

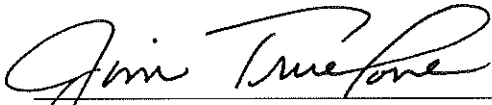
SECONDARY PRINCIPALS' PERCEPTIONS OF GRADING AND GRADE
REPORTING PRACTICES

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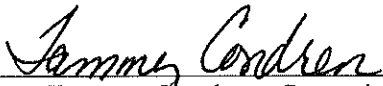
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REPORTING PRACTICES

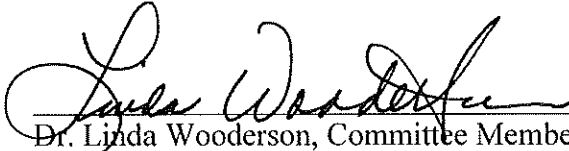
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SECONDARY PRINCIPALS' PERCEPTIONS OF GRADING AND GRADE
REPORTING PRACTICES

A Dissertation
Presented to
The Faculty of the Graduate Education Department
Southwest Baptist University

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Education

By

Jeremie Akins, B.S., M.S., Ed.S

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2016

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check. Research Topics – check. Cumulative Finals – check. Presentations – check. RRB – check. Dissertation – check.

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ABSTRACT

Effective grading practices in the classroom as well as reporting practices such as standards-based grading (SBG) is one way to report learning (Marzano, 2010). The focus of this particular study was to address alternative ways to tackle the issue of grading and grade reporting in comparison to the traditional grading methods. Specifically, this study explored the perceptions of lead high school principals regarding effective grading, traditional grading, and leadership implementation of grading and grade reporting.

In order to provide a successful research platform the development of a reliable and valid survey instrument was conducted. The pilot version of the instrument was completed in various settings to gather results commendable of making predictions and descriptive statements that emphasized the educational public and the sample population. Revisions were necessary after seeing the results from the pilot survey and a final survey was distributed for principal's perceptions.

The sample population consisted of lead principals in approximately 700 high schools within the entire state of Missouri. Respondents were overall favorable to all three scales on the survey— (1) perceptions of grading and grade reporting, (2) leadership of grading and grade reporting, and (3) perceptions of traditional grading and grade reporting. There were a number of statistically significant differences; however, the results suggested that schools are someone open to better grading and grade reporting implementation. It seems apparent, according to the survey results, that some schools have the primary platform or at the very least, desire to make grading changes.

Further study is recommended on how to proceed from mere knowledge to application in the secondary setting. Many elementary and some middle schools are

moving toward standards-based grading, but high schools seem to be primarily traditional. Another avenue this study could take would be to evaluate the perceptions of students and the effect of different grading practices, especially at the high school level.

CHAPTER ONE

INTRODUCTION

The primary purpose in education is for students to learn at high levels, choose a career or post-secondary education path, and become responsible citizens. For some that happens quickly, and for others it requires more time. Students do not come to the learning environment on an assembly line with identical prior experiences and educational background. Across all content areas, students are engaged in learning with varying previous knowledge and contextual experiences to reinforce the new information. For others, however, there is not a foundation of experiences and knowledge to draw from, causing a learning gap between students within the classroom. Those gaps have been addressed by federal, state, and local governments in the creation of academic standards for grade levels.

Regardless of how it is packaged and what it is called, standards exist in every state in America. Teachers are faced with the challenge of ensuring all students become proficient in all standards (Marzano, 2010). Instruction and feedback on the learning that is taking place is a difficult task for teachers because students come to the lesson with the aforementioned differing abilities on a daily basis. In order for instructors to tackle the challenge of reducing the natural learning gap from one student to the next, those standards must be addressed on what students know as well as what they do not know (Ainsworth, 2003). Best practices in determining what students know and do not know places a strong emphasis on grading and grade reporting (O'Connor, 2009). Effectively grading and evaluating student performance helps dissipate teacher subjectivity, allowing student performance and objectivity to be the standard that measures achievement. As

teachers report the level of learning on a large variety of standards, parents and students alike deserve the most accurate and fair data. Likewise, state and local agencies, administration, and teachers depend on the reporting of achievement, making grade reporting essential to teaching and learning (Reeves, 2011).

Problem Statement

There have been many great strides in terms of goal setting for students in public schools. All 50 states have adopted standards or benchmarks for schools to set as a target for proficiency at grade level (O'Connor, 2011). Subsequently, a shift has begun in certain areas of education, delineating the need for a more objective based grade and reporting system. If the benchmark for proficiency is based upon standards, then the evaluation of those goals should be as well (Guskey, 2011). Best practice, according to research, indicates that students learn best as assessment capable learners (Hattie, 2009). It is problematic when best practices and actual practice do not align. Effective grading practices are essential to providing quality feedback, while descriptive feedback given to students is essential to accelerate learning. Therefore, schools should be connecting the two processes of feedback and grading, not separating them (Reeves, 2011).

Current high school principals in the state of Missouri may not be aware of strategies to improve grading practices. The traditional 100-point scale is still being used by instructors across the state even though research indicates an error in interval calculations (Marzano, 2010). Current research addressing student achievement correlation, based upon improved grading practices such as feedback, may be ignored by instructors in the state of Missouri (Hattie, 2009). Current reporting systems may not reflect what students actually know, learn, and master, because a mixture of formative

and summative assessments are being used to produce the grade (O'Connor, 2007). Likewise, parents, principals, and teachers may not be able to decipher the differences between an A, B, C, D, and F level work on an assignment, progress report and on a quarterly or semester grade card. The opinion of an instructor and his or her belief in the value of an assignment reflects subjective opinions, as opposed to a criterion reference or standard. Grades may stick with a student and create an unintentional label, creating a lack of hope in a struggling, yet potential, learner. Certain assignments may not align to standards or add skill value to a point system, yet they may be factored into final grades. Graded assignments and grade reports can reflect a measurement of behavior, as opposed to the learning that has taken place, mastery of content, knowledge obtained, and progress made, or lack thereof. Instructors may also believe the use of a zero indicates punishment or that they provide motivation to hand in an assignment. This, however, is no reflection of true learning, but a behavioral consequence. Calculating final grades using an average instead of other measures of central tendency may not reflect what students have learned or mastered (Marzano, 2010).

Homework, as defined traditionally, should be a risk-free opportunity to practice newly learned skills or apply what is formatively understood by students. Customarily, teachers assign work and expect it to return to class to be graded for accuracy or completion regardless of whether or not the material was understood in class (Carr and Farr, 2000). Assignments graded for points, and consequently calculated into reported grades, may not represent student knowledge or skill. In addition, homework may be completed by someone other than the assigned student causing a reduction in validity to assessing student work. Teachers may assume their current practices are effective simply

based upon tradition and therefore warrants the best approach toward student achievement. The researcher believes teachers may not be aware of improved practices and/or are unwilling to further evaluate better methods of grading. The researcher believes many building level principals are not providing leadership or professional development opportunities in the area of grading reform. Principals may not know where to begin or how to improve grading practices.

Purpose for the Study

Few dissertations exist that lay out proper policies and procedures for implementing best practices in terms of grading and reporting. Only limited literature exists to help establish practices for secondary schools in relation to grading as feedback and utilizing a more specific grade reporting system. In order to implement different practices, school leadership will need to accept the current research and embed it into their daily routines. In the United States, there are the above mentioned problems.

The purpose of this study, then, was to explore high school principals' perceptions of grading and grade reporting practices. Specifically, the study focused on three primary objectives for principals. The researcher intended to determine high school principals' understanding of what the current literature expresses as best practice in terms of grading and grade reporting. The researcher also attempted to evaluate the perceptions high school principals had toward their own leadership in regards to utilizing or applying their knowledge and understanding of what the literature outlines for best grading and grade reporting practices. Finally, the researcher used the perceptions of high school principals to determine attitudes associated with traditional grading and report cards. With all these

ideas in consideration, parents and students deserve an accurate, fair, specific, and timely reporting system to help enhance student achievement (Reeves, 2011).

Research Questions

High school principals may be unaware of the current research that indicates the importance of a need for reformed grading (O'Connor, 2009). Also, high school principals may be unwilling to try improved grading practices due to traditions. Based upon a review of literature as noted later in this proposal, a good principal would arguably be a good instructional leader (Reeves, 2006). If a teacher did not have many tools in the tool bag regarding best practices for grading, the principal would have knowledge to improve grading practices. For instance, the principal may scaffold the process to improve the weakness and introduce strategies. Therefore, it is hypothesized that principals are unaware of the current research which indicates the importance of the need for reformed grading.

In this study, the researcher has asked for principals' perceptions of grading and grade reporting practices. Specifically, the three questions below guided the study:

- What is the perception of Missouri high school principals' understanding of best practices regarding grading and grade reporting?
- What is the perception of Missouri high school principals' active leadership regarding grading and grade reporting?
- What is the perception of Missouri high school principals' understanding of traditional grading and reporting practices?

Theoretical Framework

Grading and grade reporting is a progressively popular topic for educators in the educational world. Authors such as Brookhart, Guskey, Marzano, O'Connor, Reeves, and Wormeli, have been contributory in leading conversations centered on grading and grade reporting practices. Specifically, Reeves expresses why grading is so important, in his book, *Elements of Grading: A Guide to Effective Practice* (2011). Reeves states that grades need to be accurate, fair, specific, and timely. O'Conner says in his book, *How to Grade for Learning: Linking Grades to Standards*, that grades need to have meaning and traditional grades need to be de-emphasized (2002). Grading reform is not necessarily a new notion. Key educational figures such as Ralph Tyler, a prominent contributor to the ASCD and NAEP back in the 1950's, hoped that students would be graded on a set of criteria (Nowakowski, 1983).

The topic of grading continues to gain in popularity as educational professionals become more aware of the impact effective grading has on student achievement. Hattie indicates that feedback is one of the top ten factors that impact and accelerate student learning (2007). Feedback is a major component of grading reform. Most schools are still using the traditional grading approach. However, alternative grading practices, hybrids of standards-based grading, and standards-based grading is becoming more prevalent. Furthermore, according to Ainsworth and Viegut (2006), "Grades should reflect student performance only on summative assessments. In fairness to students, grades should represent the degree to which students have achieved proficiency relative to the standards by the conclusion of instruction and related learning opportunities" (p.89).

Limitations/Delimitations

Limitations –

- The independent and dependent variables are measured as subjects' perceptions, not actual behaviors.
- Therefore, because people and their perceptions of grading and grade reporting will be studied, there is a logical amount of variables to consider, such as honesty and mood.
- The use of an instrument addresses attitudes and perceptions; therefore, the results are subject to the known reliability and validity of that instrument.
- Although some information about the instrument in regards to reliability and validity are known based upon the information described below in chapter III, the instrument may have limitations in measuring what it is intended to measure.
- Only subsequent research with other audiences and with other instruments will help further our understanding of the concepts being measured in the study.

Delimitations –

- The research is intended to investigate a defined population such as high school principals in the state of Missouri; therefore, elementary and middle school principals' perceptions will not be measured for this study.
- In addition, only lead principal perceptions will be taken into consideration for this study.

- Principals working outside of the boundaries of the state of Missouri will not be surveyed.
- While the proposed study sample should be quite diverse, the fact remains that certain segments of educational perceptions will not be included.

Conclusion

A motivation for this study is the need to garner insight into the perceptions of high school principals as to what they believe is the reason why, despite compelling research indicating enhanced student achievement through the implementation of effective grading practice, school systems are not making every effort to move towards the utilization of differing practices. The current practices and perceptions in Missouri must be assessed to determine the need for leaders to unite with their community and implement improved grading practices for the sake of their learners. Teachers may not feel equipped to make change without administrative guidance or all alone. Thus, it is crucial that a survey be conducted to gather perceptual data about what is holding high school principals back about the implementation of differing grading practices. The quantitative data this study produces may provide a platform for informed decision-making as well as further research to be done into this topic. Also, schools in Missouri may be encouraged to engage in reformed grading practices such as standards-based grading or hybrid versions of it.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The literature review provides detailed information concerning this study and is based upon the current educational research regarding best grading practices. The literature review explores historical context addressing the relationship of best grading practices to the traditional grading standards in America. The review of literature addresses problems associated with traditional grading along with complications and hindrances of improving grading practices. In this chapter, strategies will be outlined to aid building leaders in developing a process for implementation of effective grading practice components. Specifically, topics such as traditional grading practices, best grading practices, assessment and feedback, and perceptual data will be outlined below. Finally, the purpose for this study will be included to warrant a quantitative study, essentially creating a nexus to why secondary principals in Missouri do not require grading and grade reporting practices, as outlined in the review of literature, to be implemented, even though there is an abundance of research indicating its positive impact on student achievement.

Grading Defined

Defining grading terminology is essential to the process of improving grading practices and reporting. Determining grades for an assignment, test, quiz, or project may not be the same thing as assigning a final, or summative, grade for a term, period, or class. The term *grading* carries different meanings for different people. Even though there are some words that are interchangeable like *marking* or *grading*, the distinct

meanings should be addressed in this study. Airasian (1994) articulates grading as “making a judgment about the quality of a pupil’s performance, whether it is performance on a single assessment or performance across many assessments” (p.281). According to O’Connor (2009), *grading* is the number or letter reported at the end of a period of time as a summary statement of student performance. O’Connor continues to say that *marking* is more closely related to single student assessments like a test or assignment. Clarity is essential so that people operate under the same assumptions. For the purpose of this study, effective grading takes place when teachers provide feedback to students on assignments, tests, quizzes, or projects. However, it does not stop there. Effective grading also includes scoring those same artifacts as well as collecting totals for a final score. *Scoring* takes place when teachers put a value to the assignments, tests, quizzes, or projects (O’Connor, 2009). *Reporting* is the term used to signify the communication of scores and grades (Marzano, 2010). The confusion takes place mostly when *grading* is used without context. In this study, grading, reporting, and scoring are the basic terms used.

History of Grading in America

Current educational phenomena are trending with ways to improve grading in America in part because of the push for educational reform (Reeves, 2011). Although many different grading methods have been practiced for one reason or another, it was not until current literature surfaced that such a strong push has been made in a specific direction. Many different styles of grade reporting have been used in the United States. Some examples include pass/fail, numerical percentage scores, letter grades, and written evaluations (Marzano, 2010). However, as early as 1911, educators were aware of the

discrepancy of subjective marks in grading by different graders (Bocks, 1977). Numerical grades were eventually replaced with letter grades in approximately 1940. Percentage grading was most popular until around 1960 or so. Teachers began to realize students rarely were given scores below 50%, and so groups of five such as A-F were made to report out scores. This was basically a representation of the percentages in groups of 10. The pass/fail and written evaluation options surfaced here and there in the middle to late 1900's in order to offset the increasing number of students seemingly unable to compete with one another on the letter grade scale. Research indicates letter grades are the most common way to report performance for grades in both elementary and secondary schools (Brookhart, 2011). The most common letter grade system consists of A, B, C, D, F.

One significant need for improved grading practices is based upon the history of changes in grade reporting. In essence, because the topic of grade reporting has been so widely discussed and altered throughout the years, it is reasonable to suspect that grade reporting is primarily broken in intuitions where traditional grade reports are utilized. Educators have tried to create better grading systems for many years (Guskey, 2001). One way in particular that may be controversial is the use of a bell-shaped curve. Proponents in favor of the bell curve argue that norm-referencing is the goal for reporting grades. In a bell-shaped curve, students are compared amongst all of those being evaluated regardless of performance levels. In this competitive style, some low achievers could essentially score quite well in comparison to a standard scale if there were not any high achievers in the group being evaluated. Likewise, the opposite could be true. Guskey (2009) argues the bell curve is not a grading system designed to report learning.

If there were only high achievers in the mix, inevitably, some would scale down to the bottom of the curve and receive failing scores. Instead, it simply ranks students relative to each other. Marzano (2010) indicates normal spreading is not a valid exhibit because an instructor may be able to overcome fair and equitable distribution.

Historically speaking, many of the initial summary reports given to parents in the United States provided statements of progress, representing levels of academic achievement for each learner (Brookhart, 2009). Students all across America experience similar degrees of evaluation in regards to academic grading and course performance reporting. By the time typical students enter high school, grades have been reported for nearly every class for approximately nine years, if not more, and will most likely continue for another four to eight years depending on their specific educational goals. Currently, in the United States, public schools often provide quarterly reports called grade cards. Most schools also provide progress reports at least once between each quarterly report (Marzano, 2000). The issued reports typically offer administration, parents, staff, and students with subject area performance information, otherwise known as grades. These grades, regardless of whether negative or positive, were originally designed to communicate student achievement, sorting students, and contributing learning (Brookhart, 2009). Grades reported on a scale of A, B, C, D, and F were designed to separate the excellence of individual pupils (Guskey, 2001).

Reporting grades has been a controversial subject. Problems have been around for a while concerning grading and grade reporting. O'Connor quotes W. Middleton (2007) in the preface:

The committee on Grading was called upon to study grading procedures. At first, the task of investigating the literature seemed to be a rather hopeless one. *What a mess it all was!* Could order be brought out of such chaos? Could points of agreement among American educators concerning the perplexing grading problem actually be discovered? It was with considerable misgiving and trepidation that the work was finally begun (p. xiii).

With the emphasis on standards and learning goals in current educational realms, grade reporting is an important piece to the puzzle.

Standards and Grading

In the early 1980's, *A Nation at Risk*, helped drive educational change allowing for broad standards, standardized testing, and government guidelines (Hargreaves, 2009). The prevailing emphasis on testing and assessment during this era created a way for some to plot the academic progress of students in the United States. Guidelines helped create local responsibility and energize the spin media has now used to communicate low achievement (Reeves, 2011). States began mandating high-stakes testing which provide researchers with criterion reference data in a summative technique (Hargreaves, 2009). Reeves suggested that annual state testing determines whether or not a school meets a complex set of definitions of "adequate yearly progress" (Reeves, 2011, p.3).

Standards or any interchangeable word used to describe them, are increasingly prevalent in public education. The purpose of studying standards and grading together allows educators the opportunity to evaluate teaching and learning (Reeves, 2011).

Grading and reporting practices must align to a system of standards in order to provide instructors with the most accurate data (Marzano, 2010). Just before the end of the last

decade, 49 of 50 states developed mandatory standards for curriculum content. The standards describe what students are expected to know and be able to do at different stages in K-12 schooling (O'Connor, 2009). It is vital to note that content standards and performance standards need to be distinguished and connected. Having clearly defined standards empowers teachers with the ability to utilize measurable targets. The utilization of measurable targets allows for the opportunity for teachers to promote and emphasize effective grading practices (O'Connor, 2009).

Standards in Missouri are known as the "Missouri Learning Standards." Since the goal is to define more specifically what standards students are to master at what grade levels, educators should commit to the best practices for determining which of those standards have been met (Davies, 2011). Student achievement hinges on the ability of instructors to engage students in the learning process, which includes grading practices. The distinguishing characteristic of organizing the standards with curriculum to include student achievement is that of input versus output (O'Connor, 2009). Traditionally, standards dealt with what teacher input was being instructed. In a sense, if a student had a good teacher, the input was fairly high and well received. However, with research of best practices, outputs are the opportunities that are provided to students so the emphasis can be on what students will know and be able to do (O'Connor, 2009). Bridging the necessary component of learning, the content standards are generally broad throughout grade levels. However, the performance of those standards help instructors scale and define to what degree students are learning. Best practice, according to O'Connor, indicates there are critical relationships with standards, performance, and assessment (2009). The standards movement is not entirely problem free. According to Popham

(2000), standards are criticized as glorified wish lists because there are too many standards, and many are not well written or sufficiently succinct. Researchers, such as Reeves (2011), suggest standards will be appropriately emphasized when they are seen as the primary focus for classroom assessment rather than for large-scale assessment.

Guskey and Bailey (2010) define standards as the goals of teaching and learning. In schools all across America, students are expected to meet the goals of their respective age appropriate standards. The determination of those standards is not defined in the documents. That process is determined at the local level by instructors. Teachers are tasked with the expectation to not only cover many more standards than possible for a current school year, but also to evaluate learning along the way (Wormeli, 2006). Simple coverage of the material is not really the goal in best practices for learning. Proficiency or better is the ultimate goal to address student achievement (Guskey, 2001). Best practices for grading create the nexus that standards are properly aligned to grading to increase student achievement (Davies, 2011). Reeves (2011) proposes students deserve the right to have their performance, based upon standards of learning, be graded or evaluated fairly, timely, accurately, and specifically. Consequently, the reporting of those grades should reflect what students “learn from summative assessments intended to document learning, that is, designed to serve as assessments of learning” (O’Connor, 2007 p.95).

In order for the implementation of grading standards to be effective, a reform will be necessary in the lesson planning process. Traditional approaches operated on the selection of standards as a base plane for instruction. Teachers were expected to cover material and students were expected to demonstrate their knowledge and skills based

upon that coverage (O'Connor, 2009). Another approach, refers to the process of a “design down” sequence. Wiggins and McTighe (2000) stress the importance of prioritizing standards in their book *Understanding by Design*. Best practice for grading and reporting cannot be achieved without an understanding of standards. Teachers who identify the desired results first, then determine the acceptable evidence of achievement, and lastly plan learning experiences and instruction from there will be using a logical “design down” strategy.

When teachers are put into the dual role of instructor and judge, students may encounter mixed signals. For example, the simple plan for students is to view assessment as something that is done with them to improve learning. Far too often, it is viewed as what is done to students so they can be measured (Brookhart, 2008). Student-advocating teachers wear many hats. In order to play the role of both teacher and evaluator, teachers send mixed signals about learning and growth. Consequently, students may take the signals incorrectly and retreat from risk-free attempts. Once students retreat from making attempts at learning, teachers may not have the opportunity to provide meaningful feedback on those standards (Reeves, 2011). Achievement standards can only be raised when the teacher appropriately aligns instruction, assessment, grading, and reporting. For teachers to be effective, they may have to work smarter, not necessarily harder (Reeves, 2011). Having to work smarter is a direct result of the sheer quantity of standards expected from state to state (Guskey, 2009). The maximum benefit is limited to the ability of instructors to clearly articulate the learning of the standard through quality reporting (Marzano, 2006). If grading is not related back to the standards, effective grading will not be simple.

Brain Based Research and Grading

One of the more common understandings of the brain based research regarding learning is that learning is not linear (Burke, 1993). Learning can be seen as layers of interactions and variables that layer each other's processes. The layered processes are all intertwined and wrapped up going this way and that. The pace is uneven, the starting points are at different locations, and there are many paths. Learning is a process that takes place as the learner stacks new experiences and information on top of a personal perception (Jensen, 1998). If the opportunity for learning is there, students will be able to draw from their personal experiences. Since students learn at different speeds, at different times, and from different starting points, grade reporting needs to reflect what has been gained while factoring in all of those variables (Marzano, 2010). Reporting grades effectively answers questions regarding when the learning actually takes place.

As new research unfolds, learning entails other factors, such as emotions and environment. In addition, learning how to learn and think is significant. Grading and assessment have many similarities to brain-based research because many of the same elements are present in both contexts. Jensen (1998) expresses the importance of eliminating threats in brain-based activities for learning. Students who are exposed to classrooms that are brain compatible function better because elements such as trust and belonging, meaningful content, enriched environment, intelligent choices, and adequate time are present.

Trust and belonging occurs when students are comfortable undertaking assessment activities. Grading can be made brain compatible by using second chance assessments and by using the most recent information. Some teachers do not allow

retakes due to the difficulties in presents in terms of organization, administrative tasks, or responsibility. Specifically, with organization and administrative tasks, allowing students to retake an assessment or redo and assignment, that may put more work on teachers. In addition, allowing retakes may create a scenario where teachers feel as if students do not have to prepare the first time and therefore are possibly showing signs of irresponsibility. Wormeli (2011) terms the type of teaching where retakes, redos and do-overs are not allowed as “conveyor-belt learning” (p. 24). If students do not understand or master the material the first time around, it is too late because the conveyor belt continues and there is no stop button to reteach and, subsequently, give retakes, redos, and do-overs.

Teachers who provide assessments that promote more than just easy to score questions use elements that promote an enriched environment and meaningful content. Grading and reporting promotes learning at this point. Teachers who allow intelligent choices in assessment allow students to demonstrate their abilities in a variety of ways depending on student and skill (Wormeli, 2006). Grading and reporting in a traditional way restricts this idea all together. Students receiving adequate time have the ability to learn in a comfortable way (O’Connor, 2009). Often times, teachers will assess time, when the critical element necessary for measure was a different skill altogether. Sufficient time should be given to students knowing how crucial it is to brain research. Grading and reporting requires a tremendous shift in current practices if it is going to align to brain-based research. O’Connor states, “If teachers are more flexible, then there will be a greater variety of information to incorporate into their summary judgments” (2009, p.5).

Brain-based research would not be complete without the addition of the multiple intelligences of Howard Gardner (O'Connor, 2009). Understanding how multiple intelligences work could help teachers use a wide variety of instructional and assessment activities. Teachers choosing to address traditional approaches to grading are more than likely only assessing verbal/linguistic and logical/mathematical students. Since there are eight total, visual/spatial, musical/rhythmic, bodily/kinesthetic, interpersonal, intrapersonal, and naturalist are all left out. The knowledge of multiple intelligences requires teachers to focus on how smart students are in different ways. Teachers who grade effectively use the intelligences to build upon the strengths of their students. Best practice for grading and reporting should procure the need to evaluate students using a wide variety of brain-based entities.

Traditional Grading Problems

There are many supporters of traditional grading. More than likely, educated Americans are a product of traditional grading practices. Far too often, promising educators graduating from universities with the desire to teach are subject to grading student work without specific guidelines or training. Therefore, the precedence of how he or she was graded will probably be the method used. The merit of the traditional ways cannot be completely ignored (Friess, 2008). Promoters of traditional grading and the practices associated traditionally in the modern classroom offer sustenance for continuing with the habitual structure. In a traditional classroom, the basic premise for grades and grade reporting consists of tests, quizzes, class participation and homework. In a total points system, all of the points available for participation and homework is usually enough for even the lower achieving students to pass and consequently perceive

themselves successful. Students who are responsible and who have a good work ethic might earn at least a decent or passing grade without showing much evidence, if any, of learning the standards at high levels. The problem, according to Stiggins (2005) is that grades will not accurately reflect or support learning. Furthermore, the grades would not be meaningful to the students. In addition, traditional teachers tend to express to students that working harder results in higher achievement.

Friess (2008) addresses his pleasure in traditional grading by justifying the grade interval gap. Friess proclaims the value of understanding material at a competency rate of at least 60% as an achievement minimum standard. Friess goes on to express the problem associated with grade inflation and progressive grading practices. Fans of traditional grading proclaim that students should not receive half credit of up to 50 percent just to avoid the mathematical interval of a zero to a sixty. O'Connor (2009) is a leading author in improved grading practices. In his book *How to Grade for Learning*, he states the following:

Traditional grades have both too little and too much meaning. They have too little meaning because there are so many things mixed in them, in such idiosyncratic ways by different teachers, that their meaning is very unclear. They have too much meaning because of the cult-like status accorded them and because of their importance in high stakes educational decisions. Traditional grades may be de-emphasized (1) by using new approaches to grading that give grades clear meaning and (2) by giving to students, parents, and interested others information about learning that is much better than grades (p. 232)

Teachers should avoid a conglomeration grade where a single grade represents various types of effort and products (O'Connor, 2011). Effort and learning may actually have two different outcomes; these two mechanisms must be reported in a separate grade report. Compiling grades in this manner dilutes the purpose of assigning grades and becomes a poor communication tool to students, teachers and parents. There are many factors included and therefore the person reading the final grade may not be able to have confidence that the grade represents what it was intended to represent. Brookhart (2009) discussed some problems associated with conglomerate grading. Brookhart noted that risk-taking happens less if everything counts as a final grade. Rather, students stick to doing tasks that are considered safer methods. Likewise, when teachers compile grades, the numerous pieces of evidence are made to express all learning, yet ultimately nothing is really ever accurately expressed. "Grades are broken when evidence of learning from multiple sources is blended into a single grade and the communication fails to show how successful students have been in mastering individual standards/learning goals" (O'Connor, 2011, p. 58).

Grading policies should be evidenced by mathematical certainty as opposed to underlying beliefs and experiences. Many teachers would agree based upon the difficulty of evaluating students that factors such as work ethic, parental involvement, intelligence, homework, engagement, nutrition, attitude, test-taking ability, prior knowledge, organization, commitment, and substance abuse are all variables that impact grades. For some instructors, it could be the difference between students earning A's and B's all the way to D's and F's. According to Reeves (20011), those factors mentioned are all variables that distort a teacher's ability to evaluate fairly and accurately. After all,

mathematical certainty is the highest level of evidence. Traditional grading propels teachers to assume the difference between success and failure has to do with performance of those being observed. Truth be told, in every grading scale, in every system, in every country, of studies done by researcher and author Reeves in *The Elements of Grading*, “the same student with the same performance might be on the honor roll or might fail, based upon the idiosyncratic judgment of the teacher or administrator who was assigning the final grade” (p. 34, 2011). In other words, the variance between honor roll grades and failing is not the result of aptitude or effort, but the result of differences in teachers’ or administrators’ conclusions in scoring (O’Connor, 2009).

In traditional grading, there are a large number of students earning high grades but end up failing external examinations such as standardized testing (Marzano, 2010). On the other hand, students can do poorly in school with their academic studies and still do quite well on state assessments (Wormeli, 2011). This in itself is a problem that needs to be addressed. However, when looking deeper, some discover that most of the time, students are systematically punished for compliance failures (O’Connor, 2011). Most often, this is attributed to males. This creates two problems. The first problem is that males tend to be less compliant and more likely to fail even though their potential is never really tapped (Reeves, 2011). The second problem is that females are moving through the system in strides because they tend to be overly compliant; thus, they are less likely to see the need to reach their potential (Brookhart, 2011).

Traditional grading practices usually include a feedback cycle of, at best, one day. The assignments are often returned to the students with a score, checkmark, or letter grade. This would be the extent of the feedback in the general traditional classroom for a

typical assignment (Wormeli, 2006). This feedback cycle does not lend itself useful to the need for rapid descriptive feedback on the skill being taught (Reeves, 2004). The letter grade or score is what teachers utilizing traditional grading practices use to provide feedback on most assignments (Marzano, 2000). The notion is the student will see the high mark or score and feel good about the assignment. On the other hand, students who actually did the work, but did so incorrectly, are left with lower scores and often wonder what to do next (O'Connor, 2009).

A better solution is to improve the rate or feedback frequency. The more often teachers can give feedback, the more likely students are learning (Hattie, 2009). In an accelerated feedback classroom, the traditional practice of grading becomes much more formative (Brookhart, 2009). In education, two disadvantages teachers have for only using evaluation for reporting grades can be resolved in part by using what is known as formative assessment. Formative assessments are named intentionally to help inform teachers about student learning and not to simply assign grades (Ainsworth & Viegut, 2006). In order for students to practice certain concepts, master unlearned skills, or prepare for a final presentation, the environment in the classroom should be risk-free from grade reductions while learning (O'Connor, 2007). The problems with teachers not offering risk-free learning environments are many. When struggling learners work on assignments or projects, often times, there is information that needs to be learned. The synthesis of unknown knowledge can be overwhelming for any learner, let alone a struggling learner. If a teacher does not promote a risk-free learning environment and therefore reduces grades on assigned material during the learning process, three things can happen: 1) Students may lose hope in their own learning, not only for the concept at

hand, but also in other contexts (O'Connor, 2007). This may lead the student to low academic esteem and the natural tendency from then on is to essentially give up before trying. This is a very sad fate for many young learners, especially those who are at-risk (Marzano, 2010). 2) Whether they realize it or not, teachers may begin to label and stereotype students as children with behavior problems. The repercussion of this type of viewpoint can be a vicious cycle for the student. The student may have poor behavior because the assignment is not understood; therefore, engagement is challenging. The student has learned to be on the receiving end of assignments that are scored low, ridiculed for not being on-task, and being constantly on the radar of the active teacher. Children realize the overall grade is getting lower and lower; thus the defensive mechanism begins to kick-in. On the other hand, the negative student behavior may be taken personally by certain teachers, equating in a need for intervention or discipline referrals, resulting in more time spent not learning or receiving instruction in the classroom. 3) Grade reports may reflect a plethora of variables when risk-free learning environments are not utilized. It is conceivable to assume many factors currently contribute to the overall reported grades for each student. According to Reeves, some factors include socioeconomic status, prior knowledge, class size, and daily activities (2011). However, research indicates the teacher dictates the grade based upon the grading style and philosophy in the classroom. This opens up the problem associated with grades being subjective and, therefore, not accurate or fair.

100-Point Scale Problems

Teachers using the 100-point scale most likely assign scores as such: 90 = A, 80 = B, 70 = C, and 60 = D. The most common score for a student not turning work in to be

graded is a zero (Wormeli, 2006). Mathematically, not turning in any work results in a value six times worse than if a student turned in inadequate work worth 60% (Reeves, 2011). There are other alternatives to the 100-point grading scale. For instance, the use of the four-point scale could be employed (Marzano, 2010). In this system, 4 = A, 3 = B, 2 = C, and 1 = D. The most common score for a student not turning in work to be graded is still a zero while using the four-point scale (Reeves, 2011). Mathematically, not turning in work results in identical intervals to each of the other increments on the four-point scale (O'Connor, 2011). Most proponents of the traditional grading scale may not be convinced at this point to make a change. However, when compared side-by-side, using the four-point scale means students should earn a minus six points for not handing in work to be graded (Reeves, 2011). Therefore, if the teacher using the four-point scale believed in the traditional use of the zero or a 100-point scale, students would essentially lose credit for assignments already graded and scored when failing to turn in future assignments (Wormeli, 2006). Evidence in mathematics should make a lasting impact in the opinions of teachers and administrators. Consequently, justification, tradition, and experience trumps mathematical certainty (Reeves, 2011).

Quality vs. Quantity

In many schools, a selection of D- equates to approximately 60%. A 59.5% often times rounds up to the nearest mark of 60% and therefore would represent the lowest possible point in which students could pass a course (Reeves, 2011). In other words, that score denotes credit even though it does not necessarily represent a high enough percentage of mastery (Marzano, 2000). When the option of a D is part of a grading system, it legitimizes a lack of student efforts, while still receiving credit (Wormeli,

2006). In many systems, students are able to move forward or gain credit by simply carrying a 59.5% or better average grade. The ramifications for this include promoting students to the next level of instruction to be exposed to harder material with the probability of failure being pretty high the next time around (Reeves, 2011). Many teachers use the D as a level of chastisement for meager effort and insufficient drive (Marzano, 2000). Having D's as a passing score certainly encourages students to attribute paltry exertions. In a sense, it appears as a reward to lackadaisical students who do not really have to listen to the teacher, redo or retake tests, or learn for that matter (Wormeli, 2011). Instead, those students are indirectly invigorated to just do quick and meaningless work at a poor level, just enough times, so they can be promoted to the next class or grade (Reeves, 2011). The implication could lead to students all over the country confusing the need for quality for the need for quantity (Stiggins, 2005). The goal of every teacher should be to address and evaluate proficiency. Completion of work hardly justifies the label of mastery (O'Connor, 2011).

Extra Credit Problems

In traditional grading practices, extra credit is as negative to communicating learning as any other reporting or grading process used in the classroom (Marzano, 2006). Adding credit to a grade based upon something other than learning is reducing the accuracy of the grade (Reeves, 2004). One example of extra credit is giving points to students for bringing in tissues or other supplies for the classroom. A particular student could have a 68.6 percent in the class and, with the addition of the supplies as extra credit points, be moved up to a 70 percent; thus, the student has now gone from a D to a C. In terms of measuring proficiency, it is like being told that a student needs improvement and

work on a specific set of skills to being told that he or she is nearing proficiency. Regrettably, this rise in the grade exhibits not what he or she may have learned or an improvement in learning, rather it illustrates the student was responsible and remembered to bring in tissues (Reeves, 2007). Responsibility is significant in a student's academic world; however, accurate grades should mirror learning and not be desensitized by other factors. Backing up this concept, O'Connor (2011) suggested teachers should offer opportunities for students to "provide 'extra' evidence that demonstrates a higher level of achievement" as opposed to offering extra credit or bonus points having nothing to do with the actual reflection of achievement of learning objectives (p. 32).

Use of Averages

Traditional grading may limit the ability of teachers to accurately report learning (Reeves, 2011). An example of a traditional practice is the exercise of averaging grades over a period of time, utilizing a number of sources to arrive at a final score (Wormeli, 2006). This final averaged score has a high level of unpredictability across teachers' classrooms and within a school because it depends on the weight or points assigned each assignment within the grading period (Guskey, 2011). Cizek's study of teacher assessment and grading practices illustrates the variation of point weight and grade totals, "More than half of the respondents (52.7%) did not know how the total number of grades they used to calculate students' final grades compared with other teachers in their building" (1996, p. 168). Furthermore, the very landscape of averaging, adding factors and dividing by the number of occurrences, causes the averaged final score to be an inaccurate measure of a student's current level of performance or final learning baseline. Rather, the score gives a level of performance over a period of time. This grading over

time is, in essence, penalizing a student for where he or she started in their level of learning. In a traditional classroom, teachers assign scores to students based upon averages even though learning may be different (Wormeli, 2006). For example, students all across the nation would benefit from more specific measures of learning based not upon the average, but the mastery shown on summative assessments (Marzano, 2000). The final baseline, or level of learning, is based upon the possibility of mastery (Wormeli, 2011). For example, if students were being graded on daily assignments where learning was taking place slowly and with difficulty, the lower scores averaged together with a final score at the end of the chapter which showed mastery, would be an unfair representation of what the student learned (O'Connor, 2009). With mastery-based learning as the objective, it is not always about the paths students take to there, but rather if they reached their destination (Brookhart, 2008).

Grading as Punishment

Traditional methods of grading may promote the use of grading as punishment (Reeves, 2011). As noted earlier, the use of zeros is one of the common punishments (Wormeli, 2006). Traditional teachers claim that a zero is harsh punishment, and if zeros were not given, students would never turn in their work. After years of that practice, students should be too scared to not turn in work because the punishment was too severe (Reeves, 2011). However, compliance today after all these years of traditional grading indicates that students are still missing work. Since students continue to this day to avoid doing work, the intended consequence of offering zeros has not been an effective practice (O'Connor, 2009).

Traditional grading conveys many different things for teachers, parents, and students. Those variances make it difficult to narrow down what is being assessed. Cizek, Fitzgerald, & Rachor (1996) addressed the lack of exposure to fundamental assessment as one of the reasons traditional teachers use punishment for grading. When students are dishonest in their work, the score of an assignment that will be calculated for a final grade might be reduced to half of the eligible credit or even a zero. Guskey and Bailey state, “No studies support the use of low grades or marks as punishments. Instead of prompting greater effort, low grades more often cause students to withdraw from learning” (p. 34-35, 2001). Most educators try to deal with both the prevention of cheating and what to do with cheating. Many educators develop punitive policies that range from zeros on the assignment to loss of credit all the way to expulsion. The belief is that if the punishment is sufficiently severe, the students will not risk being caught. However, for others, cheating that results in zeros or no credit limit the grader from being able to accurately assess learning, and therefore, the rest of the grades that make up the final score have now been compromised for accuracy.

In many school districts, students missing school for suspensions may have their work reduced to the score of zero. Other schools might give a portion of the credit, but still expect the work to be completed. Students missing assignments because of an illness or some other absence may not have the opportunity to turn in the work on time. Traditional grading practices would have established protocols to how to deal with those assignments within their policies or student handbooks. Regardless of the competency shown in the assignment, the due date is the biggest factor for maximum point potential. Students not working at the same expected pace may be penalized. Some of the factors

causing students to not be as quick as others may not be in their control. This makes the use of traditional grading practices seem not just inaccurate, but also unfair (Reeves, 2011). The traditional purpose of grading should be to clearly communicate learning.

Behavior and Grading

Traditional grading often prevents well intentioned teachers from best grading practices. One fault in the traditional process also includes combining achievement with other variables (Guskey and Bailey, 2001). There are several reasons why one should not include behavior in the reporting of grades (Marzano, 2006). Intrinsic and extrinsic rewards are two behaviors that researchers have been discussing in a variety of platforms (O'Connor, 2009). Well-behaved students may be motivated and rewarded by grades in a traditional setting. On the flip side, grades often punish students who do not exhibit those same behaviors (Reeves, 2011). Just like in any general statement, this is not true for all students on either side of the debate. The system is flawed and set up to prevent teachers from even trying to appropriately communicate poor behavior without embedding those very attributes in grades. The problem is that teachers have unsuccessfully tried to promote positive change by using grades as punishment (Brookhart, 2009). Struggling learners do not seem to be motivated by the use of grading as punishment. Schools need to utilize the approach of effective grading and feedback practices rather than continuing to address behavior through grading as punishment (Wormeli 2006). Students need more clarity for their misbehavior, and grades are not the platform to do so effectively (O'Connor, 2011).

Effective Grading Practices

Grades and reports of grades are a major focus of parents in schools. Researchers do not pretend to have recipes of success that must be adopted in order for grading to be done correctly (Brookhart, 2009). What they do however, is discern what is rational for evaluating current traditional grading practices. Techniques and strategies to improve grading practices are prevalent. Author Reeves expresses the need for grading to be considered feedback (2011). Likewise, Brookhart suggests the importance of descriptive feedback (2008).

Grading is important because it is a form of feedback that gets a large amount of attention (O'Connor, 2009). If schools have excellent systems of feedback but ineffective grading practices, some of the efforts may be undermined (Wormeli, 2006). Offering effective grading practices should fortify other scholastic endeavors (Reeves, 2011). For example, a band instructor constantly gives formative feedback to his or her students without assigning grades. The impact is continuous and productive. Imagine a classroom structure like a band room where the only feedback given to students was within one to three days after turning in a paper and the feedback was a grade or score to be calculated into a final score. With that concept in mind, researchers Guskey and Bailey (2001) have argued that feedback in the classroom is a much more influential positive impact than just grading. The question is then posed why are teachers in other core areas, such as Mathematics or English Language Arts, not utilizing best feedback practices, including grading as feedback.

Accuracy of Grades and Grade Reporting

Grades and reporting of grades should be accurate (Reeves, 2011). The performance of the student should be noted in his or her grade report (Marzano, 2000). Because grade reporting is a compilation of many variables over the course of a semester, it is important to note that accuracy should also be a priority on individual assignments, quizzes, and tests (Marzano, 2010). The accuracy of high stakes testing falls largely on the shoulders of what we hope are objective scorers who are well-trained and use their expert discretion when determining scores (Reeves, 2011). Professional practices should necessitate that teachers check for accuracy of their grading feedback on performance assessments just as people in general check the accuracy on a test of a single-digit addition problem.

Reeves notes, “Whether in the form of annual test results, classroom observations, or formal evaluations, feedback does not meet the fundamental standard of accuracy if the criteria for evaluation are not understood clearly or if they are applied inconsistently” (2011, p. 23). This statement establishes the point that as teachers grade student work, they should be gathering the data of what students are contextually being asked to answer. Improving accuracy should be the goal of all teachers as they grade student work. If teachers are determining a grade for a calculated score, a decision should be made that is as mathematically accurate as possible. Teachers may mathematically calculate an accurate score based on good skill, but it does not necessarily equate in measuring student achievement (O’Connor, 2009). Grades should convey to teachers, students, and parents what a student can do and what he or she knows at the moment. Some schools are looking for ways to improve the accuracy of grading by removing the

distortions of the 100-point scale (Marzano, 2010). A 50-point minimum on every assignment has been utilized to help avoid the interval problem of 0-59 for an F. In a sense, this is identical to a 4-point scale. It is a moral imperative to work toward an accurate grading system (Reeves, 2011).

Another way to improve accuracy is to have teachers not use the arithmetic mean. The use of averages or arithmetic mean is a poor choice for accuracy in grading (Brookhart, 2009). In many instances, averaging a grade is not accurate because students are being measured the same at the beginning as they are at the end after they have learned the material (Guskey, 2009). The same thoughtful judgment should be applied in every academic subject.

Fairness in Grading and Reporting

In many classrooms, it is conceivable to consider that students may receive different levels of assistance, influences, and tools to perform at high levels. In grading, however, the evaluation of performance of a student should be based upon the performance of that student, so the information is accurate (Reeves, 2011). It would not be fair for someone to receive an evaluation for a score only to have teachers putting their stamp of influence on the criteria being measured (O'Connor, 2009). Unfortunately, this is common practice (Wormeli, 2006). Reporting scores as grades should reflect performance and learning (Marzano, 2000). Fairness in grading and reporting is crucial because the evaluation of a student should not reflect the performance of others (Reeves, 2004). The evaluation should not allow for tools that are available only to some students and not others. This is not to say students should not receive support or services. The problem is the fairness of the reporting and the evaluation process as if the learning

belongs solely to the student being measured. Evaluations are intensely blemished because as educators, we assume all students enter the classroom with equal circumstances, advantages, and access to support outside of the classroom (Reeves, 2011). If the purpose of teaching and learning is to move students forward with their knowledge and experiences, then grading, reporting, and feedback should reflect that process, not merely confirm the imbalances with which students already have in their abilities and circumstances. Guskey (2011) states that educators are caught between the dilemmas of selecting talents instead of developing talents.

If fairness in grading is important, it should really indicate a reflection of the student's performance. It also should include the context as well. That is why options such as standards-based grading is so vital to improved grading practices (Marzano, 2010). A lone grade cannot provide a fair representation of context to appropriately report the performance (Wormeli, 2006). A grade of C+ could mean a variety of things. As noted earlier, it could be exemplary effort and resilience, but the student has not yet met grade-level standards. The C+ could mean a failure to meet all academic standards, but the student earned several extra credit points to merit the final grade. The mark of C+ could be a distorted grading scale because for some teachers, it is easier and less problematic to report a C+ rather than a D or F, which might cause more work and potential parental complaints (Reeves, 2011). Marking a score of C+ could be a superior performance, except for one or two incidents involving cheating that resulted in scores of zero on a major assessment (O'Connor, 2009). The C+ might be outstanding performance well above grade level, but the attitude, participation, work ethic, and organization is inadequate (O'Connor, 2011).

Addressing fairness is very important so students do not experience the negative ramifications that result from the examples listed above. The grade without context does not have enough meaning to delineate for those interpreting the final score (Brookhart, 2008). However, when we fail at being fair, the cynicism and distrust squelch any attempt at improving student performance. Jonah Lehrer, in his book *How We Decide*, suggests that a culture of distrust will ultimately lead to a greater reliance on standardized tests (2009). Standardized tests may be overly used due to the imbalance in grading and grade reporting.

Being Specific in Grading and Reporting

Improving the specificity of grading will help to communicate effectively to students, teachers, parents, administrators, and recruiters what should be communicated (Stiggins, 2005). Teachers need to agree on what the relationship is between performance and reporting the letter or symbol (Reeves, 2011). Administrators need to provide reporting tools that efficiently and effectively report context in a way that is specific (O'Connor, 2009). Often times, well intentioned and dazzling rationales are designed for teachers and administrators to use the multifaceted reporting systems for grades, but if it is ineffective at communicating to students and parents, then it is pointless (Reeves, 2011).

Critics to the argument for improved grading practices emphasize the importance of student attributes such as attitude, behavior, attendance, and responsibility. O'Connor (2007) emphasizes attributes of attitude, behavior, attendance, and responsibility in his book *A Repair Kit for Grading*. O'Connor (2007) also points out grades that are directly

or indirectly related to attendance are broken grades. The ideal solution is to separate the report into behavior reports and academic reports (Marzano, 2000).

Being specific can help teachers, administrators, and students gauge the knowledge levels of students. The clarity is there because being specific helps parents know what objectives are being met (Marzano, 2010). If the grade report was not very specific, a score of an A or B might deter certain students from trying to improve on the areas of weakness. This scenario does not necessarily render the letter grades useless, as culturally they provide stability for college recruits, class rank, and transcripts. However, if educators are not going to eliminate the use of letter grades, they should at least communicate their meanings in a clear and practical way for students, parents, and others looking at the grade reports (O'Connor, 2011). Communicating more clearly is quite difficult without the aid of specific reports, such as standards achievement reports or standards-based grading (Marzano, 2000).

Standards Based Grading

Some schools have extended the elementary climate of specific grade reporting, such as standards based grading. States all across the country utilize educational aspects such as instruction, assessment, grading, and reporting that are all built around standards (O'Connor, 2009). Implementation is a difficult task for teachers to do alone. Marzano (2010) emphasizes the concerns about grading and standards in *Classroom Assessment and Grading that Work*. Marzano suggests the traditional system is flawed. Feedback is necessary to enhance student learning and an isolated overall letter grade will not give an accurate or specific perspective without a standards based education. O'Connor (2009) complements the argument for improving grading practices and the necessity for better

communication provided by standards-based grading, “Communication is most effective when it is clear and concise; grades are certainly concise, and they can be clear communication vehicles if there is a shared understanding of how they are determined and, thus, what they mean” (p. 16). There has to be a better way to give feedback to parents, teachers, and most importantly, students (Wormeli, 2011). The traditional grading system is not based on standards and, therefore, it may be deficient of the necessary specifics of feedback (Guskey and Bailey, 2001).

In order for students to respect work ethic and resiliency in learning, a system needs to be in place for constant feedback and progress improvement (Brookhart, 2009). In a standards-based system, a final score of a four is probably an indicator of a score that has been submitted over and over until it has been determined as above and beyond proficiency. Getting feedback and improving with diligence and effort is the relationship of teacher to student. In a traditional system, the score that was given on the first submission is more than likely the score that is recorded (O’Connor, 2007). Recording the first attempt or score is not an indicator of mastery or what has been learned over the expanse of the unit or chapter. In the standards-based system, students learn the value of submitting quality work after a period of multiple attempts and revisions (Marzano, 2010). The key, however, is the constant feedback and effort to improve (Brookhart, 2009).

Being Timely in Grading and Reporting

For teachers in traditional grading systems, the frequency of feedback loop is not frequent enough (Reeves, 2011). To be fair to proponents of keeping the status quo for grading, the evaluations of student learning that matters most, like the standardized tests

that come once per year, are separated by several months by the time feedback is given. It goes without saying, even teachers using best grading practices are subject to the slow return of scores on performance-based assessments (Guskey, 2011). Teachers and administrators are constantly inundated with the daunting task of analyzing and aggregating data for students who are most likely no longer in their classroom (Cox, 2011). The use of timely feedback for the sake of learning for those students who have already moved on to the next level seems to emulate busy work rather than learning (Wormeli, 2006). Students need a much quicker and timely feedback cycle.

The focus of feedback and its effect on student achievement is of prodigious concern to scholars and practitioners. The purpose according to Hattie and Timperley (2007) is to “reduce discrepancies between current understandings and performance and a goal” (p.86). Teachers can improve the timeliness of feedback given in class. According to Reeves (2011), the pace or timeliness, of feedback can be improved by using a calibrated rubric, offering mid-course corrections, and involving students in establishing learning objectives. Teachers may be doing a lot of this already, but feel constricted by the pattern of traditional grading. Administrators need to offer their support and open up the platform for more improved grading practices (Reeves, 2009). Administrators are ultimately responsible for the improved grading practices (DuFour & Marzano, 2011).

Problems with Reformed Grading

Just like any changes and reforms, there may be challenges. As Brookhart (2009) suggests, “Grades have been used to serve three general purposes simultaneously: ranking...; reporting results...; and contributing to learning” (p. 24). Customarily, these three commitments to grades have been rationalized as valid, yet they all have diverse

perspectives (Marzano, 2010). Grading is different between individual classrooms, schools, districts and states. Researcher Guskey (2009) expresses there is typically a commonality among instructors in what they include in their grades. As mentioned previously, they are very similar. Unfortunately, the conglomeration of scoring and grading results in grades being calculated according to each teacher's different viewpoint and attitude on what percentage or value should be applied to each student's learning artifact (Marzano, 2000). Consequently, grades and grade reports, universally, hold very minute amounts of reliability across the board, even within one team in one building in one district. Inevitably, those grades and grade reports can only be interpreted within the context of each teacher's grading practices, notwithstanding, they may be vague and unknown to the interpreter (Marzano, 2010).

Researcher Marzano (2010) initiates claims that reformed grading practices like objective-based or standards-based report cards are exceedingly erroneous if teachers are not given the proper professional development and support. Teachers must be specifically skilled through an ample amount of PD in ways to employ proficiency scales and how to apply formative assessments, assessment for learning, rubrics, and other best grading practices jargon. Other problems may result in the constant independence of teachers and their unwillingness to collaborate with one another. In his book *Learning by Doing*, DuFour describes the impact of collaboration to meet student needs (2010). Common formative assessments are not going to give quality data to teachers who are not working toward a common goal of improved grading practices (Ainswoth and Viegut, 2006).

Assessment and Feedback

Formative Assessment

The most current of all grading movements include the practice of formative assessment (Ainsworth & Viegut, 2006). Formative assessment has been around since the late 1960's when Scriven and Bloom made distinctions about feedback and brief assessments to help aid the learning process (William, 2011). An investigation has been done, designed to reflect the perception principals have towards best grading and reporting practices based upon their staff in regards to assigning grades and reporting performance as grades. This topic is important to investigate because positive change towards improved grading practices is necessary for student achievement (O'Connor, 2010).

Grading is a form of evaluation and assessment of student performance and learning. According to Davies (2011), there is a difference between assessment and evaluation. "When we assess, we are gathering information about student learning that informs our teaching and helps students learn more... When we evaluate, we decide whether or not students have learned what they needed to learn and how well they have learned it" (Making Classroom Assessment Work, p.1). Therefore, the teacher should be responsible for both assessment and evaluation techniques. However, in the United States, instructors often report only an evaluation of what has been learned (Marzano 2000). There is a problem with only reporting an evaluation of learning that has taken place. Teachers who do not methodologically use daily practices and formative assessments to help drive quality instruction may not account for the needs of differentiation or plan properly for deeper, further, or increased instruction. Essentially,

struggling learners are only noticed after the unit of instruction is complete (Brookhart, 2011).

Formative assessment may have been strung through a variety of definitions along the years. However, as educational improvements are made for the sake of learning, so has the use of formative assessments changed over time. They started out as a tool to measure what students know. The basic premise is that student learning is being evaluated to better inform teachers about their students' achievement. Current researchers, such as Stiggins (2005), have taken more steps toward expanding formative assessments. Stiggins suggests focusing not necessarily on informing teachers, but instead, the focus should be about informing students. Hattie (2009) agrees as his meta-analysis indicates the best thing teachers can do for students is encourage them to be in charge of their own learning. Summative assessments inform educators about who is or who is not meeting standards. This information alone does not improve student learning (Marzano, 2006).

Formative assessments will help teachers to know what is being understood, allowing time to fix the problems. Assessment for learning puts students in the driver's seat (Stiggins, 2005). Nonetheless, whatever current research indicates about formative assessment and what it is or is not called and how it is or is not used, good instrumentation requires good instruments (Reeves, 2004). Teachers may have the instrumentation and the instruments too. Unfortunately, the intelligent use of those for improved practices combined with effective research based grading and reporting may not be evident in schools nationwide (Wormeli, 2006). Dylan Wiliam, (2011) claims the most impactful way to describe formative assessments is "an assessment functions

formatively to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers to make decisions, about the next steps in instruction that are likely to be better or better founded, than the decisions they would have made in the absence of that evidence” (p. 43). The assessment itself can be done in a variety of ways. The function is to provide evidence about assessments, not necessarily just describing the assessment. Traditional teachers may continue to try and use formative assessments as a teacher-centered instructor, but that may not work very well.

In order for students to be centered on the learning, the decision about learning should be made by them and their peers, allowing them the opportunity to be active participants in their learning (Ainsworth and Viegut, 2006). This helps students view the assessment as an opportunity to make progress toward the goal of improving their skills without the risk of being “graded” or evaluated (Arter, Chappuis, & Stiggins, 2012). Reporting this kind of learning through grades instead complicates the true essence of grading and feedback through research based practices (O’Connor, 2009). The intention of any teacher both equipped to grade traditionally or through research based practices should be to improve student learning (Reeves, 2011). Those intentions are not very helpful if they do not produce evidence of whether or not it actually worked (Brookhart, 2009). Traditional grading practices make it difficult for teachers to effectively evaluate whether students are assessment capable learners. Grading and reporting is restricted when the action of teachers is to evaluate how well students did on a multiple choice test three days after the chapter is over (Reeves, 2007). The action of determining the impact of teaching through a formative process might enable instructors to evaluate if their instruction made any more difference in the learning of the pupil than what could have

been done by a summative process (Guskey, 2009). Consequently, the assessment for learning through formative processes equips all involved in the learning cycle to determine if making adjustments along the way is actually better for achievement (Airasian, 1994). With improved grading practices, the communication and reporting of formative assessments through grades is made possible (Burke, 1993).

Feedback

Feedback is packaged in a variety of ways. For the purpose of this research, grading is a form of feedback. It is a powerful instructional technique used by teachers all across the nation (Hattie, 2009). Understanding valuable feedback is significant in order to accurately have a grasp on grading, reporting, instruction, and assessment. According to educational researcher Shute (2008), feedback is “information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning” (p. 154). There are dissimilar types of feedback: formal, informal, formative and summative. The idea behind feedback is to contribute information to the learner, parents, teachers, and administration (Marzano, 2010). Evidence pertaining to learning given to the various persons should have the purpose of enhancing student learning and can be given to a cluster of students or in one-on-one situations (Marzano, 2010). To illustrate how vital feedback is to teaching and learning, Hattie and Timperley’s (2007) study charted a meta-analysis of 12 previous meta-analyses, including 196 studies and 6,972 effect sizes. The average effect size found by Hattie and Timperley (2007) was .79 for feedback, .40 being a typical one-year of growth for a learner, with a 29 percentile point gain in achievement. Hattie and Timperley

describe how feedback is critical to pupil learning as they convey in the succeeding statement:

Learning can be enhanced to the degree that students share the challenging goals of learning, adopt self-assessment and evaluation strategies, and develop error detection procedures and heightened self-efficacy to tackle more challenging tasks leading to mastery and understanding of lessons (2007, p. 103).

Feedback to students on an assessment or a report is common practice. The quality of that feedback, though, may determine its impact on student achievement (Reeves, 2011). Traditional grading practices labels feedback as way to provide assessment scores to parents in an official form over a specific time period, such as a quarter, a semester or a year (Carr & Farr, 2000). Those assessments, as mentioned earlier, could have come from a variety of sources and may have been instrumented both summatively and formatively. In traditional grading practices, teachers are obligated to afford some form of grade at the end of a grading period based upon the student work and assessments (Deddeh, Fulkerson, & Main, 2010). According to Marzano (2010), “This overall evaluation is in the form of some type of overall grade commonly referred to as an ‘omnibus grade.’ Unfortunately, grades add a whole new layer of error to the assessment process” (p. 15). The error of the use of feedback is peculiar. Research from above indicates it has a considerable impact on learning, yet it remains to be both inconsistent and controversial (Reeves, 2011).

Perceptual Research Data

The driving factor of this study is to determine perceptions or attitudes of high school principals regarding research based grading practices. The literature available

indicates a small number of studies focusing on school leadership and the perception of principals toward grading practices. Rather, extensive research exists about the movement from traditional to a more objective based style of grading and grade reporting.

The research completed by Dyb (2012) shows attitudes that influence classroom practices for feedback and grading. Dyb concluded, “The most important perceived influences (on grading practices) were on-going professional development and time for collaboration” (2012, p. 48). In addition, the author abridged his conclusions regarding instructor perceptions of their grading practices, “First, teachers reportedly perceived that their grading practices do more than measure academic achievement. Second, teachers reportedly gave varying importance to differing assessments. Third, teachers gave varying reasons for scores and grades” (2012, p. 49). Dyb indicates a profound importance for principals to implement hands on PD and support teachers (2012). His conclusion about the importance of administrators to support and lead teachers is overwhelming. The response of teachers clearly suggest grading practices can and will improve as long as there is an abundance of support (2012).

In addition to Dyb, Tatum (2010) studied the perceptions of teachers as the state of Georgia transitioned to an objective-based or standards-based curriculum. Tatum concluded, leadership is important and teachers desire the stability and support because change is difficult. The staff and faculty needed affirmation and leadership from the principals (2010).

Current research is limited in regards to the perceptions of principals. The grading practices debate thus far seems to have focused on the attitudes of teachers. This

study should serve as a platform for improved grading practices. The work done by other researchers, such as Tatum (2010) and Dyb (2012), should justify the need for PD and support. This study allows the high school principal perceptions to join the conversation for improved grading practices.

High School Principal Perception

Traditionally, elementary schools have been the epitome of objective-based scoring and reporting (O'Connor, 2009). Parents are accustomed to receiving detailed reports about specific skills learned or not learned. In addition, some elementary schools do not utilize letter grades at all. In contrast, most middle and high school reporting forms use the letter grade system (Guskey and Bailey, 2010). Usually students start receiving traditional grade cards and are exposed to practices that are traditional in nature beginning in third grade. These letter grades begin the problematic grading practices as described above in this dissertation (Marzano, 2010). The variety of approaches to letter grades poses a need for something more descriptive (Reeves, 2011). With many more middle schools picking up where the elementary has left off, there is not a clear reason as to why high schools should not and could not continue the previously established approach to grading (Marzano, 2000).

Some of the set-backs to high school students using a standards-based system include the controversial and problematic components such as class rank, scholarships, grade point averages, valedictorians, national honors society, and extra-curricular participation requirements (Reeves, 2011). The high school factors do not preclude the ninth through twelfth grades from joining the standards-based grading revolution of using four-point scales, rubrics, eliminating the 100-point scale, eliminating the use of

averages, and allowing redos, retakes, and do-overs (Wormeli, 2006). However these aspects do cause considerable confusion, and it will take vigilant consideration and organization to make the high school-college shift seamless (Guskey, 2009). Guskey and Bailey acknowledge the need “to make middle school and high school grades more meaningful” (2010, p. 149). Consequently, focus on the high school is vital to the growth of best grading practices (O’Connor, 2009). The high school perception of learning and propagation of the effective grade reporting is paramount. This study will provide a catalyst for the already conventional lower elementary grading process to flourish up into the high school level. Furthermore, the significance of knowing the background perceptions of grading practices in Missouri through this descriptive study cannot be unassuming for those leaders exploring ways to improve student achievement through effective grading and grade reporting.

Absence from Research

There are available books and research about the importance of grading and grading practices. For that sake, there is also available research regarding best grading practices including standards based grading implementation. One case study was found focusing on high schools and traditional grading versus non-traditional grading practices (Cox, 2011). The various dissertations related to perceptions associated with grading and the effectiveness therein have been completed. However, there is a limited supply of principal perceptions of grading and grade reporting. Consequently, there is limited research into the actual implementation process and a small number of qualitative studies to add to the list. This particular research focused on implementation has been largely focused on the high school level. There has been some insight used for background

information at the middle and elementary levels to draw K-12 comparisons. There is an emptiness in recorded studies to quantitative high school principal perceptions of effective grading practices.

Conclusion

The common practices of grading done by high school teachers could reflect a more objective based approach. Reeves (2011) suggests teachers are not unwilling just because they do not practice effective grading and grade reporting. The culture has prompted society to operate the way it does (Guskey, 2011). It appears that even though there is ample research and watershed authors on the topic, schools are not implementing improved grading and reporting practices. The positive impact for using assessment for learning or formative assessments along with descriptive feedback is well known in higher educational circles. Yet, schools are not implementing those practices with fidelity (Scriffiny, 2008). Rapid descriptive feedback offers students with increased student achievement (Reeves, 2011). That practice is outlined again and again within researchers. However, that practice is not being done with fidelity. Author after author has described techniques for implementing a system that allows for teachers to do away with the traditional grading practices that are not as effective as research based methods. Nonetheless, the consistent use of those effective grading practices seems unlikely. The expectation for improved learning is recognized and paramount. It is time for the grading revolution to infiltrate Missouri high schools.

In order to effectively move to the goal of reporting grades based upon standards, or criteria, teachers must work together to adopt the standards for their classroom and agree upon effective assessments (William, 2011). Also, principals should work

alongside teachers to transition from traditional grading to the effective grading practices mandated by research (Reeves, 2009). DuFour and Eaker (1998) penned the watershed book, *Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement*, and consequently became the fathers of collaborative cultures in modern American schools. In the book *Learning by Doing*, authors DuFour, DuFour, Eaker and Many (2010) presented ways to promote cultural shifts. Reportedly, it takes place when teachers are working collaboratively and engaged in conversations grounded in results and learning. Schools do not have the luxury to isolate teachers and expect positive results and fidelity with grading and grade reporting.

As outlined in this study, effective grading practices call for the use of formative assessment grounded in standards. The final grade, representative of current learning levels, for a student is calculated using multiple methods after a large number of opportunities for redos and retakes (Wormeli, 2011). The purpose behind standards-based grading is to communicate learning to students, parents and teachers. “Effective communication is impossible, however, if the people involved do not know or agree on what the relationship is between performance and the numeric or letter symbols that appear in grades” (Reeves, 2011, pg. 63). In order to achieve true grade fidelity, the teachers involved must collaborate around what the grade will entail and how the student’s learning will be reported, thus reducing error and faulty thinking in grading practices (Brookhart, 2009).

Traditional teachers need to view collaboration time as an opportunity to discover evidence of student learning (DuFour & Marzano, 2011). Administration should focus their teachers on the importance of using that time wisely and promote practical trade-

offs (Guskey, 2009). Those trade-offs offer a commitment to timely feedback. In a traditional system, teachers may feel overwhelmed with the quantity of student assignments to grade (Reeves, 2011). Fisher, Frey, & Pumpian (2011) express the focus on smaller assessments so teachers can focus on less standards in evaluating learning. In addition, principals should direct their teachers to reducing the number of standards down to just the “power standards” anyway so depth can be accomplished rather than mere exposure (Ainsworth, 2003). The trade-off is not a perfect solution. Leaders may struggle with the notion of quality over quantity alluding to the fact that students will not have a more comprehensive knowledge of skills (Fullan, 2008). Advocates of traditional grading practices may justify that a certain amount of exposure is more important than really delving deep into material. Some researchers, like Reeves (2011), point out that both lead to error in some degree, but the lesser of the two evils may be in choosing a mile deep rather than a mile wide.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This descriptive, non-experimental, quantitative dissertation examined perceptions of effective grading and grade reporting practices. There were 704 Missouri high school lead principals invited to give feedback. The survey instrument focused on high school lead principal attitudes toward grading and grade reporting practices in Missouri. The study results were disaggregated by five different demographic questions and one open comments. Question: 1) What is your gender? 2) How many years have you been an administrator? 3) How many students do you have in your building? 4) Approximately how many of your teachers have tenure? 5) What type of grade reporting system does your building utilize? 6) Please provide any further information or comments regarding best grading and grade reporting practices. The main goal was to determine administration's awareness for effective grading and reporting practices so further planning can be addressed.

Participants

The attitudinal survey was given to secondary school principals in Missouri. Out of the total number of high schools, 188 are private. Some of the schools are currently implementing reformed grading and reporting practices, while others are still quite traditional. The principals of all schools, regardless of size, type, grade arrangement or configuration were contacted to be involved in this study. The survey was given to lead principals in each school to determine their perception and attitudes regarding grading and reporting practices. The position of principal represents the lead teacher and

academic leader of a building of teachers. Demographic information was collected to assist in separating various groups for analyzing and comparing various sets of data.

The survey, informed e-mail consent, ethics certificate and Research Review Board (RRB) application at Southwest Baptist University were sent to the RRB electronically and as a paper copy with the appropriate signatures for approval. Participants gave consent to be involved in the study by completing the online survey. The submitted forms outlined participant confidentiality, the ability to withdraw at any time without penalty, lack of any foreseen harm to respondents and a brief overview of the study's aim to provide a synopsis of the principals' perception regarding best grading and reporting practices in Missouri.

Survey Rationale and Construction

The survey used in this study is composed of three scales. The first scale, principal perception of grading and grade reporting, emphasized the awareness and understanding lead principals have about grading and grade reporting. "... the principal affects teachers who in turn have a direct influence on student achievement" (DuFour & Marzano, 2011, p.49). With the need for fidelity in the implementation of best practices, the principal should be poised with a basic understanding of what current literature claims as best practice (DuFour & Marzano, 2011). Teachers who may be interested in moving forward may not be able to do so without the aid and development of their instructional leader (Reeves, 2009). Determining the existence, or absence, of the understanding lead principals in Missouri have for best grading and reporting practices should help convey the level of implementation.

The second scale, principal leadership of grading and grade reporting, was crucial to the purpose behind this study – assessing the actions of leadership and change lead principals have enacted while serving as leaders. The primary knowledge basis for best grading practices lends itself somewhat useless if not implemented with fidelity (Reeves, 2006). The principals may have varied levels of implementation based upon their experiences or building makeup. The data from this scale painted a picture for leaders to recognize the areas that need to be implemented within the walls of the classroom. Principals may be willing move their teachers forward with improved grading and grade reporting practices by comparing the results in this scale to the information expressed in the review of literature. Essentially, using scale two in conjunction of scale one could enable the lead principal to discover the potential for change.

The third scale, perceptions of traditional grading practices, focused on the practices of traditional grading and grade reporting. Often times, teachers express a desire to use best practice such as formative assessment, rubrics, and rapid feedback under the notion of traditional grading practices. Lead principals have given their perception of the traditional grading practices, and the results indicate a varied level of implementation. The data from this scale provided leaders with an awareness of the practices that blur or blend the process of improved grading and grade reporting practices.

Overall, the purpose of the three scales comes from the research pointing at the assessment for learning concept. In order for educators to be capable of grading with fidelity, the principals must provide opportunities to focus on collaborative grading using formative assessments as well as to giving descriptive feedback to students in an

accelerated process (Reeves, 2011). Attitudes given in this survey may help determine the ability for leaders in Missouri high schools to move forward with implementation of grading practices such as standards-based grading. On the other hand, the data may provide the researcher with information to discern what steps to take next if the loyalties of leaders or their respective staff members are too deep in traditional practices.

Principals have varied views and perspectives based upon experiences, or lack thereof, with grading and grade reporting. The data from this scale painted a picture for educators wanting to move forward with improved grading practices as well as gave a starting point for further research to be examined. Finally, the demographic data allowed comparison of heterogeneous groups, including early-career educators, seasoned veterans, larger or smaller districts, and current grade reporting practices. Knowing the various groups within the population providing the survey data added depth and breadth to the data when it was analyzed.

Pilot Process

To increase reliability and validity, the survey consisted of positive statements and included reversed order statements to ensure respondents were giving consistent responses as opposed to marking responses automatically without scrutiny. Drafts of the survey were submitted six times to an advisor with expert knowledge in statistics and research. In addition, a panel of experts provided feedback so the construction of the survey could be revised as needed. The results of these pilot surveys were utilized to revise and improve the survey tool.

Survey Face Validity

Face validity was conducted by reviewing existing literature, meeting with the advisor, and having focused conversations with other educational professionals. This was completed in order to help determine if the statements measured what was intended by the overarching research question and the supporting questions. Additionally, the questions on the survey were re-evaluated in light of the current literature. Table 1 displays the Table of Specifications for the survey.

Table 1

Table of Specifications

Survey Item	Understand Research	Provides Leadership	Agree with Traditional
1. Effective grading is essential to the learning process.	X		
2. It is essential to student learning that grade reports are an accurate measure of student performance.	X		
3. Grading practices need improved in most public high schools.	X		
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.	X		
5. I have studied books or articles that focus on improving grading practices.	X		
6. Grade reporting should detail specific standards as opposed to just an overall grade.	X		
7. I agree with the current research that addresses the importance of improved grading practices.	X		
8. Districts should make improved grading practices a part of their overall CSIP plan.	X		
9. Teachers should receive continual training on improved grading practices.	X		

10. Teachers should be evaluated based in part on how well they evaluate student learning.	X		
11. My school emphasizes effective grading practices.		X	
12. My school utilizes the most accurate grade reports to communicate grades.		X	
13. My school has had conversations centered on improving grading practices.		X	
14. My school has had conversations centered on using grading as feedback.		X	
15. My school has had professional development focusing on the importance of improved grading practices.		X	
16. My school uses a standards based report card to address specific learning standards.		X	
17. My school emphasizes the use of research based grading practices.		X	
18. My district has put improved grading practices in their CSIP plan.		X	
19. My teachers receive support and training centered on improved grading practices.		X	
20. My teachers are evaluated in part on how well they evaluate the learning of their students.		X	
21. Penalizing late work should be part of the grading process.			X
22. A student's grade should be lowered for academic dishonesty.			X
23. Students should receive zeros for missing assignments.			X
24. A student's grade should be lower for excessive absences.			X
25. Homework should be included in the overall grade.			X
26. Students should be measured against one another for grades.			X
27. Student effort should be a significant portion of their overall grade.			X

28. A student's overall grade should be comprised of all their work.			X
29. The best way to calculate an end of the term grade, assignments should be averaged.			X
30. Report cards are best kept simple: A, B, C, D, F			X

Content Validity

The first version of the survey instrument (as presented in Appendix A) was used to garner feedback from experts in the fields of grading and grade reporting and survey instruments—one elementary principal, two assistant superintendents, one current superintendent, and a retired superintendent. Ten questions on the survey instrument were reversed to prevent respondents from just simply selecting automatic responses. The survey was sent to each of these experts, and they were asked to take the survey as well as make comments on the survey's nature, clarity and effectiveness. Specifically, the researcher sent out Rovinelli and Hambleton's (1977) index of item-objective congruency. To these "experts"- a scale of -1, 0 and 1. A -1 indicated the statement does not ask what is intended, a 0 is neutral, and a 1 signified the statement does ask what is intended. Feedback from the experts was used to further revise and improve the survey instrument. The researcher had conversations by phone with one of the five experts. The researcher had communication with the other four experts via Email. This process helped refine responses that were meant to gather a specific response. Responses were analyzed on the congruency scale to address item-objective congruency. Wording edits, context clarification, and grammar mistakes were addressed and later revised in the survey before progressing to the final survey iteration.

Index of Items of Congruency

The survey items were given to a panel of five independent experts to match the items to the sub-scales that were defined by the researcher. The experts were provided a structured format to rate the statements in regard to each subscale. To rate the degree to which each item measures each objective, an Index of Item-Objective Congruence was performed for the items based on the ratings provided by the panel of experts. This addresses the broader concern of content validity, and specifically item validity. The highest item-objective congruence value is 1.00, which occurs when an item is matched to one and only one objective. Ideally, values should be at least 0.75 or greater. The following table displays the results of the index of item-objective congruence. In the analysis, no items were weighted.

Table 2

Index of Item-objective Congruence

Survey Item	Results Average
1. Effective grading is essential to the learning process.	1.00
2. It is essential to student learning that grade reports are an accurate measure of student performance.	1.00
3. Grading practices need improved in most public high schools.	1.00
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.	0.80
5. I have studied books or articles that focus on improving grading practices.	0.60
6. Grade reporting should detail specific standards as opposed to just an overall grade.	1.00
7. I agree with the current research that addresses the importance of improved grading practices.	1.00
8. Districts should make improved grading practices a part of their overall CSIP plan.	0.40
9. Teachers should receive continual training on improved grading practices.	1.00
10. Teachers should be evaluated based in part on how well they evaluate student learning.	1.00

11. My school emphasizes effective grading practices.	1.00
12. My school utilizes the most accurate grade reports to communicate grades.	0.60
13. My school has had conversations centered on improving grading practices.	1.00
14. My school has had conversations centered on using grading as feedback.	1.00
15. My school has had professional development focusing on the importance of improved grading practices.	1.00
16. My school uses a standards based report card to address specific learning standards.	0.60
17. My school emphasizes the use of research based grading practices.	0.60
18. My district has put improved grading practices in their CSIP plan.	0.60
19. My teachers receive support and training centered on improved grading practices.	0.80
20. My teachers are evaluated in part on how well they evaluate the learning of their students.	1.00
21. Penalizing late work should be part of the grading process.	0.80
22. A student's grade should be lowered for academic dishonesty.	1.00
23. Students should receive zeros for missing assignments.	0.80
24. A student's grade should be lower for excessive absences.	0.80
25. Homework should be included in the overall grade.	1.00
26. Students should be measured against one another for grades.	0.60
27. Student effort should be a significant portion of their overall grade.	1.00
28. A student's overall grade should be comprised of all their work.	1.00
29. The best way to calculate an end of the term grade, assignments should be averaged.	0.80
30. Report cards are best kept simple: A, B, C, D, F	1.00
31. Please provide any information or comments regarding grading practices	1.00
32. Please provide any information or comments regarding grade reporting practices	1.00
33. What is your gender? Male or Female	1.00
34. How many years have you been a lead principal?	1.00
35. How many students are in your building?	0.60
36. Approximately what percentage of your teachers has tenure?	1.00
37. Does your building utilize a standards based or traditional grade card?	1.00

Reliability

The data collected from these surveys were used to determine the internal consistency of the instrument. Cronbach's alpha was used for this purpose. The alpha

value for the Understand Research scale was 0.889. For the Provides Leadership scale, the alpha value was 0.806. The Agree with Traditional scale had an alpha of 0.849. The values for the three scales indicated a strong reliability for the three scales.

Content Validity

The reiteration of the survey was sent as a pilot to 32 colleagues. For this particular pilot, participants are assistant principals at the high school level in Missouri. To present a cross-section of the study's potential population, certain schools were chosen with a variety of characteristics such as small or large. Schools are considered small to medium with 300 +/- students. Schools are considered large with 600 +/- students. On the survey pilot, there were two open comment fields for respondents to provide feedback as to ways to help make the survey instrument work more reliably. Lastly, the pilot survey results were uploaded to the Statistical Package for the Social Sciences (SPSS) software to perform an exploratory factor analysis to determine validity. Using load values of $< -.300$ or $> .300$ as a baseline, considered by researchers to be a rigorous level, those questions between the $-.300$ and $.300$ marks on each scale were adjusted or tweaked to help produce a more reliable survey instrument. Statements-loading, those with values less than $-.300$ or greater than $.300$, on a particular scale were reviewed and tweaked. Based upon the SPSS data from this validity pilot, two questions from two sections required an edit in order to perform more favorably. In one section, only one question required an edit. No questions were deleted for the next step, leaving 30 total questions for the final survey. Table 3 below represents the factor analysis performed to determine statement loading per scale.

Table 3

Validity Pilot Factor Analysis

Survey Item	Understand Research	Provides Leadership	Agree with Traditional
1. Effective grading is essential to the learning process.	.272	.680	-.240
2. It is essential to student learning that grade reports are an accurate measure of student performance.	.442	.543	-.054
3. Grading practices need improved in most public high schools.	.917	.241	-.027
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.	.858	.183	.082
5. I have studied books or articles that focus on improving grading practices.	.801	.148	.025
6. Grade reporting should detail specific standards as opposed to just an overall grade.	.515	.244	-.360
7. I agree with the current research that addresses the importance of improved grading practices.	.895	.013	.022
8. Districts should make improved grading practices a part of their overall CSIP plan.	.364	.364	-.569
9. Teachers should receive continual training on improved grading practices.	.194	.707	-.169
10. Teachers should be evaluated based in part on how well they evaluate student learning.	.451	.380	-.326
11. My school emphasizes effective grading practices.	.350	.564	-.360
12. My school utilizes the most accurate grade reports to communicate grades.	.051	.628	.104
13. My school has had conversations centered on improving grading practices.	.681	-.215	-.188
14. My school has had conversations centered on using grading as feedback.	.146	.601	-.345
15. My school has had professional development focusing on the importance of improved grading practices.	.209	.426	-.347
16. My school uses a standards based report card to address specific learning standards.	.312	.120	-.637

17. My school emphasizes the use of research based grading practices.	-.122	.520	.242
18. My district has put improved grading practices in their CSIP plan.	.257	.496	-.124
19. My teachers receive support and training centered on improved grading practices.	.043	.688	-.003
20. My teachers are evaluated in part on how well they evaluate the learning of their students.	.470	.384	.142
21. Penalizing late work should be part of the grading process.	.031	-.059	.802
22. A student's grade should be lowered for academic dishonesty.	.161	-.085	.656
23. Students should receive zeros for missing assignments.	.082	-.130	.799
24. A student's grade should be lower for excessive absences.	-.086	-.010	.690
25. Homework should be included in the overall grade.	-.068	-.251	.687
26. Students should be measured against one another for grades.	-.113	.598	-.059
27. Student effort should be a significant portion of their overall grade.	.173	.448	.539
28. A student's overall grade should be comprised of all their work.	.102	.190	.666
29. The best way to calculate an end of the term grade, assignments should be averaged.	-.110	-.023	.841
30. Report cards are best kept simple: A, B, C, D, F	.082	-.130	.799

Note. Bolded values represent those with a value of .300 or higher indicating they load on that particular scale. Items with similar load values or insignificant differences were not bolded. Principal Components Factor Analysis with Varimax Rotation.

Final Survey

The final survey included a confirmatory factor analysis as well as the Cronbach's Alpha to address reliability of the three scales. Table 4 below represents the factor analysis performed to determine statement loading per scale.

Table 4

Validity Final Survey Factor Analysis

Survey Item	Understand Research	Provides Leadership	Agree with Traditional
1. The learning process is enhanced when teachers utilize research based grading practices.	.634	.311	.363
2. It is essential to student learning that grade reports are an accurate measure of student performance.	.605	.454	.033
3. It is important for teachers to be specific when reporting grades.	.752	.276	.001
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.	.746	.209	.011
5. Teachers should focus on being fair when grading assignments.	.596	.048	-.206
6. Grade reporting should detail specific standards as opposed to just an overall grade.	.409	.409	.334
7. Teachers should provide students with descriptive feedback on their assignments in a timely manner.	.811	.120	-.036
8. Principals should target research based grading practices in their building goals.	.674	.335	.196
9. Teachers should be made aware what the research says in regards to effective grading practices.	.712	.268	.206
10. Teachers should be evaluated based in part on how well they assess student learning.	.415	.423	-.168
11. I emphasize the importance of effective grading practices to my staff.	.459	.588	.075

12. I consistently remind my teachers to accurately report grades that reflect the learning of their students.	.407	.522	-.081
13. I have led conversations with my staff centered on the importance of effective grading practices.	.450	.535	.023
14. I have led conversations with my staff centered on using grading as a form of descriptive feedback.	.392	.630	.066
15. I emphasize professional development focusing on the importance of improved grading practices.	.216	.739	.238
16. I promote the use of standards based report cards to address specific learning standards.	.010	.595	.282
17. I have recently addressed my teachers about the importance of timely feedback.	.302	.561	-.086
18. I have put improved grading practices in my building goals.	.116	.764	.133
19. I frequently support and train my staff centered on improving grading practices.	.137	.780	.129
20. I evaluate my teachers, in part, on how well they assess the learning of their students through grading.	.174	.546	-.193
21. Penalizing late work should be part of the grading process.	.085	.148	.758
22. A student's grade should be lowered for academic dishonesty.	.025	.047	.697
23. Students should receive zeros for missing assignments.	.006	.096	.717
24. A student's grade should be lower for excessive absences.	-.051	.230	.682
25. Homework should be included in the overall grade.	.025	.047	.697
26. Students should be measured against one another for grades.	.267	-.063	.369
27. Student effort should be a significant portion of their overall grade.	.208	-.163	.696
28. A student's overall grade should be comprised of all their work.	-.027	-.184	.637

29. The best way to calculate an end of the term grade, assignments should be averaged.	-.051	.230.	.682
30. Report cards are best kept simple: A, B, C, D, F	.065	.069	.597

Note. Bolded values represent those with a value of .300 or higher indicating they load on that particular scale. Items with similar load values or insignificant differences were not bolded. Principal Components Factor Analysis with Varimax Rotation.

Reliability

The data collected from these surveys were used to determine the internal consistency of the instrument. Cronbach’s alpha was used for this purpose. The alpha value for the Understand Research scale was 0.886. For the Provides Leadership scale, the alpha value was 0.876. The Agree With Traditional scale had an alpha of 0.864. The values for the three scales indicated a strong reliability for the three scales.

Conclusion

A substantial component of this study was the development of the survey instrument to measure principal perceptions of effective grading and reporting practices. With the detailed pilot process, the constructed survey instrument is a valid and reliable tool equipped for thorough review. Principals should be able to look into the findings using this platform to pursue a change in grading and grade reporting. That data supporting the use of the survey instrument is presented in chapter four.

The results of this study will enhance the ability of principals in Missouri to enter into conversations centered on a change in grading and grade reporting at the high school level. Data will be made available to help building level leaders discuss issues such as effective grading, grade reporting, standards-based grading and other relevant topics. District and state leaders will be able to tackle the perceived problems associated with

making the change or at the very least address the ramifications of changing grading and grade reporting practices. An analysis of the open-ended question responses was performed to determine if there was information worth distributing in the study. Themes and thoughts that consistently surfaced are addressed in chapter four. The quantitative nature of this study remained intact except for quality substantial information from the comments in the survey.

CHAPTER FOUR

ANALYSIS

The final survey results consisting of 247 total respondents, all being lead high school principals in the state of Missouri, were uploaded to the SPSS software system. Inferential statistics as well as descriptive statistics were employed in order to analyze the data and will be presented in chapter four to help provide understanding into answers to the research questions in this particular study. The overall statistics are reported in table 5 below, for each survey section representing the principal responses regarding perceptions of effective grading, grade reporting, and leadership, focusing on the following research questions:

- What is the perception of Missouri high school principals' understanding of best practices regarding grading and grade reporting?
- What is the perception of Missouri high school principals' active leadership regarding grading and grade reporting?
- What is the perception of Missouri high school principals' understanding of traditional grading and reporting practices?

The aforementioned questions were in relation to the three scales on the attitudinal survey.

1. Principal's Understanding of Research Regarding Effective Grading and Grade Reporting.
2. Principal's Application of Leadership Regarding Effective Grading and Grade Reporting.
3. Principal's Agreement Compared to Research of the Literature Review.

The average or mean for the response to all questions reported below exemplifies the general perceptions of the respondents. Range for the average or mean is from 4.00 to 1.00 where 4.00= Strongly Agree and 1.00= Strongly Disagree.

Table 5

Survey Overall Results for Scale – Respondent Mean

Survey Section	Mean	Standard Deviation	Range
1 – Principal Understands Research	34.32	4.15	7.54
2 – Principal Applies Understanding	29.49	4.56	7.91
3 – Principal Agrees with Research	26.88	5.09	10.43

Note. $n = 247$.

Descriptive Statistics

Table above shows the means, standard deviation, and ranges for the three scales on this survey instrument. The figures for descriptive statistics are based upon 10 questions in each scale as determined by the factor analysis. Load values and explanations were presented in Table 5 as to how each scale was determined post survey closing based upon each load value. The average or mean of the first scale (Principal Understands Research) indicated that Missouri principals at the high school level understand what current research illustrates in literature about effective grading and grade reporting. A mean of 34.32 translates to an overall ‘agree’ on the likert-type scale. According to the mean or average on the second scale (Principal Applies Understanding), it appears the majority of Missouri principals at the high school level are applying or at least favorable toward their understanding of the research as they lead their buildings toward effective grading and grade reporting practices. A mean of 29.49 translates to an overall ‘agree’ on the likert-type scale. According to the mean or average on the third scale (Principal Agrees with Research) it looks as if Missouri principals at the high

school level are mixed or divided (meaning some do and some do not agree with the current research), in relation to the literature review. A mean of 26.88 translates to an overall 'neither agree nor disagree' on the likert-type scale. The standard deviation on the scales is somewhat distributed – evidence indicating more varied responses and stronger perceptions either way on the content.

Scale 1 – Principal Understanding of the Research

The first scale was designed as an outcome of literature review results regarding effective grading and grade reporting practices. In order for schools to implement the ideas outlined in the findings, principals should understand the research. Research question one of this study is directly supported by the first scale. This scale aims to provide insight into high schools all across the state of Missouri and to what extent their principals have been either studying grading and grade reporting research or at the very least, been exposed to the literature that is available in educational circles. The mean or average for this scale was 34.32, the range of possible values 10 to 40 and the standard deviation 4.15, indicating the high school principals in the state of Missouri have been exposed to or have studied grading and grade reporting literature. A lower value represents a less favorable perception toward the statements in the survey. A higher value, as seen in the results (34.32), represents a more favorable perception toward the statements in the survey. The value for this sample population points to all high schools in the State of Missouri geographically in part having lead principals with an understanding of what the research indicates is effective grading and grade report practices.

The standard deviation of 4.15 indicates the responses given were not too widely distributed giving the impression principals in the sample population are in relative agreement in relation to the statements under the first scale. It appears there is a general consensus that high schools in the state of Missouri have employed principals that understand the current research regarding effective grading and grade reporting.

Scale 2 – Principal Application and Leadership of Understanding

The second scale was designed as an outcome of literature review results regarding effective grading and grade reporting practices. In order for schools to implement the ideas outlined in the findings, principals should understand the research. Once principals understand the research, application and leadership centered on the knowledge of what research indicates should be evident. Research question two of this study is directly supported by the second scale. This scale aims to provide insight into high schools all across the state of Missouri and to what extent their principals have implemented effective grading and grade reporting practices, or at the very least, been having conversations centered on the literature that is available in educational circles. The mean or average for this scale was 29.49, the range of possible values 10 to 40 and the standard deviation 4.56, indicating the high school principals in the state of Missouri have generally been providing leadership and application, or at the very least, have led conversations on grading and grade reporting literature. A lower value represents a less favorable perception toward the statements in the survey. A higher value, as seen in the results (29.49), represents a slightly favorable perception toward the statements in the survey. The value for this sample population points to all high schools in the State of

Missouri geographically in part having lead principals who apply what the research indicates is effective grading and grade report practices.

The standard deviation of 4.56 indicates the responses given were not widely distributed giving the impression principals in the sample population are in relative agreement, but not as much as represented in understanding, in relation to the statements under the second scale. It appears there is almost a general consensus that high schools in the state of Missouri have employed principals that apply some of the effective grading and grade reporting practices as outlined in the literature.

Scale 3 – Principal Agreement with Research

The third scale was designed as an outcome of literature review results regarding effective grading and grade reporting practices. In order for schools to implement the ideas outlined in the findings, principals should understand the research. Once principals understand the research, application and leadership centered on the knowledge of what research indicates should be evident. However, principals may or may not agree with what research or the literature reveals once studied. In addition, the principals may agree, but there may be other factors preventing principals from applying effective practices. Research question three of this study is directly supported by the third scale. This scale aims to provide insight into high schools all across the state of Missouri and to what extent their principals agree with effective grading and grade reporting practices as it relates to the literature in educational circles. The mean or average for this scale was 26.88, the range of possible values 10 to 40 and the standard deviation 5.09, indicating the high school principals in the state of Missouri are mixed in relation to their agreement toward what literature indicates for effective grading and grade reporting. A lower value

represents a less favorable perception toward the statements in the survey. A higher value, represents a favorable perception toward the statements in the survey. An average value in the 25 range, as seen in the results (26.88) indicates a split in perceptions between lead principals at the high school level in Missouri. The value for this sample population points to all high schools in the State of Missouri geographically having both lead principals who agree and disagree with what the research indicates is effective grading and grade report practices.

The standard deviation of 5.09 indicates the responses given were not widely distributed giving the impression principals in the sample population are in relative agreement, but not as much as represented in application and understanding, in relation to the statements under the second scale. It appears there is almost a general split that high schools in the state of Missouri have employed principals that both agree and disagree with some of the effective grading and grade reporting practices as outlined in the literature.

Inferential Statistics

Out of the 30 original statements theorized to be in the three scales, all 30 held as valid through the actual survey process and loaded at high enough values to proceed with the inferential statistical analysis.

Cronback's Alpha

To illustrate reliability:

- Cronbach's alpha for Scale 1 – (Principal Understanding of the Research) had 10 questions and loaded a value of 0.886.

- Cronbach’s alpha for Scale 2 – (Principal Application and Leadership of Understanding) had 10 questions and loaded a value of 0.876.
- Cronbach’s alpha for Scale 3 – (Principal Agreement with Research) had 10 questions and loaded a value of 0.864.

These values indicate a high reliability and give confidence to persons wanting to utilize these items as a survey instrument.

Demographic Relationships

The inferential statistics to follow were calculated using the 30 total questions loading visibly to a respective scale. Data from these questions were analyzed to establish any differences and relationships in each demographic between responses by the survey participants. Each of the five demographic questions was analyzed including the following: 1) What is your gender? 2) How many years have you been an administrator? 3) How many students do you have in your building? 4) Approximately how many of your teachers has tenure? 5) What type of grade reporting system does your building utilize?

Table 6

ANOVA for Principal Application Scale and Years in Administration

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	194.18	3	64.73	3.20	.024
Within Groups	4464.04	221	20.20		
Total	4658.22	224			

Table 7

ANOVA for Principal Agreement Scale and Years in Administration

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	277.06	3	92.35	3.69	.013
Within Groups	5704.32	228	25.02		
Total	5981.38	231			

For both the application and agreement scale, Tukey’s HSD post-hoc revealed there were significant differences found between certain groups. The variable options are as follows: 0-1 years, 2-5 years, 6-10 years, and 11+ years in administration. In the application scale, groups 0-1 and 11+ showed significant difference between the two at .035. The lead high school principals with 0-1 years of experience showed a mean score of 26.58 while the lead high school principals with 11+ years of experience showed a mean score of 30.35. The differences between the two suggest that principals with more experience are more favorable to applying effective grading practices.

Using Tukey’s HSD post-hoc for the same groups as above, 2-5 and 6-10 showed significant difference at .013. The lead high school principals with 2-5 years of experience showed a mean score of 25.23 while the lead high school principals with 6-10 years of experience showed a mean score of 28.03. The differences between the two suggest that principals with more experience are more favorable to agreeing with the literature of effective grading practices than those with 2-5 years of experience. When comparing principals with 0-1 years of experience and 11+ years of experience, there was not a significant difference.

The perceptions conveyed no significant differences found between the other scale and the other years of experience in administration. This lack of significant

difference in those scales suggests lead high school principals in Missouri are favorable toward what the research indicates is effective grading and grade reporting depending upon their stage in their career or years of administration experience.

Table 8

ANOVA for Principal Understanding Scale and Number of Students in Building

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	228.59	3	76.20	4.65	.004
Within Groups	3851.32	235	16.39		
Total	4079.91	238			

Table 9

ANOVA for Principal Application Scale and Number of Students in Building

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	397.92	3	132.64	6.87	.000
Within Groups	4247.92	220	19.31		
Total	4645.84	223			

Table 10

ANOVA for Principal Agreement Scale and Number of Students in Building

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	740.20	3	246.73	10.76	.000
Within Groups	5206.52	227	22.94		
Total	5946.71	230			

For all three scales, Tukey's HSD post-hoc indicated there were significant differences found between certain groups. The variable options are as follows: 0-199, 200-399, 400-599, and 600+ students in the high school building. An interesting note is that all three scales suggest similar results for how the groups performed in relation to each other. For instance, in the understanding scale, groups 0-199 and 200-399 each

showed significant differences between the group 600+ at .008 and .017 respectively. The lead high school principals of buildings with 0-199 students showed a mean score of 33.28. The lead high school principals of buildings with 200-399 students showed a mean score of 33.51. Meanwhile the lead high school principals of buildings with 600+ students showed a mean score of 35.48. The differences between the two groups with the lower number of students suggest that principals with more students in the building are more understanding of the literature supporting effective grading and grade reporting practices than with principals who have 400 or less students.

Using Tukey's HSD post-hoc in the application scale, groups 0-199 and 200-399 each showed significant differences between the group 600+ at .002 and .001 respectively. The lead high school principals of buildings with 0-199 students showed a mean score of 28.31. The lead high school principals of buildings with 200-399 students showed a mean score of 28.30. Meanwhile the lead high school principals of buildings with 600+ students showed a mean score of 31.20. The differences between the two groups with the lower number of students suggest that principals with more students in the building are more likely to apply their understanding of effective grading and grade reporting practices than principals who have less than 400 students in the building.

Tukey's HSD post-hoc in the agreement scale, groups 0-199 and 200-399 each showed significant differences between the group 600+ at .000. The lead high school principals of buildings with 0-199 students showed a mean score of 24.78. The lead high school principals of buildings with 200-399 students showed a mean score of 25.81. Meanwhile the lead high school principals of buildings with 600+ students showed a mean score of 29.11. The differences between the groups with the lower number of

students suggest that principals with more students in the building are more favorable to agreeing with what the literature conveys regarding grading and grade reporting than principals who have less than 400 students in the building.

The perceptions conveyed no significant differences found between the three scales and the 400-599 group. This lack of significant differences between this group and scales for principals and the size of the building suggests some lead high school principals in Missouri are favorable toward what the research indicates is effective grading and grade reporting regardless of the number of students in their building.

Table 11

ANOVA for Principal Application Scale and Type of Grade Report

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	374.43	2	187.22	9.70	.000
Within Groups	4283.80	222	19.30		
Total	4658.22	224			

Table 12

ANOVA for Principal Agreement Scale and Type of Grade Report

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	522.24	2	261.12	10.95	.000
Within Groups	5459.14	229	23.84		
Total	5981.38	231			

For the application scale, Tukey's HSD post-hoc revealed significant differences found between certain groups. The variable options are as follows: traditional grade card, hybrid or combination grade card, or standards based grade card. In the application scale, the traditional variable group showed significant difference between the hybrid reporting and standards based reporting with .036 and .000 respectively. The lead high school

principals utilizing the traditional report card showed a mean score of 28.95. The lead high school principals utilizing hybrid or combination report cards showed a mean score of 31.10. Meanwhile, the lead high school principals utilizing standards based report cards showed a mean score of 34.18. The differences between the traditional report card and both the other two (hybrid and standards based) suggest that principals utilizing the traditional report card are less favorable to applying effective grading practices.

Another finding is exposed in the agreement scale. Using Tukey's HSD post-hoc as above, traditional reporting showed significant difference at .000 compared to the hybrid reporting system. The lead high school principals utilizing a traditional report card showed a mean score of 26.19 while the lead high school principals utilizing a hybrid or combination report card showed a mean score of 30.52. The differences between the two suggest that principals utilizing a hybrid or combination report card are more favorable to agreeing with the literature of effective grading practices. A lack of significance was discovered in relation to the traditional report card and the standards based report card. This outcome suggests principals utilizing standards based report cards and those utilizing traditional report cards convey similar attitudes toward the literature centered on effective grading practices.

Table 13

Significant Differences Summary

Demographic Statement	Understanding Scale	Application Scale	Agreement Scale
Gender	NS	NS	NS
Years in Administration	NS	11+ years/0-1 years	11+ years/ 0-1 years
Number of Students in the Building	600+ students/0-199 students	600+ students/0-199 students	600+ students/0-199 students
	600+ students/200-399 students	600+ students/200-399 students	600+ students/200-399 students
Number of Teachers with Tenure	NS	NS	NS
Type of Grade Card Utilization	NS	Hybrid/Traditional Standards Based/Traditional	Hybrid/Traditional

Note. NS = not significant. The demographic group on the left indicates the variable most favorable to the specific scale (unless noted as NS).

The final question of the survey provided a place for respondent comments or other information pertaining to grading and grade reporting. There were 36 total written responses in the final results. The comments were related to the principals' sense of understanding, agreement, or disagreement, with effective grading practices. The disaggregated themes were selected as follows: NA for not applicable to take as survey iteration, Agreement, Moderate Agreement, and Disagreement. One of the themes, indicated by 12 open-ended comments, was favorable to the implementation of standards based grading and/or effective grading practices. The respondents were either already implementing those practices, were investigating the practices, or had plans to do so. In

addition, those favoring the effective grading practices indicated other sound pedagogy related to effective grading practices such as formative assessments, assessments for learning, and students being assessment capable learners. The favorable respondents also described implementation of how the perception of getting a necessary change across the entire educational system is necessary.

Moderate respondents indicated both agreement and inhibitors to effective grading and grade reporting practices. There were a total of 10 moderate responders each with a unique perspective on attributes that both convey appreciation for effective grading practices but also areas that make the switch to a reporting system such as standards based grading difficult for high school principals.

Out of the 36 total respondents, nine were not in favor of either standards based grading or effective grading practices according to the literature. They explained their stance or lack of agreement in a variety of ways. Out of the nine respondents indicating less than favorable responses, one described a positive value in effective grading practices but hinted toward the lack of priority in regards to student achievement. Others mentioned the need for a culture change in regards to parents and the expectations of norms like GPA, Valedictorian, and Salutatorian. A common theme necessary for those unfavorable is the mind shift that must occur in how higher education interacts with high schools as they select students for scholarships and college entrance. Some respondents included their perceptions about traditional grading practices such as late work, homework for points, attendance, etc. and how they utilize those for students. These tended to side with those not favorable to what the literature indicates as effective grading and grade reporting practices.

Summary

The survey results were first displayed holistically to define the perceptions of lead principals in Missouri as it pertains to high school principals' general perceptions of effective grading and grade reporting practices. The survey results were entered into the SPSS data software to track factor analyses to analyze data with the aim of answering the three research questions in this study. To this end, descriptive and inferential statistics were employed to give perception into the survey results data. In analyzing and presenting the data, the total illustration of principal perceptions of effective grading and grade reporting practices was discovered. In addition, the five demographic questions were compared to launch a realization of where significant differences may occur, also directing awareness to the responses of the three research questions. The ANOVA values along with the application of the Tukey's HSD test results for the demographic comparisons were displayed in tables to exemplify the significant differences. Tests such as the t-tests for the gender comparisons were not displayed due to the lack of significance shown in the data collection process. The results are strong indicating there are statistically significant differences between a number of the different demographic influences while other influences do not differ enough to be considered substantial.

Finally, acknowledgement was given to the respondents' remarks on the open-ended question – the final question of the survey. A total of 36 responses were recorded and examined to convey relative topics to consider for this study's purpose. The respondents contributed valuable perceptions into effective grading and grade reporting practices along with explanations about hindrances and mindsets that exist in educational circles around the state of Missouri.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The central goal of this dissertation is to gather the perceptions of lead principals in the state of Missouri in relation to effective grading and grade reporting. The findings from this study may be valuable for a variety of reasons as noted below.

Scale Conclusions

In the sample population itself, the survey prompted feedback that could platform future discussions centered on effective implementation of improved grading and grade reporting practices.

The research questions that guided this entire review and study are:

1. What is the perception of Missouri high school principals' understanding of best practices regarding grading and grade reporting?
2. What is the perception of Missouri high school principals' active leadership regarding grading and grade reporting?
3. What is the perception of Missouri high school principals' understanding of traditional grading and reporting practices?

Three scales were designed to provide attitudinal perceptions.

1. The principal's understanding of the current research.
2. The application of the current understanding of the research.
3. The agreement of the principals in relation to the current research.

A global view of the survey results centered on the three scales leads to an account of the sample population's perceptions of effective grading and grade reporting. Each scale matched the three research questions as outlined above.

First Scale

The first scale, Understanding the Literature, focused exclusively on research question one and contained 10 questions discovering lead high school principals' perceptions of their understanding of the literature within the schools of the state of Missouri. All 10 statements conveyed how watershed authors portray effective grading and grade reporting practices. This scale offered the most agreement of the three scales with a mean score of 34.2 with the range being from 10.0-40.0. The standard deviation is 4.1 indicating most principals are aware of what the current literature states regarding effective grading and grade reporting. As noted below, each survey item paints a picture to how lead high school principals in Missouri agree and strongly agree with the literature of grading and grade reporting.

According to the instrument in this study, just over 98% of principals convey that it is essential to student learning that grade reports are an accurate measure of student performance. Again, just over 98% of principals agree that it is important for teachers to be specific when reporting grades. To continue with the trend, over 98% of principals responded favorably that high school teachers should use grading practices as an opportunity to provide students with descriptive feedback. Likewise, over 98% of principals agree that teachers should provide students with descriptive feedback on their assignments in a timely manner. Just over 97% of principals indicated agreement that teachers should be made aware what the research says regarding effective grading

practices. Slightly lower, scoring just under 95%, principals suggest that the learning process is enhanced when teachers utilize research based grading practices. Not as high at just over 93%, but still favorable, principals noted that teachers should focus on being fair when grading assignments. Staying with just over 93%, principals convey they should target research based grading practices in their building goals. A slight dip in agreement, but nonetheless consensus, over 88% of principals suggest that teachers should be evaluated based in part on how well they assess student learning. Finally, in the first scale, just under 85% of principals perceive that grade reporting should detail specific standards as opposed to just assigning an overall grade.

In summary, the results of the 10 questions do not necessarily point to agreement with every statement in all the literature, but do indicate principals have an understanding of effective grading and grade reporting practices. The seven survey questions that indicate teacher responsibility in relation to effective grading and grade reporting seem to have principals in the state of Missouri agreeing upon that which is noted in the literature at 95% or higher mean scores. On the other hand, the questions that indicate principal responsibility in relation to effective grading and grade reporting seem to have principals in the state of Missouri agreeing upon that which is noted in the literature at a range of 85%-93% mean scores. One reason for the lower values of the other three questions could be the lack of emphasis in the literature that express principal responsibilities. Therefore, the research may be more prevalent in educational circles regarding the responsibilities of teachers. Another reason for the lower values may be the current changes that the state of Missouri is going through in terms of teacher evaluation and the expectations of building level leaders. Furthermore, the disaggregated data was

unavailable for each statement. Instead, the entire first scale was disaggregated as whole according to the demographics. It may be likely that high school principals across the state have differing perceptions based upon their demographics, but this study did not note those directly.

Second Scale

The second scale, Application and Leadership, focused exclusively on research question two and contained 10 questions discovering lead high school principals' perceptions of their leadership implementation within the schools of the state of Missouri. All 10 questions shed light on whether or not principals apply their understanding of effective grading and grade reporting practices. This scale did not offer as much consensus and agreement as the first scale. The mean score in this section was 29.5 out of a possible range of 10.0-40.0. The standard deviation is 4.56 indicating a majority of principals are utilizing what the current literature states regarding effective grading and grade reporting. As noted below, each survey item illustrates how lead high school principals in Missouri, apply their understanding of the literature of grading and grade reporting.

An attempt was made in the development of the survey instrument to correspond each implementation question of scale two to a matching or similar question from the first scale. The result provides valuable insight into how principals utilize their understanding on a large scale in comparison to what they have learned or been exposed to as effective grading practices. Reportedly, just above 94% of principals emphasize the importance of effective grading practices to their staff and have led conversations with their staff centered on the importance of effective grading practices. The survey

questions above represent the highest percentages of scale two. The respondents have indicated slightly less action toward effective grading and grade reporting than that of their understanding of what the literature entails. Just under 90% of principals in the survey have recently addressed their teachers about the importance of timely feedback. However, in comparison to the first scale, just over 98% of principals agree or strongly agree with what the value of timely feedback when grading. Just over 89% of respondents consistently remind their teachers to accurately report grades that reflect the learning of their students. Nevertheless, just above 98% of principals convey that it is essential to student learning that grade reports are an accurate measure of student performance. The dip in value on the survey between the two indicates that fewer principals are actually applying their understanding of effective grading and grade reporting according to the literature. Just over 81% of principals have led conversations with their staff centered on using grading as a form of descriptive feedback. In comparison, over 98% of principals responded favorably that high school teachers should use grading practices as an opportunity to provide students with descriptive feedback. Just over 74% of principals emphasize professional development focusing on the importance of improved grading practices. Consequently, just over 97% of principals indicated agreement that teachers should be made aware what the research says regarding effective grading practices. Approximately 68% of principals evaluate their teachers, in part, on how well they assess the learning of their students through grading, yet 88% of principals suggest that teachers should be evaluated based in part on how well they assess student learning. Just under 62% of principals frequently support and train their staff centered on improving grading practices. Consequently, just over 97% of principals

indicated agreement that teachers should be made aware what the research says regarding effective grading practices. Approximately 51% of principals have put improved grading practices in their building goals. However, over 93% of principals convey they should target research based grading practices in their building goals. The lowest value, at just under 50%, principals promote the use of standards based report cards to address specific learning standards. In comparison, approximately 85% of principals perceive that grade reporting should detail specific standards as opposed to just an overall grade.

In summary, the results of the 10 questions of scale two do not necessarily point to full implementation with every statement in all the literature, but do clearly indicate that most principals are applying their understanding of effective grading and grade reporting practices. There seems to be a common theme when comparing the principals' perceptions of their understanding of the literature and the application and implementation of leading their respective buildings toward effective grading practices. One reason behind the respondents' mean scores being lower in application may be the difficulties associated with actual utilization of improved grading and grade reporting practices. The responses show a slight difference between the respondents' views and utilization pointing to a less favorable perception when effective grading and grade reporting expose challenges and difficulties that extend toward changes that seem to be on a larger scale. Those difficulties may vary from district to district and building to building based upon certain demographics. The disaggregated data was unavailable for each statement. Instead, the entire second scale was disaggregated as a whole according to the demographics. It may be likely that high school principals across the state have

differing perceptions based upon their demographics, but this study did not note those directly.

Third Scale

The third scale, Agreement of Traditional Practices, focused exclusively on research question three and contained 10 questions discovering lead high school principals' perceptions of traditional grading and grade reporting practices within the schools of the state of Missouri. All 10 questions portray perceptions on whether or not principals agree with traditional grading and grade reporting practices. This scale offered the least amount of consensus compared to the three scales in this study. The mean score in this section was 26.9 out of a total range of 10.0-40.0. The standard deviation is 5.9 indicating a split between perceptions of principals in relation to agreement of traditional grading and grade reporting practices. As noted below, each survey item illustrates how lead high school principals in Missouri, perceive traditional grading and grade reporting. Responses in this scale that show agreement actually disagree with what the literature indicates as effective grading and grade reporting.

Reportedly, just above 10% of principals promote a traditional practice that students should be measured against one another for grades. This survey item is relatively the opposite of standards based or criterion referenced reporting. Principals are in agreement that students should not be measured against one another for a grade. Practices such as the curve are not widely used according to this set of data. Just over 27% of principals promote a traditional practice that a student's grade should be lower for excessive absences. Just over 32% of principals promote a traditional practice that student effort should be a significant portion of their overall grade. Approximately 33%

of principals promote a traditional practice suggesting the best way to calculate an end of the term grade is to average the assignments. Just over 35% of principals promote a traditional practice that penalizing late work should be part of the grading process. Just under 40% of the principals promote a traditional practice suggesting students should receive zeros for missing assignments. Just over 42% of principals convey that report cards are best kept simple: A, B, C, D, F. Somewhat similarly, the lowest value, at just under 50% in scale two, principals promote the use of standards based report cards to address specific learning standards. Basically, the other 50% value the traditional practice of what is termed a normal report card with A, B, C, D, F. In contrast however, approximately 85% of principals perceive that grade reporting should detail specific standards as opposed to just an overall grade, as noted in scale one. Over 62% of principals express that homework should be included in the overall grade. The inclusion of homework in the overall grade is a traditional practice according to the literature. In addition, about 64% of principals suggest that a student's overall grade should be comprised of all their work. Nevertheless, as noted in the first scale, just above 98% of principals convey that it is essential to student learning that grade reports are an accurate measure of student performance. Likewise, just over 98% of principals agree that it is important for teachers to be specific when reporting grades. Finally, just over 64% of principals adhere to the belief that a student's grade should be lowered for academic dishonesty.

In summary, the results of the 10 questions of scale three do not necessarily point to full implication with every statement in all the literature, but do clearly indicate that some principals agree with the traditional grading and grade reporting practices while

others do not. Furthermore, there appears to be some components of traditional grading that are favorable to some principals and not to the others. One reason behind the respondents' mean scores being lower in respect to the agreement of traditional practices could be the split between beliefs and perceptions as noted in the score mean ranges of 10% all the way to 64% in the same category of statements. The views of principals in this section indicate several key components to traditional grading that are held strongly as core grading and grading practices. Those components may vary from district to district and building to building based upon certain demographics. The disaggregated data was unavailable for each statement. Instead, the entire third scale was disaggregated as a whole according to the demographics. It may be likely that high school principals across the state have differing perceptions based upon their demographics, but this study did not note those directly.

Other Comments

Comparing survey results such as those noted above lends to other opportunities for conclusions. Much of what is spelled out in the results of the respondents can and should be compared to one another. Still questions remain based upon the perceptions of the participants. For instance, there is more favor to the traditional grading practices than what principals clearly demonstrate as an understanding of what the literature entails in opposition. The principals' application and utilization of the effective grading and grade reporting practices are less favorable than their knowledge and understanding of the practices. One explanation could be the reality that many principals may perceive they are aware of what is best practice, when in reality, they may not actually know as much as they perceive. Furthermore, they may believe holistically in the jargon or semantics of

what is popular regarding effective grading and grade reporting, but have limited actual experiences, knowledge, and understanding of what specifically counts as effective grading and grade reporting practices. The results indicate a favorability toward effective grading practices, yet not many high schools utilize what the literature indicates as best for student learning. Some respondents gave further information via the phone regarding their frustrations with trying to implement improved grading and reporting practices. A common theme in those conversations centered on the struggles with buy in from their communities, school board, and teachers. Others detailed feedback centered on the lack of desire to promote such contentious topics knowing the return value is not as great as other initiatives. Finally, respondents who were favorable, but frustrated with the entire educational system from the youngest to the University level, expressed the need for colleges to change their practices as well. Symbolic structures such as scholarships, GPA, credits, etc. are necessary in the opinions of some respondents. The question still remains as to what to do with those as the need becomes more evident to move away from those traditional practices.

Much consideration is given to point out practical explanations to the findings in this study. The likelihood that principals in certain regions of the state or with certain years of experience may have had more exposure to what the literature details as effective grading and grade reporting practices is evident. Certain classroom content instruction lends itself to the need to have specific training centered on effective grading and grade reporting. Not all principals have the background in those particular classrooms from when he or she taught. Some principals may be struggling with how to proceed with what they know or understand to be effective grading and grade reporting practices.

Likewise, principals may have elected to put their time and energy into other initiatives as they see fit in their buildings. There is a possibility that principals simply do not agree with the literature. Still yet, some principals may not have responded at all to the survey invitation because they may not have strong opinions one way or the other or they are not interested in the topic. Their perceptions may have altered the results of this study. Regardless, of what is still available to interpretation, much is still to be done with the topic of effective grading and grade reporting practices. A follow-up research study or question could entail the findings of why, if principals understand the research, why are there not more schools moving toward standards based or criterion referenced report cards? In addition, there could be the question as to why there are so many principals promoting the use of grading techniques that do not align with best grading and reporting practices. This survey geared both perceptions and implementation of effective practices. Nonetheless, open-ended statements were made as well as phone calls that have given the researcher opportunities for deeper and meaningful feedback. Knowing the statements in the survey instrument were designed to garner specific information, the open-ended question played an important role in the recommendations section below.

Looking at the demographics, a *t-test* was made to see if gender played a significant role in the perceptions of principals. There was not any significant change to respondents' statements based upon gender. The ANOVAs were run to help answer the research questions and to gauge significance between groups. The development of a reliable and valid survey instrument was essential to this study. A number of pilot and informal conversations were employed by colleagues of the researcher as well as local school district experts to provide valuable insight into effective grading and grade

reporting. There was great consideration given to looking for a survey instrument that was already deemed valid and reliable. Unfortunately, there was not one available according to the needs of this study. The pilot process began in the spring of 2015 and included an expert pilot review as well as a review by 32 assistant principals at the secondary level. During the proposal process, the decision was made to eliminate the perceptions of superintendents. This was done intentionally so the variables would be more consistent and the conclusions could be more manageable. The pilot process utilized Rovinelli and Hambleton's index of item-objective congruency (1977). Factor analyses were conducted in the pilot as well as prior to the final survey iteration. Revisions were made to help provide each scale with the necessary ability to state what was intended. In the final survey, the Cronbach's alpha figures for all three content scales (Understanding, Application, and Agreement) were .886, .876, and .864 respectively. Scores in that range indicate a reliable survey instrument and thus, results would hold true in confidence.

Implications

Educational circles may benefit from this study. In the future, researchers may take this study further to help discover more ways to improve student learning. In general, there are numerous ways and avenues this study could travel. A valid instrument is useful to help researchers swiftly expand knowledge. School districts, conferences, even state level educators are gifted with the ability to use this instrument as a platform to other studies related to the topic. The reliability of this survey could prompt interested educational leaders to discover whether or not their district or buildings are favorable to the literature available on effective grading and grade reporting practices. In some

aspects, districts could utilize plans to focus their attention on professional development, funding, and resources on the subject. Furthermore, instruction can be delivered to help increase the knowledge of the relevant topics in this study. In addition, the results of this study can be expanded to other states or other administrators' perceptions. More focus and attention could be given to specific demographics such as rural schools, larger schools, or anything in between.

Without the review of literature, the survey instrument would not have had the basis to construct specific statements. The review of literature provided necessary insight into the importance of tenants of effective grading and grade reporting practices such as accuracy, specificity, timeliness, and fairness. The connectivity between effective practices centered on grading and grade reporting to assessments, learning, feedback, and student achievement were apparent. As leaders in the educational world discuss student achievement, grading and grade reporting will certainly arise. The statements in the third scale about traditional grading and grade reporting practices could enable leaders to gauge the presence of actual indicators of what teachers and principals know about the literature and what they accept as norms and utilize in practice. Eventually, leaders will be able to promote reporting systems such as standards based grading as the literature details because the knowledge and understanding of what is deemed effective can be made more available for use.

Limitations

With just over 700 lead high school principals represented across the entire state of Missouri, the size of the sample ($n = 247$) figured to be resounding enough to make conclusions and recommendations. The Cronbach's alphas produced figures that were

statistically valid. Those figures may provide a platform for positive educational implications and recommendations to leaders. Only a small number of comparisons between factors were considered to keep the scope of this study within the boundaries dictated by the research questions. Exploration of other factors could be finished by other researchers.

Recommendations

The survey instrument used in this study should garner confidence for other researchers interested in the topic of grading and grade reporting for its reliability and validity. The three scales provided data that has been analyzed and conclusions have been made based upon the data.

Using this particular study, the next segment of research could take the perceptions of administrators at the central office and determine whether or not they are favorable to what the literature indicates. In addition, perceptions of stakeholders regarding barriers to changes in grading and grade reporting might be considered. The research could also follow high schools that are already utilizing reporting systems that align to effective practices to see if there is a statically significant difference between the achievements of the students that are being exposed to traditional practices and those exposed to standards based grading practices. A venture into student perceptions would convey how effective grade reporting practices affect students and their motivation for learning.

Based on the results of this study, adding the parent, community, and school board components to the attitudinal survey would be expedient to schools considering a change in grade reporting practices. According to the open-ended responses,

stakeholders may be crucial to the success of a change in the practices of grade reporting. The process of implementing actual criterion referenced or standards based grade cards can be multifaceted. However, the practice of implementing changes in the daily operations of teacher feedback, calculating scores, formative assessments, etc. do not require as much of those stakeholder components.

The data received through the attitudinal perceptions in scale one (understand) indicates lead Missouri high school principals understand what the literature states across all demographic aggregation questions except building size. Missouri high school principals tend to understand what the literature states regarding grading and grade reporting more favorably if the number of students enrolled is larger. Further research could be done to gain insight into why the data suggests principals leading in larger buildings tend to be more understanding of what the literature states regarding improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals in smaller school districts or smaller buildings become more aware of improved grading and grade reporting practices according to research based literature.

The data received through attitudinal perceptions in scale two (application) indicates lead Missouri high school principals do not tend to apply their understanding of what the literature states regarding grading and grade reporting in comparison to their perceptions of understanding. Missouri high school principals are more favorable toward applying improved grading and grade reporting practices if the he or she has more experience. Further research could be done to gain insight into why the data suggests principals with more experience tend to be more favorable to applying improved grading

and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals with limited experience employ improved grading and grade reporting practices according to research based literature. In addition, the data received through attitudinal perceptions in scale two indicates lead Missouri high school principals apply their understanding more favorably if the number of students enrolled is larger. Further research could be done to gain insight into why the data suggests principals leading in larger buildings tend to be more favorable to applying improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals in smaller school districts or smaller buildings implore improved grading and grade reporting practices according to research based literature. Finally, the data received through attitudinal perceptions in scale two indicates lead Missouri high school principals apply their understanding more favorably if the type of grade card being utilized is standards-based or a hybrid model. Further research could be done to gain insight into why the data suggests principals utilizing a standards-based reporting system or hybrid model tend to be more favorable to applying improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals operating with traditional grade reporting systems to implore improved grading and grade reporting practices according to research based literature.

The data received through attitudinal perceptions in scale three (agreement) indicates lead Missouri high school principals are neutral regarding improved grading and grade reporting practices. Lead Missouri high school principals tend to agree more favorably if the principal has more experience. Further research could be done to gain

insight into why the data suggests principals with more experience tend to be more favorable to agreeing with improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals with limited experience agree with improved grading and grade reporting practices according to research based literature. In addition, the data received through attitudinal perceptions in scale three indicates lead Missouri high school principals tend to agree more favorably if the number of students enrolled is larger. Further research could be done to gain insight into why the data suggests principals leading in larger buildings tend to be more favorable to agreeing with improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help enable principals in smaller school districts or smaller buildings agree with improved grading and grade reporting practices according to research based literature. Finally, the data received through attitudinal perceptions in scale three indicates lead Missouri high school principals agree more favorably if the type of grade card being utilized is standards-based or a hybrid model. Further research could be done to gain insight into why the data suggests principals utilizing a standards-based reporting system or hybrid model tend to be more favorable to agreeing with improved grading and grade reporting practices. Educational leaders may be interested in utilizing the future findings to help principals operating a traditional grade reporting system to agree with improved grading and grade reporting practices according to research based literature.

Summary

Principals across the state are tasked with the responsibility to provide leadership to their teachers in the areas of teaching and learning (Reeves, 2006). As more research

unfolds in the areas of effect size, motivation, and student assessments, it benefits schools to consider the avenue of reporting grades differently than in the past (Marzano, 2010). Effective grading practices provide students with more meaningful descriptive feedback on their learning (Reeves, 2011). Their assessments are geared for their learning, not to simply mark a measure of their learning (O'Connor, 2009). Teachers should promptly develop talents and skills, not simply record them (Guskey, 2001). Behaviors and growth in learning should be reported separately (O'Connor, 2011). Grades should be fair, specific, accurate, and timely so they can communicate clearly student performance (Reeves, 2011). As effective grading and grade reporting practices become more popular in discussions, conversations, debates, and practice, studies will also become more apparent and readily available. It is important that schools are aware of what the literature provides in terms of the connection between effective grading and grade reporting and student achievement. However, just being aware of the research does not automatically increase student achievement. Further study about teacher perceptions is likely to follow. Nonetheless, principals are the most logical avenue for teacher development and therefore, the implications on this study are instrumental to guide ways to improve student learning (Reeves, 2009).

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APPENDEXES

Appendix A: Expert Pilot #1 (first version) Survey Instrument

The survey will use a Likert-type scale:

(1) Strongly Disagree, (2) Disagree, (3) Agree or (4) Strongly Agree

Principal Perception of Grading and Grade Reporting

1. Effective grading is essential to the learning process.
2. It is essential to student learning that grade reports are an accurate measure of student performance.
3. It is important for teachers to be specific when reporting grades.
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.
5. Fairness should factor into the methods of grading assignments.
6. Grade reporting should detail specific standards as opposed to just an overall grade.
7. Teachers should provide students with descriptive feedback on their assignments in a timely manner.
8. Buildings should make improved grading practices a part of their overall building plan.
9. Teachers should receive continual training on improved grading practices.
10. Teachers should be evaluated based in part on how well they assess student learning.

Principal Leadership Regarding Grading and Grade Reporting

11. I emphasize the importance of effective grading practices to my staff.
12. I require my teachers to utilize the most accurate reports to communicate grades.
13. I have led conversations with my staff centered on improving grading practices.

14. I have led conversations with my staff centered on using grading as a form of descriptive feedback.
15. I emphasize professional development focusing on the importance of improved grading practices.
16. I allow or require the use of standards based report cards to address specific learning standards.
17. I constantly address the timeliness of grading and feedback to my staff.
18. My building has put improved grading practices in the building plan.
19. I frequently support and train my staff centered on improving grading practices.
20. I evaluate my teachers, in part, on how well they assess the learning of their students through grading.

Principal Perception of Traditional Practices

21. Penalizing late work should be part of the grading process.
22. A student's grade should be lowered for academic dishonesty.
23. Students should receive zeros for missing assignments.
24. A student's grade should be lower for excessive absences.
25. Homework should be included in the overall grade.
26. Students should be measured against one another for grades.
27. Student effort should be a significant portion of their overall grade.
28. A student's overall grade should be comprised of all their work.
29. The best way to calculate an end of the term grade, assignments should be averaged.
30. 30. Report cards are best kept simple: A, B, C, D, F

Open Ended Section

31. Please provide any information or comments regarding grading practices.
32. Please provide any information or comments regarding grade reporting practices.

Demographics:

33. What is your gender? Male or Female
34. How many years have you been a lead principal?
35. How many students are in your building?
36. Approximately what percentage of your teachers has tenure?
37. Does your building utilize a standards based or traditional grade card?

Appendix B: Expert Pilot #2 Survey Instrument

Thank you for taking the time to participate in this pilot version of the survey instrument for my dissertation. You have been selected because I need to gain perspective from secondary level administrators that are not currently head principals. When answering the questions below, please focus your expertise on only your perspective.

The *actual* survey will use a Likert-type scale:

(1) Strongly Disagree, (2) Disagree, (3) Agree or (4) Strongly Agree

Principal Perception of Grading and Grade Reporting

Please provide your level of agreement for the following statements regarding the importance of grading and grade reporting.

1. Effective grading is essential to the learning process.
2. It is essential to student learning that grade reports are an accurate measure of student performance.
3. It is important for teachers to be specific when reporting grades.
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.
5. Teachers should focus on being fair when grading assignments.
6. Grade reporting should detail specific standards as opposed to just an overall grade.
7. Teachers should provide students with descriptive feedback on their assignments in a timely manner.
8. Principals should target research based grading practices in their building goals.
9. Teachers should receive continual training on improved grading practices.
10. Teachers should be evaluated based in part on how well they assess student learning.

Principal Leadership Regarding Grading and Grade Reporting

Please provide your level of agreement for the following statements regarding your active involvement with grading and grade reporting as lead principal.

11. I emphasize the importance of effective grading practices to my staff.
12. I consistently remind my teachers to accurately report grades that reflect the learning of their students.
13. I have led conversations with my staff centered on improving grading practices.
14. I have led conversations with my staff centered on using grading as a form of descriptive feedback.
15. I emphasize professional development focusing on the importance of improved grading practices.
16. I promote the use of standards based report cards to address specific learning standards.
17. I have recently addressed my teachers about the importance of timely feedback.
18. I have put improved grading practices in my building goals.
19. I frequently support and train my staff centered on improving grading practices.
20. I evaluate my teachers, in part, on how well they assess the learning of their students through grading.

Principal Perception of Traditional Practices

Please provide your level of agreement for the following statements regarding your feelings toward traditional grading practices.

21. Penalizing late work should be part of the grading process.
22. A student's grade should be lowered for academic dishonesty.
23. Students should receive zeros for missing assignments.
24. A student's grade should be lower for excessive absences.

25. Homework should be included in the overall grade.
26. Students should be measured against one another for grades.
27. Student effort should be a significant portion of their overall grade.
28. A student's overall grade should be comprised of all their work.
29. The best way to calculate an end of the term grade, assignments should be averaged.
30. Report cards are best kept simple: A, B, C, D, F.

Open Ended Section

31. Please provide any information or comments regarding grading practices.
32. Please provide any information or comments regarding grade reporting practices.

Demographics:

1. What is your gender? Male or Female
2. How many years have you been a lead principal? 0-1, 2-5, 6-10, 11+
3. How many students are in your building?
4. Approximately what percentage of your teachers has tenure?
5. Does your building utilize a standard or traditional grade card?

Appendix C: Pilot #2 Survey Instrument

Thank you for taking the time to participate in this survey instrument for my dissertation. You have been selected because I need to gain perspective from secondary level administrators. When answering the questions below, please focus your expertise on only your perspective.

The *actual* survey will use a Likert-type scale:

(1) Strongly Disagree, (2) Disagree, (3) Agree or (4) Strongly Agree

Principal Perception of Grading and Grade Reporting

Please provide your level of agreement for the following statements regarding the importance of grading and grade reporting.

1. The learning process is enhanced when teachers utilize research based grading practices.
2. It is essential to student learning that grade reports are an accurate measure of student performance.
3. It is important for teachers to be specific when reporting grades.
4. High school teachers should use grading practices as an opportunity to provide students with descriptive feedback.
5. Teachers should focus on being fair when grading assignments.
6. Grade reporting should detail specific standards as opposed to just an overall grade.
7. Teachers should provide students with descriptive feedback on their assignments in a timely manner.
8. Principals should target research based grading practices in their building goals.
9. Teachers should be made aware what the research says in regards to effective grading practices.
10. Teachers should be evaluated based in part on how well they assess student learning.

Principal Leadership Regarding Grading and Grade Reporting

Please provide your level of agreement for the following statements regarding your active involvement with grading and grade reporting as lead principal.

11. I emphasize the importance of effective grading practices to my staff.
12. I consistently remind my teachers to accurately report grades that reflect the learning of their students.
13. I have led conversations with my staff centered on the importance of effective grading practices.
14. I have led conversations with my staff centered on using grading as a form of descriptive feedback.
15. I emphasize professional development focusing on the importance of improved grading practices.
16. I promote the use of standards based report cards to address specific learning standards.
17. I have recently addressed my teachers about the importance of timely feedback.
18. I have put improved grading practices in my building goals.
19. I frequently support and train my staff centered on improving grading practices.
20. I evaluate my teachers, in part, on how well they assess the learning of their students through grading.

Principal Perception of Traditional Practices

Please provide your level of agreement for the following statements regarding your feelings toward traditional grading practices.

21. Penalizing late work should be part of the grading process.
22. A student's grade should be lowered for academic dishonesty.

23. Students should receive zeros for missing assignments.
24. A student's grade should be lower for excessive absences.
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28. A student's overall grade should be comprised of all their work.
29. The best way to calculate an end of the term grade, assignments should be averaged.
30. Report cards are best kept simple: A, B, C, D, F.

Demographics:

1. What is your gender? Male or Female
2. How many years have you been a lead principal? 0-1, 2-5, 6-10, 11+
3. How many students are in your building?
4. Approximately what percentage of your teachers has tenure?
5. Does your building utilize a standard or traditional grade card?

Open Ended Section

1. Please provide any information or comments regarding grading practices.
2. Please provide any information or comments regarding grade reporting practices.

Appendix D: Consent Email

Dear Colleague, My name is Jeremie Akins and I am the Assistant Principal at Buffalo High School in Buffalo, MO. Next school year, I will be the lead principal at Buffalo Middle School. I am a doctoral student at Southwest Baptist University and I am conducting a research study to gather information about lead principal perceptions regarding best practice for grading and grade reporting. I am surveying lead building principals in Missouri. Since you are the lead principal at your current high school, I would like to ask for your participation. I realize that you are very busy; the survey should take no more than 15 - 20 minutes of your time to complete. The survey is completely anonymous. It will ask you for demographic information and your experience with, perceptions regarding and knowledge levels of effective grading practices as well as your active leadership therein. Your privacy is important; your answers will be combined with other participants and reported in aggregate form. Information reported will not indicate individual participants or school districts. There is no penalty should you choose not to participate or answer all of the questions. Your completion and submission of the survey will indicate your consent to participate and permission to use the information that you have provided in my study.

Before you make a final decision about participation, please read the following statements about how your responses will be used and how your rights as a participant will be protected:

Participation in the study is completely voluntary. You may stop participating at any point without penalty. You need not answer all of the questions. Your answers will be kept confidential. Results will be presented to others in summary form only, without names or other identifying information. Your participation will take approximately 15 - 20 minutes. During this time you will answer questions about how you perceive effective grading and reporting practices therein.

This project has been reviewed and approved by the Southwest Baptist University Research Review Board for Research and Research-Related activities involving human subjects (417-326-1659). The committee believes that the research procedures adequately safeguard the subject's privacy, welfare, civil liberties and rights.

You may contact me at 417-345-2223 if you have questions or concerns about your participation.

If you would like a copy of the results of this study, you may contact me via email at jeremie.akers@bisonpride.org. Thank you for your time and consideration.

Sincerely,

Mr. Jeremie A. Akins Ed.S
Buffalo High School

Appendix E: Lead Principal Open Ended Comments

1. Haven't been in my current position long enough to have conversations over grading practices.
2. While standards based grading practice are a part of my long-term vision they are not a top priority. If instructional and curricular practices are not properly aligned moving to standards based grading will have little impact. Additionally, it is important to note that such a shift requires teach, parent, and student understanding, support, and skill development. These factors must be addressed before such a transition is possible. Far too many schools have run aground with standards based grading for failure to bring stakeholders along in the process.
3. This is my first year as the administrator in my building. We are working towards standards based grading and changing our grading policies. As a new administrator it will take time to change my teachers mindset but we have begun those discussions.
4. difficult to truly give perspective with the scale used in this survey.
5. Our district has challenged traditional grade reporting and made the shift to Standards Referenced Reporting in grades K-8. Our 7-8 building utilizes dual reporting to meet our goal of reporting each student's learning in relation to course standards.
6. We are an alternative school, on grounds at a residential youth facility for youth in crisis. We individualize grading practices according to the needs of students. assignments with low grades must be re-taught and re-done. Initial failing grades are not recorded.
7. Our building is currently transitioning to a Standards-Referenced system. It takes a paradigm shift for teachers, parents, and students to truly make it effective.
8. My belief system and philosophy don't align with what the district has currently adopted. We have pilots going with standards based grading but not everyone. We are not consistent with practices at this point.
9. I have used an 80-20 % split before and I like how effective it is. 80% assessments, 20% homework. I have used no zero policies and missed assignments are zeroes. In an 80-20 split there is no real effect either way. The assessment is the important piece....homework is practice. Some need more practice than others.
10. At the end of the day much of grading practices comes down to teacher judgment. It becomes difficult to dictate this "should" be included or excluded. Instructors must be connected enough to know when student growth is occurring within their classroom. This will vary across curriculums and progress as well as the quality level each student is performing at will differ. Teachers, may use Assessment Capable Learners,

Standards based-grading, traditional grading, the key again at the end of the day would be; does this grade reflect the learning of this student in my classroom.

11. There needs to be a monumental shift in how education thinks about assessment and grading.
12. We are in our third year of implementing SBG at all grade levels. in 2016-17 all grade levels and courses will be based on standards. All courses currently use behaviors that promote learning which are a separate assessment from the course grade. There is more here to tell.
13. Grades should reflect a student's academic achievement in relation to the learning standards.
14. With academic dishonesty. We have a graduated practice which does not involve zeros for every assignment where there is cheating. Tests and very large projects also are looked upon differently than simple assignments. It is only tests which automatically receive Zeros for dishonesty.
15. I believe in withholding grades through a student's 9-12 grade history in the semester they miss 10+ class days UNTIL they make up the time; either through tutoring, after school time with the teacher....
16. I do not believe a student's grade should be lowered due to excessive absences, however, I do believe that if meaningful instruction is taking place that a student's mastery of content will be negatively impacted by absences.
17. IMO a student should be assessed for their learning, however, they should also be held to a timeline for late work.
18. We have changed our grading practices at Marquette High School as well as in the Rockwood School District. This change has been part of our policy for almost 10 years. We have focused on grading practices and changing them for the past 4-5 years. I have served on our district steering committee for secondary schools for 4 years as well. We are still working on shifting our culture to understand why we grade as well as how we grade. It has been a tough, and worthwhile, journey. Dr. Greg Mathison Principal Marquette High School
19. If given the opportunity to recreate the entire educational system, K-12, I would strongly endorse a more standards based grading system and get rid of the traditional A,B,C,D,F system. This would include the elimination of grade-level assignments based on ages, for all students. Our current system is dictated by a calendar and bells and not student learning. Our school works extremely hard to make learning the most important variable; however, the fact remains the prevailing educational practices continue to focus on time as the key variable. I am a proponent for standards based

grading; however, I believe it can not succeed, in its truest form, under the constraints of our current system.

20. Nothing

21. This is my 6th year as an administrator but my first year as the head principal in this district. I would like to move to formative assessments not being included in grades. I would like to see homework not counting as a part of a student's grade. I would also like to see reteach/ reassess come into our discussions. Also the question of are we assessing for learning or of learning would be a good discussion as well.

22. Most districts have a district wide grading policy and homework policy. We continue to use the standard practices A, B, C etc. but are moving towards students completing standards. Our teachers are incorporating standards in their lessons and grading them.

23. Some of the questions are more difficult for those of us in newer buildings or jobs. The fact that the transitions haven't happened can be more reflective of factors such as time than purpose. I am huge advocate of standards based grading, but I fully understand that it can take years to implement.

24. It is very difficult to get away from the A,B,C concept because of the parents. This is a practice that has been prevalent for many years and is difficult to explain since colleges still use the same method.

25. We are a technical school teaching students how to work in the real world. If you don't show up to a job, you don't get paid. We hear time and again from employers that students do not know how to be focused on work (soft skills). We need to teach those skills. Could we possibly use a separate grade for knowledge and soft skills, yes. In fact, that would probably be the best way to do it.

26. I feel grading practices can vary from different subjects.

27. There must be education and buy in from the teachers and staff concerning grading practices. Higher education needs to change their practices concerning applications and what they are looking for concerning high school graduates. They want GPA and class rank which would have to be converted from standards based. Jumping through that hoop makes a lot of work for people.

28. I am still learning about standard based grading.

29. I believe that students grades should reflect what the student knows. Not the discipline side. Those are two different things and must be treated that way.

30. If Standards Based Grading is considered, one must consider that students and teachers may not push students beyond meeting the standard which will significantly lower the learning potential.
31. I am not in favor of a total shift to standards based grading at the secondary level. Until higher ed/military/etc is on board for that practice, standards based can be kept in mind but reporting needs to remain traditional.
32. If we all went to a standards-based grading system, my above comment would be considerably easier and communicate much more clearly.
33. I promote an A-F system based on standards based goals.
34. Nothing
35. Problem with reporting other than an A, B, C etc. is how do you figure your Val or Salut and what GPA do you report to colleges.
36. The idea of standards based grading is great but still controversial with staff and parents.