classroom*, Judith Arter and Jay McTighe offer advice for educators who range from little to no experience in developing rubrics to those who have a good working knowledge of them (2001). The book also provides step-by-step details of the information necessary to create a rubric, where to obtain it, and what to do with it. Charlotte Danielson and Pia Hansen's book *Collection of Performance Tasks and Rubrics* contains a chapter in which they address issues such as choosing a generic or task-specific rubric, choosing a genre-specific or developmental rubric, determining criteria, determining number of points, and descriptions of levels of performance (1999). Also much of the literature on designing rubrics offers information on how to implement them as well as how to create them in conjunction with students. To some extent, the process is dependent upon the type of rubric desired as well as the content area with which it will be used. Some research may be required of the teacher if

he or she is uncertain of what constitutes a high quality product. The intention is that all students should be challenged, regardless of ability level (Feder-Feitel, 2000).

Language is among the most considered element in developing an effective rubric. "The language of the rubric should include wording that students, family members, and other professionals can understand and should be stated in positive terms. The indicators should be feasible, fair, unbiased, and credible" (Whittaker, Salend, & Duhaney, 2001, n.p.). Failed rubrics are usually the result of unclear and ambiguous language. It is also essential that a rubric undergo a field test. That is, the teacher needs to explain the purpose of the rubric in terms of its teaching objective(s) and then implement it in order to test its validity and reliability with the students. This function not only serves to clarify why and how the rubric is being used for instruction and/or assessment purposes, but also to ensure that the rubric is effective in the teaching/learning process (Mabry, 1999).

While the literature shows that creating rubrics may vary among the experts, there are several aspects of the process that most agree upon. Rubrics must be suited to the student to ensure that learning is occurring. According to Taggart and Wood, "Rubrics should be clear, easy to use and understand, appropriate to the task, and aligned with goals" (2001, p. 58). In order to assure that rubrics are being used for the purpose they were designed, they "must be compatible with overall goals of the unit or program" and "must measure progress along learning dimensions that are considered important by all stakeholders" (Taggart & Wood, 2001, p.74). According to Taggart & Wood (2001), if the student is not able to make a connection between the rubric and meaningful learning experiences, it is failing as a teaching tool. Additionally, great emphasis is placed on

rubrics as works in progress. An effective rubric is constantly undergoing evaluation and revision as a result of teacher reflection and feedback from various sources including students, parents, and other professionals (Feder-Feitel, 2000).

Disadvantages of Rubrics

Rubrics are not without their drawbacks or disadvantages. To some extent, however, failed rubrics are a result of inadequate design and implementation. Administrators and teachers who are anxious to "jump on the rubric bandwagon" may have good intentions about utilizing an innovative teaching method, but may lack in the design and implementation stages of the process. One outcome of an inadequate design is a hyper-general rubric. "Hyper-general rubrics, because they are so amorphously general, provide no genuine guidance to teachers about the design of instruction for the promotion of the skill identified in the content standard" (Popham, 1997, n.p.). According to Popham (1997), when proficiency levels or performance expectations are defined too broadly, a rubric fails to provide information that is sufficient for assessing learning.

In terms of grading, rubric scoring essentially lines up with the traditional A, B, C, D, or F letter grades. Some educators believe the while rubrics measure authentic academic performance, they do not provide an authentic grading system. Daniel Callison supports this position in the following statement: "Although the rubric instrument as an assessment innovation has been given a great deal of attention, letter grades remain the standard" (2000, p. 35).

Some critics argue that for certain content areas, rubrics are limiting learning because they, in essence, limit the academic freedom of teaching professionals. These limitations ultimately impact the student whose exposure to various teaching techniques is limited. Linda Mabry believes "rubrics standardize the teaching of writing, which jeopardizes the learning and understanding of writing" (1999, n.p.). According to Mabry (1999), rubrics limit creativity because students are required to complete assignments based on the specific criteria established in the rubrics. Therefore, a student asked to complete a creative writing assignment will be limited by the parameters, or specific criteria, established in the rubric. As a result, students will not be able to express themselves in ways that may fall outside the parameters set by the rubric.

Chapter III

Procedures and Design

Introduction

When used as student-created instructional tools, rubrics improve learning because they allow students to reflect on and self-assess their work (Hart, 1999). Additionally, as task-specific, criterion-based instruments, rubrics provide students with clear guidelines for completing high quality assignments (Callison, 2000). Furthermore, feeling a sense of empowerment from having contributed to the creation of a rubric, students are much more inclined to effectively utilize them and enhance their academic performance (Skillings & Ferrell, 2000). This study focused on the following hypotheses:

(1) Student-designed instructional rubrics will significantly improve second grade students' ability to write personal stories and their understanding of the qualities of good writing.

(2) Second grade students, who use student-designed rubrics for completing a writing assignment, will significantly improve in their metacognitive behavior.

This study was conducted to test the effects of using a student-designed instructional rubric in improving writing skills and student understanding of the qualities of good writing. The study also tested the extent to which students were engaged in the self-assessment process to support learning and skill development while using a rubric.

Educators and field experts argue that rubrics help promote thinking and learning. According to Heidi Goodrich Andrade (2000), "Instructional rubrics help teachers *teach*

as well as evaluate student work. Further, creating rubrics with your students can be powerfully instructive." The criteria necessary to complete an assignment or improve skills is captured and organized on a rubric. Rubrics are designed to assist students in completing an assignment such as writing a personal story. Additionally, rubrics are often found to improve learning because students use rubrics to self-assess their work. Instructional rubrics aid the teaching process because much of the material taught in a specific lesson is captured and organized on a rubric. Finally, rubrics are a functional tool in the classroom because they reflect gradations of quality for the particular assignment, concept, or skill being taught. As a result, students who effectively use rubrics are more inclined to produce a higher quality product and improve skills.

This study was designed and implemented with several purposes in mind: First and foremost, the study tested the effects of an instructional rubric in improving writing skills. Second, the study tested students' understanding of the qualities of good writing through the use of an instructional rubric. Thirdly, the researcher obtained information on students' interactions, reactions, and responses at different times throughout the study in order to assess student learning, as well as gain insight into the process of teaching, creating, and working with rubrics.

Sample Population

This study was conducted at an elementary school in Camden County, New Jersey. The subjects consisted of twenty-four second-grade students. The classroom consisted of 13 boys and 11 girls between the ages of 7 and 8 years. The socioeconomic status of the students was low to middle class. Student ability levels varied from below

proficiency to above proficiency levels based on standardized testing reading and mathematics scores. Three boys in this study required basic skills instruction in reading, mathematics, or both. Two of the students who required basic skills instruction were reading at below first grade level. According to standardized testing scores, the remaining students functioned at average to above-average proficiency levels in language arts literacy and mathematics.

Procedures

This study was conducted in six, fifty-minute periods. During this time, the second-grade students were introduced to the concept of rubrics; created a sample, student-friendly rubric; designed a rubric that reflected the qualities of good writing; and were asked to write a personal story with the aid of a rubric.

The lessons culminated in the creation of a task-specific, criterion-based rubric. Under the close guidance of the teacher-researcher, the students were given the opportunity to design and create a rubric that reflects the strategies, elements, and skills necessary for producing a high quality writing assignment. In keeping with the rubric design, the required writing skills criteria were formatted in degrees varying from poor to excellent. This gradation of criteria was designed to provide the student with instant and precise feedback regarding his or her quality of work.

In the initial lesson the teacher-researcher explained the many different aspects of a rubric by answering the following questions: What is a rubric? What is the function of a rubric? How is a rubric used? How is a rubric created? In this lesson the teacher researcher modeled how a rubric is created and used for completing an assignment.

Consideration was given to designing and implementing an appealing and student-friendly rubric; therefore, a Rubric for Creating a Lego Creature was designed and explained to the students (see appendix A). The modeling also reflected the self-assessment process in determining one's quality of work. That is, the teacher-researcher demonstrated how to use a rubric in order to create the most desired final product. The modeling also reflected how the process of self-assessment would result in determining how the teacher would score the final product.

The second lesson required that the students participate in creating a rubric for the purpose of increasing their understanding of the various aspects of a rubric. By design, the teacher-researcher suggested the student-friendly, non-academic topic of creating a rubric for cleaning one's bedroom. The suggestion was widely accepted by the students; therefore, with guidance from the teacher and with a great deal of student input, a Rubric for Cleaning Your Room was developed on the chalkboard (see appendix B).

The third and fourth lessons of this study required that the teacher-researcher provide instruction on how to write a personal story and use this knowledge in order to create a rubric that reflects the elements of writing a personal story in varying degrees of effort. Note that the students had been taught the skills and concepts for writing a personal story earlier in the school year. Therefore, the skills and concepts presented during this study were designed to enhance and reinforce those that had been previously established. In essence, the process by which the students created their own rubric for writing a personal story was a review of the skills and concepts they had already been taught, as well as a lesson in how to organize this information (for its practical application) on a rubric. In the third lesson the teacher-researcher reviewed and

reinforced the elements necessary for writing a good personal story. During the fourth lesson the students contributed toward the creation of the Rubric for Writing a Personal Story with guidance from the teacher.

The objective of the fifth lesson was to have students apply their knowledge of good writing skills through the use of a rubric in order to assess a student model of a personal story. Each student was given a copy of a model personal story (see appendix C) and was asked to use their student-designed rubric for writing a personal story in the process of assessing the story. The students were asked to read the student model, assess it based on the elements outlined on their rubric, and assign it a letter grade. Furthermore, the students were asked to reflect on how the they would correct or improve the story based on the information presented on the rubric.

The final lesson of this study required that the students write their own personal story using the Rubric for Writing a Personal Story to assist them in the assignment. These post-instructional writing assignments were compared to similar writing assignments that were given prior to the rubric instruction and assessed for changes and/or improvements in writing performance.

Student attitudes regarding the use of rubrics as well as their strategies for utilizing rubrics were observed in order to gain an understanding of metacognitive behaviors. That is that the teacher-researcher observed student behaviors in order to determine whether, and to what extent, students engaged in the process of self-assessment during the prescribed assignment as a strategy for increasing learning.

In addition to the data that the researcher collected through the student pre-instructional assessments and post-instructional assessments, data was also collected

through the use of a student questionnaire; the compilation of fieldnotes as an active participant observer; and informal interviews with the students. As Mills (2003, p. 63) explains in *Action Research: A Guide for the Teacher Researcher*, a compromise between a questionnaire and an interview "with students who have provided written feedback that warrants further investigation" provides a balance between the positive and negative aspects of each data collection method. Therefore, the use of informal interviews as follow-ups to the student questionnaire provided valuable and meaningful information that only an interview can provide, but without having to spend great lengths of time in the process.

As an active participant observer, the teacher-researcher recorded observations of the students as they engaged in the design and use of the rubrics. More specifically, the researcher looked for any comments, questions, or interactions that would provide insight into the learning that may or may not have occurred as a result of introducing rubrics as part of a teaching strategy.

As previously mentioned, the data collection instruments used for this study were as follows: student performance data obtained from written pre-instructional and post-instructional writing assignments; a student questionnaire; the researcher's fieldnotes as an active participant observer; and, informal interviews with the students in follow-up to information obtained in the questionnaire.

As previously described, the researcher used qualitative data collection methods (observations, surveys, and interviews) to gather the data necessary to answer the research questions. In analyzing notes, the researcher evaluated information that reasonably addressed what effects, if any, rubrics had on the learning process. A

thorough analysis of the situations, responses, questions, comments, interactions, work habits, etc. were made in order to validly and reliably draw conclusions indicating that students may or may not have benefited from the introduction of rubrics into the teaching/learning environment. As Mills suggests in his chapter on Data Analysis and Interpretation, one way to interpret and report data is to "contextualize finding in the literature" (p. 45). The teacher-researcher, therefore, analyzed the data gathered in this study as it related to the most relevant information provided in the rubrics literature.

Description of Instruments

The following instruments were used for this study. A copy of the student-designed rubric titled "A Rubric for Writing a Personal Story" is found in the appendix D. This rubric was developed jointly by the teacher and the students. As part of the process, the students were strongly encouraged to provide input in the process of creating the rubric. The rubric for writing a personal story reflected the necessary criteria for writing a personal story in gradations ranging from "excellent" to "below average." The criteria for completing and scoring the writing assignment were well established in the rubric. As indicated on the rubric, in order to complete a high-quality product, the following elements were considered: beginning sentence, word choice, details, sentence variety, punctuation, and ending sentence.

A student questionnaire was administered following the completion of the post-instructional writing assignment (see appendix E). In designing the questionnaire, the researcher took into consideration the ages and grade level of the students for whom it was intended for completion.

Student attitudes regarding the use of rubrics as well as their strategies for utilizing rubrics were observed in order to gain an understanding of metacognitive behaviors. That is that the teacher-researcher observed student behaviors in order to determine whether, and to what extent, students engaged in the process of self-assessment during the prescribed assignment as a strategy for increasing learning.

Chapter IV

Data Analysis

Introduction

As instructional tools, rubrics offer teachers a different and improved method for developing critical thinking and creativity skills. As assessment tools, they provide a consistent basis for grading performance-based student assignments and examinations (Andrade, 2000). Rubrics are quickly becoming the tool of choice for many educators who seek to accurately and fairly measure open-ended or subjective student performance (Skillings and Ferrell, 2000).

Many of the New Jersey state standards, as well as district curriculum goals and objectives, imply that classroom learning experiences should focus on and result in improved critical thinking and creativity skills. Many experienced educators agree that a fair evaluation of such skills would require more unique testing measures. "Rubrics also may be used as part of student portfolios to help students, teachers, and family members reflect on student work, identify process and product skills mastered and not mastered" (Whittaker, Salend, & Duhaney, 2001, n.p.).

The purpose of this study was to determine whether instructional rubrics assist students in improving their writing skills and their understanding of the traits of good writing. The study also explored the effects of a rubric generated by students in improving writing skills as a result of creating a sense of ownership for the learning tool, which students are more inclined to utilize.

When used as student-created instructional tools, rubrics improve learning because they allow students to reflect on and self-assess their work (Hart, 1999). Additionally, as task-specific, criterion-based instruments, rubrics provide students with clear guidelines for completing high quality assignments (Callison, 2000).

This study was conducted at an elementary school in Camden County, New Jersey. The subjects consisted of twenty-four second-grade students. The classroom consisted of 13 boys and 11 girls between the ages of 7 and 8 years. The socioeconomic status of the students was low to middle class, and student ability levels varied from below proficiency to above proficiency levels based on standardized testing reading and mathematics scores. Three boys in this study required basic skills instruction in reading, mathematics, or both. Two of the students who required basic skills instruction were reading at below first grade levels. According to standardized testing scores, the remaining students functioned at average to above-average proficiency levels in language arts literacy and mathematics.

This study was conducted in six, fifty-minute periods. During this time, the second-grade students were introduced to the concept of rubrics; created a sample, student-friendly rubric; designed a rubric that reflected the qualities of good writing; and were asked to write a personal story with the aid of a rubric.

This study focused on whether student-designed instructional rubrics improve the second grade student's ability to write a personal story and his/her understanding of the qualities of good writing. Additionally, this study hypothesized that the metacognitive behavior of second grade student improves when using student-designed rubrics for completing a writing assignment.

The lessons culminated in the creation of a task-specific, criterion-based rubric. Under the close guidance of the teacher researcher, the students were given the opportunity to design and create a rubric that reflects the strategies, elements, and skills necessary for producing a high quality writing assignment. In keeping with the rubric design, the required writing skills criteria were formatted in degrees varying from poor to excellent. This gradation of criteria was designed to provide the student with instant and precise feedback regarding his or her quality of work.

In addition to the data that the researcher collected through the student pre-instructional assessments and post-instructional assessments, data was also collected through the use of a student questionnaire; the compilation of fieldnotes as an active participant observer; and informal interviews with the students. As an active participant observer, the teacher-researcher recorded observations of the students as they engaged in the design and use of the rubrics. More specifically, the researcher looked for any comments, questions, or interactions that would provide insight into the learning that may or may not have occurred as a result of introducing rubrics as part of a teaching strategy.

A copy of the student-designed rubric titled "A Rubric for Writing a Personal Story" is found in appendix D. This rubric was developed jointly by the teacher and the students. As part of the process, the students were strongly encouraged to provide input in the process of creating the rubric. A student questionnaire was administered following the completion of the post-instructional writing assignment (see appendix E).

Results

An analysis of the pre-instructional and post-instructional writing assignment

scores, student questionnaire, and observations made by the teacher-researcher reveals an overall improvement in writing skills and student understanding of the qualities of good writing through the use of instructional rubrics. However, while the data shows that the class as a whole improved their writing performance, a more detailed examination of the data is necessary in order to reveal specific rubric strengths and weakness uncovered during this study.

The pre-instructional writing assignment scores for each student who participated in the study are indicated on table 1. The six components of the writing assignment, as indicated on the table, were scored individually on a 4.0 scale. Only whole numbers, which ranged from 4.0 to 1.0 (highest to lowest), were given. Two students, Destini and Bryan, did not complete the assignment in the allotted time; therefore, they did not receive ending sentence scores. The total scores of these two students were not affected since their ending sentence scores were not factored into the computation of the total scores.

table 1

Pre-Instructional Writing Assignment Scores

Name	Student Number	Beginning Sentence	Word Choice	Details	Sentences	Punctuation	Ending Sentence	Total Score
Jacob	1	3	2	2	2	2	1	2.0
Andrew	2	2	2	2	1	2	2	1.8
Brianna	3	2	2	1	1	1	2	1.5
Shannon	4	2	1	2	1	2	1	1.5
Dominick	5	1	1	1	1	1	1	1.0
Destini	6	1	2	2	1	2	(n/a)	1.6
Teresa	7	1	2	2	1	1	2	1.5
Nathan	8	1	2	3	2	1	2	1.8
Devon	9	3	2	2	3	2	1	2.2
Eniola	10	3	3	3	2	4	3	3.0
Nicholas	11	2	1	1	1	1	2	1.3
Blaine	12	2	1	2	2	2	1	1.7
Christine	13	3	2	2	2	1	2	2.0
Jeremy	14	2	2	2	3	2	3	2.3
Alyssa	15	3	2	1	1	2	1	1.7
Kaelyn	16	3	2	2	2	3	2	2.3
Jaelyn	17	1	2	2	1	1	1	1.3
Ramsey	18	2	1	1	1	2	1	1.3
Zaire	19	3	2	2	2	3	1	2.2
Bryan	20	2	2	2	1	1	(n/a)	1.6
Dalton	21	2	1	1	1	2	2	1.5

This table shows how each student scored on each of the six components of the writing assignment. Individual scores were assigned for beginning sentence, word choice, details, sentences, punctuation, and ending sentence. The individual scores were averaged in order to obtain a total score for each student. The total scores range from a low of 1.0 to a high of 3.0. Total scores for this class reveal an overall weakness in ability to write an effective personal story without the aid of a rubric. With a class

average of 1.77, these results indicate a weakness in writing abilities and in student understanding of the qualities of good writing.

table 2

Post-Instructional Writing Assignment Scores

Name	Student Number	Beginning Sentence	Word Choice	Details	Sentences	Punctuation	Ending Sentence	Total Score
Jacob	1	4	1	2	2	2	1	2.0
Andrew	2	3	2	2	2	3	1	2.2
Brianna	3	1	2	2	3	1	2	1.8
Shannon	4	2	3	2	3	2	2	2.3
Dominick	5	1	1	1	1	1	1	1.0
Destini	6	2	2	2	2	3	(n/a)	2.2
Teresa	7	2	2	2	2	1	1	1.7
Nathan	8	3	3	3	3	2	2	2.7
Devon	9	3	3	2	3	4	2	2.8
Eniola	10	2	3	3	3	3	2	2.7
Nicholas	11	2	2	2	2	2	2	2.0
Blaine	12	1	1	2	2	2	1	1.5
Christine	13	2	2	1	2	2	1	1.7
Jeremy	14	3	3	3	2	3	(n/a)	2.8
Alyssa	15	2	1	1	2	2	1	1.5
Kaelyn	16	2	2	2	2	2	2	2.0
Jaelyn	17	2	3	2	1	2	3	2.2
Ramsey	18	3	2	2	2	2	1	2.0
Zaire	19	2	3	2	3	3	2	2.5
Bryan	20	3	3	3	2	1	2	2.3
Dalton	21	1	2	3	1	1	1	1.5

Table 2 indicates the post-instructional writing assignment scores for each student who participated in this study. The post-instructional scores show how each student performed on their writing assignments after rubric instruction. The total scores range from a low of 1.0 to a high of 2.8. While these ranges are actually lower than the pre-instructional scores, further analysis reveals that, individually, a greater number of

students scored higher after rubric instruction. Compared to the pre-instructional class average of 1.77, the post-instructional class average is 2.07; therefore, the class achieved a 17% post-instructional increase in score.

table 3

Pre- and Post-Instructional Percentage Score Change

Student Number	Pre-Instructional Score	Post-Instructional Score	Percentage Change
1	2.0	2.0	0.00
2	1.8	2.2	0.22
3	1.5	1.8	0.20
4	1.5	2.3	0.53
5	1.0	1.0	0.00
6	1.6	2.2	0.38
7	1.5	1.7	0.13
8	1.8	2.7	0.50
9	2.2	2.8	0.27
10	3.0	2.7	- 0.10
11	1.3	2.0	0.54
12	1.7	1.5	- 0.12
13	2.0	1.7	- 0.15
14	2.3	2.8	0.22
15	1.7	1.5	- 0.12
16	2.3	2.0	- 0.13
17	1.3	2.2	0.69
18	1.3	2.0	0.54
19	2.2	2.5	0.14
20	1.6	2.3	0.44
21	1.5	1.5	0.00

Table 3 indicates that after rubric instruction, writing assignment scores were as follows: 5 students achieved lower scores, 3 students achieved no change in scores, and 13 students achieved higher scores. This data reveals that a majority of students

benefited from the use of a rubric as an instructional tool for teaching and learning writing skills and the qualities of good writing.

table 4

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Beginning Sentence	2.10	21	.77	.17
	Post-Beginning Sentence	2.19	21	.81	.18
Pair 2	Pre-Word Choice	1.76	21	.54	.12
	Post-Word Choice	2.19	21	.75	.16
Pair 3	Pre-Details	1.81	21	.60	.13
	Post-Details	2.10	21	.62	.14
Pair 4	Pre-Sentences	1.52	21	.68	.15
	Post-Sentences	2.14	21	.65	.14
Pair 5	Pre-Punctuation	1.81	21	.81	.18
	Post-Punctuation	2.10	21	.83	.18
Pair 6	Pre-Ending Sentence	1.56	18	.62	.15
	Post-Ending Sentence	1.56	18	.62	.15

Table 4 includes data results for specific writing assignment criteria that were paired and analyzed pre- and post-instructionally. Based on the mean results, the students made significant improvement in the areas of word choice and sentences used in their writing assignments. As a class, students achieved a 24% increase in the word choice score, and a 41% score increase in sentence structure and usage. In fact, five of the six specific criteria categories reveled score increases. Only in the area of ending sentence was there no change in score.

A student questionnaire was administered following the writing assignment. The questionnaire was designed to obtain a better understanding of student involvement in the design, use, and/or knowledge of instructional rubrics.

table 5

Student Questionnaire Findings

Did I help make the writing rubric in class?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	28.6	28.6	28.6
	Somewhat	15	71.4	71.4	100.0
	Total	21	100.0	100.0	

Do I feel that I know how to use a rubric?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	61.9	61.9	61.9
	Somewhat	5	23.8	23.8	85.7
	No	3	14.3	14.3	100.0
	Total	21	100.0	100.0	

Did I use the rubric to help me write my personal story?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	47.6	47.6	47.6
	Somewhat	5	23.8	23.8	71.4
	No	6	28.6	28.6	100.0
	Total	21	100.0	100.0	

While writing the personal story, the rubric helped me to think about...

using a beginning sentence.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	61.9	61.9	61.9
	Somewhat	6	28.6	28.6	90.5
	No	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

...using time-order words.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	23.8	23.8	23.8
	Somewhat	9	42.9	42.9	66.7
	No	7	33.3	33.3	100.0
	Total	21	100.0	100.0	

...using details in the order they happened.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	52.4	52.4	52.4
	Somewhat	8	38.1	38.1	90.5
	No	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

...using different kinds of sentences.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	61.9	61.9	61.9
	Somewhat	3	14.3	14.3	76.2
	No	5	23.8	23.8	100.0
	Total	21	100.0	100.0	

...using correct spelling, capitals, and punctuation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	66.7	66.7	66.7
	Somewhat	3	14.3	14.3	81.0
	No	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

...using an ending sentence.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	61.9	61.9	61.9
	Somewhat	4	19.0	19.0	81.0
	No	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

When I used the rubric, I checked to see if I was writing my paragraph correctly.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	42.9	42.9	42.9
	Somewhat	4	19.0	19.0	61.9
	No	8	38.1	38.1	100.0
	Total	21	100.0	100.0	

When I used the rubric, I followed the steps to help me write a better paragraph.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	38.1	38.1	38.1
	Somewhat	11	52.4	52.4	90.5
	No	2	9.5	9.5	100.0
	Total	21	100.0	100.0	

Did I like using a rubric to learn how to write?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	42.9	42.9	42.9
	Somewhat	8	38.1	38.1	81.0
	No	4	19.0	19.0	100.0
	Total	21	100.0	100.0	

According to the data on table 5, 100% of the class was at least partially instrumental in creating the rubric for writing a personal story. Only 14% of the students felt that they did not know how to use a rubric. 71.4% of the students at least partially used the rubric to help them complete the writing assignment. In analyzing the specific criteria necessary for completing the writing assignment, the student responses were favorable. That is, the students at least partially used their rubrics for completing their writing assignments as follows: 90.5% for writing a beginning sentence; 66.7% for using time-order words; 90.5% for writing details in the order that they happened; 76.2% for using different kinds of sentences; and 81% for using correct spelling, capitals, and punctuation. The data also reveals that 61.9% of the students at least partially used the rubric to write a correct paragraph; 90.5% at least partially followed the rubric to improve their paragraphs; and 81% at least partially liked using a rubric to learn how to write a personal story.

Additional data include notes taken by teacher-researcher while observing the students as they used their rubrics for completing their writing assignments. The teacher-researcher often observed many of the students engaging with their rubrics for constructive purposes. Students consistently made positive comments and asked

insightful questions about how the rubric functioned in relation to the assignment at hand. The teacher-researcher observed many students engaged in metacognitive behavior while completing their assignment as a direct result of their use of the student-designed instructional rubric.

Chapter V

Summary, Conclusions, and Recommendations

Introduction

This study focused on whether student-designed instructional rubrics would significantly improve second grade students' ability to write personal stories and their understanding of the qualities of good writing. Additionally, this study hypothesized that the metacognitive behavior of second grade students would significantly improve when using student-designed rubrics for completing a writing assignment

When used as student-created instructional tools, rubrics improve learning because they allow students to reflect on and self-assess their work (Hart, 1999). Additionally, as task-specific, criterion-based instruments, rubrics provide students with clear guidelines for completing high quality assignments (Callison, 2000). Furthermore, feeling a sense of empowerment from having contributed to the creation of a rubric, students are much more inclined to effectively utilize them and enhance their academic performance (Skillings & Ferrell, 2000).

While many teachers have long recognized the positive effects of engaging students in the teaching and learning process, few are comfortable with the idea of students having an active role in creating instructional and assessment instruments for the classroom. Nonetheless, another increasingly popular aspect of rubrics among educators who seek alternate motivational methods is their ability to be student-created.

Summary of the Problem

The purpose of this study was to determine whether instructional rubrics assist students in improving their writing skills and their understanding of the traits of good writing. The study also explored the effect of a student-generated rubric in improving writing skills.

Students who do not have a clear understanding of their teacher's expectations for a well-constructed assignment are clearly in danger of completing unacceptable work. While the thought of this situation occurring in a classroom seems unlikely to many people, the reality is that too many students are uncertain of the criteria required for completing a top quality product. Instructional rubrics eliminate this problem by clearly establishing and delineating specific criteria in an organized and understandable format. As a result, students are increasingly likely to put forth a quality product as well as develop a long-term improvement in or understanding of the skill or concept taught (Goodrich, 1997).

Without a doubt, students across the country continue to struggle in their efforts to improve their writing skills and their understanding of the elements of good writing. While some of the current literature states that rubrics only serve to stifle the writer's creativity and personal voice (Mabry, 1999), other literature supports the use of rubrics because they establish a clear set of necessary guidelines from which all students may benefit in improving their writing skills (Andrade, 1999).

The nature of self-assessment and reflection upon one's work has proven to be an effective strategy for developing those concepts and skills necessary to perpetuate our decision to become life-long learners. When used properly, rubrics allow students to self-assess and reflect upon their work—strategies aimed at the ultimate goal of

improving the concepts and skills targeted in the lesson's objective. The educator's goal to improve writing skills and the student's understanding of the elements of quality writing through the self-assessment process may be facilitated through the use of a rubric (Hart, 1999).

Summary of the Hypothesis

The ability to self-assess is a very important skill in the process of becoming independent learners. During this process students are actively engaging in the various parts of the work they have completed. Recognizing errors and being able to correct them clearly indicates an increase in learning. Furthermore, students are much more likely to remember and improve or build upon the learning that has occurred as a result of self-reflection. As this practice is repeated, students begin to feel a sense of responsibility for their own work. As a result, quality of work and student performance increases.

This study focused on the following hypotheses:

(1) Student-designed instructional rubrics to significantly improve second grade students' ability to write personal stories and their understanding of the qualities of good writing.

(2) Second grade students, who use student-designed rubrics for completing a writing assignment, significantly improve in metacognitive behavior.

Summary of the Procedure

This study was conducted in six, fifty-minute periods. During this time, the second-grade students were introduced to the concept of rubrics; created a sample,

student-friendly rubric; designed a rubric that reflected the qualities of good writing; and were asked to write a personal story with the aid of a rubric.

The final lesson of this study required that the students write their own personal story using the Rubric for Writing a Personal Story to assist them in the assignment. These post-instructional writing assignments were compared to similar writing assignments that were given prior to the rubric instruction and assessed for changes and/or improvements in writing performance.

The lessons culminated in the creation of a task-specific, criterion-based rubric. Under the close guidance of the teacher-researcher, the students were given the opportunity to design and create a rubric that reflects the strategies, elements, and skills necessary for producing a high quality writing assignment. In keeping with the rubric design, the required writing skills criteria were formatted in degrees varying from poor to excellent. This gradation of criteria was designed to provide the student with instant and precise feedback regarding his or her quality of work.

Summary of the Findings

Pre-instructional student scores for the writing assignment range from a low of 1.0 to a high of 3.0 out of a possible total score of 4.0. Total scores for this class reveal an overall weakness in ability to write an effective personal story without the aid of a rubric. With a class average of 1.77, these results indicate a weakness in writing abilities and in student understanding of the qualities of good writing.

Post-instructional scores show how each student performed on their writing assignments after rubric instruction. The total scores range from a low of 1.0 to a high of

2.8. While these ranges are actually lower than the pre-instructional scores, further analysis reveals that, individually, a greater number of students scored higher after rubric instruction. Compared to the pre-instructional class average of 1.77, the post-instructional class average is 2.07; therefore, the class achieved a 17% post-instructional increase in score. Post-instructional writing assignment scores were as follows: 5 students achieved lower scores, 3 students achieved no change in scores, and 13 students achieved higher scores.

Based on the mean results, students made significant improvement in the areas of word choice and sentences used in their writing assignments. As a class, students achieved a 24% increase in the word choice score, and a 41% score increase in sentence structure and usage. In fact, five of the six specific criteria categories reveled score increases. Only in the area of ending sentence was there no change in score.

100% of the class was at least partially instrumental in creating the rubric for writing a personal story. Only 14% of the students felt that they did not know how to use a rubric. 71.4% of the students at least partially used the rubric to help them complete the writing assignment. The extent to which students at least partially used their rubrics in completing their writing assignment ranges from a low of 61.9% to a high of 90.5%.

Students consistently made positive comments and asked insightful questions about how the rubric functioned in relation to the assignment at hand. 95% of the students were at least once observed engaging in metacognitive behavior while completing their assignment as a direct result of their use of the student-designed instructional rubric.

Conclusions

The data indicates that the students who participated in the design and use of an instructional rubric increased their ability to write a more effective personal story and in their understanding of the qualities of good writing. The data indicates that, as a whole, the class benefited most in the areas of word choice (using time-order words) and sentence variety and structure as a result of rubric use.

Observations of student comments and interactions while using a rubric clearly indicate an increase in metacognitive behavior. Among other valuable and effective teaching/learning strategies, rubrics function as checklists for completing an assignment. During this study students oftentimes referred to their rubrics to check their use of specific criteria required to achieve a high score on their assignments. This behavior of self-assessing is important in producing a high quality product, but more importantly, it is critical to the learning process.

Recommendations and Implications

Rubrics can be a valuable teaching and learning tool in the educator's effort to improve writing skills, student understanding of the qualities of good writing, and metacognitive behavior. As instructional tools, rubrics offer teachers a different and improved method for developing critical thinking and creativity skills. As assessment tools, they provide a consistent basis for grading performance-based student assignments and examinations. Educators can more accurately and effectively facilitate the trend toward open-ended questioning in order to improve critical thinking skills and to obtain

authentic assessments of student skills and knowledge through the use of instructional rubrics.

Rubrics, especially those designed with student input, serve to empower the student in the learning process. Students who have contributed to the design of a rubric feel a sense of ownership in the product they have helped create. Therefore, not only has the process to develop the rubric been a valuable learning experience, but also as studies have proven, students who feel a sense of ownership are significantly more inclined to internalize and benefit from the experience. For the learner and educator the outcomes are numerous and profound: Students acquire important skills and learn new concepts; therefore, student performance is greatly enhanced. Students are actively involved in the learning process and display metacognitive behaviors, impacting their desire to become life-long learners. Additionally, in an effort to meet the needs of a growing academically diverse population, instructional rubrics serve as innovative and effective teaching and learning tools. Rubrics empower learning-disabled students in much the same way they empower any other student. For learning-disabled students, the established set of standards provided by rubrics acts as a focal point in their effort to complete an assignment or take a test. As a result, student frustration levels are minimized, and, more importantly, students are better equipped to put forth a quality product.

Finally, because the criteria necessary for completing an assignment or grading a test is clearly indicated on a rubric, parents and students are much less inclined to challenge a grade on the basis of teacher subjectivity or lack of clear instruction. In essence, because rubrics clearly define teacher expectations, issues of this nature are drastically reduced.

APPENDIX A

RUBRIC FOR CREATING A LEGO® CREATURE

Rubric for Creating a Lego Creature

	Excellent	Very Good	Average	Below Average
Number of Pieces	- used about 100 pieces	- used about 75 pieces	- used about 50 pieces	- used less than 25 pieces
Color & Size of Pieces	- used more than 15 sizes and colors	- used 10 -14 sizes and colors	- used 5 - 9 sizes and colors	- used less than 5 sizes and colors
Imangination and Creativity	- created a creature that was new and different	- a new idea/creature - some imagination	- used an old idea - some imagination	- no new idea - very little imagination

APPENDIX B

RUBRIC FOR CLEANING YOUR ROOM

Rubric for Cleaning Your Room

	Excellent	Very Good	Asi-Asi	Below Average
Closet	-no junk on the floor -shoes in boxes or shelves -all clothing on hangers	-most clothing on hangers -most shoes put away -floor is pretty clean	-some clothing and junk on the floor	"What a mess!"
Bed	- bed fully made and cleaned off - pillows & covers are neat	- bedspread covers the sheets - a little wrinkled - pillows a little crooked	- sheets are lumpy under the bedspread - some things are on the bed	- bed not made - covers and sheets are bunched together
Floor	- everything is off the floor - floor is vacuumed	- most things are off the floor - ready to be vacuumed	- things are under the bed - things are pushed against the walls	"I can't even see the floor!"
Drawers	- no clothing hanging out - all drawers are closed - clothing matched and organized	- clothing mostly organized and matching in drawers - drawers closed	- most drawers are closed - some clothing is hanging out of drawers	- lots of clothing hanging out of drawers - drawers are open
Shelves	- all shelves are dusted - books and things are neat - cleaned off & neat	- looks neat - not dusted	- some things on shelves are messy - not dusted	- messy, dusty, slanted shelves! "Oh, no!"

APPENDIX C

MODEL PERSONAL STORY

I remember the first time I rode my bike.... My dad taught me. First, he held on to the back of the seat pushed me and I was off. I could feel the wind rushing into my face. I wobble, I fell, and I was cring and had a bloody knee. My dad took me inside to clean me up and put a bandade on my knee. He said to me in a worried voice, "Do you think you want to try it one more time?" Then we went back outside to try again. My dad held on to the back of the seat and off I was again. I could feel the bumps under me and the wind once again in my face. I went flying and I never fell again.

Thanks to my dad now I can ride anywhere I want.

APPENDIX D

RUBRIC FOR WRITING A PERSONAL STORY

Rubric for Writing a Personal Story

	Excellent	Very Good	Average	Below Average
Beginning Sentence	-"Grabs" the reader -Makes someone want to keep reading -Tells the main idea	-Tells the main idea -Is kind of interesting	-Tells the main idea -Is kind of dull	- Has no main idea - Is dull
Word Choice	- Use many time-order, colorful, and special (I, me, my) words	- Use some time-order, colorful, and special (I, me, my) words	- Use very little time-order, colorful, and special (I, me, my) words	- Use no time-order, colorful, or special (I, me, my) words
Details	- Use many specific words to create pictures in the readers mind - All are in order that make sense	- Use some specific words - Are mostly in order that makes sense	- Use very little specific words - Some details are not in the right order	- Use very little to no specific words - Very few details are in the correct order.
Sentences	- Use all kinds of sentences (?, !, .) - Use two or more dialogue sentences (".....")	- Use some different kinds of sentences (?, !, .) - Use one dialogue sentence ("....")	- Use very few different kinds of sentences (?, !, .) - Use no dialogue sentences (!, ?, .)	- None of the sentences are different (?, !, .) - Use no dialogue sentences (!, ?, .)
Punctuation	- All or most capitals, spellings, and punctuation are correct.	- Many capitals, spellings, and punctuation are correct.	- Some capitals, spellings, and punctuation are correct.	- Very few capitals, spellings, and punctuation are correct
Ending Sentence	- Is interesting - Sticks to the main idea	- Sticks to the main idea - Is kind of interesting	- Sticks to the main idea only a little bit - Is kind of interesting	- Does not stick to the main idea - Is not interesting

APPENDIX E

STUDENT QUESTIONNAIRE

How I Feel About Rubrics

Name:_____

(1) Did I help make the writing rubric in class?

(2) Do I feel that I know how to use a rubric?

(3) Did I use the rubric to help me write my personal story?

(4) While writing the personal story, the rubric helped me to think about...

using a beginning sentence 

using time-order words 

using details in the order they happened 

using different kinds of sentences 

using correct spelling, capitals, and punctuation 

using an ending sentence 

(5) When I used the rubric,

I checked to see if I was writing my paragraph correctly.

I followed the steps to help me write a better paragraph.

I used the rubric some other way. Describe: _____

_____

_____

(6) Did I like using a rubric to learn how to write?

(7) Why or why not? _____

_____

_____

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