

STANDARDS-BASED GRADING: MOVING TOWARD EQUALITY OF  
OPPORTUNITY AND ADVANCEMENT OF LEARNING FOR ALL STUDENTS

A disquisition presented to the faculty of the Graduate School of  
Western Carolina University in partial fulfillment of the  
requirements of the degree of Doctor of Education.

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February 29, 2016

## ACKNOWLEDGEMENTS

We would like to thank our committee members and director for their assistance and encouragement. In particular, we would like to recognize Dr. Jess Weiler and Dr. Kathleen Jorissen who took the time to guide us through the doctoral program and disquisition process. As the first cohort to navigate the Ed.D. Carnegie model, their direction was invaluable.

We also wish to thank the staff, students, and parents of Alleghany County Schools for their cooperation and support during the improvement initiative process. Each of the disquisitioners would also like to take an opportunity to extend sincere thanks to the following people, without whom this disquisition would not have been possible:

Catherine Andrews: It is with honor that I acknowledge my family for their love and support during my time at Western Carolina University pursuing advanced educational degrees. I am thankful that my husband, Rick, always reminds me to fight the good fight, finish the race and keep the faith (2 Tim. 4:7), and it is his discipline and integrity that I admire and look to for encouragement. Because my children, James and Thomas, start each morning with excitement and hope, I am inspired to live life to the fullest and am blessed beyond measure. Finally, I want to recognize my mom, who for years has pushed me to try everything. I know on my graduation day, she will be the happiest mom in the universe.

Christopher Barnes: While we have all sacrificed time, energy, money and effort during this doctoral program, it pales in comparison to our families who were willing to endure missed weekends, missed evenings and spent the last three years doing without our support. To our family and friends, thank you for your effort. Brenda, Tucker and Aniah, we are in the home stretch. Thank you for everything.

Jeremy Gibbs: I would like thank my wonderful family for their support and patience during my time in the doctoral program and throughout the process of building the disquisition. My children, Burgon and Isabella, are joyful little creatures who brighten my life and give me the inspiration I need to continue striving for excellence for myself and to continue to fight for the very best for the public schools in both our community and our state. My wife Elizabeth is loving and supportive throughout any challenge we have ever faced together. She has been patient and thoughtful during my time in this program and I owe her a debt of gratitude that I am not sure I can ever repay.

## DEDICATION

Catherine Andrews: I would like to dedicate this work to Dr. Flora Haire, who served nine years as my principal at Union Academy Middle Magnet School, Bartow, Florida. Dr. Haire taught me that every young person has unlimited potential for growth and success in life. It is because of her, that I work each day to serve my students.

Christopher Barnes: Throughout my life my parents have always believed in my ability and have given me the desire, motivation and work ethic to live a life I love. During the past year of writing and working on my disquisition my father has battled COPD and lung cancer. He is now receiving hospice care and it is my fervent hope that he will be able to see me receive my doctoral degree in May. All that I am and all that I am able to do in this life is because he was able to hold me close when he needed to and let me go when he needed to.

Jeremy Gibbs: I wish to dedicate my work on this disquisition to the memory of Anna Bess Williams. Anna, my dear friend, was a loving and dedicated mother, wife, daughter, sister, friend, teacher, and principal. She passed away far too young on October 30, 2013 just days after the birth of her second child. While her passing left a deep hole in many hearts that can never be filled, she ultimately left us all her legacy of love, joy, and service to others. Anna's name should have been next to mine on this disquisition's title page as we had planned to take on this Ed.D. program together. I will always be sad that this was not the way things went but I will always treasure the time I spent with her and the impact she had on my life.

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## THE DISQUISITION<sup>1</sup>

### **Overview**

The culminating activity in the doctoral program in Educational Leadership (Ed.D.) at WCU is a problem-based disquisition. A disquisition is a formal discourse or treatise in which a subject is identified, analyzed and addressed in depth. The disquisition provides a concrete good for the larger community through the dissemination of new relevant knowledge. The program faculty at WCU intentionally chose this term to represent the final and culminating work of the newly re-designed Ed.D. program to highlight the collaborative work scholar practitioners do as they participate in action research and address critical problems of practice in the field of education. More particularly, for the purposes of our program, within a disquisition, issues of social justice, equity and ethics are typically at the forefront of the discourse. The process of developing the disquisition (in conjunction with the associated coursework) helps to prepare scholar practitioners who will (continue to) serve as educational leaders. The preparation of the disquisition is an exacting, stringent, worthy, dignified and towering encounter that prepares outstanding scholar practitioners in P-12 institutions, school districts and community colleges.

### **A Problem-Based Exercise**

The WCU Ed.D. disquisition is a relevant, congruous and well-suited culminating activity for educational leadership scholar practitioners. It focuses on the issues and

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<sup>1</sup> Adapted from: Western Carolina University. (2014). *Scholar practitioner handbook: Executive Ed.D. in educational leadership*. Cullowhee, NC: Author.



demands of scholar practitioners and the institutions in which they work. It sheds additional, directed and effective light on an effort to address a particular organizational quandary. In the disquisition process, scholar practitioners utilize theoretical and day-to-day understandings to address practical situations. Through the exercise, they gain expertise in differentiating between the present state of an organization and the sought after or preferred state. Indubitably, the act of preparing a disquisition--absolutely and with forethought--guides scholar practitioners in addressing the challenges faced in P-12 schools, school districts, community colleges and other educational organizations.

### **The Disquisition Process**

The disquisition process begins long before the investigation and writing begins. It starts with the evidence-based identification of a problem of practice within an institution followed by a query of effective strategies to address the problem. It culminates in the implementation and evaluation of one or more selected strategies. Such problems will often include issues of social justice, equity and ethics. The intent of the exercise is to improve the situation through investigations within the institution(s) and the acquisition and application of relevant knowledge. Critical thinking, knowledge of the field(s) and some give-and-take are necessary. While previous literature is utilized, it is not used to develop an argument, but, instead, to support and inform it. Ultimately, scholar practitioners develop a perspective on the problem and appropriately communicate the perceived resolution(s). For the disquisition, scholar practitioners work with other P-12 and community college practitioners, as well as WCU faculty to explore the problem in question. [S]cholar practitioners who complete the WCU Ed.D. disquisition will (1) possess enhanced comprehensive research skills; (2) provide a

significant and meaningful benefit to identified constituencies around them; (3) embody the enhanced values traditionally associated with the doctoral experience, e.g., critical thinking, disciplinary inquiry and argumentation; and (4) encounter a unique and rewarding educational experience.

## ABSTRACT

STANDARDS-BASED GRADING: MOVING TOWARD EQUALITY OF  
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Western Carolina University (February 2016)

Director: Dr. Jess Weiler

This disquisition aims to identify and explore: (1) the unintended, negative consequences of traditional classroom grading practices, (2) an alternative grading practice—standards-based grading—with its positive outcomes, and (3) a process for implementing reform via standards-based grading at a small, rural high school. The authors begin by critically examining the literature surrounding four traditional, common grading practices and detailing two shared and concerning outcomes: traditional grading practices (1) do not allow for the equitable treatment of students, and (2) hinder learning. Following this examination, the authors detail an alternative grading practice—*standards-based grading*—including its associated, positive outcomes and literature support.

The authors detail their improvement initiative for transitioning one high school from a traditional to a standards-based-grading model. The implementation process included a full transition of two teachers' courses from traditional to standards-based grading. Following their proposed improvement initiative, the authors evaluated the effectiveness of the intervention, including an analysis of stakeholder interviews and

focus group results. Data obtained shed light on the advantages and disadvantages of the implementation process, as well as the positive and negative outcomes experienced by students, parents, teachers, and school leaders who participated in the transition from traditional to standards-based grading.

## CHAPTER I: INTRODUCTION & STATEMENT OF THE PROBLEM

*“Grades have massive power in our schools and in the lives of the people whom we grade” (Tomlinson & Moon, 2013, p.122).*

We begin this disquisition with this quote from Tomlinson and Moon (2013) to underscore the reason school leaders must pay close attention to grading practices. Grades have the power ultimately to determine the direction of a student’s life. Before exploring this in greater detail, grading must be defined. Merriam-Webster (Grade, 2015) provides several definitions of the word *grade* both as a noun by describing a grade as, “a number or letter that indicates how a student performed in a class or on a test” and as a verb by stating that to grade is, “to separate (things) into groups or classes according to a particular quality.” In digging deeper, the word grade has an etymological origin from the Latin *gradus* meaning step or degree and from the Latin *gradi* meaning to step or to go (Grade, 2015). In the context of schools, grades are symbols, typically numeric or alphabetic, used to report and communicate information about a student’s performance level to critical stakeholders. Such symbols generally reference student performance within a range of possible performance levels. For example, teachers often use letter grades, “A,” “B,” “C,” “D,” or “F” to report performance. Each letter grade is intended to represent a different level of performance across a continuum. Furthermore, grades represent the teacher’s judgment of student performance, often at a specific time or time period (Guskey, 1994). Marzano and Heflebower (2011) describe traditional grading as a system where “students acquire points for various activities, assignments, and behaviors, which accrue throughout a grading period” (p. 34). At the conclusion of each defined

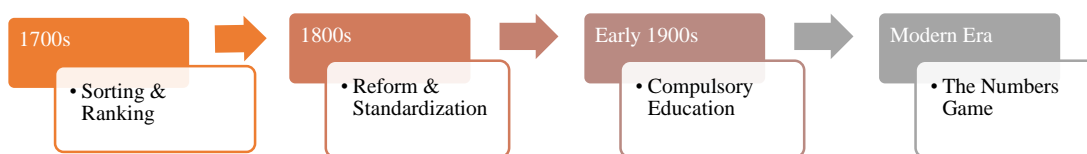
grading period the teacher then tallies the various points earned and assigns an omnibus letter grade (Marzano & Heflebower, 2011; Reeves, 2011).

Most readers, having been the recipients of grades within this type of traditional grading system, are familiar with the terminology and processes described. However, few have considered the problems inherent in this traditional system. In the following paper, the disquisitioners outline four common, traditional grading practices employed widely in schools and explore the problems created as a result of those practices; namely, the inequitable treatment of students and the hindrance to student learning. Before detailing these outcomes, we feel it is important to share a brief history of grading and how it has contributed to our practices today.

### **A Brief History of Grading**

As America was forming as a nation, schooling was an individual, often privileged experience. However, with the introduction of compulsory schooling, grading systems, originally designed for internal communication among teachers and families, became forms of external communication and tools for system-building rather than pedagogical devices (Schneider & Hutt, 2014). As a result, grades became more standardized, and teachers began using percentages as ways of certifying accomplishments (Guskey, 2015). It was important to devise a way for teachers to evaluate large numbers of students easily with quantitative precision in a way that parents as well as other non-educators would understand. Over time, a common language of communicating learning outcomes was created, and, unfortunately, so too were many unintended, negative consequences. In the passages that follow, an overview of the

history of grades in the United States is presented starting with a graphic depiction of the major time periods highlighted in the timeline of grading shown in Figure 1.



*Figure 1.* General timeline of grading in the United States.

**1700s: Sorting and ranking.** Schneider and Hutt (2013) reported that in the 1700s, students in European universities participated in competitions which awarded them titles and distinctions. To follow suit, early American universities such as Yale, William and Mary, and Harvard began to categorize students by experimenting with ranking and grading systems that included both academic and non-academic criteria. For example, one non-academic sorting criteria employed by Yale and Harvard was that students “found themselves graded on whether they attended chapel or showed up to class” (Schneider & Hutt, 2013, p. 8). Then to rank students, “performances in individual courses were graded and...dutifully recorded in the ‘Book of Averages’” (Schneider & Hutt, 2013, p. 7). The College of William and Mary chose to use four categories to sort and label its students according to their compliance and academic improvement (Schneider, & Hutt, 2013). While it is evident that some method of differentiating students did exist, it lacked standardization; therefore, “differentiating between students in the very earliest days of American colleges and universities seemed to center around

social class” (Durm, 1993, p. 1). In America, the need to classify students through some sort of ranking scheme has been innate to education from the beginning. These practices communicated many things including the identification of students who were meeting the required standards and, conversely, the identification of those who were not meeting the standards. Such sorting and classification created huge implications for a student’s advancement in school and career. However, even in this early history of grading practices, the inconsistency of applied criteria was so great that it created an injustice to students (Durm, 1993).

**1800s: Reform and standardization.** Differentiating students through titles or marks, in part, influenced elementary and high schools in the early to mid-nineteenth century (Schneider & Hutt, 2013). The industrial revolution and the push for democracy spurred reformers not only to establish superintendents and teacher training programs, but also to establish uniformity of practices across schools (Kaestle, 1983; Schneider & Hutt, 2013; Herrnstein & Murray, 1994). In addition, increased immigration and growing urban areas made class sizes larger requiring teachers to find more efficient ways to assess and grade students.

In the early 1800s Horace Mann, an influential education reformer, worked to change the way American schools were organized. Mann and his contemporaries believed that the current elementary school and high school ranking schemes, similar to those used in colleges and universities, created too much competition among students because students were often “subject to examinations and direct ranking against their classmates” (Schneider & Hutt, 2013, p. 205) , and that the competition de-emphasized students’ intellectual development and hindered their morality. Therefore, Mann



suggested sorting children by age and the curriculum in steps which meant students who were assessed as performing at the same level as their peers or who were of the same age would receive similar instruction (Schneider & Hutt, 2013; Guskey, 1994). This enabled teachers to eliminate the need for excessive exams as a means of ranking students which would most likely embarrass students and stigmatize them. It was thought that by grouping students according to age and by following a set curriculum, students were treated more fairly and were able to focus on learning rather than constantly competing against one another (Schneider & Hutt, 2013).

To further eliminate intense competition among students and to communicate more frequent student progress, a monthly report card was issued (Schneider & Hutt, 2013). Unfortunately, educators saw the grading of students as a means of motivation, claiming, “it spurred industry” (Kaestle, 1983, Paragraph 3). It was believed that if one earned a low grade, it would encourage the child to work harder. Concern about student motivation was common during the mid-1800s (Schneider & Hutt, 2013), as industry and work ethic were crucial capitalistic mores instilled in American education (Kaestle, 1983).

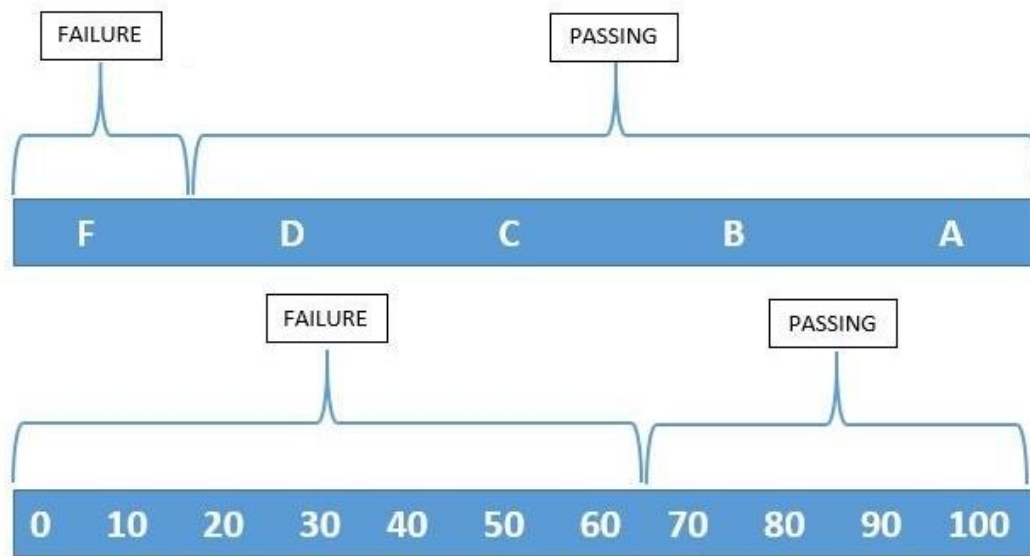
While most school systems adopted grading practices with similar tenets—the use of letters and numerical formulas—the practices were not consistent across school systems and were far from uniform (Schneider & Hutt, 2013). In addition to the use of different methods for measuring and reporting student performance across school systems, criteria for performance varied and included subjective measures such as hard work, self-sacrifice, and restraint, which were considered important virtues in early America (Kaestle, 1983).

**Early 1900s: Compulsory education.** By the turn of the twentieth century, compulsory attendance laws increased K-12 school enrollment. Because laws required students to attend school, K-12 institutions grew exponentially in size between 1870 and 1910 from 500 high schools to over 10,000 (Schneider & Hutt, 2014; Guskey, 2015). Most elementary teachers in the early 1900s were using written narratives to communicate student learning (Guskey, 1994), while high schools teachers began to shift to percentage grades as a way to document student learning. With large class sizes, it was difficult to write narratives for each child, and it could be logistically difficult in the high school when students had different teachers for most courses. “Few educators question(ed) the gradual shift to percentage grading, which [seemed] a natural by-product of the increased demands on high school teachers” (Guskey, 1994, p. 18).

Additionally, the lack of standardization in grading and reporting created problems identifying true student achievement levels and readiness for college. Not only did compulsory attendance laws put a burden on schools, but the increase of students attending college also increased particularly in the 1950s. “The United States led the rest of the world in opening college to a mass population of young people of ability, regardless of race, color, creed, gender and financial resources” (Herrnstein & Murray, 1994, Chapter 1). Because so many students were coming from various locations all over the country wanting to enter college, the need to create a standardized grading system that could serve as an external communication device to parents, colleges, and employers was necessary.

**Modern era: The numbers game.** As previously discussed, the need to standardize how schools measured and reported student performance and achievement

grew exponentially through the twentieth century (Herrnstein & Murray, 1994). By the 1940s the A to F grading scale emerged but was still not adopted nationally. However, by the 1960s, the A-F system and translating percentages into letter grades were the norm, with letter grades being used in over 80% of schools by 1971 according to the National Education Association (1974). It is a grading system that our schools use and cling to as if it were the only option, perceived as both “fixed and inevitable - without origin or evolution” (Schneider & Hutt, 2013, p. 4). See Figure 2 for a depiction of this scale.



*Figure 2.* Typical letter grading and numerical scale. Adapted from Guskey, T.R. (2015).

*On your mark: Challenging the conventions of grading and reporting.* Bloomington, IN: Solution Tree.

In the 1990s grading software became popular, and today such software is used in a majority of schools in the United States. Most states even require schools to use a grading program, such as the PowerSchool Group's PowerSchool SIS gradebook software program used in North Carolina's public schools (North Carolina Department of Public Instruction [NCDPI], 2016). Percentage grades come mainly from "the increased use of technology and the partialities of computer technicians, not from the desire of educators for alternative grading scales or from research about better grading practice" (Guskey, 2015, p. 69).

### **Problem: Traditional Grading Practices**

Many surveys show that teachers can give more than ten different reasons why a student would receive a grade other than content knowledge or performance on a learning standard (Erikson, 2010). Examples include (1) teachers who penalize a student for missing assignments, (2) students who try to inflate their grade by adding additional points unrelated to actual assessments of learning, (3) teachers who may not want a student to do poorly or fail because of the consequences of doing so, and (4) teachers who try to control classroom behavior through grades. Using the traditional 100-point grading scale, grades are often inflated or deflated by teachers who provide points for non-academic extra credit opportunities, homework, or behavior.

**Traditional grading practice #1: Using the zero on the 100-point scale.** A grade of zero is typically assigned by a teacher when a student does not put forth adequate effort, fails to show responsibility, or does not turn in assignments (Guskey, 2004). Most American secondary schools use a grading scale of the student's mean score that ranges from 0 to 100. Within this 100-point scale, grade ranges are typically broken

into increments and letter grades are used to represent the increment. One of the most typically used grading scales uses ten point ranges associated with letter grades with 90-100 as an A, 80-89 as a B, 70-79 as a C, 60-69 as a D, and below 60 as F or failing. On such a points-based grading scale, a teacher typically records the scores from each assignment or assessment and reports an overall mean or average at the end of a specified school term (i.e. quarter, semester, or school year). This system becomes problematic when a student's earned grade is the mean of the grades in the reporting period. If a student does well overall but receives one zero, the zero serves as an outlier that massively skews the accuracy of the interpretation of the final grade, creating a lack of integrity by which the grades are calculated (Iamarino, 2014). This is also an issue of validity or inference accuracy (Allen, 2005; Popham, 2010).

Validity is the degree to which evidence accurately points to the intended interpretation of scores for the proposed purpose (Creswell, 2012). Thus, an appropriate and valid measurement of student learning should “permit someone to make a valid inference about the knowledge and/or skills that a given student possesses in a particular content area” (Popham, 1999, p. 9). Basically, an individual assessment seeks to “whittle down” learning into a series of questions to help educators make accurate inferences about a child's overall ability (Popham, 1999). Going beyond a single test, a grade is essentially a conclusion the teacher draws about the student's present level of performance when measuring against learning goals or criteria. Inference accuracy, with respect to an overall course grade, rests on how well what is factored into the formula used to produce the grade communicates accurate information about a student's

performance. The inference or conclusions drawn about a student can only be as pure as the ingredients that went in to the creation of the grade itself. Guskey (2015) writes:

“Measurement experts identify the precision of measures by calculating the standard error of measurement. This statistic describes the amount a measure might vary from one occasion to the next, using the same device to measure a trait. In a twenty-item assessment of student learning...the standard error may be plus or minus two items. In other words, from one occasion to another, a particular student with an unchanged level of achievement might answer two more or two fewer items correctly. That may not seem like much, but in a percentage grade scale (100 point scale), that’s a range of twenty percentage points, perhaps from a 75 to a 95 – a difference in most cases of at least two letter grades” (p. 28).

Therefore, by employing Popham’s (1999) definition of validity as “inference accuracy,” traditional graders will make the inference that their “A” students have achieved mastery of the content or that their “D” students have not achieved mastery. Unfortunately, the addition of variables outside of content mastery (attendance, extra-credit, etc.) place those inferences into question.

For the purposes of this disquisition, this approach to scrutinizing validity and inference accuracy is applied to grading on the traditional 100-point scale. In traditional grading practices, grades are often assigned in ten-digit increments with a grade of F being any grade below a 60. This grade range is completely out of proportion to the other ranges (e.g. A=90-100) and is a statistical abnormality. Thus, the use of a score of zero on the 100-point scale “defies logic and mathematical accuracy” (Reeves, 2004, p. 325). To

assign a zero “on a 100-point scale is to assert that work that is not turned in deserves a penalty that is many times more severe than that assessed for work that is done wretchedly and is worth a D” (Reeves, 2004, p. 325). Despite issues of validity and reliability and numerous unintended negative consequences, widespread use of the 100-point grading scale persists (Reeves, 2011).

Assigning zeroes to students is potentially harmful and non-recoverable. If a student receives a grade of a zero on an assignment, it may take as many as nine scores of 100 to pull the overall average grade into the passing range. Wormeli (2006) argues that once a student’s work has been deemed a failure, delineating the degrees of failure does not encourage further learning or persistence. In this way, learning is actually hindered by the use of zero on the 100-point scale.

In addition to discouragement, this traditional grading practice hinders learning because it does not communicate how a student can improve or where he/she went wrong. This approach is “preoccupied with numbers” that do not necessarily reflect or express the student’s actual proficiency level (Iamarino, 2014, p. 3). Further, grades can actually undermine the learning process. Extrinsic motivation, which includes a desire to get better grades, is not only different from, but often undermines intrinsic motivation or a desire to learn for learning’s sake (Kohn, 2011). Reports suggest that points-based grading is having an adverse effect on motivation to improve understanding of subject matter (Iamarino, 2013). The 100-point scale sends the message that students can be successful without really improving the quality of their work. When students keep one eye focused on their grade, they take one eye off the learning process (Kohn, 2011). An example is that in schools that utilize a points-based reading system, many students are

required to obtain a certain number of points each grading period. More specifically, this has been observed through one disquisitioner's experience with a reading program in which students earned points for reading, when she found students reading twenty books of lower academic value to earn points, rather than focusing on more difficult academic texts that provided value to the student's education. In other words, the overall point requirement became the goal, and not the student learning. Brookhart (2011) suggests that grades should be about learning and not earning. Using zeroes on the 100-point scale does not support learning. In fact, evidence suggests it does the opposite. At the same time, no studies support the use of low grades as punishment. Instead of prompting greater effort, low grades usually cause students to withdraw from learning (Guskey, 2004).

Use of zeroes in grading is an obstacle for teachers when care for individual student learning needs is required or when unique or difficult situations are present in a student's life. For example, a student may have a strong grasp of content but is unable to complete an assignment because he/she needs to care for a younger sibling while the only parent in the home works an evening shift to make ends meet. The use of zeroes on a 100-point scale not only fails to give an accurate accounting of a student's learning, but also prevents the flexibility that is often needed when teachers want to provide equitable treatment. This is especially problematic for students facing external challenges beyond their control. For example, life circumstances often associated with poverty such as a lack of parental support, homelessness, abuse, and transience can present unsurmountable challenges for many students (Jensen, 2009).



Adding insult to injury, if a student racks up poor assignment grades early in the grading period, “then the significant trend of student improvement and even eventual mastery of the material can be lost in the final assigned grade” (Carey & Carifio, 2009, p. 26). This is unfortunate for those students who deal with outside stresses such as poverty, or who may just have occasional mishaps with assignments. Additionally, some students, when given a zero, find raising their grade to be impossible regardless of the dedicated effort or achievement that might follow (Guskey, 2015). This can be especially true for struggling learners who may be more likely to give up or more inclined to experience hopelessness in the academic setting (Stiggins, 2005 ). Conversely, a student who does not have to cope with poverty or other significant external challenges is given an unfair advantage by this traditional grading practice. Many would argue that such an advantage is an example of a system geared toward protecting power and privilege of some, those with a higher socio-economic status, and removing both from others, those with a lower socio-economic status (American Psychological Association, n.d.).

**Traditional grading practice #2: Extra credit.** Assigning extra credit is the practice of adding points to an already existing point total to boost a student’s grade. Extra credit can be assigned for a wide range of activities, such as bringing in a canned good for the school’s food drive, having a form signed by a parent, or completing extra work products to add points to the grade. For example, taking on an extra credit assignment or giving a grade simply for returning a progress report are both contrary to an approach where grades communicate mastery levels. Such practices unfairly penalize a student who does not have the opportunity to complete extra credit assignments due to external or economic challenges and actually provide a skewed or artificially high

measurement of the student's ability because they are evaluating compliance rather than, or in addition to, learning (Iamarino, 2014).

Most extra credit assignments, such as giving a student an assignment grade of 100 for turning in a signed form, simply inflate a student's grade and serve no formative purpose. This can inaccurately report what a student really knows and is able to do. Extra credit in such cases actually serves as a confounding variable that may lead both the student and the teacher to believe, incorrectly, that the student is proficient in a particular standard or learning goal when, in fact, that is not the case. Learning is hindered whenever the student receives inaccurate communication about his/her progress as more points or fewer points do not draw an accurate picture of progress. If extra credit artificially inflates the grade, the teacher is likely to miss important opportunities for providing clarification, re-teaching, attempting additional practice, or simply re-assessing the student's learning prior to moving on to new or more advanced concept (Fisher, Frey, & Pumpian, 2011).

A grade that rewards or punishes can actually cause confusion for a student as he/she will likely sink into that pattern of a grade as compensation for work completed rather than tap into an intrinsic motivation to learn the expected content or skills (Kohn, 1993). Guskey (1994) suggests that "rather than attempting to punish students with a low mark, teachers can better motivate students by regarding their work as incomplete and requiring additional effort" (p. 16).

"When we offer extra credit, we're really offering it to students with access to resources: time, money, social capital, transportation, [and] support systems" (Shevrin, 2014). The example from above of the teacher who offers extra credit points to students

for every canned good donated to a local food drive may very well have a student in his/her classroom who needs to be the recipient of those canned goods rather than the donor. Completing a non-academic task for extra credit points, like bringing in a food drive item or getting a form signed, may actually be quite difficult for students of poverty who float among friends and relatives or who have parents working irregular hours. Extra credit for many students is a game of numbers reserved for those students who know how to play it or simply have the means to do so (Erickson, 2010).

**Traditional grading practice #3: Homework.** Homework, work to be completed outside of school hours, is often assigned because teachers believe it will support the learning that occurs in the classroom. Completing math problems, writing a paper, or reading an article are all types of homework that a student could be assigned to encourage practice with skills or content that was previously taught in class. However, teachers in the United States have a larger tendency than any other developed nation to include homework in point totals with nearly 70% reporting that homework is included in their grading formula contrasted by only 20%, 14%, and 9% in Canada, Japan, and Singapore respectively (Baker & LeTendre, 2005). The same study not only showed no significant, positive relationship between grading homework and improved performance but actually showed a negative correlation (Baker & LeTendre, 2005). The traditional view of homework, by both students and teachers, is often flawed when it places a value on the assignment of points for homework rather than helping the students make a connection between the homework and the learning expectations (Vatterott, 2011).

Homework assignments should be used to provide the student an opportunity to practice a new skill or work with newly acquired knowledge for the sake of learning and

not as a means of earning points or demonstrating compliance (Vatterott, 2011). However, the consequences from factoring homework assignments into the grading formula are often high stakes for students (Guskey, 1994), especially if they result in zeroes for non-submission. This misuse of homework, weighting it heavily in a grade, is unfair when many children do not have outside supports which would encourage them to complete at-home assignments or help them to complete them correctly. Natriello (1987) reports that students who misunderstand criteria for completing homework assignments are penalized, whereas students who have help at home or who have the ability to advocate for themselves perform better. Reducing the stakes and using homework as a means of practice levels the playing field for all students (Jensen, 2009).

**Traditional grading practice #4: Behavior.** The literature suggests that another prevalent traditional grading practice is the inclusion of student behavior into the formula of grading. The basic behaviorism behind ‘do this in order to get that’ tracks to numerous schema in our everyday lives from schools to business, to government, to church, and other shared institutions (Kohn, 1993). Grades are often used to help teachers reinforce classroom rules and to support or repress student behavior. For example, teachers may provide a grade for students to encourage them to attend school, bring a pencil to class, or for participation in class rather than use a classroom behavior system to support developing positive behaviors. To paraphrase Randall and Engelhard (2010), when grades also include external factors such as effort, attendance, and attitude problems arise as to the validity of the grades.

Too often, however, teachers are attached to the concept that grades need to encompass a multitude of factors, including the quality of the student’s effort and not

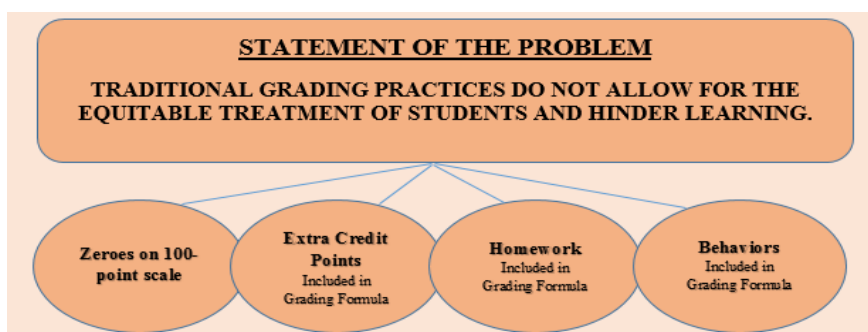
simply the quality of the learning itself (Brookhart, 2011). Any major departures from the historical approach to grading often produce conflict and controversy (Brookhart, 2011). Many teachers perceive the meaning and purpose of grades differently, including what achievement and non-achievement factors are considered (Brookhart, 1994). Using criteria such as effort, penmanship, and timeliness into a grade is totally subjective (Brookhart, 1994). Kohn (2011) contends that when grades include such subjective factors, it diminishes student motivation and makes grades unreliable and invalid.

Grading practices that include student behavior in the grading formula tend to favor students who overtly demonstrate effort or exhibit higher levels of compliance. One study of high school teachers conducted by Stiggins, Frisbie, and Griswald (1989) reported that all participants considered students' attitudes when making decisions about whether to boost a borderline grade. A negative consequence of this grading practice is supported by studies which indicate a growing sense of entitlement among students who believe a good grade is earned through good-faith effort, and, thus, confuse effort with achievement (Conley, 2010). In addition, students of low socioeconomic status or students with disabilities may not put forth effort in ways that conform to the cultural expectations of teachers who lack personal experiences of poverty or disability. Non-compliant behavior (e.g. acting-out, high absenteeism, missing assignments) is often a symptom of poverty (Jensen, 2009) and can also be related to a disability such as Attention Deficit Disorder.

**Summary.** Traditional grading practices have been shown to hinder learning and provide inequitable treatment to students. The framework in Figure 3 depicts an overview of the traditional practices that are symptomatic of this problem. The four

traditional practices, described earlier in this chapter, can potentially cause harm to students and negatively impact their trajectory or success in their lives after high school. In analyzing the literature on traditional grading practices, it is clear that often unintended, negative consequences result, including the ultimate consequence—reduced access to future learning and employment opportunities for students (Marte, 2014). The use of these practices can impede a student’s progress and learning while in a high school course which may lead to the student being incorrectly placed in subsequent course levels or even causing the student to re-take a course when not actually necessary (Guskey, 2011).

As shown here, the consequences extend far beyond the receipt of a good or bad grade. Course grades or grade point averages (GPA) that do not represent content mastery can affect an employer’s ability to accurately infer a student’s aptitude for a certain job. Invalid grades and GPAs can also give colleges a false assessment of a student’s ability to handle post-secondary rigor. The fallout from these outcomes may significantly limit or reduce post-secondary options for many students when competitive application processes are used to select potential students for post-secondary education or career opportunities (National Association for College Admission Counseling, 2011).



*Figure 3.* Disquisition statement of the problem.

## **History and Review of the Problem within the Local Context**

In this section, the disquisitioners provide a close examination of the context where the improvement initiative took place including community demographics, school performance data, and relevant policy information.

**The local context.** Alleghany County rests in the Blue Ridge Mountains in the northwest corner of North Carolina and is the sixth smallest county in population in North Carolina (NC Office of State Budget and Management, 2014). Alleghany County's residents are gathered in several small communities around the county with the largest being Sparta, the county seat. The school system serves approximately 1,500 students with three pre-kindergarten through eighth grade (PK-8) schools and one high school. Piney Creek School is the smallest school serving 170 students in a small, rural part of the county. Glade Creek School serves 275 students on the eastern end of the county and Sparta School is the largest of the PK-8 and serves approximately 650 students. Alleghany High School serves over 400 students and is the sole high school for all students who reside in Alleghany County. Approximately 25% of the students graduating from high school matriculate to a four year university with another 50% planning on some form of college, including local community colleges (North Carolina Department of Public Instruction [NCDPI], 2014). Some students also enter into trade schools, apprenticeships, the military, or the workforce (NCDPI, 2014).

According to the interview with the principal (C. Barnes, personal communication, September 15, 2015) the high school not only prepares students for postsecondary studies in college, but also prepares students for work in trade fields including construction, apparel, agriculture, and automotive technology. Parent

involvement in the school has focused almost exclusively on athletics and discipline with parents rarely coming to the school for other purposes. Many of the parents in the community interact with school in the same manner that their parents did when they attended school. This detachment is considered the result of trust: parents trust Allegheny school leaders and teachers will do their jobs to prepare students for the world ahead.

Four years ago one disquisitioner entered the school as a principal. He discovered that there were no standardized expectations for grading. Grading practices he observed were not always fair and some practices seemed to harm students. Further, many of the grading practices were damaging to the student's ability to make progress towards graduation. Giving zeroes as punishment for student behavior and using grades as a disincentive to complete and turn in late assignments were just two examples. Many teachers held the belief that, in the end, students received the grades they deserved and that students who could not complete assignments or homework in a timely manner deserved to fail the class. The principal recounted a staff meeting early in his tenure where one teacher remarked that failing a class was a good way to teach a student how to be responsible for his grades (C. Barnes, personal communication, September 15, 2015). Largely attributed to these practices and perceptions, students often re-took courses two, three, or four times even though they had demonstrated competency of the standards on the end of course test. Students often reported to school officials their frustration with their lack of progress and preferred to quit school rather than re-take a class (C. Barnes, personal communication, September 15, 2015).



For the past ten years, the school's graduation rate consistently measured between 80 and 85 percent as shown in Table 1. Even though this exceeded the state average, it was not clear whether this level of performance was indicative of the students' level of achievement, mastery, or preparedness for the real world. It was the principal's belief that if the grading barriers were removed and students were given the opportunity to gain credit by demonstrating mastery, the failure rate would decline and the graduation rate would increase.

Table 1

*Graduation Rates: Alleghany High vs. North Carolina State Average 2006-2014*

<u>Graduation Rates</u>		
<u>Year</u>	<u>Alleghany High</u>	<u>State</u>
2013-2014	92.3	82.6
2012-2013	89.8	82.5
2011-2012	85.7	80.4
2010-2011	80.6	77.9
2009-2010	86.2	74.2
2008-2009	71.8	71.7
2007-2008	81.6	70.3
2006-2007	78.3	69.5
2005-2006	92.2	68.7

*Note.* Source: North Carolina Department of Public Instruction. (2015). *Accountability*

*Services.* Retrieved from <http://www.ncpublicschools.org/accountability/>

**Policy.** The disquisitioners realize that little policy exists today to guide teachers in the provision of grading practices that are equitable and directly connected to the advancement of student learning (Bogenschneider & Corbett, 2011). In the case of the disquisition, the school district had no district policy on grading at all. In North Carolina, the State Board of Education policy on grading only focuses on awarding quality points and on determining grading scales (North Carolina State Board of Education [NCSBE], 2009). The policy does not address classroom grading or individual teacher grading practices. Student grading practices, in most settings, are almost completely left up to the discretion of the individual teacher, with little to no discussion of quality, effectiveness, or alignment with other teachers in a department or a school. Further, a teacher's grading practices usually grow out of their individual experiences as a student, which can vary widely (Erikson, 2014).

Even in schools where there is some guidance in grading practices through policy, variations exist from teacher to teacher (Guskey, Swan, & Jung, 2011). Without any oversight or standardization from state Boards of Education (or other supporting agencies at the state and local levels), grading practices will vary widely among different school systems. Policy makers need to realize that this inconsistency “plays havoc with students’ and [educators’] professional integrity” (O’Connor & Wormeli, 2011, p. 42) and adversely impacts students. When lack of consistency exists, the probability of subjectivity increases through teacher bias and, thus, reporting methods are unduly influenced. Teachers find themselves playing the part of both advocate and judge which are not compatible roles (Guskey, 1994). So while individual teachers believe they are

helping students, in reality, students do not receive a fair and equitable evaluation of what they know, understand, and are able to do.

### **Desired State and Goals of the Improvement Initiative**

In this chapter, the disquisitioners defined grading and grading practices then provided a history of grading practices in application observed in the United States from the 1700s through the modern era. Following that, the chapter provided an explanation of four problematic traditional grading practices describing how those practices are inherently inequitable and hinder the learning process for students. While there may be other traditional practices that may also have this impact, it is these four practices that the disquisitioners focused on in this work. However, the disquisitioners believe that standards-based grading (SBG) practices can mitigate such adverse effects, fully supporting student learning and promoting equitable treatment for all students. Chapter I also highlighted the historical context in place at the target school and detailed why the disquisitioners chose to move the process of implementing SBG forward at the school.

The improvement initiative was built upon four major goals. The first two goals have been categorized as *outcome goals*, or, more specifically, goals that, when achieved, represent our desired state. They include: (1) SBG will provide for more equitable treatment of students and, (2) SBG will advance student learning. The second two goals have been categorized as *process goals*, referring to goals set for the improvement process itself. First, we sought to provide relevant, effective professional development designed to directly support the implementation of SBG practices in both a Biology and a Math 1 course. Second, we hoped to achieve successful implementation of SBG in these two classes.

In Chapter II the disquisitioners will provide an explanation of SBG as the proposed solution to the problems created by the traditional grading practices discussed in this chapter, detailing why SBG practices are preferable to traditional practices. Then, an overview of the improvement initiative that was conducted will be provided to demonstrate how support was provided to the school to create a process of learning that was both equitable for students and advanced the learning process.

## CHAPTER II: IMPROVEMENT INITIATIVE

Chapter II discusses the proposed solution to the problem identified in Chapter I as well as the improvement initiative the disquisitioners undertook in implementing the change process. Specifically, Chapter II will (1) describe SBG as the proposed solution to the problem, (2) state the short and long term goals of the improvement initiative, and (3) explain the methodology of how the improvement initiative was implemented.

### **Standards-Based Grading (SBG): The Proposed Solution**

Before detailing the improvement methodology, it is necessary to define SBG. The standards-based approach to student grading collides with many traditional paradigms in that SBG reports an individual's performance against a curricular standard, eliminating extraneous, non-academic factors (O'Connor, 2002). A SBG approach focuses wholly on mastery of clearly defined standards or mastery learning. Mastery learning is based on several conditions: clearly defined learning goals in the proper sequence, frequent assessment of student learning that includes relevant feedback, and criterion-referenced assessments of learning as opposed to norm-referenced evaluations (Guskey & Gates, 1986). Instead of basing a student's grade on the completion of work or compliant behavior, a grade represents mastery of a standard. For example, a student who never completes homework but receives 90% or better on every test, should receive a grade that solely reflects his or her knowledge of the subject matter and should not have the grade reduced simply because the homework assignment was not completed. Homework is generally assigned to help the student master the subject matter being taught in class. The student has proven by his or her performance that the homework is unnecessary in this instance.

The literature suggests and provides support for SBG practices that are connected to formative assessments of student learning and that are inherently more equitable and supportive of student outcomes (Stiggins, 2002); thus, “standards-based grading separates and elevates the advent of learning from points and numbers in a gradebook, lending new inspiration to the ages-old pursuit of education” (Iamarino, 2014, p. 9). A teacher employing a standards-based or mastery learning model defines the specific learning outcomes that students must learn, delivers high-quality initial instruction, administers formative assessments to assess progress toward mastery, and uses those assessment results to provide feedback to students on how to improve so that the learning outcome is achieved. These teachers often provide additional practice to increase the chance of mastery (Guskey, 2010).

In using SBG, many teachers provide the learner more time or multiple attempts to achieve a learning objective before moving on to new learning goals. This is in contrast to the traditional grading practice approach where presentation of an instructional unit of pre-determined length is simply followed by a summative or final assessment (Guskey, 2010). Additionally, “focusing on only a percentage cutoff in establishing mastery is seductive, but misleading” (Guskey & Anderman, 2014, p. 21) and doing so prioritizes the number rather than the learning. A graphic representation of the contrast between the two approaches is presented in Figure 4. Essentially, traditional grading practices lock in a time-bound, linear progression of the presentation of material followed by a summative assessment to measure the student’s achievement while SBG represents an actual cycle of learning allowing formative feedback to guide and support improvements in student learning (Marzano, 2011). Further, research shows that when

teachers use formative assessments as a component of SBG, they have a much stronger understanding of a student's mastery of the subject matter (Marzano, 2011; McMillan, 2004).

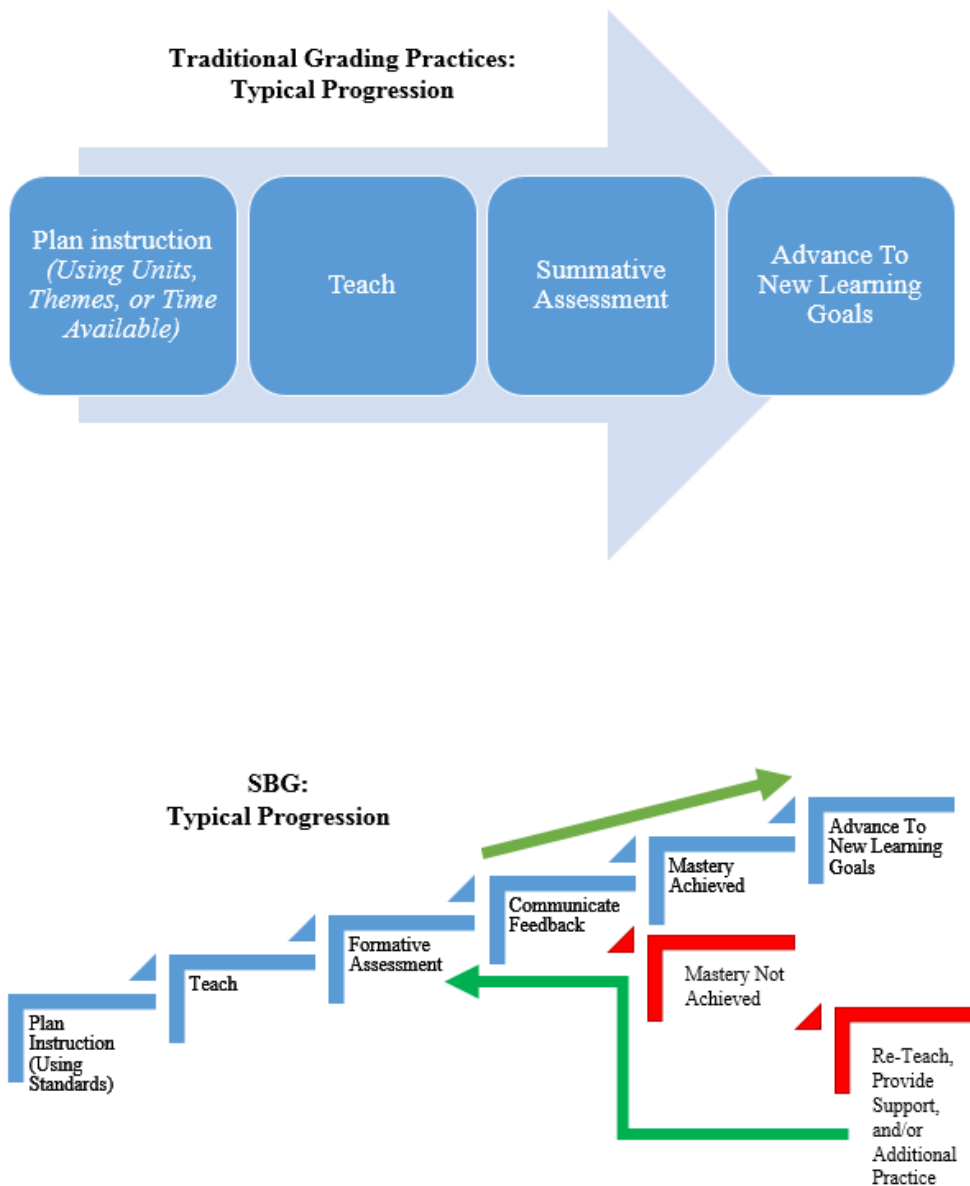
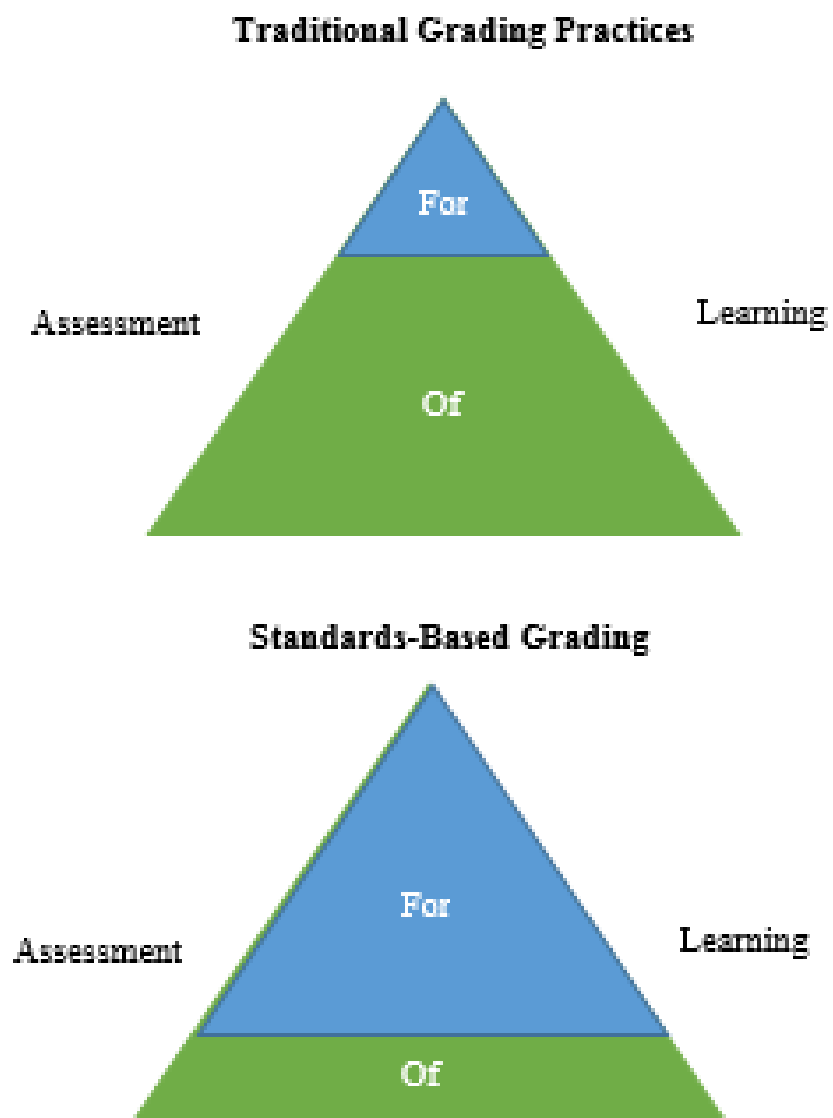


Figure 4. Traditional grading practices contrasted with standards-based grading.

A teacher must have a clear understanding about the differences in formative assessment and summative assessment if one is going to evaluate product, process and progress. SBG rests primarily on the idea that assessment should be more *for* learning rather than *of* learning (O'Connor & Wormeli, 2011). Students should not be graded as they are learning the material, but rather after the learning has occurred. Therefore, students should be given ample time to practice using formative assessment to aid in their growth and to help adjust instruction without penalty. This concept is depicted in Figure 5. Applying this concept incorrectly, goes back to the argument of why homework, as it is traditionally used, hinders learning. If homework is practice, weighing it too heavily does not provide a safe environment for students to practice, and it adds to the meaninglessness of a time-line driven gradebook indicative of traditional grading practices.





*Figure 5.* Contrast of assessment in traditional vs. SBG practices. Adapted from: Spokane Public Schools, 2009, p. 14

## **Improvement Methodology**

**Setting goals.** If one accepts the fact that traditional grading practices are harmful, then educators need to look to SBG as a new model in grading reform. In the short term, SBG will create equitable treatment among students by measuring performance solely against standards. This will allow students to have equal access to content, will mitigate external factors, and will provide a positive trajectory for student success. When grades are based solely on mastery of content/skills/dispositions, a student's level of advantage or disadvantage does not impact his or her grade. For example, a student living in poverty often has challenges that may inhibit his or her ability to work on projects at home or to complete homework due to external factors out of his or her control. A student could be required to complete housework, take care of siblings, and create meals due to absent or working parents or a student may simply not have stable housing at all creating great unpredictability in routines outside of school. Guskey (2015) describes other grading practices that are all too common and based on student compliance that further disadvantage students. These include inflating grades for bringing in tissues, keeping cell phones put away, attending school events, and signing a course syllabus (Guskey, 2015).

All of the unintended consequences of traditional grading practices lead to inaccurate reporting of student achievement. The inequity created can adversely affect decisions and can damage a student's future by having him/her placed incorrectly in courses. Knowing accurately what a student knows and is able to do provides more equal access and opportunity for advancement, especially for a disadvantaged student.

Additionally, SBG will advance learning by providing adequate assessment for course learning objectives, for more accurate evaluation of student progress, and correct course placement. In the long term, SBG will allow students equal access to employment and all other post-secondary schooling opportunities. Students will be better prepared for subsequent courses, career, college or other post-secondary opportunities. Therefore, the improvement initiative implemented at Allegheny High School and discussed in this disquisition sought to gather evidence and evaluate both these long term and short term outcome goals; a summary of those goals is shown in Figure 6.

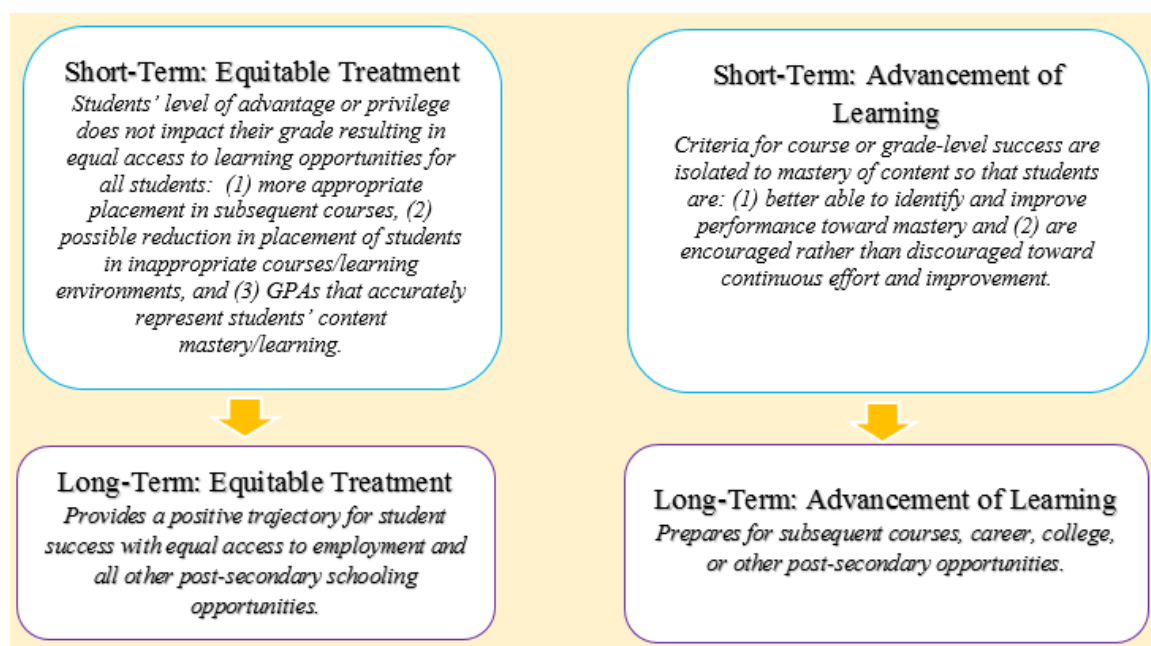


Figure 6. Disquisition desired state/outcome goals.

The improvement initiative included an in-depth look at the changes made to the grading practices at Allegheny High School, highlighting the work done to build the capacity of the teachers and the leadership team as they worked to address the inaccuracies and inequities in grading practices. Two courses were selected to implement

a SBG improvement initiative for the actual improvement initiative. This consisted of a grading system or formula that was based solely on the competencies of the course derived from the curriculum standards. To help better increase fidelity with the grading formula, an online assessment tool called *Study Island* was used to create quizzes and tests solely based on the course competencies. The disquisition team also anticipated that stakeholders would value the clarity of the communication of student progress provided by SBG. Further, the disquisitioners hypothesized that they would learn, through interviews and focus groups, that stakeholders' perceptions about a change in grading practices would be positive. The logic model in Figure 7 provides a brief summary of the improvement initiative process as initially proposed and the actual process is outlined in greater detail later in the disquisition.

<b>Problem:</b> Traditional grading practices do not allow for the equitable treatment of students and hinder learning.				
<b>Process Goal:</b> Pilot the implementation of SBG practices in the secondary school setting.				
<b>Resources/Inputs</b>	<b>Activities</b>	<b>Outputs</b>	<b>Outcomes</b>	<b>Impact</b>
Buy-in from students, staff, and stakeholders	Created PD opportunity for teachers	Teachers created a Grading Position Statement (GPS)	Teachers changed their perception of traditional grading practices	Equity among students was created
A SBG framework for teachers	Assessed school's current practices and existing level of knowledge	Students participated in SBG Math 1 and Biology courses	Teachers changed using from traditional grading practices to SBG	SBG advanced student learning
Courses that aligned assignments and assessments directly with standards	Executed PD based on the gap between knowledge/ experience and implementation of SBG	Grades aligned with standards	Student learning was communicated accurately	
	Supported sub-group of teachers doing full implementation and interviewed them to assess performance			
<b>Planning</b>		<b>Intended Results</b>		

*Figure 7.* Logic model. Based on Logic Model Development Guide by W. K. Kellogg Foundation in Preskill & Ruff-Eft, 2016, p. 83.

**Participants.** Those participating in the improvement initiative include administrators, specifically the principal; the Biology and Math 1 teachers, students enrolled in Biology and Math 1 during the spring semester of 2015, parent of the students enrolled in classes, and the school-based leadership team.

**Improvement initiative implementation plan.** SBG is the next evolution of the changes that were already underway at Alleghany High School since the fall of 2011. Starting then and using the structure of professional learning communities, the school administration worked with teachers and other stakeholders to identify the purpose and philosophy of grading and then began to make changes. To continue the efforts made at Alleghany High School, the disquisitioners designed an improvement initiative with two major goals in mind. The outcome goals were focused on creating equity and advancing student learning while the improvement initiative process goals were focused on the action steps for implementing SBG in two teachers' classrooms. Figure 8 illustrates the entire improvement initiative implementation plan including work done at the school before the disquisition while Figure 9 shows a table the disquisitioners used to build an implementation plan for the disquisition work.

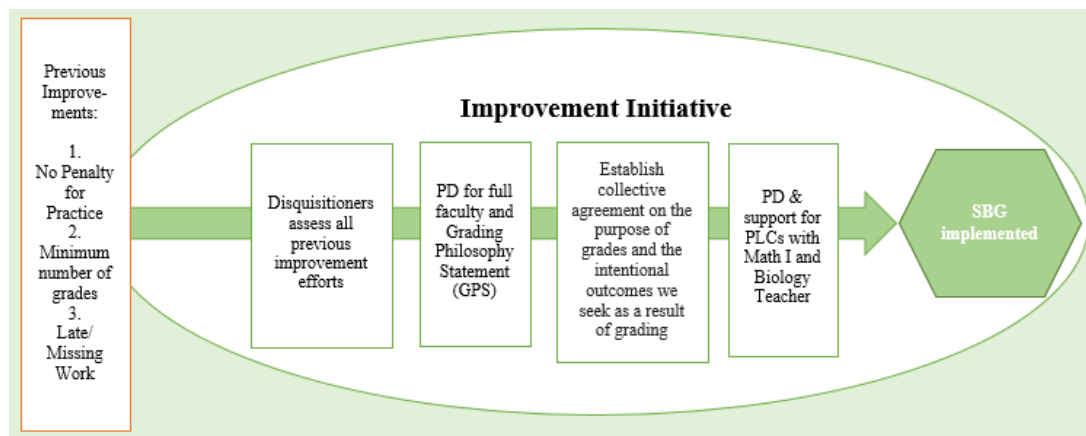


Figure 8. Graphic representation of intervention plan cycle.

<u>Problem Statement</u>
Traditional grading practices do not allow for the equitable treatment of students and hinder learning.
<u>Goals</u>
Outcome Goals: (1) SBG will provide for more equitable treatment of students and (2) SBG will advance student learning.
Process Goals: (1) To provide professional development for teachers and (2) to implement SBG practices in a Biology and Math 1 course.
<u>Improvement Process Components (Teacher Behaviors)</u>
Teachers will not apply zeros or use non-academic variables in their grading formulas.
Teachers will provide students with sufficient time and opportunity to demonstrate their learning and will allow them to re-claim credit for missing or late work.
Teachers will provide no less than two hours of additional tutoring per week to support student's learning of course competencies.
Teachers will use online learning tool entitled <i>Study Island</i> to provide formative and summative assessments.
<u>Stakeholders Involved in Process</u>
The Biology and Math I teachers at Alleghany High School.
Students enrolled in both above classes (current students at Alleghany High School).
Parents of students at Alleghany High School.
Administrators at Alleghany High School.
School Based Leadership Team

Figure 9. Improvement initiative implementation plan (excerpt).

### **Historical and Current Initiatives at Alleghany High School**

The transition from using traditional grading practices to using SBG practices was a slow process occurring over four years. While the principal and the school's teacher-leaders collaboratively shared the research on grading and made some alterations to their practices, in the spring of 2014-2015 the school underwent a larger transition. The improvement initiative was designed to help the school make a significant shift to the SBG approach piloting it with two teachers' courses. In the sections that follow, the

disquisitioners will provide a conceptual framework used to guide the improvement initiative and a time-line with a narrative description of the improvement initiative.

**Present grading practices and reforms in progress.** The change to the school's grading processes originally began with a need to improve graduation and failure rates. The principal and teacher-leaders saw course failure as a barrier to graduation. As a starting point, the school staff read the article by Douglas Reeves (2004) titled *The Case Against the Zero* and used it to spark a discussion about the practice of grading and the dangers of using zeroes as an instructional tool. After several professional development opportunities designed to showcase equitable grading practices, the school leadership team designed and implemented several guiding practices for student grading. These practices are outlined below.

***No penalty for practice.*** After receiving mandatory remediation and tutoring, students were allowed to retake tests and quizzes until they could demonstrate mastery. This was designed to allow students to work at their own individual pace with their own learning curve and would not penalize students who learned slower than their peers.

***Minimum number of grades.*** Teachers were required to post a minimum of two grades per week, or twelve per reporting period. This encompassed homework, tests, quizzes, in-class assignments, and projects. This ensured that a student's final grade would not be skewed by an outlier and that a student would have ample opportunity to demonstrate mastery.

***Late assignments.*** Students were allowed to turn in missing and late assignments during the six week grading period to receive a minimum of a passing grade for assignments that demonstrated grade level work.



**Professional development and teacher change.** Once the disquisitioners determined what content was needed for professional development, the disquisition team provided a two-hour long overview of the SBG process along with its history and its potential for use at Alleghany High. This targeted professional development session occurred in February 2015 at the school with all three of the disquisitioners taking an active part in leading the instruction. All of the teachers at the school participated in this professional development which included follow-up and discussion after the face-to-face session. The activities conducted were largely based on Wormeli's *Fair Isn't Always Equal* (2006) on SBG. The teachers discussed and generated ideas in small groups during the work session that also featured short video clips of Rick Wormeli discussing his practical approach to SBG for teachers (Wormeli, 2010).

At the conclusion of the professional development session in February 2015, each teacher was asked to reflect on the discussion and learning goals for the day by completing a follow-up assignment. Also, after the professional development was delivered, each professional learning community (PLC) within the school was charged with discussing and processing the information into some actionable goals. Specifically, each teacher was tasked with creating a Grading Philosophy Statement (GPS) that would be used to guide his/her analysis and change to his/her own classroom grading practices moving forward. The school's principal worked with teachers to ensure that those follow-up discussions were held and that the GPS documents were created. Teachers provided a copy of their completed GPS document to the principal so that the disquisition team would not only have examples of their work, but also this provided formative

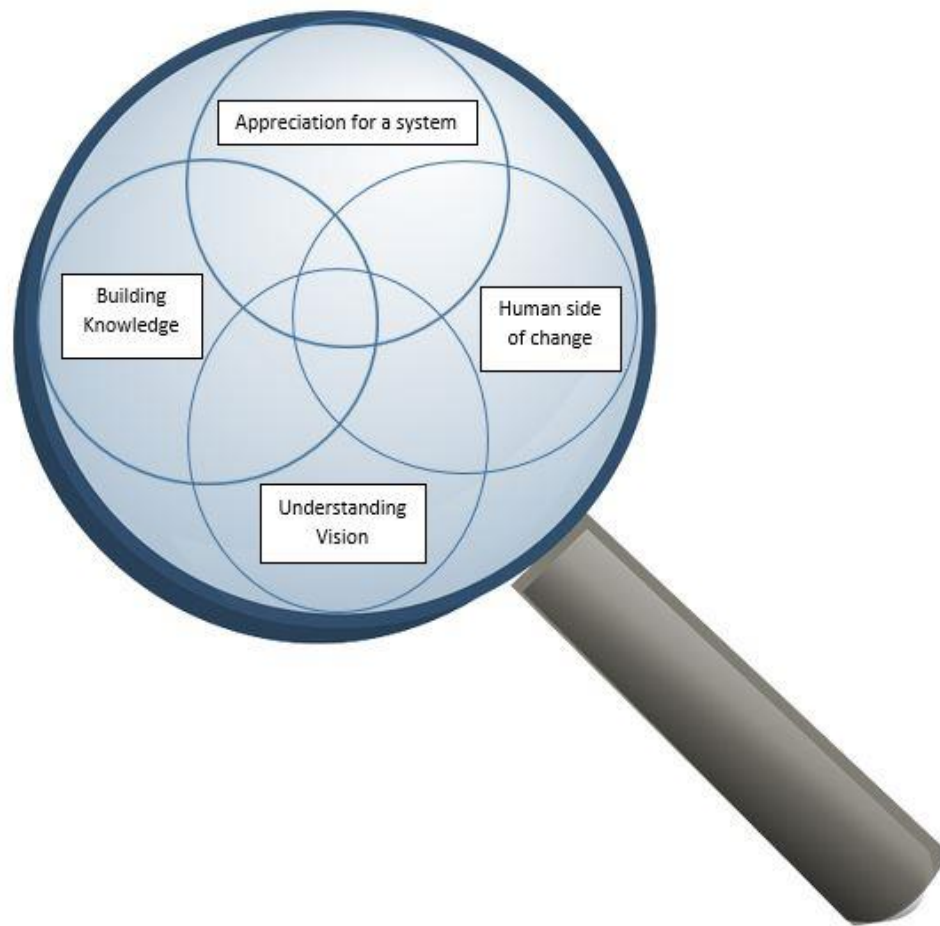
assessment of the teachers' progress on incorporating SBG practices into their teaching during the improvement initiative.

In addition to the GPS activity, the disquisitioners encouraged the teachers to return to the topic of grades and grading in their professional learning communities, specifically to generate practical implementation ideas for their particular courses or subjects in an ongoing manner throughout the semester. This would allow teachers from the same discipline to examine the grading practices across the four years of a student's high school career to determine if the grades were equitable and supported the learning process. These professional learning community conversations continued throughout the spring of 2015. This job-embedded recurrence was designed as a formative support measure during the overall improvement initiative not only to support the two classrooms actively engaged in the initiative but also to provide general support to the whole school in taking on improving grading as a school-wide professional learning goal. The disquisition team wanted to be sure that any change process was supported by professional learning in the greater school community to try to prevent this intervention from falling into the failed intervention trap often seen in public schools when a reform process is unsupported or not allowed the time or reflection needed to take hold (Bryk, Gomez, Grunow, & LeMahieu, 2015).

For the teachers who were taking part in the targeted improvement initiative, the principal purchased a copy of the book *On Your Mark - Challenging the Conventions of Grading and Reporting* by Thomas Guskey (2015). Providing the teachers this book was intended to help them deeply reflect on their grading practices and become more familiar with the research surrounding SBG. The disquisitioners felt that this book was valuable

for several reasons. First, it was recently published containing relevant research on the processes of grading and the inequities inherent in traditional grading practices. Second, it provided mathematical analyses regarding the computation of grades and the impact of percentages. This book was used to help guide the teachers' practices as well as help frame their conversations with students, parents, and colleagues about SBG. Making the teacher an authority on the use of SBG through relevant professional learning was designed as a way to provide the efficacy and empowerment needed to support the teacher through a change from using primarily traditional grading practices to using SBG practices.

One of the weaknesses of implementation of SBG at Alleghany High School was a lack of deep stakeholder knowledge regarding the research and beliefs surrounding the grading process. W. Edward Deming proposes a model of profound knowledge (see Figure 10) that is required prior to any type of system-wide change. This model speaks of the interplay of four elements: appreciation for a system, understanding variation, a building of knowledge, and the human side of change. It is the understanding of the interplay between these four variables that is critical in the building of true stakeholder change (Langley, 2009).



*Figure 10.* Deming's system of profound knowledge. Adapted from Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed.). San Francisco, CA: Jossey-Bass.

**Formative assessment of students.** A central benefit of the SBG model is the ability for teachers to gather useful formative or progress data that can be used to analyze student understanding of the competencies contained in the standard course of study (Stiggins, 2005). This allows school staff to intervene so that support can be provided for student learning before it is too late. Additionally, SBG communicates student progress

more consistently throughout the learning term to inform both parents and students regarding progress toward learning goals. An online computer program, *Study Island*, was used to help students and teachers track mastery of learning goals. *Study Island* is a data-driven software that provides standards-based assessment and test preparation (Study Island, n.d.). *Study Island* combines rigorous content that is highly customized to the specific state standards in math and science and contains interactive features as well as games that engage students and reinforce learning and mastery.

Upon further reflection, teachers realized that *Study Island* could be used intentionally to promote a SBG model in several ways. First, the *Study Island* program breaks down the course being assessed, in this case biology or Math I, into separate and distinct skills or competencies. It can then be used to track and assess mastery on each of these competencies. It allows students to return to units that had been done before, redo them, and then receive an updated score. In this way, student understanding of the coursework is consistently kept up-to-date, and students are allowed to return to competencies and skills until they demonstrate mastery. Second, *Study Island* also provides a report that can be printed out and sent to parents each grading period that shows a students' overall growth and mastery as well as weak areas in each competency.

Both the Biology and the Math I teachers committed to using *Study Island* intentionally over the course of the improvement initiative requiring students to spend a minimum of one hour per week directly working with the program. Both teachers analyzed the data from the program and provided students the opportunity to retake and retest specific weak areas in their learning. Students were also allowed the opportunity to improve their performance and, consequently their grade, throughout the semester.

Students were provided two hours each week of specific, individual tutoring on areas of concern. This allowed the students to receive individualized attention and support designed to help improve their overall understanding of the instructional goals of the course. The teachers also consistently sent home documentation and reports to parents every six weeks detailing each student's overall growth as well as mastery of learning goals.

**Summary.** Figure 11 details the grading improvements implemented at Alleghany High School *prior* to this disquisition as well as those which occurred specifically for this disquisition. First, it was important to assess all previous improvement efforts made at Alleghany High School before implementing the specific SBG improvement initiative in the Biology and Math 1 courses. This information led the disquisitioners to design professional development to explain the research regarding SBG as well as the processes by which it creates equity among students and supports learning. Second, the disquisitioners believed that the best way to support the student learning throughout the process was through the use of *Study Island*. This program helped the teachers formatively assess and support student learning while also providing ways to communicate effectively with parents regarding student progress.

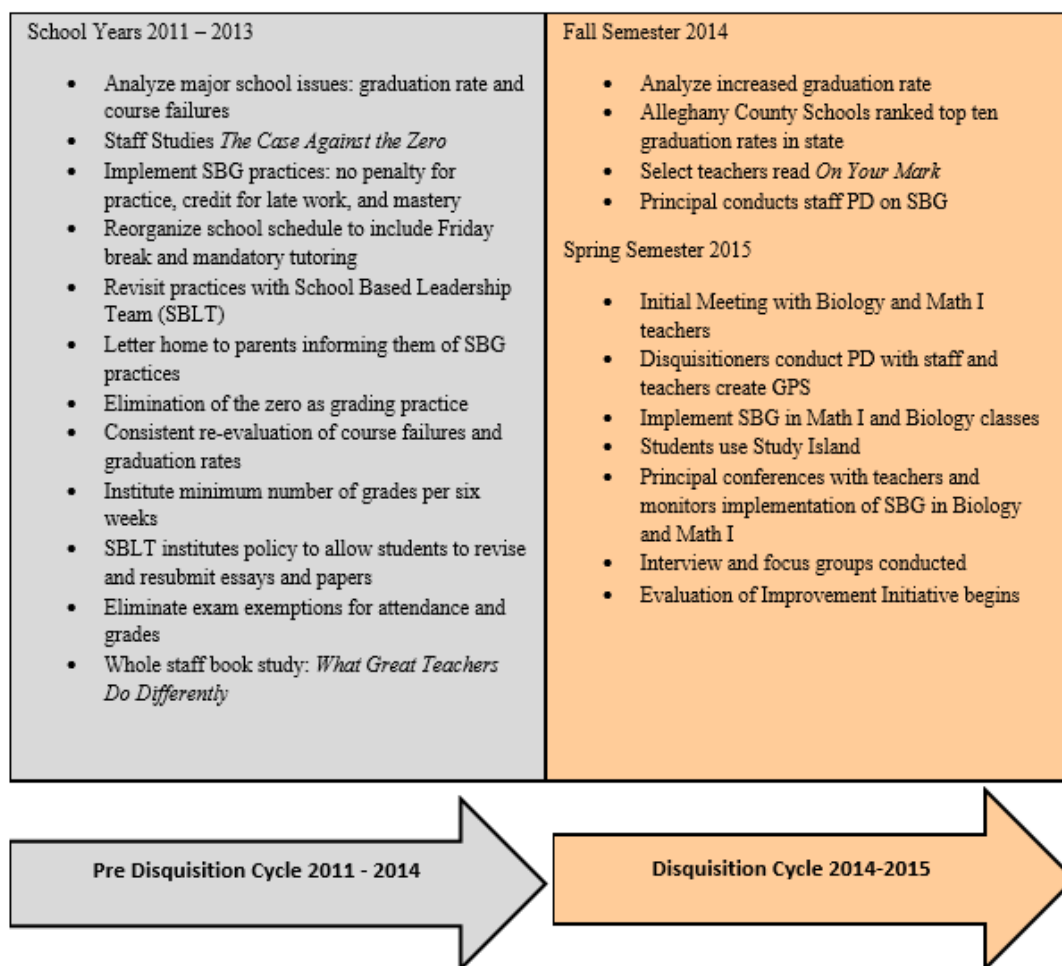


Figure 11. Pre-Disquisition and disquisition improvement initiative timeline.

Chapter II also detailed the enhancement of professional development that occurred with teachers at Allegheny High School, seeking ways to extend and enhance their understanding of the SBG model, coupled with research and data that highlighted the need for grading protocols that enhance learning equitably for all students. This professional development included extending the strategies and values of the SBG program into the grade level and subject area professional learning communities in order to help refine and enhance teacher practices in the building. Also explained was how the

intervention was formatively assessed through the use of a student driven, competency based program called *Study Island* which allowed the students the opportunity to revisit elements of the standard course of study for both biology and math until they demonstrated mastery.



## CHAPTER III: EVALUATION OF IMPROVEMENT INITIATIVE: ASSESSMENT METHODOLOGY

Chapter III will discuss how the disquisitioners evaluated the success of the improvement initiative both formatively and summatively. We define formative assessment as monitoring and providing feedback that can be used to advance improvement efforts. Formative assessment attempts to answer the question: “Is the improvement initiative working?” We define summative assessment as evaluating the effectiveness and outcomes of the improvement initiative once completed. Summative assessment attempts to answer the question: “Did the improvement process work?” Both types of assessment are detailed in this section while the results are provided in Chapter IV. Before diving into the evaluation of the improvement initiative, we have connected the pieces of this process in a larger framework (Figure 12) to remind the reader of the relationship between the problem, the intervention applied, and the desired outcomes.

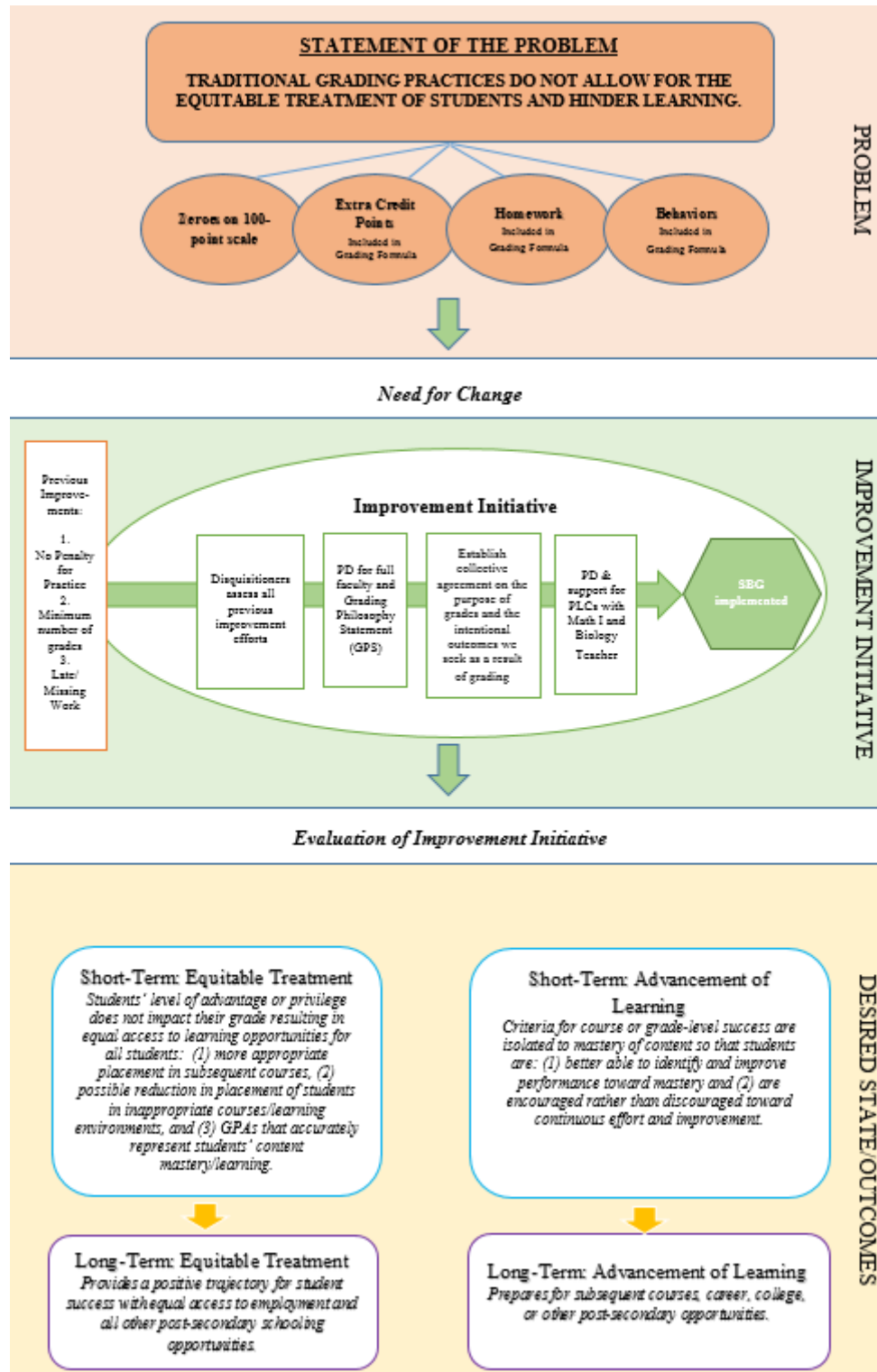


Figure 12. Disquisition conceptual framework.

Our assessment results and conclusions are predicated on whether the goals (process and outcome) were achieved. As reported previously, our goals included two goals that were categorized as *outcome goals*, or, more specifically, goals that, when achieved, represented our desired state. They included: (1) SBG will provide for more equitable treatment of students and, (2) SBG will advance student learning. The second two goals were considered *process goals*, referring to goals set for the improvement process itself. First, we sought to provide relevant, effective professional development designed to directly support the implementation of SBG practices in both a Biology and a Math 1 course. Second, we hoped to achieve successful implementation of SBG.

After conducting a review of the literature and an analysis of prior change processes in student grading that had already taken place at the school, the disquisitioners set out to design an improvement initiative that essentially served as another cycle of improvement in the overarching continuous improvement at the school (Langley, et al., 2009). With this in mind, it was critical to approach the work of the disquisition semester (spring 2015) within the context of the ongoing efforts already being implemented in the school, refer to figure 11 in Chapter II.

By applying the SBG improvement initiative with two teachers first and then following that initiative with analysis and reflection, the disquisitioners believed it would provide more encouragement for future change processes (Langley, et al., 2009). Additionally, analyzing the qualitative data collected at the end of the 2015 spring semester was intended to provide a framework for future improvement initiatives at Alleghany High School or other schools wishing to implement SBG. Discovering more about what stakeholders value and what beliefs they hold are critical elements of any

effort to complete future cycles of improvement or to coach leaders in other contexts who wish to improve grading practices (Brookhart, 2011).

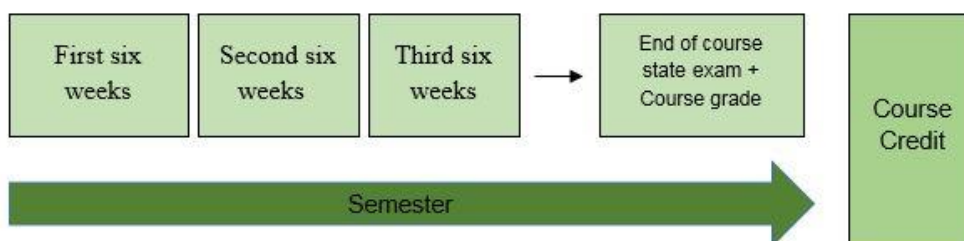
At the conclusion of the 2015 spring term, the disquisitioners conducted a series of dialogues with stakeholders involved in the process at the school to gather qualitative data as a part of this disquisition. The disquisition team conducted focus groups with students who had participated in the classes where the SBG changes had been implemented, semi-structured interviews with the teachers involved in the improvement initiative, a focus group with parents of students in the school who had experienced the changes in grading practices, and a semi-structured interview with the school's principal who had served as the school-site leader of the improvement initiative. What follows is a discussion of how those data were analyzed at the conclusion of the improvement initiative.

### **Formative Assessment of Improvement Initiative**

“The Model for Improvement is based on an iterative, trial-and-learning approach to improvement” (Langley, et al, 2009, p. 102). In other words, the *Model for Improvement* is based on cycles of formative assessments. Formative assessment is a method for monitoring and providing feedback that can be used to advance improvement efforts. Specifically, formative assessments help identify strengths and weaknesses allowing one to address problems immediately (Carnegie Mellon University, n.d.). In any improvement initiative it is important to assess formatively to know whether a change is truly an improvement (Langley, et al., 2009). While the improvement initiative implemented at Alleghany High School included an informal, formative assessment, the disquisitioners primarily measured the improvement initiative summatively. In

retrospect, the disquisitioners recognize that more formative assessment could have generated better information to make mid-course corrections and to ensure fidelity of the initiative. This is noted as an area of weakness in the disquisition and ideas for how school leaders might formatively assess the implementation of SBG are provided in Chapter V, the recommendation section of this paper.

The improvement initiative for this disquisition occurred in the spring of 2015. Alleghany High School's course term consisted of three six-week grading periods in an overall eighteen-week semester. High school course credits are earned by the successful completion of a course (North Carolina State Board of Education [NCSBE], 2013). Because Alleghany High School courses are set on a block schedule, students earn one credit per semester course. The biology and Math 1 courses are only offered in the spring semester of each year. Because of this scheduling it was not possible to implement more than one cycle of the SBG improvement initiative in the biology and Math 1 courses within the disquisitioners' final year of Western Carolina University's doctoral program.



*Figure 13.* Overview of grading periods.

Because of the work done previously by the principal, the ground work for implementing the SBG improvement initiative had been laid. In Chapters I and II, the disquisitioners discussed the history of Alleghany High School and the traditional grading practices that were utilized for students prior to 2011. These traditional practices included the use of zeroes for missed assignments, the lack of retesting and re-submission of work, and the inclusion of behavioral-based consequences and incentives for students. Soon after arriving in the fall of 2011, the principal worked with the school's leadership team to alter immediately a variety of grading practices that were being utilized. The policies for which the principal advocated were justified as a measure designed to help increase graduation rates and decrease course failure rates but were not implemented with any targeted, comprehensive professional development designed to increase the teachers' understanding of the unintended consequences of traditional grading practices.

When the school implemented the grading policies introduced in 2011, the efforts were constructed hastily in order to address specific, urgent issues of graduation rates and course failures. The implementation of these policies were used as a mandate to solve specific, systemic problems. *A Repair Kit for Grading: 15 Fixes for Broken Grades* by Ken O'Connor (2010) was influential in convincing the principal to attend to these problems. Of particular interest was the passage:

“In education we have tended to think of fairness as uniformity. All students have been required to do the same assessments in the same amount of time and their grades have been calculated in the same way from the same number of assessments. But students are different in many different ways, and so treating them the same can actually be unfair” (O'Connor, 2010, p.7).

The book provided a basic framework for the principal to consider when evaluating the effectiveness of grading practices. O'Connor (2010) suggests that effective grades meet four overarching criteria for success: grades should be accurate, meaningful, consistent, and designed to support learning (p. 3). Therefore, the principal aligned the grading policy changes to these four criteria.

Teachers at Alleghany High School generally adhered to the policies of effective grading practices that were set forth by the principal. When asked, the principal reported having many individual conversations with teachers to help them learn how to integrate the new grading conventions into their own classrooms. However, teachers still did not have a clear understanding of the reasons supporting the changes in policies nor did they have any real measure of how successfully they had implemented change in their own contexts (C. Barnes, personal communication, September 9, 2015). Therefore, at the beginning of the 2015 spring semester, the disquisitioners traveled to the school to meet with teachers for the purpose of forging relationships and to evaluate their understanding of SBG. This initial meeting laid the foundation for the content of the professional development conducted in February 2015. Teachers at this time were asked to create a Grading Philosophy Statement (GPS) and were presented with the basic tenants of SBG. The principal collected these after the professional development and discussed the content in subsequent faculty meetings.

Additionally, at the end of each six week period during the semester, the teacher participants reported students' current levels of mastery in the biology and Math 1 courses. Students, parents and administration were made aware of students' progress. As

a means of formative assessment, the principal conducted daily interactions with the biology and Math 1 teachers to monitor and support the implementation of SBG. The disquisitioners communicated with one another about these interactions and made sure immediate interventions were not needed.

Had the SBG improvement initiative continued into the next and subsequent years, a true learning loop would have been established (Langley, et al, 2009), and is recommended in Chapter V. At the end of the semester, summative assessments of the improvement initiative were also conducted by the disquisitioners.

### **Summative Assessment of Improvement Initiative**

The primary methods of assessment of the actual effectiveness of the improvement initiative itself were summative in nature. Evaluating any change process after the fact is critical in gathering valuable information before attempting follow-up improvement cycles or in expanding, or scaling up, subsequent change efforts. It is also important for looking at implementing improvements in other contexts (Langley et al., 2009). The goal of a summative assessment is to evaluate at the end of a cycle to determine whether goals have been met (Carnegie Mellon University, n.d.). In analyzing the data collected, the disquisitioners sought to evaluate the process goals, which were to provide professional development of teachers and to implement SBG practices in two courses, and to evaluate the outcome goals, which were that SBG will create equity and advance student learning. Figure 14 outlines the methods by which data was analyzed.



<u>Data Source</u>	<u>Frequency / Timeline</u>	<u>Data Collection &amp; Analysis Strategies</u>
Focus group students (students enrolled in Biology and Math 1 classes)	<ul style="list-style-type: none"> <li>• At end of semester</li> <li>• Conducted at end of the improvement initiative implementation</li> </ul>	Verbatim transcription, In Vivo coding, and values coding (Miles, Huberman, & Saldaña, 2014).
Semi-structured teacher interviews (Biology and Math 1 Teachers)	<ul style="list-style-type: none"> <li>• At end of semester</li> <li>• Conducted at end of the improvement initiative implementation</li> </ul>	Verbatim transcription, In Vivo coding, and values coding (Miles, Huberman, & Saldaña, 2014).
Focus group parents (A generally representative group of parents)	<ul style="list-style-type: none"> <li>• At end of semester</li> <li>• Conducted at end of the improvement initiative implementation</li> </ul>	Verbatim transcription, In Vivo coding, and values coding (Miles, Huberman, & Saldaña, 2014).
Interview principal	<ul style="list-style-type: none"> <li>• At end of semester</li> <li>• Conducted at end of the improvement initiative implementation</li> </ul>	Verbatim transcription, In Vivo coding, and dramaturgical coding (Miles, Huberman, & Saldaña, 2014).

*Figure 14.* Summary of data for summative evaluation.

Toward the end of the semester, the disquisitioners conducted focus groups or semi-structured interviews with each of the stakeholders who had been involved in the improvement initiative. A primary aim was to learn not only the degree of success of the intervention, but also to determine how much of the tenets of SBG had been internalized by the stakeholders. Lists of questions from each focus group and interviews are contained in the Appendices. This required the disquisitioners to submit a request for review of human subject research to the Institutional Review Board (IRB) at Western

Carolina University. The project description submitted for institutional review was as follows:

“Our research will include an in-depth look at the changes made to the grading practices at Alleghany High School, highlighting the work done to build the capacity of the teachers and the leadership team as they worked to address the many inequities in grading practices that were being used. Alleghany High School will also be the focus of our standards-based grading change initiative that will be used to promote a grading system that is based solely on the competencies of the course” (Andrews, Barnes, & Gibbs, 2015).

Once the IRB approval process granted permission for the focus groups and interviews to be used as a viable research tool, the disquisitioners were able to build a collection of questions that were used as focus group and interview questions. Disquisitioners involved only parents, teachers and students who were directly affected by the interventions completed in the biology and Math 1 courses. Since the implementation of the SBG model affected stakeholders including parents, students and teachers, the disquisition team believed that qualitative methods of assessment, namely, stakeholder focus groups and interviews, would be the most revealing research modalities to employ.

Through the viewpoints of the stakeholders, important process elements were revealed. The amount of buy-in for SBG was measured through student and parent focus groups. Questions asked of the students and parents were open-ended and spurred informative conversations among the focus group participants. Question selection and interview design for the teacher interviews that occurred were of particular importance in

gauging the success of the improvement initiative. At the conclusion of the improvement initiative the teachers' perspectives were most valuable in assessing both the SBG design and its practice. It was the teacher's role as the practitioner which provided the best window into the success of the improvement initiative as well as its challenges.

An ethical consideration involved with the improvement initiative was that the principal of Alleghany High School was also one of the disquisitioners. His role was that of practitioner-scholar, and he had an insider relationship with stakeholders involved in the SBG implementation. For this reason, the disquisitioners agreed it was inappropriate for the principal-disquisitioner to conduct either the teacher or student focus groups. This was done in an attempt to minimize or avoid any impact on the outcome of the data with these two stakeholder groups. This decision was important for teacher interviews because he had direct supervision over the teaching staff. Therefore, a member of the disquisition team not connected with the school collected the student and teacher data in order to provide a safe setting for communication. To gather comprehensive and accurate data, each participant needed to feel comfortable sharing his or her experience. It was even more important to distance the principal-disquisitioner from the student focus groups since several students knew him for a few years prior to matriculating to the high school. The disquisitioners were concerned that this relationship would affect the outcome and the ability for students to speak freely. However, it was decided that for the principal-disquisitioner to conduct the parent focus group would actually be the most valuable and logical connection since his relationship with the parents was more collaborative and less authoritative than the other stakeholder groups.

## **Description of Data Analysis**

As evidenced by the focus groups and interviews, the process goals for this disquisition were clearly met: to provide professional development of teachers and to implement SBG practices in biology and Math 1 courses. The data from each stakeholder group involved in the improvement initiative was analyzed differently. The section below will outline the data analysis for each stakeholder or group of stakeholders.

**Students.** Two separate student focus groups were conducted. One group contained seven students from the biology class and the other group contained seven students from the Math 1 course. A cross-section of students who represented a variety of different levels of academic ability, gender, race and ethnicity were selected. Students were invited to use pseudonyms if they wished to further ensure their anonymity. Both focus groups were conducted at different times on May 13, 2015. The Math I focus group lasted 28 minutes and the biology focus group lasted 38 minutes. Each group of students received the same questions and the interviews were conducted in the same manner. Focus group conversations were recorded and transcribed.

In the approved disquisition proposal, the disquisitioners stated that in vivo coding would be used to analyze the transcripts of each student focus group. The disquisition team wished to identify particular words used to reflect the precise impact grading had upon students because in vivo coding “honors the participant’s voice” (Miles, Huberman, & Saldaña, 2014, p. 74). Students’ voices in many educational processes and in educational research are often overlooked or, at least, under-utilized (Wormeli, 2010). To advance both outcome goals of the disquisition, the researchers believed that giving credence to this stakeholder group was a critical element in creating

lasting or sustainable change. In vivo coding was used in the first coding cycle. For the second coding cycle, values coding was used. This second cycle of coding was used for the purpose of gaining further insight into SBG buy-in and attitudes towards the changed practices. The disquisitioners also wanted to know if similar themes with the students and parents would emerge. The coding cycles revealed that students were allowed a great deal of latitude to turn in late assignments, have zeroes erased from their grade book and were given the opportunity to retake tests until mastery was demonstrated. These practices are indicative of SBG and prove that the teachers implemented SBG as instructed during the improvement initiative.

**Teachers.** The selection of teachers who participated in the improvement initiative was in many ways predicated by the choice of courses. The two teachers who were selected were the only teachers in the spring semester who taught biology and Math I. In addition to these two teachers, the Math 1 students were taught by a pre-service teacher attending a North Carolina university. Teacher interviews took place on June 8, 2015. The biology teacher was interviewed for 43 minutes, the Math I teacher was interviewed for 49 minutes, and the pre-service teacher was interviewed for 33 minutes. Interviews were conducted in the teachers' classrooms during their planning periods, and were recorded and transcribed. The same questions were asked of all teachers.

The teachers participated in semi-structured interviews, all taking place on June 8, 2015. Semi-structured interviews allow the interviewer to develop a list of questions and topics that are open-ended and need to be covered during the conversation (Cohen & Crabtree, 2006). In vivo and values coding were used to analyze teacher interviews. Values coding reflects a participant's values, attitudes and beliefs (Miles, Huberman, &

Saldaña, 2014). Using values coding illustrated participants' perspectives of grading practices. This was imperative to learn because when perceptions change, behavior changes (Guskey, 2002b). And, the disquisitioners hypothesized that if teachers believed that traditional grading practices cause unintended consequences that it would move a teacher to implement SBG with more fidelity. According to the comments made in the interviews, teachers did align their grading practices to SBG, espousing the benefit of SBG. They also stated that the professional development offered by the disquisitioners was helpful in their implementation and understanding of SBG.

**Parents.** The parent focus group took place on June 19, 2015, in the conference room at Alleghany High School. The focus group lasted 34 minutes and was similar in content to the student focus groups, with obvious changes necessary to change the frame of reference. While parents are not the issuers of grades nor the recipients of grades, they are an influential stakeholder group. Their opinions and perceptions informed the disquisitioners of the things that would need to be communicated in order for the improvement effort to be more effective. Therefore, the parent focus group was analyzed using in vivo and values coding (Miles, Huberman, & Saldaña, 2014).

High school is often where parents become the most disengaged with the educational process because the students generally advocate for themselves regarding grading (Hara & Burke, 1998). Parents stated that SBG helped them stay abreast of their child's academic progress, and this was the extent of what many parents needed to feel: that their children were held accountable and treated equitably. There was a small contingent of parents who felt that the new grading process made things too easy for the students. They did not think SBG carried with it the same amount of accountability

students would face in college (Parent Focus Group). This seemed to be because these parents did not understand the underlying purpose of allowing students to redo/retake assignments. Several parents hearkened back to their own high school careers with nostalgia, talking about how they believed that when they were younger there was a heightened sense of responsibility by students (Parent Focus Group).

**Principal.** The principal interview occurred on September 9, 2015. The interview lasted 31 minutes and was recorded and transcribed. Because the improvement initiative for this disquisition was an extension of prior improvement efforts at the school, the disquisitioners sought to gather a retrospective account of the transitions leading up to the 2015 spring semester. It was believed that this information would add to the body of knowledge leaders need to make improvements. Therefore, the principal interview was analyzed using dramaturgical coding because it is “appropriate for exploring intrapersonal and interpersonal participant experiences and action (and) power relations” (Miles, Huberman, & Saldaña, 2014, p. 76). The principal’s story not only added valuable information to inform future leaders about the positive aspects of the SBG improvement initiative, but also provided insight about things that could have been done better to implement the improvement initiative.

The principal’s interview revealed that he felt convinced that the policies put into place early on in his tenure were necessary interventions to address the immediate problems the high school was facing (C. Barnes, personal communication, September 9, 2015). However, the intervention process and subsequent analysis of the data gathered clearly demonstrated for him missed opportunities where the earlier processes fell short. He learned that by providing targeted professional development for all stakeholders the

overall success of the implementation of the SBG model was far more likely to take hold and be incorporated into both the culture and operations of the school moving forward. Specifically, more communication and professional learning than was provided during the intervention seemed to be in order if more cycles of improvement were to be attempted at the school following the intervention applied in the spring of 2015. These points are discussed in depth in Chapter V.

### **Summary of Methodology**

In Chapter III the formative and summative assessments of the improvement initiative were explained. Formative assessment was minimal and recognized as a weakness of the disquisition; however, formative assessment as an integral part of improvement initiatives is discussed in Chapter V. Formative assessment did include daily interactions between the teachers implementing the improvement initiative and the principal, three cycles of reporting of student progress of mastery attainment, and continued PLC work. The summative assessments performed were conducted through focus groups and interviews with four major stakeholders at the conclusion of the improvement initiative.

Additionally, Chapter III explained under what conditions the qualitative data was collected and how it was coded. Disquisitioners chose to use in vivo coding, values coding, and dramaturgical coding as their primary methods. Focus groups and interviews were designed to assess how deeply the beliefs and values of the stakeholders had been changed by the improvement initiative and whether process and outcome goals were achieved. Chapter IV will discuss how these data were analyzed and what conclusions were drawn from the data.



## CHAPTER IV: EVALUATION OF IMPROVEMENT INITIATIVE: ANALYSIS OF ASSESSMENT DATA

In this chapter, the disquisitioners provide an analysis of the data obtained from the assessments explained in Chapter III. In each section data collection from improvement initiative participants and stakeholders is discussed along with the procedures used to conduct analysis following the collection of data. Following the discussion on data collection and analysis procedures, the disquisitioners draw conclusions regarding the success of the improvement initiative relative to each improvement initiative participant. The chapter concludes with a brief summary of the analysis.

Chapter II covered the intervention design itself, while in Chapter III the disquisitioners discussed the methods used to collect data in connection with the study. In this chapter, the analysis procedures and the findings from data analysis are discussed. After the improvement initiative was conducted in the spring semester of 2015, the disquisitioners set out to conduct inquiry to determine the results of the improvement initiative implemented at the school. As a part of the intervention design, the disquisitioners' intent was to conduct a series of qualitative measures after the semester when the intervention was applied in order to measure the effectiveness of outcome goals which were to support equitable treatment of students and promote the advancement of learning in the school setting.

After designing the improvement initiative, conducting the intervention, and gathering the data were all completed; the disquisitioners conducted various analyses of the data gathered throughout the process. Creswell (2012) describes the processes of

analysis and interpretation as deconstructing the data to learn what the individual responses contribute then reconstructing the data in order to summarize it. After completing the analysis of each transcript, it became obvious to the disquisitioners that the findings were building upon each other as each new piece of the intervention study was completed and analyzed. Key words appeared across the various participants that demonstrated powerful and strongly held beliefs. Key themes emerged and were sometimes almost exactly duplicated among different stakeholders. Unexpected developments and themes, however, appeared providing the disquisitioners an opportunity to dig deeper into the meaningful stories and experiences shared by those students, parents, teachers, and the school's principal who all volunteered to participate in the assessment of the improvement initiative. A look at what was learned from students, teachers, parents, and the principal follows.

### **Students**

**Data collection.** As discussed in Chapter III, the research team conducted focus groups with two different groups of students near the end of the spring semester term in May 2015. The student participants in the focus groups had all participated as a student either in a biology class or a Math I class where the intervention with grading had been applied. Each focus group session was audio-recorded and transcribed. The recording and written transcript of each session were then reviewed by the disquisitioners to ensure that the transcription was accurate. After the transcripts of the sessions were verified as accurate, work began to code the transcripts in order to begin to extract meaning from the students' responses.

The disquisition team conducted two cycles of coding on the transcript for each focus group session. In cycle one, the disquisitioners identified key sentences, phrases, or words from participants that provided evidence of the effectiveness of the intervention or that provided some unique student perspective on the impact of grading either during the intervention semester or in a more global sense. In the second cycle of coding, the disquisitioners began to investigate where the students' values, attitudes, and beliefs emerged. The initial analysis of the transcripts involved highlighting the words and phrases of meaning, but the second cycle expanded on this analysis by beginning to sort the students' words into categories. By using values coding for the second cycle of coding in the analysis, the disquisitioners were able to dig deeper into the students' perspective and views (Miles, Huberman, & Saldaña, 2014; Olsen, 2012). At the completion of the work on coding the student focus group transcripts, the disquisition team met via online video conferencing to discuss the data analysis completed and to work collaboratively in beginning to work toward drawing conclusions from the data gathered.

**Data analysis.** A variety of different categories of data emerged during analysis of the transcripts of the two student focus groups. Data gathered were analyzed using values coding to determine what the students' perspective on the change process was at its conclusion. The data from the student focus groups were eventually sorted into seven different categories based on whether the response highlighted was a value, a belief, or an attitude. Among the beliefs and attitudes unveiled, the disquisitioners divided each into three subsets as the data spoke to a particular tenet of the intervention or study itself. Table 2 shows the organization of coding used by the disquisitioners in analysis. When

using the lens of perspective applied by the disquisitioners searching for opportunities to support greater student learning and to engender greater equity among students, it was critical to organize the data gathered as they were coded around these major mileposts.

Table 2

*Values, Attitudes, and Beliefs Coding Conducted*

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Code	Description
V1	Grades are important to secure future endeavors and obtain certain social standings.
A1	Retaking/redoing course work is liked and <i>supports learning</i>
A2	Retaking/redoing course work is not liked and <i>hinders learning</i> Real world, college doesn't allow for second chances Covering curriculum, moving on to cover content
A3	Grades are arbitrary and include a hodgepodge of factors creating <i>inequity</i>
A3(1)	SBG align grades to standards and <i>supports learning</i>
B1	Grades are perceived as a system of obtaining points rather than a system of learning
B2	Work ethic Working hard and trying is valued Grades are punishments for .... Participation
B3	Grades are means of motivation Zeroes decrease motivation and lower self-esteem Grades are means of compensation for work completed.

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When asked, students primarily viewed the structural changes to their grading during the improvement initiative as additional opportunities to raise their numeric score

or to reach a “passing score” rather than make any significant connection to learning goals or standards. This is evidenced when one student focus group participant stated that, “you retake it and make a lot better grade than a zero” (Math Focus Group). However, there was some evidence that students were able to move past that view and make a connection to learning goals as shown when one student participant stated, “I like it because you might not get it the first time, but she lets you take it as many times as you want so you get it” (Math Focus Group). What follows is a discussion of the conclusions drawn from the analysis of the student focus groups data.

**Conclusions.** After analyzing the data from the students, it was evident students struggled with moving beyond trying to grab a magic number that would allow them to pass the course, or to understand how SBG practices supported their learning. Being nearer to the end of their journey in the K-12 experience, these students have been inundated with years of very traditional grading practices. So, when SBG approaches were used, it was not actually clear to the students that a shift in philosophy was accompanying the changes. Only a few students saw the connection. Some commented that by being allowed to redo or retake assignments, “you (could) see your mistakes” (Math Focus Group) or “[fix] something or get help” (Biology Focus Group). Redoing assignments helped students “get it” (Biology Focus Group) which was significant because they might not “get it the first time” (Math Focus Group). But on the whole, students primarily viewed the structural changes (opportunities to redo or retake) as additional opportunities to raise their numeric score or to reach a passing score rather than make the connection to learning goals or standards.

SBG seeks to use assessment to help students learn and feel able to learn.

Students' comments that they "really don't like to fail" (Math Focus Group) and that they want "a good future after high school" (Biology Focus Group) indicate that they do have a vested interest in succeeding, but finding the motivation to do so is difficult when assessment is steeped in traditional practices. Even though students did not clearly understand that redos and retakes were established to support their learning rather than earning a grade, they were more motivated to complete tasks and participate in class. Motivational researchers find that when students are allowed to resubmit assignments and to practice without penalty for the purpose of achieving mastery, students are more likely to persist in academic challenges (Guskey & Anderman, 2013). Additionally, "No matter how much [students] value the learning task, students easily lose their balance without a sense of safety and well-being as learners. Teachers foster that important feeling by supporting students as they risk trying any new learning challenge" (Crushman, 2013, p. 40). This feeling was clear because students expressed that they were hopeful when they were able to redo for understanding and when zeroes were removed from the grade equation. A biology student stated if retakes were eliminated "more kids might be scared to fail" (Biology Focus Group).

Additionally, most teachers today use computer and online grading programs to calculate grades that are based on percentages. The problem is that while percentages appear to be precise, they are highly subjective and mathematically skewed (Marzano & Heflebower, 2011). Averaging a zero into a grade has devastating effects and creates inequity among students (Reeves, 2004). One student said this of his peers: "I think [zeroes] makes them feel like they haven't accomplished anything" (Math Focus Group).

Thus, assigning zeroes “works to undermine the essential, self-enhancing biases students have that motivate them to work to their abilities and beyond” (Carey, & Carifio, 2011, p. 43).

Most would agree, however, that students do need to know there are consequences for not doing what is required. Students recognized this and even stated that “it’s not a good thing” (Math Focus Group) to avoid turning in work. But, a zero early on in a student’s grade, particularly a zero assigned for practice, may or may not show at the end of the course what a student has really mastered. “A single zero can doom a student to failure, regardless of what dedicated effort or level of performance might follow” (Guskey, 2015, p. 31). Students in the focus groups agreed that “it’s not a good feeling when you make zeroes, especially if you try” (Math Focus Group). According to Carey and Carifio (2011) students who expend high effort and fail will attempt to preserve their perception of their ability by adopting avoidance strategies. “If exerting high effort is seen as a threat to self-worth, exerting low effort becomes a way of preserving it. Students can then rationalize any failure as being due to lack of effort rather than lack of ability” (Carey & Carifio, 2011, 45). Thus, while some teachers think that zeroes are the appropriate punishment for students’ lack of effort, zeroes really encourage students to continue on a downward spiral and circumvents any motivation to be successful: in other words, “they kill you” (Biology Focus Group). It is important for students to know that teachers value what they learn more than when they learn it.

Through their analysis the disquisitioners found students were more motivated to engage in class and complete work after the implementation of SBG practices. If the purpose of education is to increase student achievement, then eliminating poor grading

practices and replacing them with practices aligned to the model of SBG moves educators toward that purpose.

### **Teachers**

**Data collection.** Two teachers and a pre-service (student) teacher were interviewed at the conclusion of the academic term to assess the effectiveness of the improvement initiative and to gain valuable insight into their beliefs and understanding of grading at the secondary level. Each semi-structured interview was recorded and was conducted using an interview guide or questionnaire that the disquisitioners developed collaboratively. After completing a series of predetermined interview questions with each subject, the interviewer was sure to ask if the subject wished to contribute anything else that the questioning had not elicited. Believing that each interview was comprehensive and thorough, the disquisitioners had each session's recording transcribed. Once each transcript was received, the disquisitioners verified each for accuracy against the original recordings and began the process to analyze the raw data.

Coding the transcripts was, once again, the method the disquisitioners used to begin to extract meaning from the participants' contribution. Specifically, for the interviews of the teacher subjects, the researchers set out to analyze the transcript by using in vivo and values coding. Values coding reflects a participant's values, attitudes and beliefs (Miles, Huberman, & Saldaña, 2014). The disquisitioners believed that using values coding would illustrate participants' perspectives of grading practices and, further, that teacher behavior changes would only occur and be sustained if perceptions changed. Thus, the focus on the teachers' values and beliefs.



As was done for the student focus group analysis, the first cycle of coding was conducted by using in vivo coding to highlight words or phrases as the disquisitioners believed a consistent first-cycle coding approach across stakeholder data collection would be desirable both for consistency of method and to honor the voice of stakeholders who participated in the study (Miles, Huberman, & Saldaña, 2014; Olsen, 2012). Specifically, it was noteworthy that a number of words or phrases were repeated exactly or in a substantially similar manner in a number of instances across the teacher interview subject transcripts.

Tomlinson (2014) states that teachers often change only because they see it as the right thing to do or because they feel pressured to do so. Following the first cycle of coding, the disquisitioners conducted values coding of the teacher transcripts to begin to learn about the teachers' motivations, values and opinions. This information was of particular value as the disquisitioners believed that any successful effort in the future to scale up the improvement or to replicate the process in another context would hinge heavily on the teachers' buy-in, believing that employing SBG was the right approach and that using SBG practices increased their feelings of efficacy. Further, a concern that emerged was that since the primary reason for the change in grading practices came from the advocacy and leadership of the principal that if he left the school without establishing an appropriate level of buy-in with the staff that the changes would revert back to more traditional grading practices. The values, attitudes and beliefs codes used were the same as those used in coding the student focus group transcripts. Those codes were discussed earlier in the disquisition in Table 2.

Following the coding cycles, the disquisitioners worked collaboratively to categorize and sort the qualitative data highlighted in coding. Specifically, the disquisition team set out to gain an understanding of what change process actually occurred in the mind of each teacher not only throughout the intervention semester but also as a retrospective look back over the previous four years as well. The disquisitioners spent a great deal of time working with the transcripts of each teacher interview as those were some of the larger data sources used to evaluate the study. The teacher interviews conducted were longer than the student or parent focus group sessions and were even slightly longer than the principal's interview conducted later. This is noteworthy as both teachers and the student teacher were very descriptive of their own journey throughout the process providing a critical window into the advantages and challenges to implementing such a change in grading practices at the secondary school level.

**Data analysis.** Much like the student focus groups, the teacher interview transcript analysis produced a categorization of data when the values coding process was completed. The same seven categories were used to sort the data gathered in the analysis process that were used in the student focus group analysis. Again turning to values coding, the researchers sought to discover how the teacher participants' values, attitudes, and beliefs impacted them not only during the change process, but also in the broader view as professional educators tasked with implementing a system of grading with students. This section continues with a discussion of the findings of the analysis of the teacher interviews.

The teacher interviews revealed that there seemed to be a feeling of inevitability of traditional grading practices for the teachers involved. The teachers espoused the

desire to change but conveyed that they felt that the system did not support such a change or offer the capacity for a substantial change to SBG practices away from traditional grading practices. Additionally, the “magic number” theme cited several times by name in one teacher interview and in concept in another teacher interview was striking and unexpected (Teacher 2, personal communication, June 8, 2015). This highlighted a teacher belief that students and parents alike were in a variety of ways only searching for a certain score in order to meet other goals not associated with actual learning or academic standards.

Contrasting with the two experienced teachers interviewed, the pre-service teacher (student teacher) did not share the feeling of inevitability or have a fixed view of the magic number. She described herself as needing to know and learn more about SBG in order to make a change in the process of grading. The pre-service teacher also revealed that she felt that her university preparation had made almost no mention of grading practices whatsoever (Pre-Service Teacher, personal communication, June 8, 2015). Specifically, she made clear that it was only through the professional development provided by the disquisitioners that she actually experienced explicit learning focused on grading practices. She reported that she began to analyze and refine her own grading practices based on that professional development session and not based on any university coursework. She went on to suggest that the university pre-service teaching programs could benefit from such professional development focused on grading practices as it seemed to be a gap at least in her university’s teacher education program.

Table 3

*Excerpt from Teacher Interview Transcript Coding*

Participant	Code	Quotation
Pre-Service Teacher	B1	“To most students grades are just pass or fail.”
Math Teacher (Teacher 1)	B1	“To the kids, to the parents, it’s always a number. We’ve drifted from ‘what has my child learned and do they know the content’ to ‘a magic number they have to meet.’”
Biology Teacher (Teacher 2)	B1	“It’s been a little bit difficult to get them (students) to see what’s going on because they’re a little more traditional with ‘One shot deal then I’m out of here.’”

*Note.* From teacher interviews conducted June 8, 2015.

**Conclusions.** In summarizing the beliefs and values found in teacher interviews, one common thread was the confidence teachers had in their changed grading practices. They exhibited an excitement of being able to ensure students were learning. From their comments, it appears as if they really believed that the move to SBG supported learning more than traditional practices. Specifically, the teachers believed that the practice of allowing students to redo or retake assignments helped “students learn from their mistakes” (Teacher 1, personal communication, June 8, 2015). The hodgepodge grading that exists with traditional practices also became much more obvious to the teachers participating in the study supported by comments such as: “there’s a big discrepancy between teachers...in the expectations for work turned in” and “we’ve lumped so many

things into that one grade...it could encompass a whole lot” (Teacher 1, personal communication, June 8, 2015). One teacher specifically referred to traditional grading practices as just “randomly doing stuff” (Teacher 2, personal communication, June 8, 2015).

While the teachers in the study understood the purpose of SBG and the emphasis it places on learning, it was clear that they were frustrated with some students’ inability to recognize growth in learning. The two teachers participating in the study believed their teaching was focused on learning outcomes, “[emphasizing] grades needed to be about [students’] learning” (Teacher 1, personal communication, June 8, 2015) rather than the grade. However, according to teacher interviews, it was perceived that students viewed “grades [as] just pass or fail” and that “[students] are not looking at whether they’ve achieved something or understood the concept” (Pre-Service Teacher, personal communication, June 8, 2015). The data did not indicate whether teachers were explicit in explaining the grading changes, the true purpose for allowing students to redo or retake assignments, or whether they just assumed that students would make such connections. Teacher 1 commented, “It doesn’t matter how many times you tell [students] that they are missing out on the opportunity to learn... they don’t buy into it because they would rather not do [the work] if it’s not for a grade” (Teacher 1, personal communication, June 8, 2015). If teachers assumed students would embrace the shift, they were wrong, or at least overestimated their understanding of the purpose of the grading changes.

Because teachers were able to base grades, for the most part, on students’ mastery of standards, particularly in biology with the use of the program *Study Island*, it eased the stress teachers often feel in being caught between having to play both judge and advocate

for their students. When asked, teachers commented that they were able to “emphasize that grades needed to be about (students’) learning” (Teacher 1, personal communication, June 8, 2015). Much more formative assessment was used by both teachers causing them to check more frequently on what students had learned revealing what, if any, problems they experienced with learning the content standards.

## **Parents**

**Data collection.** A group of seven parents were a part of a focus group that the disquisitioners consulted with in order to examine this critical aspect of stakeholder input on student grading. Near the conclusion of the spring semester, the school’s principal invited a number of parents to participate who could speak to the parents’ experience with student grading at the school. The disquisitioners targeted parents of the students from either of the courses where the improvement initiative was implemented. Specifically, the disquisitioners set out to explore the parent viewpoint to compare and contrast with the qualitative data received from students who had experienced SBG as a part of the initiative.

Disquisitioner Barnes conducted this particular focus group as the team felt that in his role as the school’s principal that the parents would respond more favorably to him as opposed to an external researcher. Mr. Barnes had worked to establish a positive rapport with parents in the school setting over nearly four years. The disquisitioners believed that, due to this established rapport, that parents would be more forthright in the focus group setting with him than with an unfamiliar, outside researcher. The parent focus group followed a discussion guide that the research team developed prior to the session and the focus group facilitator made every effort to establish the session as an open forum

to encourage participants' active participation. A recording of the session was made and the recording was used to generate a verbatim transcript of the interaction. The transcript was verified against the recording for accuracy and the researchers began to analyze the transcript in order to extract meaning from the participants' contribution.

While parents are not the issuers of grades, nor the recipients of grades, they are an influential stakeholder group in the grading process. They have value to inform us of the things that would need to be communicated in order for the improvement effort to be more effective in this context or to be effective in another context. The disquisitioners felt that it was important to know their values and beliefs of grading practices and this led to using values coding to analyze the data gathered from the parent focus group. Many studies show the benefit to parent engagement and involvement in a student's performance in school (Hara & Burke, 1998). In the secondary school level as students grow older, often communication about grading and student progress becomes less frequent or in-depth as in the elementary setting (Guskey, 2002a). Believing that standards-based grading communicates better information to both students and parents about academic progress, the disquisitioners set out to learn from parents through the focus group about their experiences and beliefs surrounding the grading of their high-school age children.

As was done with the transcripts produced from the teacher interviews and the student focus groups prior, the parent focus group transcript was analyzed by the disquisitioners in two cycles of coding. To capture the parents' actual words and to highlight concepts or concerns that were experienced by more than one parent, *in vivo* coding was particularly useful in showing the researchers what data obtained in the focus

group needed more focus, follow-up, and analysis. After completing the first cycle of coding, the researchers used values coding to refine further what meaning could be extracted from the parent stakeholder focus group experience. Gathering the data then led to arranging the data in a table showing participants' actual words or phrases that recurred as well as what values, attitudes, or beliefs were displayed by the participants during the discussion.

Once the qualitative data were gathered and tentatively analyzed, the researchers set aside time to discuss and collaboratively analyze the findings and data drawn from the parent focus group experience. Specifically, the team set out to see where connections could be drawn to the data gathered from the prior sources that had already been analyzed, that of the teacher interviews and student focus groups, in order to build upon some of the themes emerging from those analysis efforts.

**Data analysis.** Treating the data gathered from the students and the parents in much the same way was intentionally designed by the disquisition team to see what student and parent beliefs were in parallel and what beliefs were divergent. Much like the students, the parents were participants in a focus group where a discussion was facilitated in order to gather their feedback and perspectives after the intervention. The parents who participated in the focus group were aware that the intervention had taken place and were parents of students in one of the two classrooms where the SBG implementation occurred.

Analysis of the parent focus group transcript revealed a great deal about how parents viewed grades and their students' success. After using in vivo coding to delineate the most useful and telling portions of the participants' responses, the disquisitioners



employed values coding in order to learn about the parents' viewpoint on the students' grading. The data were sorted into the same categories as had been employed with both the teacher and student findings in order to make comparisons across different stakeholder groups and to look for common themes. The findings of the analysis of the parent stakeholders' contribution follows as does a depiction of the data collected from them.

The analysis revealed that parents want their children to do well and saw many of the tactics or practices employed by the teachers during the intervention as a means of increasing points to help grades, "[w]orking hard has paid off" (Parent Focus Group). However, parents did not make a solid connection between the practices used and supporting greater student learning or improved equity nor did they make any real connection in the difference between grades and actual learning. In fact, parents were very focused on ensuring that a grade reflected a reward for when students had worked hard or expended great effort. One parent respondent reflected this quite clearly when stating, "I think a teacher would definitely grade you higher, even if you're having struggling issues, if you participate and do your homework and show you're really trying" (Parent Focus Group).

**Conclusions.** Of all the stakeholder groups, the parents in the study lacked significant insight to the purpose of SBG even though they approved of the grading policy changes implemented. They failed to recognize the shift from their child earning a grade to actual evaluation of progress toward expected learning outcomes. Their expectation was that their child would be graded in the same manner they themselves were graded, even though they plainly realized that grades are "arbitrary and subjective"

(Parent Focus Group). The coding indicated that parents valued grades because, to them, grades are important to secure future endeavors and obtain certain social standings. Therefore, parents condoned their children “looking for opportunities to improve [their] grade” (Parent Focus Group) and “competing for class rank” (Parent Focus Group). Much like the students, they supported the right thing for the wrong reasons.

Guskey and Jung (2012) advocate that one of the steps in grading reform is to eliminate class rank. It is a long-held tradition and one in which parents are intimately familiar. Various negative consequences result from assigning class rank. One is that with traditional grading practices grades are not necessarily just based on what students actually achieve, thus grades inaccurately reflect what students have learned. “When calculating class rank, the focus is on sorting and selecting talent rather than on developing talent” (Guskey & Jung, 2012, p. 25). It is no different than when Harvard, in the 1800s, was sorting and selecting its students based on their social status or whether they attended chapel. While parents supported students being able to rework assignments for a higher grade because it may advance their child in class rank, they could not see beyond their own educational experience and held fast to antiquated ideas about post-secondary education.

A few of the parents believed redoes and retakes would hinder their child because “in college they aren’t going to be able to redo assignments” and “they won’t be able to do that (redo) at the next level” (Parent Focus Group). However, many colleges and universities do allow redoes or retakes on assignments (Guskey, 2015). Further, more and more colleges are no longer asking for class rank in making admission decisions (Wormeli, 2006). In fact, one report found that only 19 percent of colleges and

universities use class rank as a serious consideration for admissions because they are skeptical about the meaningfulness of class rank (Guskey, 2015). Additionally, the competition class rank creates discourages students from cooperating with one another. Students' desire to "see where [they] relate to their peers" (Parent Focus Group) not only hinders learning but breeds inequity because too often traditional grading practices seek to select talent rather than develop talent, thus favoring students with means and resources (Guskey & Jung, 2012).

For the most part, parents appreciated the opportunity for their child to redo assignments. The attitude that redos and retakes were beneficial was mentioned eight different times during the parent focus group. On the other hand, at no time during the focus group did they acknowledge that their children advanced in their learning or that it was even a concern for them. What was a concern was opportunity for children to "improve their grade" (Parent Focus Group). This attitude runs counter to the purpose of SBG.

When asked, parents reported great concerns about student work ethic. Parents were adamant that if students worked hard and put forth effort, regardless of mastery, that they should be rewarded. One parent commented that work ethic is "the difference between being successful and a failure" (Parent Focus Group). They also recognized the disparity between putting forth effort and mastery. One parent, in telling his child's story, said, "a child can bust his butt all year, but if [you fail] that end of course [test], if you don't make your grade (referring to state end of grade tests)... it's like you're penalized for busting your butt all year" (Parent Focus Group). Parents also appreciated the fact that students could redo or retake assignment as long as it benefited their child,

but they were not so pleased that some students took advantage of this practice by waiting to the last minute to complete assignments: “they just put it off and then do it all at the last minute and still get credit for it” (Parent Focus Group). One parent in the focus group also stated that students should be penalized for not meeting deadlines. Parents, like students, were of the mindset that grades are a quid-pro-quo paradigm. And, like teachers, parents were of the mindset that grades can be used as punishment. The parent focus group reiterated the deep beliefs embedded in traditional grading practices regardless of their unintended consequences.

### **Principal**

**Data collection.** The school’s principal was interviewed in September 2015, well after the conclusion of the improvement initiative at the school. Specifically, the discussion focused more on his role as a participant in the change process as a practitioner and not on his role as a researcher as a part of the disquisition team. The principal interview was focused on a retrospective view not only on the improvement initiative, but also on the greater change process that had occurred at the school with respect to grading over the four-year time period he served as principal. By allowing Mr. Barnes to reflect and by taking a more comprehensive view of the improvement initiative in the interview discussion, the disquisitioners hoped to glean valuable information about the leadership capabilities, competencies, and qualities for a school administrator seeking to lead a change process in implementing SBG at the secondary school level.

A verbatim transcript of the recorded interview with Mr. Barnes was produced and the team used coding to conduct the analysis of the artifact itself. The analysis of the principal’s interview started much the same as the disquisitioners initiated with all of the

previous qualitative data received from the other stakeholder participants by using in vivo coding to highlight key words and phrases. Continuing the disquisitioners' approach to honoring the participants' voice, we wished to make sure that the principal's voice came through as well to offer a valuable leadership perspective on the case. Specifically, the disquisitioners wished to elicit the principal's own view in the retrospective and reflective analysis of his own internal change process in addition to the change in the overall or greater context of the school. After completing the initial coding using in vivo techniques, the researchers took a different approach to the second cycle of coding than the previous qualitative artifacts analyzed in the study.

For the second cycle of coding of the transcript, the disquisitioners employed dramaturgical coding rather than values coding which had been used with other stakeholders' contributions to the study. The primary purpose in interviewing the principal was to tell his leadership story more than it was to measure the effectiveness of this single intervention per se. Dramaturgical coding is "appropriate for exploring intrapersonal and interpersonal participant experiences and actions...(and) power relations" (Miles, Huberman, & Saldaña, 2014, p. 76). Using this approach to coding was the disquisitioners' choice to begin the analysis of the principal's interview looking through a leadership lens so that the change processes used at this particular school could provide lessons for other school leaders in other contexts.

After concluding the various analyses of the principal interview transcript, the disquisitioners worked collaboratively to synthesize the data retrieved from this interview with that extracted from the other interviews and focus groups conducted as a part of the study. Tabling and organizing the data were key strategies that led the disquisition team

to begin to process the raw data and move toward identifying actual findings in order to draw conclusions from the study.

**Data analysis.** The data analysis conducted on the principal interview was a departure from the prior analysis techniques described in the improvement initiative evaluation. Specifically, the disquisitioners set out to dig deeply into the leadership capacity and capability side of the principal's journey rather than learn about his values or beliefs surrounding SBG or traditional grading practices. Using dramaturgical coding rather than values coding when analyzing the principal interview transcript was aligned with that different viewpoint the disquisitioners sought to explore in the principal's journey as a leader. Dramaturgical coding was appropriate for exploring this participant's experiences and actions as well as power relations (Miles, Huberman, & Saldaña, 2014). The data analysis for the principal interview and depiction of the raw data gathered follows.

Table 4.

*Excerpt from Principal Interview Transcript Coding*

Participant	Code	Quotation
Principal	Emotion	<p>“For heaven’s sake, our failure rate exceeded the number of students we had in school.”</p> <p>“In retrospect, I learned that if I had gotten a C or D on that assignment, I would have been mad...”</p>
	Subtext	<p>“One of the things they kept hearing me say over and over again was that it’s not about the grade, that it’s about the learning involved.”</p>

*Note.* From principal interview conducted September 9, 2015.

**Conclusions.** In any new position, it is beneficial to take a wide view analysis of the organization before implementing change (Fullan, 2007). A leader must have an appreciation for the system which is an interdependent group of items, people and processes (Langley, et al., 2009). Adhering to this wisdom, the principal along with his leadership team identified issues at Alleghany High School that were in desperate need of repair.

After reading an article about grading practices, the principal began to explore the grading practices of his teachers. He found “several practices that were really damaging to students” (C. Barnes, personal communication, September 9, 2015). The most prevalent problem was the number of zeroes students were receiving. Along with this, if a student failed an assignment the teachers were of the mindset “we have to go on” (C.

Barnes, personal communication, September 9, 2015), and so there was no hope for students to improve their depth of knowledge. According to the principal, the idea of valuing what a student learns over when he learns it seemed foreign to most teachers. Knowing that change had to occur, building teacher capacity was “more difficult than...anticipated” (C. Barnes, personal communication, September 9, 2015). The principal assumed if he introduced improved grading policies the “logic would just catch on,” but it did not (C. Barnes, personal communication, September 9, 2015). Reeves (2011) warns that just announcing grading changes can create a firestorm of controversy and push back.

While the controversy was not a war, the principal did report that many of the teachers “worried about dumbing down instruction and artificially inflating grades” (C. Barnes, personal communication, September 9, 2015). For example, teachers were concerned about giving students a minimum grade for work not completed, even though failure is failure and “distinguishing 60 different levels of failure is hardly helpful” (Guskey & Anderman, 2013, p.71). Therefore, as a compromise, the principal instituted a practice in which teachers had to allow for students to redo work or turn in work not completed. The principal knew he had to work cooperatively with his staff. Even though the principal mandated these practices, it was not done without input from his leadership team and other staff. Using examples that made his suggested practices relatable to the teachers helped. When discussing the averaging of student grades, he compared it to teacher evaluations: “If you are developing on a standard in the beginning of the year and you are accomplished in that standard at the end of the year, are you then considered a



proficient teacher or are you now an accomplished teacher?" (C. Barnes, personal communication, September 9, 2015).

After some professional development was offered to teachers in support of new practices early on, the principal reported that teachers were more willing to implement the grading practices with fidelity. However, this shift in the meaning of grades was still overwhelming. Not only did some teachers struggle with the changes, but parents and students also did not fully grasp the idea. Additionally, various reported technicalities interfered with the teachers' understanding of new practices and became real struggles for the teachers. For example, if a student could walk into class and make an A on a test, some reasoned that there was no point in a student attending class in-between tests. This created an issue with attendance. Thus, the principal had to address the topic of behavior and compliance (i.e. absences, tardy to class, and late work) being tied to grades. Obviously, students needed to learn the importance of personal responsibility, but combining evidence of both achievement and responsibility into a single grade so that "the neglectful, high-achieving student receives the same grade as the conscientious, low-achieving student again distorts the meaning of grades" (Guskey, 2015, p. 104).

The state of North Carolina requires high school students attend class for a certain amount of time, so teachers at Alleghany High School ended up reporting a percentage grade of a 65% for students who could not earn course credit because of lack of attendance (NCSBE, 2013). The crux of the matter then shifted to faulty instructional practices which had to be addressed by the principal. This simply demonstrated that SBG requires consideration of the quality of teaching students experience, including careful examination of the tasks students are asked to complete and the questions they are asked

to demonstrate their learning. “Only when such examination and reasoned judgment become a regular part of the grading process can we make accurate and valid decisions about the quality of students’ performance” (Guskey, 2015, p. 33).

### **Summary of Data Analysis**

The analysis of the raw data obtained throughout the study occurred over a three-month window beginning in the summer of 2015 and concluding in October of 2015. The participants in the three focus groups conducted and the four interviews conducted contributed immeasurably to the disquisitioners’ evaluation of the intervention initiative that was undertaken at Alleghany High School not only in the spring semester of 2015 but also in a broader sense the change process realized over the course of the preceding three school years as well.

Upon completing and transcribing each interview or focus group conducted with participants, the disquisitioners set out to analyze the data obtained by using accepted and standard practices of qualitative analysis to support any conclusions or generalizations drawn from the study itself (Olsen, 2012). *In vivo*, values, and dramaturgical coding methods were the major qualitative data analysis techniques used during the process.

Keeping in mind that the approach to this study was, by its very nature, a practical approach designed to solve a relevant problem of practice for educational practitioners, the disquisition team always viewed analysis through that lens to draw findings that would not only be relevant to build on the body of literature but also to advance the professional practice of those teachers and school leaders working to improve their own schools’ grading practices. The qualitative design rather than a quantitative simply underscores the disquisition team members’ belief that meaningful change in professional

educators is likely to come from powerful stories of “what works” as a moral imperative to change rather than a totally quantitative or measurement-of-progress approach to improvement (Fullan, 2007). Capturing the stakeholders’ “voice” throughout the process to inform future leaders on their own change process journey also kept the disquisition work focused on those practical improvement goals as well.

The data obtained from the intervention assessment conducted at Alleghany High tell an important story in the life of the school. Prior to the intervention conducted at the school, a journey had already been underway to change grading practices for three years. The intervention served as a pilot of specific SBG practices but the school already had placed several non-traditional grading practices into widespread use in the three preceding years (refer to Figure 11). Not only did the disquisitioners learn about the improvement initiative’s effectiveness, but also the more complete story about the larger change process that had taken place over the previous three years was also told.

In the assessment results, the voices of stakeholders at the school clearly shine through. While it was evident that a change process was undertaken as part of the improvement initiative, the disquisitioners set out to learn how that change process impacted students, teachers, parents, and the school’s principal who had all been touched in some way by the SBG practices employed.

In the chapter that follows, the disquisitioners expand on the conclusions to make recommendations for future leaders and to explore the lessons learned from the improvement initiative. Further, the disquisitioners will point out what may have generalizability to other contexts and what areas warrant further research moving forward.

## CHAPTER V: CONCLUSION

This chapter builds on the conclusions drawn from the improvement initiative by discussing the lessons learned and recommendations for leaders gained from the disquisition process. Further, the disquisitioners provide suggestions for sustainability along with ideas for future research. The chapter concludes with some final thoughts on SBG and the potential positive impact such processes can have in the future.

Initially concerned about student achievement and graduation rates as well as social justice issues, this disquisition attempted to attack two problems inherent with traditional grading practices: (1) they hinder and do not contribute to the advancement of student learning and (2) they do not allow for the equitable treatment of students. The outcomes of these two problems can significantly alter a student's post-secondary education or career success and trajectory by hindering or limiting his/her progress while a secondary student.

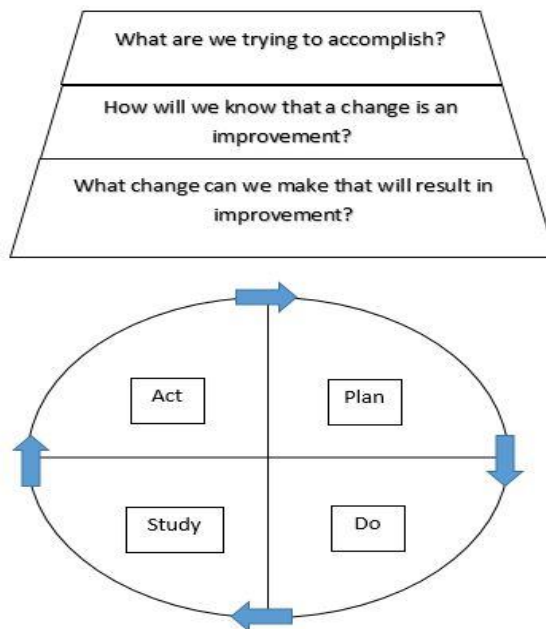
SBG was the proposed solution to negate the harmful effects of traditional grading practices. By measuring a student's performance in relation to clear learning targets that are based on state standards, along with high-quality instruction and on-going formative feedback, the focus shifts from a student trading work for a magic mark or grade to a focus on learning (Brookhart, 1993). The analysis of the improvement initiative revealed some improvement in student motivation, teacher confidence, and parental support of changed grading practices.

## **Lessons Learned and Recommendations for Future Leaders**

When analyzing and reflecting on the process of the improvement initiative that took place, the disquisitioners discovered several ways in which the process could be improved if other school leaders seek to replicate the improvement initiative elsewhere. Noteworthy are five lessons: (1) performing numerous cycles of evaluation and improvement, (2) communicating a shared mission and vision with all stakeholders, (3) improving the professional development process with the teachers and staff, (4) creating a SBG report card that clearly delineates separate grades for academic and non-academic performance, and (5) beginning SBG earlier in the middle and elementary grades.

**Perform numerous cycles of improvement.** While the school underwent several informal Plan-Do-Study-Act (PDSA) cycles prior to the disquisitioners' intervention, the disquisitioners performed only one formal PDSA cycle during the time spent working with the school. PDSA (see Figure 15) is a framework that helps people develop, test, and implement change (Langley, et al., 2009). The PDSA model is widely applicable, easy to use, and built on improvement science. It helps to create a learning loop where the process of change builds on itself and enhances overall growth (Langley, et al, 2009). However, change efforts differ with the complexity and context of the organization in which a change is desired. For the intervention conducted for this disquisition, system requirements and time limitations prevented the disquisitioners from doing more than one formal PDSA cycle. High school grading terms are scheduled around either year-long courses (36 weeks) or semester courses (18 weeks). The PDSA cycle used for this study was limited by a semester grading term since at the end of the

semester, the students, teachers and parents do not remain the same when the class grading term ends.



*Figure 15.* PDSA cycle. From Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P.(2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed.). San Francisco, CA: Jossey-Bass.

**Communicate a moral purpose and develop a shared vision.** While the principal at Alleghany High School was correct in his intentions to improve grading practices for the purpose of creating equity and advancing student learning, it began as a measure to rectify an immediate and pressing need. In retrospect, a solid foundation must be laid involving all stakeholders before true systemic and cultural change can occur (Gruenert & Whitaker, 2015). We know that “leaders do not merely impose goals on

followers, but work with others to create a shared sense of purpose and direction” (Leithwood, & Riehl, 2003, p. 11). While the principal had worthy goals in desiring to improve the learning of the students, he did not spend enough time and energy communicating this mission and vision clearly to the teachers and other stakeholders early on. Since this intervention was driven primarily by the principal and his conviction to facilitate the learning of students in a small, rural traditional high school, the buy-in from the teachers was limited.

The principal in the study did not intentionally set out to implement a SBG model. He explained that his early changes to the grading practices at Alleghany High School were akin to implementing “triage” because “initially, all of this started because [he] had to stop the bleeding” (C. Barnes, personal communication, September 9, 2015). It was not until almost a year later that he realized his policies tied closely to SBG. With this in mind, the disquisitioners learned for any school to begin the SBG journey, communicating a moral purpose and developing a shared vision is essential at the onset. Guskey (2015) writes:

“Most of the difficulties schools experience in their efforts to reform grading policies and practices can be traced to the lack of a well-defined and commonly understood purpose. When leaders charge ahead, changing the form and structure of the report card without reaching consensus about the purpose of grades, their efforts lack direction because what they want to accomplish remains unclear” (p. 15).

A common purpose will align all parts of the organization. A key component of building a shared vision is building a school organizational culture that both includes

consistent communication with stakeholder groups who are not normally as involved in the development of a vision and that elicits meaningful input from all stakeholders in order to obtain buy-in to the shared vision (Gruenert & Whitaker, 2015). Students and parents are good examples of this. This disquisition set out intentionally to analyze students' perspectives of grading practices since they are the ones most directly impacted by the benefits of SBG. Student voices are seldom heard in the grading debate and they "too often suffer in silence" (Guskey, 2015, p.7). Parents are essential, too, because they hold great political power in implementing and supporting such policy changes. In considering a shared vision, one must acknowledge that an entire organization consists of many parts: students, parents, teachers, administrators, and so on. There is an intentional relationship between parts and the whole. Improvement efforts will not succeed when the whole is not considered (Costa & Kallick, 1995).

**Implement a comprehensive professional development program.** Most teachers have little knowledge about grading practices, and rarely have the opportunity to learn how assessment is used to advance learning and create equity (Stiggins, 2002). If changes in grading practices are going to be successful, leaders must build teacher capacity. The more knowledge one has about how a particular system will function (e.g. how grades will be reported), the greater the likelihood the change will result in improvement (Langley, et al, 2009). However, it is more than just system knowledge that teachers need. It is more important that teachers understand the underlying values upon which SBG rests. Therefore, professional development efforts must center on establishing a purpose for grades, a purpose that views grades from a lens of communication rather than motivation or compensation (Brookhart, 1993).



When one seeks to create a professional development program, the standards advocated by Learning Forward (2015) can guide leaders so that these learning opportunities are effective. The standards explain the purpose of professional development and the characteristics that lead to increased student achievement by building teacher capacity. The disquisitioners did not reference the standards at the outset of this improvement initiative. Figure 16 outlines the standards and provides a reflection that evaluates the disquisitioners' professional development efforts against those standards.

The professional development provided to Alleghany High School teachers as part of the improvement initiative aligned with or met five of the seven standards. The disquisitioners worked with the school's learning communities, on-going groups who met for the purpose of improving student learning (Lieberman & Miller, 2011); provided essential and necessary resources; considered the learning design of the professional development by considering the six characteristics of andragogy (Knowles, Holton, & Swanson, 2014); aligned outcomes with the North Carolina standard course of study; and helped empower the two teachers involved in the improvement initiative to be leaders among their colleagues in advocating for SBG.

Of the standards advanced by Learning Forward (2015) two were not met through the professional development provided during the improvement initiative, those being the standards focused on data and implementation. In order to improve future cycles of improvement or to benefit leaders in other contexts, the disquisitioners recommend meeting all seven standards with comprehensive professional learning with specific attention to the two standards not met by the professional development conducted as a

part of this disquisition. First, to increase teacher effectiveness, it is important to use a variety of data sources that will provide information to plan and assess the outcomes of professional development. A study by Desimone, Porter, Garet, Yoon & Birman (2002) supports the notion that an emphasis on strategic, systematic planning can yield high-quality professional development. Given the opportunity to do the implementation initiative again, surveys would have been distributed after the initial professional development session to guide further professional development sessions. Second, while the disquisitioners applied research on change as they planned and implemented their initiative, the ability to sustain support for the implementation was not achieved. This was not only due to the fact that the implementation initiative was only one semester long, but also related to the changes caused as the principal left the school at the end of the school year.

Sustainability was certainly a concern with the professional learning but it also was a concern in general with the improvement initiative. This is addressed in more depth by the disquisitioners later in this chapter. We recognize that “[c]hange is a process, not an event” (Hall & Hord, 2011, p. 8). For SBG to be implemented with fidelity, the professional development should take place over time, where people “gradually learn, come to understand and become skilled and competent in the use of the new ways” (Hall & Hord, 2011, p. 8).

Standard	Met/ Not Met	Description
<p><b>Learning Communities:</b> Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.</p>	Met	<p>The disquisition team met with the faculty and staff to promote collective responsibilities (structures of SBG), and supported alignment of school goals. The principal met regularly with staff to help strengthen their practice.</p>
<p><b>Resources:</b> Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.</p>	Met	<p>Teachers were provided with copies of Guskey's (2015) <i>On Your Mark</i>. Math 1 and Biology teachers were given student access to <i>Study Island</i>.</p> <p>Teachers were given access to disquisitioners' expertise to field questions.</p>
<p><b>Learning Designs:</b> Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes.</p>	Met	<p>Faculty was presented with the theories and literature support for SBG. The disquisitioners presented in various ways to meet the learning needs of the faculty. Teachers worked cooperatively, viewed videos, and engaged in dialogue. Disquisitioners acknowledged the learning styles of adult learners.</p>
<p><b>Outcomes:</b> Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards.</p>	Met	<p>Faculty was presented with the outcome goals that were expected with the implementation of SBG. Long term and short term effects of the implementation of SBG was clearly connected to student curriculum and educator performance standards.</p>
<p><b>Leadership:</b> Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.</p>	Met	<p>The teachers involved in the improvement initiative led the school in advocating for SBG. They were supported by the principal and the disquisition team and they advocated for the continued professional development for SBG.</p>

<p><b>Data:</b> Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.</p>	Not Met	The disquisitioners did not utilize evaluation data to determine the effectiveness of their professional development sessions. Having teachers complete surveys would have provided information to inform future professional development sessions.
<p><b>Implementation:</b> Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.</p>	Not Met	This standard requires leaders to measure change over time to determine the effectiveness of professional development and increase in student learning. Because the improvement initiative was implemented in one semester and because the principal is no longer at the school, disquisitioners were unable to measure the impact of their professional development in the long term. This issue is addressed in Chapter 5 of the Disquisition.

*Figure 16.* Evaluation of professional development standards. Adapted from: Learning Forward. (2015) *Standards for professional learning*. Retrieved from [http://learningforward.org/standards-for-professional-learning#.VtiGZlsrKM\\_](http://learningforward.org/standards-for-professional-learning#.VtiGZlsrKM_)

**Create a SBG report card.** A change in the function and the appearance of report cards so that they become communication tools that clearly delineate separate grades for academic and non-academic performance will serve to advance learning for students (Guskey, 2004). Traditional grade books often look like time-lines of completed activities rather than a gauge of student progress (Townesley, 2014). One of the main problems that was experienced by the principal in his pursuit of SBG at the high school, was that the state of North Carolina expects a traditional report card that has very little

flexibility contained within it (C. Barnes, personal communication, September 9, 2015). While reporting to what extent students have mastered course content, one must not ignore the importance of student work ethic and responsibility. The study conducted at Alleghany High School supports the fact that nearly all stakeholders in the disquisition valued work ethic and some sort of measurement of effort. But, since SBG does not allow for behavioral elements to be calculated in a grade, teachers need a way to report separately all non-academic standards in the report card as well.

One example of the challenges that high schools face when making fundamental changes to their report card involves the reporting of absences. School districts in North Carolina have policies that often include a penalty for students who are absent a certain number of days (NCSBE, 2013). This means that retention is based on a behavioral aspect not an academic aspect. Additionally, some school policies also include academic penalties such as zeroes for cheating or days spent in in-school-suspension. This system-wide issue is beyond the scope of this study, but it does hinder a teacher's evaluation of students. Had not the teachers been limited by the lack of a reporting tool that would allow them to communicate academic achievement and behavior separately, the SBG improvement initiative would have been more accurate. The grade a student receives should only be based on his/her individual achievement in relation to the performance-based standard.

Additionally, in developing a report card, the purpose of reporting should stay front and center. Too often educators attempt to include such detailed information in a report card, that the result is neither functional nor effectively communicative. Leaders need to be acutely aware of the change process, or else the development of a new report

card that deviates from a traditional report card might end up in a storm of controversy. Therefore, Guskey (2015) recommends three key questions that need to be answered and agreed upon prior to developing a report card: “What information will be communicated in the report card? Who is the primary audience for the information? And, what is the intended goal of the communication or how should the information be used?” (p. 16). The answers to these questions can serve as a guide in developing a standards-based report card. Having a report card that clearly separates grades from other factors such as attendance and behavior will better inform parents of their child’s strengths and weaknesses. Spokane Public Schools in Washington and Transylvania County Schools (NC) both provide positive examples of SBG report cards, as shown in Appendix G and Appendix H, but both are early elementary grade level report cards as almost no examples of secondary SBG report cards were found. This supports the idea that an effort to grow SBG practices at the secondary level could be viewed a natural growth out of practices already in use in many contexts in the elementary or primary grades.

**Begin SBG earlier in the middle and elementary grades.** The shift from middle school to high school is often a challenging time for students. Developmentally, this is a difficult time in the life of a child and the expectations for work and accountability rise dramatically when a student leaves middle school. The traditional middle school concept espouses a team teaching model that helps students by creating a small, nurturing environment. This usually disappears when the students reach high school. Williamston (2010) details several ways that middle schools can help create a more successful transition for students. Among the strategies suggested are allowing students to redo work, providing opportunities to complete unfinished coursework, and

adopting no zero grading policies (Williamston, 2010). These practices are aligned to the standards set forth in SBG and may help ease the transition between middle and high school.

More importantly, the primary audience of elementary and, to some degree, middle school report cards is the parents or guardians. Because of the very nature of elementary classrooms, the elementary report card serves as a device for communicating a child's progress. The audience shifts in late middle to high school. At this level report cards serve more to communicate academic performance and are used for a variety of purposes such as athletic eligibility, acceptance in honors programs, and admission to college. Additionally, at the secondary level, the audience expands to students as they become more mature and are given more responsibility for their own learning. Guskey (2015) writes that this expanding audience complicates communication and, therefore, "steps must be taken to ensure all groups understand the information included in the report card and that they can use it to guide improvements when needed" (p. 19). If SBG can take a foothold in K-8 and all stakeholders understood information included in the report card, the move to secondary schools would not be so complicated. Parents and students would, through the new tradition of SBG, expect the same communication as they moved to high school.

### **Sustainability**

According to Merriam-Webster, sustainability is the ability of an effort to be supported and confirmed so that it will last over time (Sustainability, 2016). Practical policy guidelines that are specifically stated can be the beginning of a sustainable grading reform and can help mitigate the unofficial or unwritten policies of an organization.

Unofficial policy is “the unstated patterns of behavior and attitudes that have consequences, such as the guidance counselor’s doubt and hesitation to support the college aspirations of students from low-income families” (Marshall & Gerstl-Pepin, 2005, p. 37). These unofficial policies are all too common and are evident when teachers use traditional grading practices that have already been discussed as being subjective and arbitrary. “Policies and organizational procedures at the district, school and classroom level can profoundly impact reform initiatives and significantly affect results” (Guskey, 2000, p. 20).

Guskey (1994) recommends that policy should "provide accurate and understandable descriptions of learning" and should "use grading and reporting methods to enhance, not hinder teaching and learning" (p. 17). Additionally, to implement practical policy to lead a sustainable improvement initiative, leaders must consider and view such improvement efforts through four lenses depicted in Figure 17: political, structural, human resources and symbolic (Bolman & Deal, 2008). The principal at Alleghany High School intended to follow these guidelines in the implementation of his policies beginning in 2011. However, because of the immediacy of the need to implement systemic change and because the structural aspects had never been addressed or implemented there before, the actions of the principal focused primarily on putting a structure in place (structural frame) and in making the case for change through basic advocacy (political frame). This approach early on produced the pre-disquisition reform efforts and some short-term success but it lacked targeted attention to the other two frames, the human resources frame and the symbolic frame, which were critical aspects for making the changes deep and sustainable (Quinn, 2012). Addressing the political and



structural aspects of improving grading practices tends to be managerial in nature and can be straightforward. But without serious consideration of the human resources and symbolic aspects of the problem, which tends to be more complex and time consuming, any grading reform can be handicapped, forgoing any hope of sustainability.



*Figure 17.* Four frame model of Bolman and Deal. Adapted from: Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice and leadership*. (4th ed.). John Wiley & Sons.

**Framing the problem: Human resources.** Viewing change through the human resource frame means that the relationship between the people and the organization is carefully examined. The disquisitioners discovered through the analysis of their intervention that both the students and the parents involved in the improvement initiative had little to no change in beliefs regarding the purpose and meaning of SBG, even though they state that they have all enjoyed the benefits of the new practices. Interviews with

teachers also indicated that without comprehensive, job-embedded professional development, teachers became overwhelmed by side issues such as how one assesses a student who does not turn in assignments (Teacher 1, personal communication, June 8, 2015). School staff members can waste energy discussing details of grading practices that, by themselves, cannot accomplish real reform. Simply changing grading policies can result in a system that muddies the grading waters and can often make less sense than the one it was intended to replace (Brookhart, 2011). Meeting the needs in the area of human resources can be elusive and, thus, requires buy-in from all involved (Gruenert & Whitaker, 2015). Therefore, a clear vision for understanding why a change is even needed must be established. Educators recognize issues exist with traditional grading practices, but not knowing how to change means that they do more of the same (Wood, Atkins, & Bright, 1999); because their beliefs are so embedded, it will take time to shift paradigms.

**Framing the problem: Symbolic.** Considering change through symbolic lenses can positively affect the success of a SBG initiative. Report cards and grade point averages, while purposeful, are symbolic. Their existence and use represent core values of most school cultures. School mission statements almost always espouse ideas like “developing life-long learners” or “providing the needs for every child,” but traditional grading practices often conflict with these ideals. “The values that count are those an organization lives, regardless of what it articulates in mission statements and formal documents” (Bolman & Deal, 2008, p. 255). Thus, how report cards and grade point averages are viewed become ritual and tradition.

The way grades are used bond people together and imbue the school culture with tradition (Bolman & Deal, 2008). Tradition is often communicated with “we’ve always done it this way.” Often leaders who seek to change grading practices proceed in a politically-charged environment with a lack of in-depth knowledge of the change process, underestimating the power of tradition, especially in an area as public as grading and reporting student learning (Guskey, 2015). Being sensitive to stakeholders’ concerns, regardless of their irrationality, helps, as well as focusing on the purpose of grading and reporting. Culture can be shaped, however, and strong leaders who understand the significance of tradition can make positive changes.

One of the implications of this disquisition is that making the shift to SBG is highly dependent upon the stakeholders and the traditions that make up their culture. Shifting grading practices so that they move toward equality of opportunity and advancement of learning for all students is a challenge that will require more than a semester or even a year-long effort. It is imperative that when leaders tear down the many old traditions associated with grading, new traditions that are viewed as improvements take their place (Guskey, 2015). It is this shift in the symbolic arena of educational organizations that will contribute to change efforts truly being a sustainable improvement.

### **Suggestions for Future Research**

The conceptual framework, developed for this improvement initiative, hypothesized that once the establishment of collective agreement on the purpose of grades and professional development had occurred, teachers’ beliefs and attitudes would change. This, along with the implementation of SBG, would then result in positive

learning outcomes: equality of opportunity and advancement of learning for all students.

While this improvement initiative demonstrated that equality of opportunity and advancement of learning were somewhat more evident than under traditional grading practices, more research on grading practices needs to be done in following areas: (1) teacher values and beliefs that impact change; (2) the effects of SBG on student motivation, engagement, and attainment of learning goals supported with adequate quantitative data; (3) identification of successful communication strategies for use in improvement initiatives; and (4) the effects on student achievement of improved teacher education programs that include assessment training in their programs.

The first recommendation has to do with learning more about how teacher values and beliefs impact improvement initiatives. Since students are only at the high school level for four years, students and parents are fluid in the school setting and a complete change occurs nearly every four years. Administrators change schools frequently so a great deal of movement occurs to this stakeholder group as well (Viadero, 2009). Many teachers work their whole career within the same school district and school culture is held, fostered, and shaped primarily by them. Teachers often are the force that holds culture together during a change in administration. Changing school culture so that it adequately and equitably nurtures student learning, means primarily instilling a sense of profound knowledge in the most stable stakeholder group, the teachers. Fullan (2001) contends that organizations invest heavily in training, but hardly at all in knowledge sharing and creation; thus, organizations often flounder because they do not know how to transfer and use the knowledge. Initial excitement about a new initiative often cannot be sustained because it cannot be converted into internal commitment, which is based on

one's values and beliefs (Fullan, 2001). Therefore, additional research on how teacher values and beliefs impact change is warranted and needed. This research could provide leaders with the direction they need to implement SBG successfully with all its positive outcomes.

Secondly, in the disquisition findings, it was obvious that the SBG practices that were put into place helped improve student motivation. However, it was not evident that the students changed their patterns of behavior in order to improve their learning; rather they changed their patterns in order to improve their grade or their grade point average. If someone were to take this finding as a starting point and go further, it is recommended that leaders ensure students are given a clear understanding of the reasons behind SBG and conduct additional qualitative studies to learn if students' motivation was directed to a higher purpose. In addition to recommendations for qualitative studies, quantitative studies could enhance the SBG body of knowledge. The disquisitioners thought that quantitative data support was lacking when they conducted their literature review. It would have been helpful to have data showing the relationship between SBG and student attainment of learning goals. For example, it could be advantageous to follow the students in our improvement initiative through high school to prove whether or not SBG impacted their learning in such a way that they became more college or career ready than students not exposed to SBG.

Based on the parent focus group, one of the most influential stakeholder groups was mostly left out of the communication regarding SBG and this decreased the effectiveness of the cultural shift necessary to ensure that the SBG model was fully implemented. The parents at the school were informed of the changes in grading

policies, but they, like the students, did not understand the reasons supporting SBG.

Parents clearly acknowledged the importance of having grades that were equitable and advanced learning; however, they were still confused about the reason why SBG was a better educational paradigm than traditional grading practices. This led the disquisitioners to believe that specific identification of positive communication strategies that work to make change efforts a real improvement could have added to their improvement initiative in this disquisition. Further work needs to be done in this area if the contents of this disquisition are to be used by other educational leaders in constructing a new grading system in their schools.

Finally, for true systemic change to occur in schools across the nation, our colleges and universities will need to incorporate SBG as a part of their teacher education programs in order for new teachers to understand the cultural shift in learning that has occurred over the last several years.

### **Closing**

With clear, accurate grading practices and communication about mastery, all children have potential for growth. The foundation upon which SBG lies, is one that provides equity of opportunity and advancement of learning for all children regardless of ability or station in life. It is within this frame of social justice that the disquisitioners advocate for grading reform that moves away from the unintended consequences of traditional grading practices. With our long-term outcome goals in mind, we set out to learn how SBG could provide a more equitable system of grading where students' level of advantage or privilege does not impact their grade resulting in equal access to learning opportunities for all students. Further, we sought to explore a system of grading that

would advance learning by more adequately prepare students for subsequent courses of study as well as the challenges presented in their lives after high school.

It is our hope that the lessons learned and the recommendations for future research that were the result of this disquisition will spark the same sense of social justice in other educational leaders so that they, too, can advocate for grading reform. We challenge leaders to be courageous in implementing the messiness of change in their own schools and districts. Ultimately, improvement initiatives are assessed by “the extent to which it awakens people’s intrinsic commitment, which is none other than the mobilizing of everyone’s sense of moral purpose” (Fullan, 2001, p. 21).

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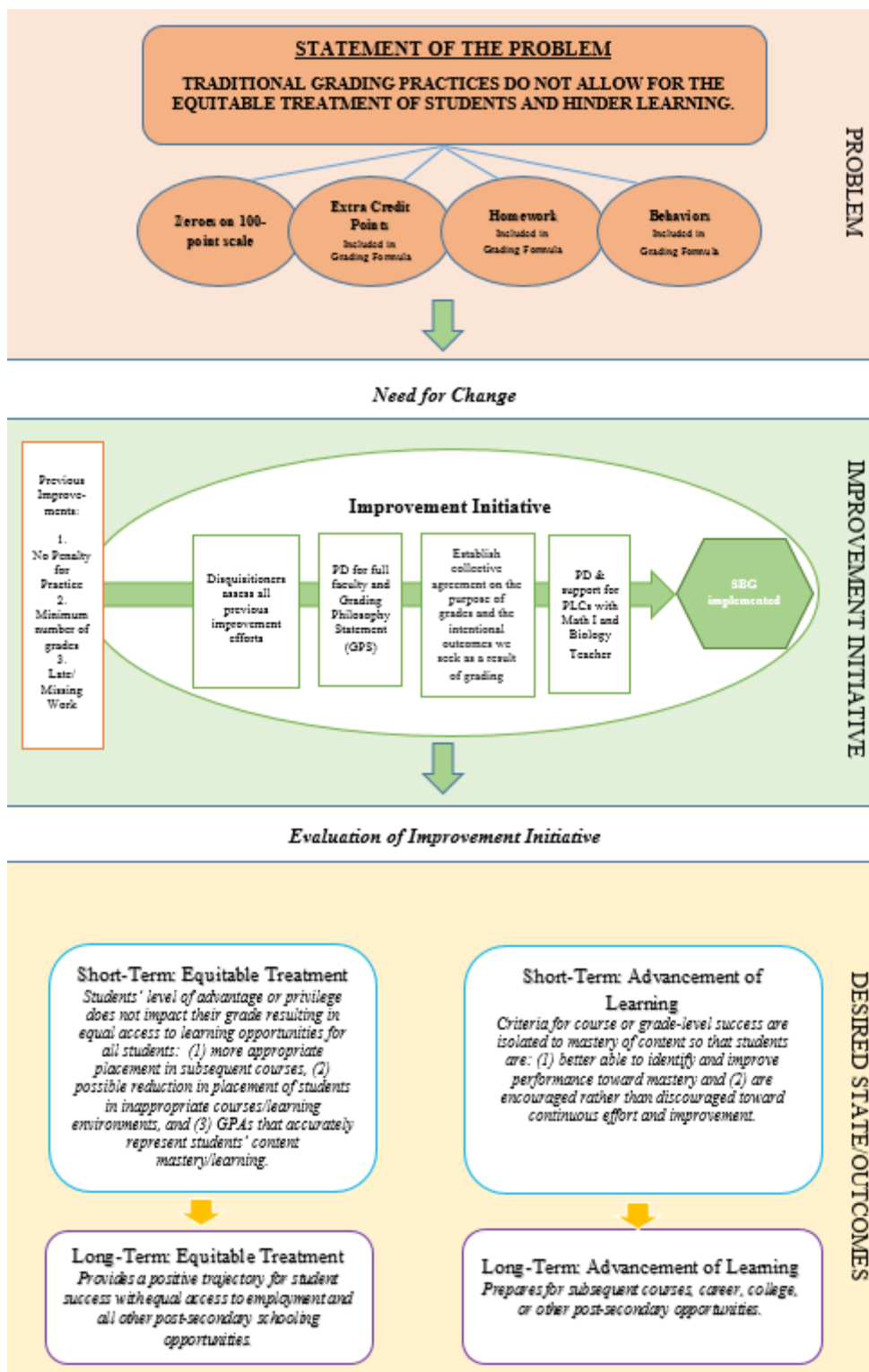


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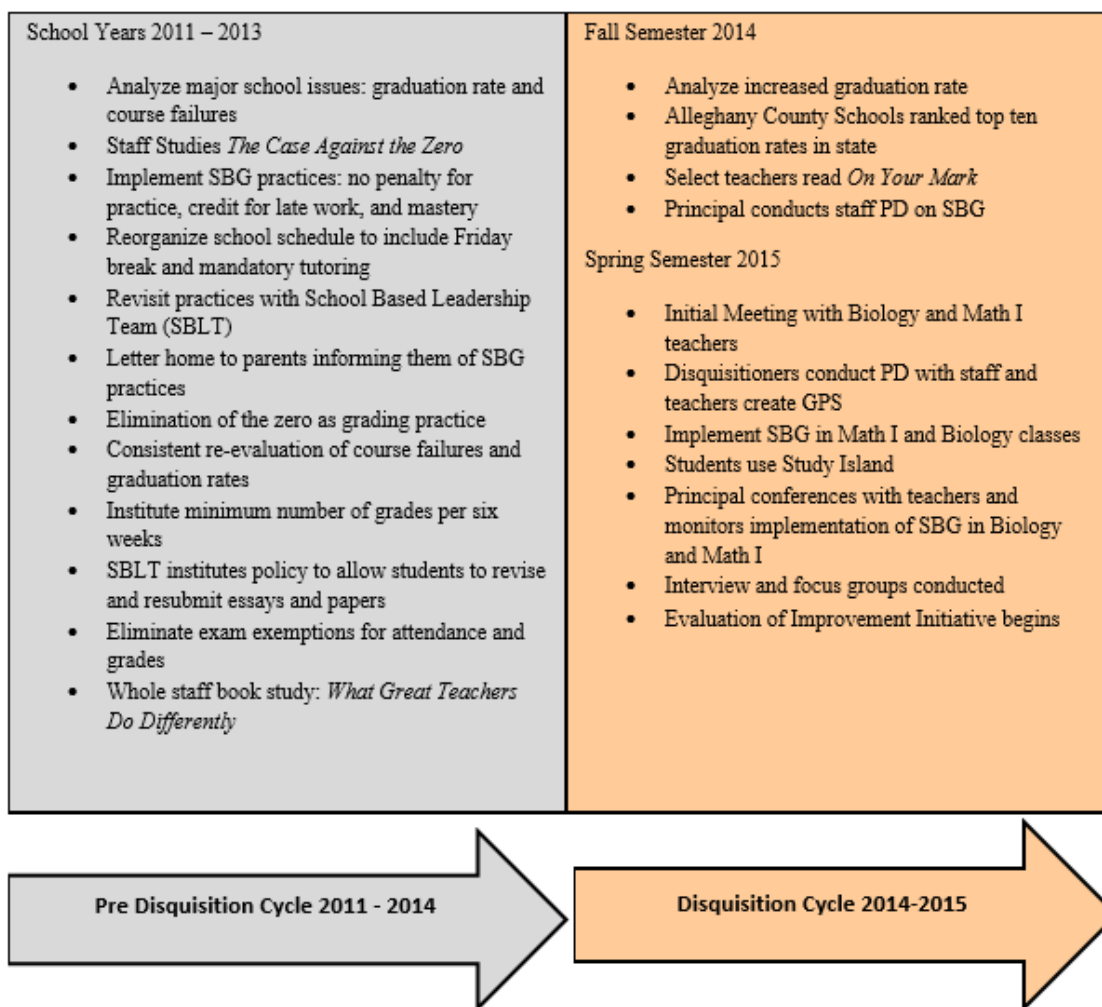
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APPENDIX A: DISQUISITION CONCEPTUAL FRAMEWORK



## APPENDIX B: COMPREHENSIVE TIMELINE



## APPENDIX C: STUDENT FOCUS GROUP SCRIPT

Demographics	<p>Alleghany High School May 14, 2015</p> <p>Biology Students:</p> <p>Math I Students:</p>
Introduction	<ul style="list-style-type: none"> <li>• Welcome and thank you for participating</li> <li>• Personal Information – Cathy Andrews, Assistant Principal of middle school, former teacher, mom with senior in high school, graduate student at WCU, working with Mr. Barnes and Mr. Gibbs.</li> <li>• Study – We are attempting to learn about grading practices. You are here because we value your opinion. What you share today will help us improve how students are graded in the classroom. Each of you should have received and signed a waiver giving consent to participate in this study. If you have not, please let me know now.</li> </ul> <p>I am going to record our conversation, however, you will not be identified in our report by your real name. Your identities will be kept confidential. Anything you say will not be held against you nor affect your current class standing or grade. It is important for us to know the good, the bad and the ugly, so we welcome your being open and honest.</p>
Social Norms	<ul style="list-style-type: none"> <li>• Participate actively and speak honestly as all ideas are welcome</li> <li>• Respect other’s opinions, even if you do not share them.</li> <li>• Take turns responding so that no one talks over another and all ideas are heard</li> <li>• Ask questions if questions we are asking are unclear</li> <li>• Please turn off cell phones.</li> <li>• Anything you would like to add?</li> </ul>
Guiding Questions	<ul style="list-style-type: none"> <li>• Explain how you were graded in your Biology/Math I class?</li> <li>• Was this different than how you are graded in other classes?</li> <li>• Can you talk about this?</li> <li>• What about this process did you like or not like?</li> </ul>

	<ul style="list-style-type: none"><li>• Do you all feel that way?</li><li>• Can you give an example of?</li><li>• You were able to redo assignments. What do you think about that?</li><li>• Were you offered any kind of extra credit?</li><li>• How is this grading more fair or less fair than before?</li><li>• If you could change the way you were graded, what would it be?</li></ul>
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## APPENDIX D: TEACHER INTERVIEW SCRIPT

**INTRODUCTION:**

My name is Jeremy Gibbs and I'm working with Chris Barnes and Cathy Andrews on a doctoral research project through WCU. Our purpose is to study the impact of the implementation of Standards-Based Grading. Your grading practices may be considered fairly progressive compared to many high schools so what you have done this semester and over the past four years is extremely valuable to our research. I just want to have a comfortable and open discussion today more than an interview or interrogation. I think we'll spent about 45 minutes talking and I want you to feel comfortable speaking with me and in being totally honest with me. There is not a right or wrong answer. Whatever you share is exactly what we need. Your name is not going to be used and your anonymity will be protected throughout this research and dissertation process. Do I have your permission to record this interview today? (Yes)

**BEGIN RECORDING: State Date and Time****INTERVIEW:**

**So, you have experienced a different approach to grading student performance this semester...tell me about it...and, other changes in the previous years as a whole journey.**

**Compare and contrast about before and after all the grading changes you have taken on, both this semester and even in prior years... PROBES: Retesting, No penalty for practice (teflon zero), and Study Island**

**What is the purpose of grading? (Beyond printing grades on a report card, what meaning do your grades have?)**

**What are the primary components that make-up your grading system of students?**

**“Many teachers who believe in using traditional grading practices have strong beliefs about using those practices, for example, some teachers believe that including extra credit in a grade teaches students the value of extra effort...” What are your thoughts on some of those practices like extra credit, the use of a zero on the 100-point scale and so on? (The following questions can probe for anything that is missed that we need to learn about).**

**-How do you approach extra credit in your courses?**

**-How do you approach homework in your courses? And grading homework?**

**-How do you approach the use of a zero and the 100-point scale in your classes?**

**-Did you use grades as motivation or as either rewards or punishment?  
(IF YES: probe, how)**

**How did SBG support student learning in your classes? How did it hinder it?**

**How did SBG support equity or equality in your classes? How did it hinder that?**

**If you had to do this over again, what would you do differently?**

**What, if anything, would you like to tell me about or share that I haven't already touched on during our conversation?**



## APPENDIX E: PARENT FOCUS GROUP SCRIPT

Demographics	Alleghany High School
Introduction	<ul style="list-style-type: none"> <li>• Welcome and thank you for participating</li> <li>• Personal Information – Mr. Barnes, Principal at Alleghany High School</li> <li>• Study – We are attempting to learn about grading practices. You are here because we value your opinion. What you share today will help us improve how students are graded in the classroom. Each of you should have received and signed a waiver giving consent to participate in this study. If you have not, please let me know now.</li> </ul> <p>I am going to record our conversation, however, you will not be identified in our report by your real name. Your identities will be kept confidential. Anything you say will not be held against you nor affect your current class standing or grade. It is important for us to know the good, the bad and the ugly, so we welcome your being open and honest.</p> <p>I hope to have an open and honest discussion today. There is not a right or wrong opinion. Whatever you share is exactly what we need.</p>
Social Norms	<ul style="list-style-type: none"> <li>• Participate actively and speak honestly as all ideas are welcome</li> <li>• Respect other’s opinions, even if you do not share them.</li> <li>• Take turns responding so that no one talks over another and all ideas are heard</li> <li>• Ask questions if questions we are asking are unclear</li> <li>• Please turn off cell phones.</li> <li>• Anything you would like to add?</li> </ul>
Guiding Questions	<ul style="list-style-type: none"> <li>• Tell me what you know about the grading practices at AHS.</li> <li>• Compare and contrast the grading that your child received at the high school vs. the k-8 grade school. Has this improved your child’s outlook on school?</li> <li>• What do you see as the purpose of grading?</li> <li>• Beyond printing grades on a report card, what meaning to grades have in your family?</li> </ul>

	<ul style="list-style-type: none"><li>• What grade do you think represents competency?</li><li>• If you were a teacher, what percentage would you count homework, tests, quizzes, etc?</li><li>• How do you feel about homework?</li><li>• Do you think teachers are consistent with grading practices across the school? Are they fair? Equitable?</li><li>• If you could change one thing about how grades are implemented, what would you do differently?</li><li>• What else would you like to add to the conversation?</li></ul>
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## APPENDIX F: PRINCIPAL INTERVIEW SCRIPT

**INTRODUCTION:**

My name is Jeremy Gibbs and I'm working with Chris Barnes and Cathy Andrews on a doctoral research project through WCU. Our purpose is to study the impact of the implementation of Standards-Based Grading. Your grading practices may be considered fairly progressive compared to many high schools so what you have done this semester and over the past four years is extremely valuable to our research. I just want to have a comfortable and open discussion today more than an interview or interrogation. I think we'll spent about 45 minutes talking and I want you to feel comfortable speaking with me and in being totally honest with me. There is not a right or wrong answer. Whatever you share is exactly what we need. Your name is not going to be used and your anonymity will be protected throughout this research and dissertation process. Do I have your permission to record this interview today? (Yes)

**BEGIN RECORDING: State Date and Time****INTERVIEW:**

**So, you have made significant changes to the grading practices at the high school over the past several years. Describe the school's journey in this regard. Specifically talk about the reasons you looked at SBG for AHS and what influenced you to advocate for SBG.**

**How did you work to build capacity with your teachers and staff?**

**How did you inspire a common vision for teachers, students and parents?**

**What policies needed to be reworked or changed?**

**What PD did you offer to teachers?**

**Compare and contrast about before and after all the grading changes you have taken on, both this semester and even in prior years... PROBES: Retesting, No penalty for practice (teflon zero), and Study Island**

**What is the purpose of grading? (Beyond printing grades on a report card, what meaning do your grades have?)**

**What are the primary components of grading that you instituted at the high school?**

**“Many teachers who believe in using traditional grading practices have strong beliefs about using those practices, for example, some teachers believe that including extra credit in a grade teaches students the value of extra effort...” What are your thoughts on some of those practices like extra credit, the use of a zero on the 100-point scale and so on? (The following questions can probe for anything that is missed that we need to learn about).**

**-How do you approach extra credit as a school?**

**-How do you approach homework in your school? Do you have any policies in the school?**

**-How do you approach the use of a zero and the 100-point scale in your school?**

**-Did you use grades as motivation or as either rewards or punishment?  
(IF YES: probe, how)**

**How did SBG support student learning in your school? How did it hinder it?**

**How did SBG support equity or equality in your school? How did it hinder that?**

**If you had to do this over again, what would you do differently?**

**What, if anything, would you like to tell me about or share that I haven't already touched on during our conversation?**

## APPENDIX G: SPOKANE PUBLIC SCHOOLS (WA) SBG REPORT CARD EXAMPLE

**Rubric for grading the content areas**

**Modifications or Interventions**

**Health & Fitness**

**Fine Arts**

**Achievement Criteria**

**Spokane Public Schools Student Report Grade 1**

Student	Attendance	1	2	3
Grade	Days Enrolled			
Teacher	Days Absent			
School	Days Present			
Year	Days Tardy			

The purpose of the report card is to report separately:

- Student achievement based on content standards.
- Student social development and work habits.

CONTENT ACHIEVEMENT		CRITERIA FOR GRADING																
<p>4 - Above Standard At This Time - Student consistently demonstrates exceptional skills and knowledge at grade level expectations.</p> <p>3 - Meeting Standard At This Time -- (EXPECTED OUTCOME) Student consistently demonstrates grade level skills and knowledge.</p>		<p>2 - Approaching Standard At This Time - Student is making progress toward meeting the grade level expectations, sometimes showing evidence of meeting the standards, at other times showing lack of understanding or ability to apply the concept or skills.</p> <p>1 - Beginning Work Toward Standard At This Time</p> <p>0 - Not Graded At This Time</p>																
<p><b>Reading</b> <input type="checkbox"/> Modified Standard (bold, see attached) <input type="checkbox"/> Intervention</p> <p><b>Comprehension</b></p> <p>Understands what is read</p> <p>Retells a story sequentially</p> <p><b>Skills</b></p> <p>Hears sounds in words</p> <p>Uses phonics to decode words</p> <p>Knows grade level sight words</p> <p>Standard Reading Level</p> <p><b>Writing</b> <input type="checkbox"/> Modified Standard (bold, see attached) <input type="checkbox"/> Intervention</p> <p>Standard Writing Level</p> <p>Writes legibly (3, 2, 1)</p> <p><b>Language</b></p> <p>Grammar Conventions</p> <p><b>SOCIAL STUDIES</b></p> <p>Family</p>	<p><b>Mathematics</b> <input type="checkbox"/> Modified Standard (bold, see attached) <input type="checkbox"/> Intervention</p> <p><b>Core Content and Processes</b></p> <p>Whole number relationships</p> <p>Addition and subtraction</p> <p>Geometric attributes</p> <p>Concepts of measurement</p> <p>Additional key content</p> <p>Reasoning, problem solving and communication</p> <p><b>Science</b></p> <p>Life Cycle of a Butterfly</p> <p>Content (science concepts)</p> <p>Process (skills used to do science)</p> <p><b>Changes</b></p> <p>Content (science concepts)</p> <p>Process (skills used to do science)</p> <p><b>Weather and Me</b></p> <p>Content (science concepts)</p> <p>Process (skills used to do science)</p>																	
<b>HEALTH &amp; FITNESS/FINE ARTS ACHIEVEMENT CRITERIA</b>																		
<p>N - Meeting Standard At This Time</p> <p>W - Working Toward Standard</p>		<p>N - Not Meeting Standard At This Time</p> <p>X - Not Graded At This Time</p>																
<p><b>Fitness and Health</b></p> <p>Fundamental Movement, Activity/Sports Skills</p> <p>Fitness Training</p>	<p><b>Music</b></p> <p>Elements (all basic music concepts - beat, pitch, and harmony)</p> <p>Fundamentals (notation, composition, style, and history)</p> <p>Skills/Techniques (performing, playing, improvisation, singing, and recording)</p>																	
<b>WORK HABITS &amp; SOCIAL DEVELOPMENT CRITERIA</b>																		
<p>3 - Consistently</p> <p>2 - Sometimes</p>		<p>1 - Rarely</p> <p>X - Not Graded At This Time</p>																
<p><b>Social Development</b></p> <p>Follows school and classroom rules</p> <p>Accepts responsibility for actions</p> <p>Solves problems in positive ways</p> <p>Responds appropriately to adults &amp; students</p>	<p><b>Work Habits</b></p> <p><b>Participation That Promotes Learning</b></p> <ul style="list-style-type: none"> <li>• Conversation &amp; behavior are focused on task</li> <li>• Works cooperatively</li> <li>• Follows directions</li> <li>• Engages in classroom activities</li> <li>• Seeks assistance when needed</li> </ul> <p><b>Complete Assignments</b></p> <ul style="list-style-type: none"> <li>• Turns in work on time</li> <li>• Quality work</li> </ul>																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">Participation</td> <td style="text-align: center;">Participation</td> <td style="text-align: center;">Participation</td> <td style="text-align: center;">Participation</td> </tr> <tr> <td></td> <td style="text-align: center;">Assignments</td> <td style="text-align: center;">Assignments</td> <td style="text-align: center;">Assignments</td> <td style="text-align: center;">Assignments</td> </tr> <tr> <td></td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> </tr> </table>			Participation	Participation	Participation	Participation		Assignments	Assignments	Assignments	Assignments		1	2	3	3
	Participation	Participation	Participation	Participation														
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	1	2	3	3														
		<p>Reading</p> <p>Writing</p> <p>Math</p> <p>Science</p> <p>Social Studies</p> <p>Fitness and Health</p> <p>Library</p> <p>Music</p>																

**Purpose**

**Work habits criteria - separate work habit for grades for each content. Not to be included in the content criteria**

White - School Copy; Green - Parent Copy 1st Trimester  
 Red - Parent Copy 2nd Trimester; Gold - Parent Copy 3rd Trimester  
 Revised 6/13

## APPENDIX H: TRANSYLVANIA COUNTY SCHOOLS SBG REPORT CARD

Student Name:  
 School:  
 Teacher:  
 Grade: 02  
 School Year: 2014-2015

Transylvania County Schools  
 Second Grade Report Card



GRADING SCALE	
<i>Core Subjects</i>	
3: On track to meet the year-end benchmark goal	
2: Needs a moderate level of monitoring and interventions to meet the year-end benchmark goal	
1: Needs a significant level of monitoring and interventions to meet the year-end benchmark goal	

## English Language Arts

Reading	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
Read on-level text with purpose and understanding. TRC Reading Level: _____ End of Year Goal: M				
Ask and answer questions to demonstrate understanding of key details in a text.				
Use illustrations and words to demonstrate understanding of characters, setting, or plot.				
Explain how specific images contribute to and clarify a text.				
<b>2<sup>nd</sup> Quarter</b>				
Recognize long and short vowels when reading regularly spelled one-syllable words.				
Read words with common prefixes and suffixes.				
Read on-level text with purpose and understanding. TRC Reading Level: _____ End of Year Goal: M				
Retell stories, including fables and folktales from different cultures and determine central message or lesson.				
Know spelling-sound correspondence for additional common vowel teams.				
<b>3<sup>rd</sup> Quarter</b>				
Read on-level text with purpose and understanding. TRC Reading Level: _____ End of Year Goal: M				
Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.				
Decode regularly spelled two-syllable words with long vowels.				
Identify the purpose of a text, including what the author wants to explain, answer or describe.				
Understand connections between historical events, scientific ideas, and steps in a procedure.				
Determine the meaning of words and phrases in a text relevant to 2 <sup>nd</sup> grade topics and subjects.				
Know and use various text features to locate key facts or information.				
Compare and contrast the important points in two texts on the same subject.				
<b>4<sup>th</sup> Quarter</b>				
Identify words with inconsistent but common spelling-sound correspondences.				
Read grade-level text with purpose and understanding. TRC Reading Level: _____ End of Year Goal: M				
Read grade-level text with accuracy, fluency, and expression.				
Use context to confirm or self-correct word recognition and understanding, rereading as necessary.				
Recognize and read grade level irregularly spelled words.				
Describe how words and phrases supply rhythm and meaning in a story, poem, or song.				
Describe the overall structure of a story.				
Describe how reasons support specific point the author makes in a text.				
Acknowledge differences in characters' points of view, using different voices when reading aloud.				
Describe how characters in a story respond to major events and challenges.				
<b>Writing</b>	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
Write about an event or sequence of events and provide a conclusion. Strengthen writing by revising and editing.				
<b>2<sup>nd</sup> Quarter</b>				
Write to state an opinion and provide reasons to support that opinion.				
Use a variety of digital tools to produce writing, including in collaboration with peers.				
Strengthen writing by revising and editing.				
<b>3<sup>rd</sup> Quarter</b>				
Recall information from experiences or gather information to answer a question.				
Complete shared research and writing projects.				
Strengthen writing by revising and editing.				
<b>4<sup>th</sup> Quarter</b>				
Write to inform or explain. Strengthen writing by revising and editing.				
<b>Speaking and Listening</b>	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
In a conversation, relate comments to the remarks of others.				
Follow agreed upon rules for discussion.				

<b>2<sup>nd</sup> Quarter</b>				
Provide key ideas or details from a text read aloud.				
Ask and answer questions to better understand a speaker's topic.				
<b>3<sup>rd</sup> Quarter</b>				
Produce complete sentences when providing requested details or clarification.				
Ask and answer questions to better understand a speaker's topic.				
<b>4<sup>th</sup> Quarter</b>				
Tell a story or recount experience using appropriate facts and relevant, descriptive details.				
Create audio recording of stories or poems, add visual displays to clarify thoughts and feelings.				
<b>Language</b>	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
Form and use the past tense of irregular verbs.				
Capitalization proper nouns.				
<b>2<sup>nd</sup> Quarter</b>				
Use collective nouns. (ex: army, herd)				
Form and use irregular plural nouns. (ex: feet, mice)				
Form and use past tense of frequently occurring irregular verbs. (ex: sat, hid, told)				
Use an apostrophe to form contractions and frequently occurring possessives.				
Determine the meaning of the new word formed when a known prefix is added to a known word.				
Use word meaning to predict definition of compound words.				
Use a known root word as a clue to the meaning of an unknown word with the same root. ex: addition/additional				
<b>3<sup>rd</sup> Quarter</b>				
Use reflexive pronouns.				
Use adjectives and adverbs and choose between them based on what is to be modified.				
Use commas in greetings and closings of letters.				
Identify real-life connections between words and their use.				
Understand shades of meaning among closely related verbs.				
<b>4<sup>th</sup> Quarter</b>				
Produce, expand, and rearrange complete simple and compound sentences. Use collective nouns.				
Generalize learned spelling patterns when writing words.				
Consult reference materials, including beginning dictionaries, to check and correct spellings.				
Use knowledge of language and its conventions when writing, speaking, and listening.				
Use sentence level context as a clue to the meaning of a word or phrase.				
Use glossaries and beginning dictionaries to determine or clarify the meaning of words and phrases.				
Use words and phrases acquired through conversations and reading to describe.				
<b>Mathematics</b>				
<b>Operations and Algebraic Thinking</b>	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
Fluently add and subtract within 20 using mental strategies.				
Determine whether a group of objects (up to 20) has an odd or even number of members.				
<b>3<sup>rd</sup> Quarter</b>				
Use addition and subtraction within 100 to solve one- and two-step word problems.				
<b>4<sup>th</sup> Quarter</b>				
Use addition to find the total number of objects in an array, write equation to express total.				
<b>Numbers and Operations in Base Ten</b>	Q1	Q2	Q3	Q4
<b>1<sup>st</sup> Quarter</b>				
100 can be thought of as a bundle of ten tens – called a “hundred.”				
The numbers 100, 200, 300 to 900 refer to one two, three to nine hundreds, 0 tens and 0 ones.				
Explain why addition and subtraction strategies work.				
<b>Numbers and Operations in Base Ten (continued)</b>	Q1	Q2	Q3	Q4
<b>3<sup>rd</sup> Quarter</b>				
Compare three-digit numbers based on meaning of the hundreds, tens, and ones.				
<b>4<sup>th</sup> Quarter</b>				
Count within 1,000; skip-count by 5s, 10s, and 100s.				
Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.				
Fluently add and subtract within 100 using strategies based on place value, operations, and relationships.				
Add up to four two-digit numbers using strategies based on place value and properties of operations.				
Add and subtract within 1,000 using concrete models based on place value and properties of operations.				
Mentally add and subtract 10 or 100 to a given number 100-900.				

Measurement and Data	Q1	Q2	Q3	Q4
<b>2<sup>nd</sup> Quarter</b>				
Measure the length of an object, selecting appropriate tools.				
Measure the length of an object twice, using different units and describe how they are related.				
Estimate lengths using units of inches, feet, centimeters, and meters.				
Measure to determine how much longer one object is than another.				
Generate measurement data and display in a line plot using a whole-number scale.				
<b>3<sup>rd</sup> Quarter</b>				
Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0,1,2,...,and represent whole-number sums and differences within 100 on a number line diagram.				
Use addition and subtraction within 100 to solve word problems using lengths of like units.				
Tell and write time from analogue and digital clocks to the nearest five minutes (am/pm)				
Draw a picture graph and a bar graph (with a single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.				
<b>4<sup>th</sup> Quarter</b>				
Solve word problems involving dollars, quarters, dimes, nickels, and pennies.				
<b>Geometry</b>	Q1	Q2	Q3	Q4
<b>2<sup>nd</sup> Quarter</b>				
Recognize and draw shapes having specific attributes.				
Partition a rectangle into rows and columns of the same-size squares and count to find total.				
Partition circles and rectangles into 2, 3, or 4 equal shares and describe as halves, thirds, or fourths.				
	Q1	Q2	Q3	Q4
<b>Social Studies</b>				
	Q1	Q2	Q3	Q4
<b>Science</b>				
S: Satisfactory                      N: Needs Improvement                      U: Unsatisfactory				
<b>Classroom Expectations</b>	Q1	Q2	Q3	Q4
1. Completes work on time.				
2. Listens and follows directions.				
3. Actively participates in class.				
<b>Special Areas</b>	Q1	Q2	Q3	Q4
<b>Art</b>				
<b>Music</b>				
<b>Physical Education</b>				

<p>Teacher Comments:</p> <p>First Nine Weeks:</p> <p>Second Nine Weeks:</p> <p>Third Nine Weeks:</p> <p>Fourth Nine Weeks:</p> <p>Parent Signature: _____</p> <p>End of Year:    Promoted                      Retained</p>	<b>Quarter:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
	Attendance:				
	Absent:				
	Tardy:				



## APPENDIX I: GPS TEACHER PROFESSIONAL DEVELOPMENT HANDOUT



## ***My GPS.***

### ***Grading Philosophy Statement***

**ANALYZE:**

Are your current grading practices taking your students in the right direction?

What are my values with respect to student grading?

Keep, Drop, Modify? What about my current grading practices should I keep, drop, or change?

<i>Keep</i>	<i>Drop</i>	<i>Modify</i>

**Create:**

<i>Belief/Practice/Policy</i>	<i>Rationale</i>
<i>Example: Homework will count for 5 percent of a student's grade in my class.</i>	<i>The homework I give is to practice and reinforce important concepts and skills therefore it adds value to the learning experience.</i>

**Share:**

Share your beliefs and practices with your colleagues (table/group/PLC) and encourage them to ask questions. Then, do the same for your colleagues. Invite and welcome their questions, feedback, and ideas.

Note some of the key questions and ideas you receive from your peers.

**Reflect:**

What, if any, changes did this process inspire you to make in your grading practices or other classroom practices?

Identify any powerful practice that you or a colleague contributed.

Identify any practice that may not support student learning but is "the way we've always done it."

Other questions and thoughts for reflection.

Adapted from:

Wormeli, R. (2006). *Fair isn't always equal: Assessing & grading in the differentiated classroom*. Stenhouse Publishers.

APPENDIX J: GPS PRESENTATION AGENDA FOR NCASA CONFERENCE  
PRESENTATION

**AGENDA**

**NC Association of School Administrators Conference Breakout Session  
Standards-Based Grading: Moving Toward Equality of Opportunity and Advancement  
of Learning for All Students**

Cathy Andrews, Christopher Barnes, & Jeremy Gibbs  
March 19, 2015; 1:30-2:30 PM, Raleigh Convention Center Room 306A

**PURPOSE/CONTEXT:** To advocate and support a move toward standards-based grading in schools

**DESIRED OUTCOME(S):** By the end of this meeting, participants will have...

- ✦ a brief history of grading practices and traditions in the US
- ✦ a case study of one leader's journey in shifting a school from very traditional practices to improved grading practices (AHS)
- ✦ a brief scan of the research on SBG
- ✦ several practical tools for facilitating conversations and making changes to classroom grading practices in the school/district setting
- ✦ a brief overview of our proposed intervention plan for spring 2015 and associated evaluation of impact

**STAKEHOLDERS:** Conference attendees--School and district administrators

<b>WHAT</b> (Content)	<b>WHO</b> (Facilitator)	<b>TIME</b> (Minutes)	<b>NOTES</b>
<b>Start-ups</b> <ul style="list-style-type: none"> <li>✦ Purpose/Context</li> <li>✦ Desired Outcomes</li> <li>✦ Agenda</li> <li>✦ Roles</li> </ul>	All	5	Brief intro of each and why we took this topic on VIDEO CLIP: Overview of SBG
<b>Timeline of Grading in the US</b>	Cathy	5	High-level overview of how we got to this point
<b>The AHS Journey</b>	Chris	10	History Leadership actions Scenarios/polls
<b>Grading Position Statement</b>	Jeremy	15	-GPS activity (from <i>Fair Isn't Always Equal</i> ) -Wormeli Clips (from FIAE) as a tool for conversation starting
<b>Our research</b>	Cathy	5	A very brief overview of our conceptual framework for our research and major authors we follow
<b>Questions, Meeting Evaluation, and Closure</b>	All	10	-FEEDBACK? Please get in touch . Contact information: Jeremy Gibbs - <a href="mailto:jgibbs@tcsnc.org">jgibbs@tcsnc.org</a> Chris Barnes - <a href="mailto:barnescr@alleghany.k12.nc.us">barnescr@alleghany.k12.nc.us</a> Cathy Andrews - <a href="mailto:candrews@hayesvillems.org">candrews@hayesvillems.org</a> Website: <a href="https://sites.google.com/a/tcsnc.org/ncasa-grading/home">https://sites.google.com/a/tcsnc.org/ncasa-grading/home</a>

## APPENDIX K: POLICY BRIEF ON THE UNINTENDED CONSEQUENCES OF GRADING

# Policy Brief: The Unintended Consequences of Grading Practices

By Catherine Andrews, Christopher Barnes, and Jeremy Gibbs  
Western Carolina University

### Executive Summary

“Grades have massive power in our schools and in the lives of the people whom we grade” (Tomlinson & Moon, 2013, p.122). Grades provide teachers with information to aid instructional planning and program evaluation; however, this is just the beginning of the long list of purposes grades serve. Grades also are assumed to communicate to students and parents the level of adequacy at which students are learning and mastering the curriculum’s

**“Grades have massive power in our schools and in the lives of the people whom we grade”**

(Tomlinson & Moon)

objectives and standards. Grades are also a primary tool used by employers and colleges to determine a student’s academic ability and suitability for certain jobs or fields of study.

This policy brief summarizes the research related to teachers’ grading practices and districts’ lack of uniform grading policies. The research supports the fact that current assessment and grading practices used by teachers create

unintended consequences for students and speaks to the need for a uniform policy for all schools.

### The Problem with Current Grading Practices

The practices used by high schools to assess and grade students have little to no alignment. Furthermore, student grades are tainted by inconsistent practices that include non-academic criteria. Much of the research that has surveyed teachers on the criteria used to assign a grade has found that teachers award grades for not only academic knowledge but also a multitude of student behaviors and classroom performance issues, often termed “hodgepodge” and “kitchen sink grading.” These include academic performance, classroom participation, effort, behavior, attendance, improvement, and turning in homework, among others (Bowers, 2011). The inclusion of such factors lies in the fact that teachers believe they must be both judge and advocate for

- (1) *Assessment* – The diagnostic process of measuring a student’s progress and/or mastery of a criterion.
- (2) *Grading* – Assigning a standardized measure (numerical or letter) to a student’s performance or product;
- (3) *Student Achievement* – A student’s ability to master learning objectives and criteria; and
- (4) *Standards based grading*- measuring student proficiency on well-developed objectives. (Minimum standards grading)

their students. Additionally, many grading practices violate established motivational theories. For example, if a student's grade is so low that he believes success is unattainable, he will more than likely disengage in school. One other notable problem is that while encouraged by the North Carolina Department of Public Instruction to utilize formative assessments, teachers are still placing high stakes to students' practice of skills.

High school grades have far reaching consequences and are used by colleges, universities and employers to help determine enrollment, scholarship awards and employment. When schools allow teachers complete autonomy over grading practices, the schools and postsecondary institutions are given inaccurate information regarding a student's true potential and abilities. This problem is increased when teachers have no guidance or standardization of grading practices at a school or district level.

### Background

Numerous studies confirm that grades are used for a plethora of questionable purposes including, but not limited to self-esteem, rewards, rank, and a variety of other purposes (Randall & Engelhard, 2010). Grades are also used for providing teachers with information to aid instructional planning and program evaluation. Unfortunately, in assessing students teachers use a hodge-podge of criteria (Brookhart, 1991) and teachers often view grades as "pay students earn for activities they perform" (Brookhart, 1993, p. 139). Current school policies also allow for grading based on attendance, i.e. time in class. Interpretation of grades becomes more confusing when extra credit, dropped grades, late grades, and completion grades are used.

Because of all the elements that often comprise a grade, uniformity and meaning of grades are skewed. Inaccurate information is given which then leads to inaccurate interpretations.

### Call for Action

With the growth of accountability for teachers and administrators, attention to grading and assessment practices has increased. Additionally, how and what teachers assess has become even more relevant over the past few years because of the implementation of Common Core across most states

in the U.S. Thus, superintendents must work with their school board and district and instructional leaders to develop grading policies that best serve the needs of students by raising the bar and closing the gap of student learning (Fullan, 2006). Enriched professional development, proper teacher evaluation, and collaboration with college and university pre-service programs are a necessary part of orchestrating change in such policies.

### Pre-Existing Policy

There is no current grading policy established by the North Carolina State Board of Education. Each district is left to determine its own policy. We completed a study involving North Carolina's western portion of the state, regions seven and eight. We researched the board policies of every school district in these two regions and found that only one district of twenty-eight had any specific grading policy—Caldwell County Schools. Even though this policy is still not explicit in its requirement for grades, it speaks to the need to use grades diagnostically and cautions against the use of zeros as a grading tool. It also is the only policy that we can find that forbids schools from using attendance and tardies as grade criteria.

Seven districts that we researched had no policies posted whatsoever and the remainder had language in their policies so similar that they were almost identical. These policies are vague and their wording and language do not

#### Caldwell County North Carolina Policy Code: 3400

1. Evaluations of student performance shall be used diagnostically to plan content and teaching techniques to be used in future instruction.
2. Parents shall be informed of the academic goals toward which students are progressing.
3. Attendance and tardiness shall be reported separately from academic or behavior evaluations.
4. Teachers are to use caution when assigning zeros, due to a zero's ability to skew a student's grade. Students should be permitted and highly encouraged to redo and/or make up work on which they earned zeroes or other failing grades."

(Caldwell County Schools Policy Code 3400. Retrieved February 13, 2014, from <http://sc.caldwellschools.com/education/components/scrapbook/default.php?sectionid=6351>)



**Inaccurate grades play havoc  
with students' lives and our  
professional integrity.**

(O'Connor & Wormelli)

instruct teachers to avoid hodgepodge criteria when assessing student work and gives the teachers complete autonomy in their practices. This type of grading policy leaves grades completely open to a teacher's individual interpretation and leads to widely disparate grading practices.

While a lack of policy is prevalent, it is worthwhile to note that in the North Carolina Teacher Evaluation handbook's "Appendix A: Code of Ethics for North Carolina Educators" adopted by the State Board of Education June 5, 1997, states under "Commitment to Students" a teacher "Evaluates students and assigns grades based upon the students' demonstrated competencies and performance."

This is perhaps a well-intended, but ineffective attempt to direct teachers to minimize inaccurate grading practices. It appears as if people are cognizant of this issue, but lack motivation to acknowledge poor grading practices create serious unintended consequences, and thus, avoid the necessary policy action needed to correct it. Policy makers need to realize that "inaccurate grades play havoc with students' and our professional integrity" (O'Connor & Wormelli, 2011, p. 42).

### Policy Options

We have examined several different grading policies that could be used to create a system of grading that is fair and objective. There are advantages and disadvantages to each and all would require a great deal of professional development by districts for teachers prior to implementation.

1. **Standards Based Grading:** This policy requires districts to completely sanitize their grading practices and purge any non-academic grading practices. This policy would include removing any policies that penalized students for late assignments, absences and behavior. Many schools that implement this type of policy may be

required to post additional information such as a conduct grade or work ethic grade to ensure that parents, employers and colleges are given an accurate understanding of a student's true potential. Grading enables teachers to communicate the achievements of students to parents and others, provide incentives to learn, and provide information that students can use for self-evaluation. In addition, schools use grades to identify or group students for particular educational paths or programs and to evaluate a program's effectiveness (Feldmesser 1971, Frisbie and Waltman 1992). Unfortunately, many schools attempt to address all of these purposes with a single method and end up achieving none very well (Guskey, 1994).

2. **Minimum Standards Grading:** This policy institutes a minimum score for grades that ensures more students are given the opportunity to pass their classes. Many schools use a score of a fifty to replace any score of a zero. The argument is that if a student receives a grade of a zero for a missed assignment, it unnaturally skews a student's grade downward. But the common use of the zero today is based not on a four-point scale but on a 100-point scale. This defies logic and mathematical accuracy. On a 100-point scale, the interval between numerical and letter grades is typically 10 points, with the break points at 90, 80, 70, and so on. But when the grade of zero is applied to a 100-point scale, the interval between the D and F is not 10 points but 60 points (Reeves, 2004).

3. **Results-Based Grading:** This policy combines the practices from several other grading practices. Student grading is recorded on a 100 point scale; however, students are given the opportunity to retake any test or redo any assignment until they demonstrate competency. They are encouraged to and required to receive additional tutoring as needed. This plan also requires separate recording of attendances and tardies so that a student's grade remains an accurate reflection of their academic progress.

### Advantages and Disadvantages of Each Policy Option

1. **Standards Based Grading:** Many teachers are against this policy because they feel that it is too restrictive. Arguments against this policy are that it rewards poor work habits and poor attendance. Over the years many teachers have

intertwined their classroom management plan with their grading practices. They are unwilling to separate them again because they fear that chaos will result or that students do not have the work ethic required to perform at a high level of rigor without coercion. In addition, if students are not penalized when work is turned in late, teachers feel that instruction will suffer because some assignments contain information that is required for work done later in the semester.

Additionally, to grade based on standards requires a time commitment in the beginning to set up the standards to be met. In larger schools, marking standards report cards also requires purposeful, focused time. This is why it is common to see standards based reporting in the elementary schools rather than in the upper grades where it is possible for a teacher to be responsible for over 100 students in one grading period.

#### 2. Minimum Standards Grading:

Opponents of Minimum grading practices often voice the same concerns as standards based grading. Teachers believe giving a score, even a failing one, to a student for inaccurate or incomplete work violates the belief that scores can be used to mold responsible behavior. It is also argued that using a minimum score artificially inflates grades. In fact giving extra credit or giving a child a grade of 100 for returning a form is contrary to a mastery

approach and undeniably artificially inflates grades, yet this is a widely accepted practice.

3. Results Based Grading: This approach works nicely with the idea of standards based grading in that students are given equal opportunity to learn. Some students need more practice than others and some students need more time to learn so opportunities to redo are essential. However, many teachers are reluctant to take the time for redos or tutoring because of external pressures to cover the content or because their daily schedule does not afford them sufficient time for additional grading.

#### **Recommendations:**

When the benefits far outweigh the negatives, we owe it to our students to implement a grading policy that establishes consistent, accurate, meaningful grades that are most importantly supportive of student learning. The North Carolina state-wide utilization of Powerschool and its ability to connect grades to standards should encourage districts to move towards a standards-based grading system. If superintendents work with their school district and instructional leaders, they can, despite stakeholders' firmly held beliefs about grades, successfully develop grading policies that best serve the needs of students by raising the bar and closing the gap of student learning.

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