

HIGH SCHOOL PRINCIPALS' LEADERSHIP ACTIVITIES IN POLICY DEVELOPMENT
AND IMPLEMENTATION OF STANDARDS-BASED GRADING

BY

D'ANDRE JOVAN WEAVER

DISSERTATION

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Doctoral Committee:

Professor Donald G. Hackmann, Chair and Director of Research
Professor S. Kern Alexander
Associate Professor Christopher Span
Dr. Linda Sloat

Abstract

As a result of the national shift to a more standards-based model for education, principals across the country are leading organizational change in all aspects of curriculum, instruction, assessment, and leadership for student learning. One reform initiative, entitled standards-based grading (SBG), attempts to reimagine the way schools measure and communicate student progress toward learning (Guskey, 2009). Although this approach is gaining traction and more schools are adopting this method for measuring and communicating student learning (Guskey et al., 2011; Jung & Guskey, 2011; Marzano & Heflebower, 2011), there is a void in the literature that documents how principals create and use policies to govern the implementation of standards-based grading, specifically in high schools. Although many districts give principals autonomy around the rollout of SBG within their schools, most districts have not published a common definition or guidelines for policy and implementation practices for this reform initiative. In the absence of a common definition, district policy, or implementation guidelines for SBG, principals are left to interpret, create policy, and implement this shift in grading practices based on their unique understandings and interpretations.

To better understand this phenomenon, this qualitative research study sought to examine and understand how 10 public high school principals from six states created policies, implemented, and sustained the use of standards-based grading in their schools. Three research questions framed this study: (a) from principals' perspectives, how has the implementation of standards-based grading promoted improved student learning; (b) what core systems and structures must be in place to implement standards-based grading and what process did principals use to create and communicate the policies governing standards-based grading in their high schools; and (c) what factors have advanced or hindered the implementation of standards-

based grading in high schools? To guide data collection and analysis, the *Transformation of Intentions* (Hall, 1995; Hall & McGinty, 1997) conceptual framework was used to explore how high school principals led the policy creation process used to govern the implementation of standards-based grading. I explored three aspects of the *Transformation of Intentions* framework: intentions, process intentions, and content intentions.

Findings revealed that principals decided to implement standards-based grading ultimately to improve student learning, teacher practice, improve the validity and reliability of grading, and to communicate student learning more clearly to stakeholder groups. The principals reported that school-wide systems and structures, such as the use of Professional Learning Communities (PLCs), time built into the master schedule for intervention and acceleration of student learning, progress monitoring, and the establishment of common language, beliefs, and consistent practices school-wide must all be in place to support the adoption of grading reform measures. Finally, in addition to the identification of recommended policies and practices associated with sustained implementation of standards-based grading, results showed the need to include teachers and other stakeholder groups in all decision and implementation processes. Implications from this study focused on principals garnering support to lead grading reform from central office and implications for principal leadership, teacher practice, the student and parent experience, and postsecondary institutions.

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Table of Contents

Chapter 1 Introduction	1
Chapter 2 Literature Review	12
Chapter 3 Research Methodology	77
Chapter 4 Findings	91
Chapter 5 Discussion, Implications, and Recommendations	164
References.....	218
Appendix A Email Soliciting Candidates	244
Appendix B Consent Form.....	245
Appendix C Interview Protocol and Questions.....	247

Chapter 1

Introduction

Traditional grading practices in public education have some inherent limitations and can adversely affect student learning, motivation, and engagement in school, particularly for students of color and students from poverty (Goldschmidt & Wang, 1999; Howley, Kusimo, & Parrott, 1999; Lee & Burkam, 2003; Parsons, 1959). Before grading practices began to become standardized in the 1900s, performance was assessed by one's ability to demonstrate learning and the capacity to perform a task in real and authentic ways (Hutt & Schneider, 2014). The original—and still primary—purpose for grading was to communicate levels of learning to students and parents; however, as the U.S. became more industrial and the need to differentiate people and potential began to rise, grading systems and structures such as averaging, A-F letter grades, the 100-point scale, percentages, and grading on the curve were developed to fulfill a secondary—and from some perspectives, more primary—purpose for grading (Brookhart, 2009; Guskey, 2009; Hutt & Schneider, 2014). Whereas the main purpose for grading was to give feedback to students and parents about learning, the secondary and competing purpose for grading revolved around mass communication of learning to external audiences and the development of a universal system to distinguish academic performance and capability across students (Frisbie & Waltman, 1992; Hutt & Schneider, 2014; Kirschenbaum, Napier, & Simon, 1971).

Because grading systems were beginning to be used to differentiate students, potential, and academic performance, the same grades that originally were used to communicate progress on learning were now being used to determine entry into postsecondary education, scholarships and monetary awards, and job placement (Hutt & Schneider, 2014; Kirschenbaum et al., 1971). The shift in purpose has created major flaws in the grading systems and structures common to

education in the U.S.; issues such as variation and reliability in grading call into question the validity of grades across academic courses and departments within a school, across schools within the same district, and across schools in the same city, state, and nation (Cox, 2011; Guskey, 2006; McMillan, 2001). Variation is problematic in traditional grading systems because teachers bring high levels of subjectivity to the act of assigning grades to students; studies have shown that teachers in the same department, school, and within the same district can assign different grades to the same assignment (Brimi, 2011; Starch & Elliott, 1912, 1913a, 1913b). Reliability is also an issue in grading systems because grades often include non-academic factors such as student behavior and participation, as well as varying weights, calculations, and grading practices that pollute the purity and meaning of grades (Guskey, 2009; Marzano, 2010; McMillan, 2001).

Traditional grading systems and structures also adversely affect student motivation, creating learning environments that encourage competition between students, resulting in winners and losers (Kaplan & Maehr, 2007; Pintrich, 2003). Researchers have noted in traditional grading systems and structures, grades are extrinsic motivators and often replace the ultimate goal of learning with the immediate goal of grade attainment (Ames, 1984; Ames & Archer, 1988; Brookhart, 2003, 2009; Dweck, 1986; Huitt, 2011). Within the field of achievement motivation, scholars have defined two areas of focus: performance goal orientation and mastery goal orientation (Ames & Archer, 1988; Dweck & Leggett, 1988; Elliot, 1999; Elliot & Harackiewicz, 1996). According to Dweck and Leggett (1988), traditional grading systems and structures have disastrous effects on students who tend to be more performance goal oriented. Dweck and Leggett suggested that students who are performance goal oriented perceive grades and achievement situations as opportunities to prove what they know and mask any

perceived inadequacies. Dweck and Leggett observed that students who have a more mastery goal orientation perceive achievement situations as opportunities to learn new skills and increase their knowledge and not as opportunities to prove their skills. In the traditional grading structure in which competition between students is present and performance is assessed in a norm-referenced system, students who are performance goal oriented are more adversely affected than students who are mastery goal oriented, resulting in increased feelings of disconnectedness from their teachers and the learning environment and lower academic performance in school and on standardized assessments (Elliott & Dweck, 1988; Guskey, 2005). A link between the feelings of disconnectedness from teachers and the learning environment could be a contributing factor influencing academic achievement gaps between White students and students in underrepresented groups in U.S. schools.

Federal policy reforms, including the Goals 2000 Educate America Act (1994), No Child Left Behind Act (2001), Race to the Top (2010) competitive grant program, and the Every Student Succeeds Act (2015), have sought to improve student outcomes for minority students and students from poverty by promoting a standards-based curriculum, placing more emphasis on disadvantaged students, and increasing accountability measures for the schools, principals, and teachers that serve students. As the national conversation on public education began to shift to a more standards-based agenda, no major shifts in grading practices initially occurred. In recent years, there has been a growing interest in a criterion-referenced grading structure called standards-based grading, an approach to grading that assesses student learning based on their performance in comparison to a standard or skill (Guskey, 2009, 2011). The approach is being implemented in schools by innovative principals and teachers and in some school districts by

progressive superintendents with the hope of creating learning environments that are more mastery goal oriented and that promote learning as an iterative process.

Statement of Problem

As a result of the national shift to a more standards-based model for education and a growing realization that the traditional grading system is flawed, principals across the country are beginning to lead organizational change in all aspects of curriculum, instruction, assessment, and leadership for student learning. One reform initiative, standards-based grading (SBG), attempts to restructure the way teachers and schools assess and communicate student learning (Guskey, 2009). According to Brookhart (2009) “standards-based grading [is] grading on the basis of comparing a student’s work to a standard” (p. 72). Although this approach is gaining traction and more school systems are adopting this method for communicating learning to students and parents, this initiative has not been adequately researched. The problem is that there is a gap in the literature that addresses how high school principals work with their faculties to define, justify, create policy for, implement, and sustain standards-based grading within their schools (Dublin, 2014; Guskey, Swan, & Jung, 2011; Jung & Guskey, 2011; Marzano & Heflebower, 2011). The need exists to identify how principals engage in leadership practices to support standards-based grading, so that policymakers, researchers, and practitioners can gain insights into how standards-based grading can be effectively implemented in schools to promote student learning.

Purpose of the Study

The purposes of this study were to (a) identify the process and leadership actions high school principals used to create the standards-based grading policies, (b) to identify the required systems and structures needed to support and sustain standards-based grading in high schools,

and (c) to determine whether the implementation of standards-based grading promoted improved student learning. Using the *Transformation of Intentions* conceptual framework, a national in-person interview study of 10 high school principals—considered early adopters of the standards-based grading reform initiative—was conducted.

Research Questions

The following research questions guided this study:

1. From principals' perspectives, how has the implementation of standards-based grading promoted improved student learning?
2. What core systems and structures must be in place to implement standards-based grading and what process did principals use to create and communicate the policies governing standards-based grading in their high schools?
3. What factors have advanced or hindered the implementation of standards-based grading in high schools?

Significance of the Study

This study, focused on principal leadership of the implementation and sustainability of standards-based grading in high schools, was significant for several reasons. Scholars have suggested that a criterion-referenced grading system provides students, parents, and educators with clearer communication of progress toward student learning (Brookhart, 2003, 2004, 2009; Guskey & Jung, 2006, 2009; Marzano, 2010). Unlike traditional grading systems commonly used in high schools across the country, in a criterion-referenced grading system, teacher subjectivity is greatly reduced, thereby minimizing the variability in grading and increasing the validity of grades when performance is assessed on objectively defined criteria (Guskey et al., 2011; O'Connor, 2002). In high schools, where there are greater degrees of autonomy in how students are assessed, the measures and weights in which teachers use to assess students, and the ways in which student progress is—or is not—communicated to students and parents, there is a

need for consistent application of objectively defined assessment criteria to communicate and improve student learning.

Second, given the data that suggests minority students and students from poverty lag behind their White and wealthier counterparts in academic success on high-stakes exams, including Advanced Placement, International Baccalaureate, ACT, and SAT, this study sought to examine the implementation of a high school reform initiative that scholars and practitioners noted could expose gaps in student learning, promote a mastery goal orientation instead of a performance goal orientation, and require teachers to be more responsive to the diverse learning needs of their students (National Center for Education Statistics, 2016).

Finally, and as a result of the research that suggested a criterion-referenced grading system like standards-based grading is more effective at communicating learning to students, parents, and educators, this study addressed a gap in the literature related to how high school principals implement standards-based grading. Inclusion of this research will help researchers and practitioners identify and evaluate effective implementation practices used in the high school setting (Greene, 2015; Haptonstall, 2010; Miller, 2017; Rainey, 2016).

Conceptual Framework

In order to provide clarity for school leaders, scholars, and other audiences around the phenomenon central to this qualitative study, a conceptual framework that focused on the process of how social policy is constructed was referenced in this study. In addition to the indirect ways principals affect teacher practice and student learning, principal influence also can be seen through the creation and implementation of school policy and procedures that promote a culture of learning and student achievement; to that end, this research study utilized components of the *Transformation of Intentions* framework (Hall & McGinty, 1997) to classify the process

principals used to create the policies that governed their implementations of standards-based grading.

The *Transformation of Intentions* framework, developed and advanced by Hall and McGinty (1997), examines the policy creation process, and endeavors to explain how an idea can ultimately become realized through the formation of policy. The framework has a sociological basis, is grounded in interactionist approaches to social policy, and has been used to analyze the creation of public policy—and policy documents themselves—in—a variety of fields. This model is particularly relevant to the examination of policy creation in public schools, specifically at the campus level. Hall and McGinty (1997) asserted that “policies are vehicles for the realization of intentions . . . [and that they . . . are intended to solve certain perceived problems” (p. 441) in a given situation. The *Transformation of Intentions* theoretical framework can be defined as the “aiming [of] specific actions at a given problem for announced purposes” (p. 441); so, in the case of the school-wide implementation of standards-based grading, the *Transformation of Intentions* framework assisted me in illuminating how high school principals led the policy creation process used to govern the implementation of standards-based grading in their schools. The *Transformation of Intentions* theoretical framework is more fully explained in chapter 2; in my research, I explored three aspects of the *Transformation of Intentions* framework: intentions, process intentions, and content intentions.

Limitations

Several limitations existed in the design of this study. In terms of participants, this qualitative phenomenological study was limited to a small sampling of high school principals in the U.S. who have led, or are leading, the implementation of standards-based grading school-wide. Because no national database or registry of schools implementing standards-based grading

exist, the ability to identify participants for this study was a limitation and required me to rely on peer recommendations for additional subject participants. Although a secondary qualitative document data source was used, principal interviews served as the primary source of data for this study. An interview study that prioritized each principal's ability to accurately recall past events in detail was a limitation of this study. Perceptual data collected from principals can be skewed and told from their limited point of view; without the inclusion of faculty and student perception data, the collection of perception data from a single source created another limitation in this study. Finally, because I have led the implementation of standards-based grading in a high school, there existed the potential for bias in the review, analysis, the presentation of the data, and in the subsequent findings and conclusions.

Delimitations

Delimitations help narrow the size and scope of a research study (Creswell, 2014). This study was delimited to a small subset of high school principals across the United States. This study intentionally excluded elementary and middle school implementations of standards-based grading, as there are fewer documented research studies that examine grading reform efforts at the high school level. There is also a gap in the literature that examines how principals create policies that govern the implementation of standards-based grading in public high schools. The limited number of high school principals nationwide who have engaged in the implementation of standards-based grading severely restricted the identification of potential subjects, which had the potential to affect the diversity of experiences extracted from participants and could question the validity of potential generalizations made at the conclusion of a study with a small sample size.

Definition of Terms

Academic standards. A “standard” is a “statement that describes what and/or how well students are expected to understand and perform” (O’Connor, 2009, p. 246).

Criterion-referenced assessment. A criterion-referenced assessment is “grading on the basis of comparing a student’s work to a standard” (Brookhart, 2009, p. 72).

Evaluation. In grading, evaluation involves judging student performances or products according to specific criteria (Gentile & Lalley, 2003).

Formative assessment. A process, strategy, or device used by teachers and students to gather information on students’ learning progress in order to identify learning difficulties and guide improvements in instructional activities and student learning (Guskey & Jung, 2013).

Norm-referenced assessment. A norm-referenced assessment is “assessment in relation to other students within a class or across classes, schools or a segment of the population” (O’Connor, 2009, p. 246).

Standards-based grading. A criterion-referenced grading methodology that assesses students based on their ability to demonstrate their learning in comparison to a standard or skill. Standards-based grading excludes non-academic factors such as behavior from being include in the calculation of a student’s grade (Brookhart, 2009; Guskey, 2009; Hanover Research, 2011).

Summative assessment. Assessments administered at the end of an instructional sequence and provides evidence to certify students’ competence and to assign grades or marks. Summative assessments provide teachers with culminating evidence that helps them decide if students have mastered certain content and skills, achieved specific standards, and/or are ready to move on to the next level of learning (Guskey & Jung, 2013).

Traditional grading. A grading system used in U.S. schools that includes the use of the 100-point grade scale, utilizes A-F letters, symbols, and numbers to communicate a student's grade, and includes non-academic factors like behavior, effort, and extra credit in the calculation of a student's grade (Brookhart, 2011; Guskey, 2013; O'Connor, 2009).

Conclusion

This chapter provided an introduction to this qualitative research study. A brief overview of standards-based grading was provided, as well as the study's problem, research questions, purpose, and significance. Finally, this chapter presented an overview of the conceptual framework that was used to guide the data collection and analysis, as well as an acknowledgement of the limitations, delimitations, and definitions of key terms.

Chapter 2 will provide a review of the literature regarding the following themes and topics: history and purpose of grading; traditional grading systems, practices, and flaws; motivation theory, inequities in education, and early learning theories; and standards-based grading, its implementation in U.S. schools, and any deficiencies that exist within the literature. Finally, a conceptual framework that combines the research on selected aspects of principal leadership and social policy development will be presented.

Chapter 3 provides an overview of my research methodology and design. This chapter includes the following components: research questions, description of the methodology, participant selection, data collection, data analysis procedures, and issues related reliability and validity.

Chapter 4 includes the findings of this study presented by each of the three research questions. Data from the study was organized and presented based on themes identified during the analysis phase of the study.

Chapter 5 provides an analysis and interpretation of the findings presented by the following sections: summary of research findings, discussion, implications/recommendations. The data is organized is presented through the lens of the *Transformation of Intentions* conceptual framework. Prior research is connected to the findings while implications and recommendations for practitioners and future research are identified and suggested.

Chapter 2

Literature Review

This review of literature focuses on the complexities and limitations of the traditional grading system used in public high schools in the U.S. and the reasons why a standards-based grading system should be considered and implemented at the high school level. First, an overview of the purpose of grading from a historical perspective and how it is currently defined in the literature. Second, a review of scholarship in the following areas: (a) traditional grading systems, practices, and flaws; (b) motivation theory, inequities in education, and early learning theories; (c) standards-based grading, its implementation in U.S. schools, and any deficiencies that exist within the literature; and (d) the evolving role of the school principal and selected leadership aspects that promote student learning. Finally, a review of the *Transformation of Intentions* conceptual framework will be highlighted and used to position the principal's role in leading initiatives like standards-based grading that affect school policies and student achievement.

The Historical Purpose of Grading

The act of assigning letter or numerical grades to measure students' academic performance was not a major function of education in the early civilizations. Scholars suggest there was no need for grades during the Middle Ages and Renaissance periods, as people learned trades and became masons or carpenters by demonstrating their ability to do the job and not based on marks from a specific grading system (Kirschenbaum, Napier, & Simon, 1971). Prior to grades becoming a component of public education in the 19th century in the United States, evaluation and indicators of success were objectively defined and straightforward, and instead of assigning grades to measure learning, how one performed mattered the most (Kirschenbaum et

al., 1971). In 1785, one of the earliest examples of the modern grading system was created when Ezra Stiles, former Yale University President, formally documented records of student performance: “there had been Twenty Optimi, sixteen second Optimi, twelve Inferiores (Boni), ten Periores’. Scores, as doled out by Stiles, were determined by the perceived learnedness of response . . . however, they were decided by a student’s ability to demonstrate knowledge publicly” (Hutt & Schneider, 2014, p. 203). Early U.S. grading systems were heavily influenced by the European model of assessment; over time, the European grading model that focused on competition, performance ranking, and the awarding of prizes for performance would completely influence decades of assessment practices in the U.S. (Hutt & Schneider, 2014; Kirschenbaum et al., 1971).

During the early 19th century, as education in the United States moved from the confines of the family unit and social circles to more formalized structures, assessment practices began to shift and focused primarily on competition between students. The introduction of early exams like the Tripos—an exam that was used to qualify students for undergraduate degrees—provided the opportunity for students to earn distinctions, be ranked among their peers, and earn financial awards for their performance (Fischel, 2009; Hutt & Schneider, 2014). Awards high scorers received often included lifelong university endowments, whereas low scorers would be ostracized and relegated to a second-class existence (Finkelstein, 1913; Hutt & Schneider, 2014). Both examples of early forms of grading systems articulate clear purposes for these assessments: Grading systems were always based on a performance and used to provide clarity around how to quantify success, usually in the form of pass or fail and job or task completion. Through the award of academic distinctions and monetary scholarships and endowments, grading systems served as an early form of social stratification and an introduction of high stakes testing and

competition in education. With the introduction of public education in the U.S., grading practices from the early civilizations were used as models to guide the perspectives of those shaping the country's educational terrain (Finkelstein, 1913; Fischel, 2009; Hutt & Schneider, 2014; Kirschenbaum et al., 1971).

As mass compulsory public schooling began to be implemented in the U.S. during the mid-19th century, and as the number of K-12 students being served in formal educational systems expanded, the need to quantify and sort students based on a variety of measures became evident, as a mechanism to promote more effective organizational structures. Whereas grading systems originally were designed for communicating student performance between teachers and parents, and between teachers within a school, they evolved to become “a key technology of education bureaucratization, a primary means of quantification, and the principal mechanism for sorting students” (Hutt & Schneider, 2014, p. 202). Early grade reformers saw the use of grades as a key component to building standardized systems for sorting and selecting talent, a perspective that shifted the sole focus of grades away from its traditional pedagogical intent (Fischel, 2009; Hutt & Schneider, 2014). Compulsory schooling in the U.S., which brought with it the formalized education of mass numbers of students, served as a catalyst for the multipurpose function of grading. The more widespread compulsory schooling became, the more employers, universities, and society at large began to depend on grading to help sort and select candidates for careers, education, and social stratification (Epstein & Timmermans, 2010). However, if grades were to be used as an internal apparatus for promoting learning as well as an external communication mechanism of value and merit, a universally understood system that could support both purposes needed to be created. Early reformers experimented with the organization of schooling into stepped grade levels (Stowe, 1838) and organizing schools and curricula based on progressive

learning helped provide structure to the school system and allowed reformers to quantify success at each level by the use of averages, marks, awarding credits, and report cards (Kaestle, 1983; Mann, 1845).

Eventually, grading schemes such as the bell curve, percentages, the 4.0 and 100-point scales, and A-F letter grades became commonplace in public education, ultimately being used to support internal and external communication needs. But by the mid-20th century, a new battle had emerged on the grading front, revolving around the validity and reliability of the messages grades sent to internal and external stakeholders:

Grades . . . allowed for a great deal of information to be communicated in a highly efficient way. Not surprisingly, however, they sent incomplete messages. Grades were often arrived at arbitrarily or unfairly. They motivated some but turned-off others. And as with so many forms of external validation, they started becoming ends in themselves. Students learned to game the system; “grade grubbing” and “brown nosing” entered the lexicon. The “gentleman’s C” became a functional concept among the privileged. Grade inflation began to occur, and an anti-grading movement began to emerge. (Hutt & Schneider, 2014, p. 219)

The publication of the U.S. Department of Education’s *A Nation at Risk* report (National Commission on Excellence in Education, 1983) set off alarm bells throughout the nation, signaling a crisis in the U.S. educational system. *A Nation at Risk* brought about the standards and accountability movements, most notably led by the Goals 2000 Educate America Act (1994), the No Child Left Behind Act (NCLB, 2001), the Race to the Top (2010) competitive grant program and, most recently, the Every Student Succeeds Act (ESSA, 2015). Both Goals 2000 and NCLB promoted standards-based education and the use of assessments to measure learning. NCLB sought to hold schools accountable for ensuring all students, especially students from disadvantaged backgrounds, met or exceeded learning standards in reading and math by the year 2014. Race to the Top served as an incentive for states to voluntarily adopt the Common Core State Standards, education reformers’ attempt at common learning standards for K-12 students.

Race to the Top also expanded accountability measures for student achievement to include principals and teachers, requiring states who applied for the grant to enact legislation that included student achievement data as a significant factor in principal and teacher evaluations. Instead of dictating specific achievement related goals, ESSA allows states to pick their own accountability goals but must address proficiency on state exams, English-language acquisition, and graduation rates; like its NCLB predecessor, ESSA also requires all states to address the achievement gaps that exist in their districts and schools. These measures, and others, sought to raise the quality of U.S. public education by setting rigorous learning standards, requiring the identification, classification, and support of students from disadvantaged backgrounds, increasing the use of standardized testing, and seeking to hold schools, principals, and teachers accountable for student achievement. Yet, after over three decades of educational reform efforts, 2012 Program for International Student Assessment (PISA) results show the U.S. public education system continues to lag behind other countries in reading, math, and science literacy (National Center for Education Statistics [NCES], 2012). As many reform initiatives sought to standardize education by creating, adopting, and aligning instructional practices to rigorous standards, researchers were calling for grading reform, as the traditional system for grading did not align to the new standards-based educational system, nor did it effectively communicate what students had learned as a result of a teacher's instruction (Brookhart, 2009; Guskey, 2009).

Purpose of Grading

As was noted previously, from the early civilizations to the present day, grading schemes have been used to determine job and task competency, academic and professional promotion, the awarding of scholarships and merit, and the sorting and stratification of students in the U.S. educational system. The multiplicity of purpose makes the primary objective for grading elusive,

as grading practices tend to favor a more universal need for quantifying, communicating, and differentiating students based on their performance instead of what scholars call the primary purpose for grading.

Assessment scholars define the primary purpose for grading as the ability to communicate learning and achievement on individual assignments and on summative report cards to students and parents (Brookhart, 2009; Frisbie & Waltman, 1992; Guskey, 1994). Other experts situate grading within a much larger context, suggesting a delicate interplay between the traditional function of the grading system and its expanded purpose to the society at large (Hutt & Schneider, 2014). This interplay of grades exists on a variety of internal (school-specific) and external (society-specific) levels that expand the purpose of grading to include secondary functions, but also create a culture of competing and conflicting priorities (Carey & Carifio, 2012).

Secondary purposes for grading still position grading within the internal (school-specific) context of teaching and learning. Scholars define secondary functions of grading as being able to provide learning data to teachers and administrators for classroom and school-wide instructional planning, the evaluation of school performance, the appropriate classroom placement of students, and for determining whether or not students graduate and possess the appropriate skills for postsecondary learning or employment (Brookhart, 2009; Carey & Carifio, 2012). Other assessment experts categorize the purposes of grading into three domains: (a) a student-centered approach that prioritizes feedback, encourages self-assessment and evaluation, and is used as an external reward and motivator; (b) an institution-centered approach that provides information about student preparedness and potential for future academic success to postsecondary institutions and employers; and (c) a recordkeeping approach that serves as documentation for

historical records, teacher effectiveness, and official school accounting (Frisbie & Waltman, 1992; Lysne, 1984). The institution-centered approach reflects the external, society-specific, influences on the traditional grading system in education and the major role it plays in high-stakes educational decision making and the determination of a student's future (Frisbie & Waltman, 1992; Guskey, 2004). Willingham, Pollack, and Lewis (2002) argued that grades differentiate between students based on their talents and serves as the basis for many important life-changing decisions:

Many of the most important educational decisions we make about young people concern the summative, often irreversible, judgments regarding entry to or exit from programs or institutions. Who will be placed in a slow or fast track in grade school, earn a high school diploma, be accepted in a selective college, or be admitted to a demanding graduate or professional program? Grades and test scores are the two types of evidence most commonly used in supporting these judgments. (p. 1)

These high-stakes educational decisions have assessment scholars concerned, noting the effect the traditional grading system has on students' access to rigorous courses, their ability to learn advanced material, and ultimately, the number and quality of choices and opportunities students have upon high school graduation (Guskey, 2011).

Many centuries have passed with scholars and educational practitioners unable to reconcile the tensions between the dual roles of the U.S. grading system. During the evolution of public education and grading in the U.S., the purpose of grading expanded, and grading systems and structures were refined to serve as communication mechanisms for postsecondary education, scholarships and endowments, and for gaining meaningful employment in society. The need for a consistent and universal system to report on the quality of students, and to serve as a differentiator between students, has historically been at odds with the original intent of grades being formative in nature and as a tool that was used to improve and communicate student learning. As a result of this dichotomy, grading systems, in their traditional form, do not

accurately communicate what students know and are able to do as a result of a teacher's instruction. Although grades are used for many different purposes, they should primarily be used to communicate accurate levels of student learning, first to students and parents, and secondly to society at large (Brookhart, 2009; Guskey, 2009, 2011). In order for more effective communication of student learning progress to occur, traditional forms of grading must evolve beyond its antiquated structures, fix the issues of validity and reliability that communicate inaccurate levels of student learning, and reimagine a grading system that can negatively affect motivation, performance, and school-connectedness for many students.

The Problem with Traditional Forms of Grading

Educational reformers have sought and developed different approaches for grading that intended to inform teaching and learning while simultaneously communicating information to the external society at large, but while these approaches to grading have succeeded at creating a universal system for communicating and differentiating student quality, they failed at achieving the primary purpose of grading: to validly and reliably communicate what students know and are able to do. The traditional grading system, founded largely on percentage grading and a series of questionable grading practices, fails at accurately communicating what students know and are able to do because it has inherent limitations; furthermore, scholars note the unreliability of grades and cite the vast variations in how teachers grade in common courses, throughout the same departments, within the same buildings, within—and across—school districts, and the lack of validity in how grades are constructed (Brookhart, 1991, 2011; Elliott & Strenta, 1988; Miethe, 1985; Strenta & Elliott, 1987). This section addresses the use of percentage grading, the 100-point scale, and the use of zeroes in traditional grading systems.

Percentage grading. The practice of assessing students from kindergarten through college using percentage scores brought percentage grading to the forefront of assessment practices in the U.S. (Brookhart, 1991, 2009, 2011; Cureton, 1971; Guskey, 2006, 2013; O'Connor, 2009). From the student perspective, percentage grading helped shift the goal of education from a focus on learning to an obsession over accumulating the highest point-value (Goldschmidt & Wang, 1999; Lee & Burkam, 2003). From a social perspective, percentage grading became the dominant system for communicating and certifying student learning as a result of several significant shifts in U.S. schooling, including the grouping of students into grade levels, the passing of compulsory school attendance, and the rapid growth of public high schools in the U.S. (Edwards & Richey, 1947; Guskey, 2013; Gutek, 1986). With the gradual increase in student and subject-level course diversity, and with the need to communicate a consistent standard of student quality to inform decisions related to postsecondary admissions and employment, percentage grading became the universal system used to sort and select for social stratification (Ashbaugh & Chapman, 1925; Cureton, 1971; Dustin, 1926; Epstein & Timmermans, 2010; Hutt & Schneider, 2014).

Prior to the emergence of percentage grading, original reporting of student learning came by way of the teacher, orally, in narrative form, directly to parents (Guskey, 2013). Scholars have noted the significant degree of subjectivity in this manner of grade reporting, and because of the requirements of compulsory schooling and the surge of students attending public schools, visiting student homes and the oral reporting of student progress to parents became impossible to manage (Guskey & Bailey, 2001). With hopes of improving the reliability of the U.S. grading system, measurement scholars sought a more scientific way of making grading practices more

equitable and used the research around the law of the distribution of values to shape assessment practices in the U.S. (Hall, 1906).

The law of the distribution of biologic data contends that any functional distribution of data will possess a middle value, and that all other values will progressively diminish in both opposite directions of the middle value (Hall, 1906). Hall (1906) conducted a study of the semester grade distribution of 2,334 students in the Northwestern University's Department of Physiology over a 10-year period. Of those students receiving a semester grade, Hall found the following distribution of grades: 40 grades of E, 122 grades of D; 223 grades of C, 287 grades of CC, 477 grades of B, 594 grades of BB, 468 grades of A, 116 grades of AA, and 7 grades of AAA. Hall's study yielded a gradual increase from the number of students receiving the lowest possible grade (E) to the number of students receiving the median grade (BB) and then a gradual decrease in the number of students receiving the highest possible grade (AAA). Hall's results conformed to the law of the distribution of biologic data and mirrored a binomial curve, resulting in the assertion that "average classes of students, doing honest work and marked equitably will yield results which when tabulated should conform to the binomial curve" (p. 510) and that the number of students "receiving medium marks should far exceed the number receiving high or low marks" (p. 510). The percentage grading system used in U.S. schools applied the laws of distribution and binomial curve and created a 100-point scale centered on an average grade of 50 (Guskey, 2013). As a result of its scientific backing, percentage grading was easily adopted by educators and its usage became widespread in the assessment of students; however, other assessment scholars questioned the accuracy of percentage grading and expressed concern over the reliability of percentage grades (Meyer, 1908; Starch & Elliott, 1912, 1913a, 1913b).

In a critique of Hall's (1906) assertions, Meyer (1908) questioned the validity of a standard distribution of grades. Meyer suggested that adherence to a standard distribution of grades would yield, in a sense, a grade-based self-fulfilling prophecy and would prevent an accurate representation of student learning in a class. Dearborn (1910) questioned the ability of educators to clearly define standards within a percentage grading system and consistently employ those standards of grading within a common department. Dearborn conducted a small study of two educators in the same university department; one educator gave a higher percentage of "excellent" grades and no "failure" grades to his students while the other educator gave zero "excellent" grades and a small percent of "failure" grades.

Starch and Elliott (1912, 1913a, 1913b) conducted three monumental and pivotal studies that advance the research conducted by Dearborn and to this day, continue to question the validity and variability of percentage grading. The first study (Starch, 1912) included 147 teachers in higher schools that were accredited by the North Central Association and who were responsible for teaching first-year English courses in their respective districts and schools. The investigators distributed two identical papers to the teachers with instructions to grade the papers according to the grading practices and passing standards of the school. The investigators reported the wide range of grade variation on a single paper—as high as 47 points—among the teachers; scores for one paper ranged from 50 to 97 while scores for the second paper ranged from 64 to 98. Twenty-two teachers gave one paper a failing score, while 18 teachers gave the same paper a passing score of 90 or above. In total, more than 30 different percentage grades were given to one paper. Starch and Elliott (1912) also noted the variation in the standards used to assess each paper; some teachers focused their assessments on the mechanical aspects of writing, while other

teachers focused on the quality of what was communicated through the writing (Starch & Elliott, 1912).

Amidst criticism that the large grade variation in Starch and Elliott's (1912) initial study was due to the personal and subjective nature of assessing student writing in English, Starch and Elliott (1913a) conducted a second study that distributed one high school geometry final examination paper to 180 math teachers employed in high schools accredited by the North Central Association; of those 180 teachers, 140 teachers graded the final examination according to their grading practices and passing standards. Of the 140 returned exams, 128 were included in the final study. Although it was assumed there would be less variation in the assessment of mathematical concepts and problems because of their limited subjectivity, this study documented grade variation ranges larger than the variations from the initial study; of the 128 graded exams, assigned grades ranged from 25-95%, an astounding 70-percentage point spread. Not only were there variations in grade assignments across teachers from different schools but there also was significant variation among teachers within the same school, adhering to the same grading practices and passing standards; additionally, further analysis also noted significant variation on the point values given to each of the questions on the exam, with one question possessing a score range of 0-13 (Starch & Elliott, 1913a).

In their final investigation, using a high school student's U.S. history final examination paper, Starch and Elliott (1913b) conducted a study to determine the variability in grade assignment and distribution among 114 high school history teachers in a Midwestern region. This study, conducted in the same manner as their previous two studies, yielded the same unprecedented variations in grade assignment and distribution. Percentage grade assignments

ranged between 43 and 92 percentage points. When examined in the aggregate, Starch and Elliott noted,

The variability or unreliability of marks is as great in one subject as in another. Contrary to current belief, grades in mathematics are as unreliable as grades in language or in history . . . hence, the variability of marks is not a function of the subject but a function of the examiner and of the method of the examination . . . the immense variability of marks tends obviously to cast considerable discredit upon the fairness and accuracy of our present methods of evaluating the quality of work in school. (p. 680)

The significant investigations conducted by Starch and Elliott (1912, 1913a, 1913b) shed considerable light on the unreliability of the percentage grading system and educator assessment practices used throughout U.S. public schools and universities. In a more recent study, Brimi (2011) replicated the studies conducted by Starch and Elliott and examined the reliability of grading by high school English teachers in a Knoxville, TN school district. Brimi examined the grades given to a single paper by 90 English teachers all trained to use the same approach for assessing student writing. Results from the study revealed a 46-point spread among the evaluators with scores for the single writing assessment ranging from 50 to 96. Brimi's research confirms the validity of the historic Starch and Elliott studies conducted over 100 years ago and raises the same concern over teacher assessment practices today. Further examination of the percentage grading system also questions secondary aspects of percentage grading, including the use of a 100-point scale and the use of zeroes in grading.

The 100-point scale. As a result of the research conducted by Starch and Elliott (1912, 1913a, 1913b), the use of percentage grading gradually decreased in U.S. schools, but gradually returned during the 1990s. Scholars noted the influence of computer software and technologists as reasons for this reemergence and not the desire of educators or at the suggestion of researchers (Guskey, 2013). Along with the percentage grading system came the resurgence of the 100-point grading scale. Scholars cited ease of use, ability to divide into parts, ability to understand, and

the relative ease of grade calculation as reasons for the mass adoption; however, significant challenges still plagued the use of this approach (Guskey, 2013). The most significant challenge with the 100-point scale is the wide range of levels by which to grade students. The 100-point grading scale possesses 101 potential scores; in the past, educators based the 100-point scale on an average score of 50%. (Guskey, 2013; Smallwood, 1935). Presently, the 100-point scale centers around an average grade of 70-75% with minimum passing cutoff scores generally around 60-65%; as a result, the modern-day percentage grading system and the 100-point scale overemphasize failure by providing 60 unique levels of failure and 40 different levels of success to describe a student's progress toward learning (Guskey, 2013). Of the 60 distinct levels of failure, when averaged with other percentage grades, the most detrimental percentage score a student could receive is 0.

The use of zeroes. One grading practice that scholars and practitioners debate is the use of zeroes in grading. In a traditional grading system, teachers assign zeroes when assignments are left incomplete, turned in late, or as a result of a student's lack of effort or inappropriate behavior (Canady & Hotchkiss, 1989; Stiggins & Duke, 1991). Zeroes can be interpreted as a form of punishment for lack of effort and responsibility (Guskey, 2009). Many teachers defend the use of zeroes in grading, citing ethics and fairness as the rationale (Guskey, 2009).

Examining the effects of removing zeroes from student grade calculations, Carey and Carifio (2012) conducted a quantitative study using 7 years of grading data from a large urban high school located in Massachusetts to determine how often minimum grades were assigned, how often passing grades were assigned as a result of receiving a minimum grade, and whether or not minimum grading encouraged social promotion and grade inflation. Minimum grading refers to a grading practice that sets the lowest possible score a student can receive in a course at

50 instead of 0. The authors concluded that minimum grading did not lead to excessive numbers of courses being passed that would normally have resulted in failures. Additional results showed that students who received minimum failure grades of 50% outperformed students who did not receive minimum grades on the state exam; moreover, the authors discovered that the academic achievement of students who received minimum grades was being under-reported when compared to their higher-performing peers. Ultimately, the authors concluded that minimum grading did not lead to grade inflation or encourage social promotion. Although practices like minimum grading help correct some of the flaws of the percentage grading system, assessment scholars still assert that the overall traditional grading system is in need of reform (Guskey, 2013). As a result of the 60-point spread of score options available on the 100-point scale, and because of how percentage grading functions, students have a disproportionately harder time improving their grades in a class if a score of zero is received; however, other questionable grading practices also add to the challenges of the traditional grading system used in U.S. public schools.

The Traditional Grading System: Additional Aspects and Questionable Grading Practices

In addition to percentage grading, the 100-point scale, and the use of zeroes, the traditional grading system is also known for its use of letter grades, norm-referenced assessment practices, the inclusion of non-academic factors in grade calculations, grading on a curve, and the use of grades as a form of punishment. This section addresses these factors.

Letter grades. The traditional U.S. grading system makes use of the A, B, C, D, and F letter grades to inform students and parents about levels of achievement. Scholars have cited a lack of clarity regarding what each letter grades mean, as they relate to describing student learning and performance (Bowers, 2011; Carter, 1952; Cox, 2011; Selby & Murphy, 1992).

Norm-referenced grading. Scholars note that traditional grading systems are norm-referenced and compare students against each other; in a norm-referenced system, student achievement reporting is based on how students compare to other students within their class or group, whereas in a criterion-referenced system, student achievement reporting is based on how students perform in relationship to objective criteria (Brookhart, 1991, 2003, 2004, 2009; Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010). Assessment experts suggest a move from norm-referenced grading to criterion-referenced grading to reduce unfair comparisons between students and to ensure a more accurate communication of what students know and are able to do (Brookhart, 2011; Guskey & Bailey, 2001; O'Connor, 2009).

Non-academic factors. Traditional grading systems often include factors not specifically related to student achievement that can cloud and distort clear communication of students learning. Non-academic factors that teachers may elect to incorporate into a student's grade can include such elements as the amount of effort expended, classroom conduct, and extra credit that is not aligned to the curriculum and standards. Assessment experts recommend that non-academic factors should be excluded from academic grade reporting, suggesting that these behavioral aspects should be reported separately in language and terms easily understandable to students and parents (Guskey, 2002, 2006, 2009; Marzano, 2010; McMillan, 2001; McMillan, Workman, & Myran, 1999).

Grading on a curve. Scholars who support the use of standards-based grading cite several questionable grading practices that make grades assigned in a traditional grading system invalid and unreliable. Grading on the curve is cited as a questionable practice because it positions learning as a highly competitive activity, communicates how students have performed relative to their classmates, is cited as being unfair and based on the randomness of how students

perform on assessments, and fails to communicate what students know and are able to do (Crooks, 1933; Guskey, 2009; Kulick & Wright, 2008). Scholars contend that grading on a curve can result in detrimental relationships between students and their peers, and students and their teachers (Krumboltz & Yeh, 1996).

Grades as a form of punishment. In some school systems, teachers have been reported to use grades as a form of punishment and behavior management (Guskey, 2009). As a way to control behavior, teachers may routinely threaten students with a reduction of points on an assignment within an academic reporting category in the gradebook, assign low numerical scores in a behavioral or student conduct category, or assign and grade work that has been given as a form of punishment with no clear academic significance (Marzano, 2010). Despite the finding that scholars have connected grading and reporting with increased (and decreased) student motivation (Cameron & Pierce, 1994, 1996; Feldmesser, 1971), there has been no research to suggest that grades prompt better effort when used as a form of punishment. Scholars have concluded that low grades can cause students to underperform in school and significantly withdraw from the learning environment (Guskey, 2009; Selby & Murphy, 1992).

Based largely on the percentage grading system, the 100-point scale, and a series of questionable grading practices, the traditional grading system used in U.S. public schools has an array of challenges. Scholars believe grades in the traditional grading system are unreliable, citing studies that suggest teachers within the same content area and school are unable to find commonality in how they assess student learning (Brimi, 2011; Starch & Elliott, 1912, 1913a, 1913b). Scholars question whether or not teachers can reliably assign point values to students equitably with a wide range of possible scores available through the 100-point scale (Guskey, 2013). In the modern day use of the 100-point scale, because scores above 60% are generally

associated with some degree of successful learning, there are at least 60 different possible levels of failure by which to assign to student work; as a result, depending on the degree of failure, students who receive failing grades find it significantly more challenging to overcome their low scores in order to attain a passing grade in this system (Guskey, 2013; Hargis, 1990; Lee & Burkam, 2003; Roderick & Camburn, 1999). Furthermore, when educators assign the grade of zero to students in a percentage grading system within a 100-point scale structure, after averaging all grades, students who receive zeroes find it nearly impossible to earn a passing grade.

In addition to reporting the traditional grading system is unreliable, scholars also have concluded that ways in which students' grades are constructed are invalid (Carter, 1952; Cox, 2011; Crooks, 1933; Cross & Frary, 1996; Guskey, 2006; McMillan, 2001). Early assessment scholars advocated for the use of a standard distribution of grades, whereas a majority of grades would fall within the middle 50% and the remaining grades would either fall gradually toward the lower end of the grade scale or gradually rise toward the higher end of the grade scale (Hall, 1906); however, this practice was challenged on the basis of its validity. Over 100 years ago, Meyer (1908) questioned the standard distribution of grades, citing that educators will seek to ensure their grades adhere to a standard distribution of grades in every grading situation, thus forcing some students to receive the lowest grades, most students to receive average grades, and the remaining students to receive higher grades, even if that particular distribution did not accurately reflect the levels of students learning. Contemporary assessment experts also refute the standard distribution of grades concept in its entirety, citing that the distribution of grades, and ultimately, the levels in which students learn, will not consistently mirror any standard distribution (Raymond, 2013).

Alongside the standard distribution of grades, assessment experts also question criteria educators use to construct student grades. Assigning point values and weights to such categories as behavior, organization, attendance, assignment completion, and extra credit distort the clear communication of what students know and are able to do on the curriculum standards; these factors should be communicated separately so that parents, students, and postsecondary institutions can clearly and accurately assess the degree to which students have learned important content and skills (Guskey, 2002, 2006, 2009; Marzano, 2010; McMillan, 2001; McMillan et al., 1999). Even when non-academic factors are removed from grade calculations, assessment scholars still question the validity of how educators construct and assign grades. Scholars point to the varying criteria educators use to assess assignments, the varying weights given to those assignments, the varying categories used in the gradebook, and how all three of those factors can vary across teachers teaching the same course, within the same department, and across the same school (Brookhart, 1991, 2009, 2011; Guskey, 2006, 2009, 2013; Strenta & Elliott, 1987).

Ultimately, the result of a widespread use of a grading system that is unreliable and invalid and used to assess, promote, and retain students across the U.S. is in need of reform. Additionally, assessment scholars have cited the negative effects of grading on student motivation as another rallying cry for grade reform.

Effects of Grades on Student Motivation

The traditional grading system used in U.S. public schools is challenged well beyond the structural aspects of validity and reliability. The act of assigning grades to students based on performance has implications for student motivation and school engagement (Ames, 1982, 1984; Ames & Archer, 1988; Dweck, 1986; Guskey, 2011, 2013; Huitt, 2011; Turner & Patrick, 2004). The introduction of grading in education created a subculture of competition, placing the desire

to attain the highest grade possible at the core of public education for students in the U.S. (Brookhart, 2003, 2009; Hutt & Schneider, 2014; Kirschenbaum et al., 1971). These conditions created an environment in which a student's perception of success is based on her or his ability to achieve high letter grades or numerical percentages; in this system, grades function as an extrinsic motivator for students, making the ultimate goal of learning secondary and a culture of "winners" and "losers" common among children and classrooms in U.S. schools (Cameron & Pierce, 1994, 1996; Deci, Betley, Kahle, Abrams, & Porac, 1981; Sebart & Krek, 2002). Because grading and learning have become inextricably intertwined in the U.S., grades are regarded as the reward for doing what is expected in school or the completion of assignments or tasks given by one's teacher (Brookhart, 2003, 2009; Hutt & Schneider, 2014; Kirschenbaum et al., 1971). In the traditional grading system used in U.S. schools, grades function as a reward and extrinsic motivator for students who meet academic criteria and display observable traits, such as perseverance, effort, compliance, and good behavior; grades also minimize intrinsic motivation and create environmental conditions that can negatively affect student motivation (Ames, 1984, 1992; Ames & Archer, 1988; Brookhart, 2003, 2009; Dweck, 1986; Huitt, 2011; Krumboltz & Yeh, 1996). This section will provide an overview of behavioral and cognitive motivation research and explore motivation theories, including expectancy-value theory, attribution theory, social cognitive theory, and goal orientation theory; when taken together, these theories help to explain how grading can have a negative effect on student motivation and engagement, and provide further justification to support a shift to standards-based grading.

Behavioral theories. Researchers have identified two categories of theories related to motivation in education: behavior theories and cognitive theories. Behavior theories describe motivation as an individual's response to stimuli and environmental events (Schunk, Meece, &

Pintrich, 2014). Scholars believe that one's response has the potential to reoccur in the future based on how often that response is connected to a stimulus. Positive reinforcements make a response much more likely to occur in the future while negative reinforcements make a response less likely to occur in the future (Skinner, 1953). Early scholars who contributed to theories of motivation help reveal the ways in which traditional forms of grading affect student motivation. Thorndike's (1898; 1913) connectionism and the Law of Effect suggest that academic motivation is a result of the number of successful experiences students have within a given academic setting. When the number of academic experiences result in high letter or numerical grades, academic motivation increases and the ability to be successful in subsequent academic situations is also more plausible. Connectionism and the Law of Effect do not bode well for students with high numbers of unsuccessful academic experiences; students who often receive low letter or numerical grades may perceive such grades as punishment and may struggle to find the appropriate path to academic success.

Similarly, Pavlov's (1927) classical conditioning theory revealed the potential for negative influences on learning and academic motivation. Students who experience continuous failure on exams, report cards, or graded assignments are likely to associate those failures with school, certain subject areas, or teachers, resulting in decreased motivation and interest in learning. If this type of adverse conditioning occurs, Schunk et al. (2014) suggested the need for the intentional pairing of pleasurable outcomes to the negatively conditioned stimulus, called "counterconditioning" with hopes of increasing student motivation. Counterconditioning can be challenging when traditionally, educators perceive assessment and the ability to assign grades through the lens of operant conditioning as educators view the assigning of grades as a significant reinforcement mechanism in the process of learning. Grades serve as both a positive

reinforcement and punishment; when students meet the goals and criteria of an assignment or course, students are rewarded with high letter or numerical grades. Students are also rewarded with the ability to progress through courses, grade levels, and institutions of learning as a result of achieving goals and meeting criteria. Conversely, when students do not meet the goals and criteria of an assignment or course, they are punished with low letter, failing, or numerical grades and are often held back from progressing to the next grade level or course. Educators assign low or failing grades to students as a form of punishment because they believe Skinner's (1953) theory that punishment decreases the likelihood of an unwanted behavior from recurring; this premise works well for students who see failure as a motivator and adversely for others.

In addition to behavioral theories of motivation, cognitive theories emphasize internal mental structures and the processing of beliefs and information. Schunk et al. (2014) asserted that "different cognitive theories of motivation stress such processes as attributions, perceptions of competence, values, affects, goals, and social comparisons" (p. 47). Theories such as expectancy-value theory, attribution theory, social cognitive theory, and goal orientation theory all support the notion that traditional grading systems have a negative effect on student motivation.

Expectancy-value theory. Expectancies and values are significant themes in motivation theory. Expectancies relate to how one perceives their ability to perform tasks; if an individual expects to achieve success, then the individual is more likely to engage in the task (Schunk et al., 2014). An individual who believes he/she will fail at a task may either refrain from participating in the task or try the task out cautiously; if the individual fails at the task after trying it out, he/she will refrain from participating in future tasks based on the assumption that failure will continue (Schunk et al., 2014; Wigfield & Eccles, 2000, 2002). Values, however, emphasize the

reasons why an individual would complete or engage in a given task (Schunk et al., 2014; Wigfield & Eccles, 2000, 2002). Originally based on Atkinson's (1957) research showing the relationship between how an individual perceives their ability to complete a task with their actual performance in that given task (Wigfield & Cambria, 2010), Eccles (1983) created the expectancy-value model that identifies both the internal and external attributes that influence expectancies and values. Schunk et al. (2014) noted:

In expectancy-value theories of motivation, both expectancies and values are important for predicting students' future choices, engagement, persistence, and achievement. Students may be confident that they can do well and expect to succeed, but if they do not value the task they will be less likely to choose to engage in it. In the same way, students may believe that a task or activity is interesting or important to them, but if they think they cannot do it well eventually they will not engage in it. (p. 47)

Traditional grading systems may affect students' expectations about their abilities to perform successfully in certain courses or content based on their past performance. Low letter or numerical grades on assignments and in courses can affect a student's ability to accurately determine the value of the assignment or course. As interest in an assignment or course decreases, the likelihood of more widespread disengagement increases. To combat the downward spiral of disengagement by students more likely to earn low letter or numerical grades, a new grading practice called minimum grading was instituted in an urban high school and studied for effectiveness. Carey and Carifio (2012) conducted a quantitative study using 7 years of grading data from a large urban high school located in Massachusetts to determine how often minimum grades are assigned, how often passing grades are assigned as a result of receiving a minimum grade, and whether or not minimum grading promote social promotion and grade inflation. Minimum grading refers to a grading practice that sets the lowest possible score a student can receive in a course at 50 instead of 0. The study examined student grades between fall 2003 and spring 2010; the study also examined Massachusetts Comprehensive Assessment Systems

(MCAS) testing data for students from 2007-2010. Carey and Carifio used an ex post facto design for examining causal hypotheses; the researchers used disconfirmation, descriptive statistics, rates, percentages, and statistical analysis as their primary methods for exploration. Over the course of the study, there were 343,425 sets of grades assigned to 10,958 unique students. Of those 343,425 sets of grades, 29,187 began with a minimum grade of 50, but only 1,159 ended with a passing course grade. The authors concluded that minimum grading does not lead to excessive numbers of courses being passed that would normally result in failures. Additional results show that students who received minimum grades outperformed students who did not receive minimum grades on the MCAS exam; moreover, the authors discovered that the academic achievement of students who received minimum grades was being under-reported when compared to their higher-performing peers. As a result of the minimum grading function, students who took ownership of their learning and were more motivated to work harder knowing that failure would not be an option. Ultimately, the authors prove that minimum grading does not lead to grade inflation or encourage social promotion.

Attribution theory. Another cognitive theory affecting achievement motivation is Weiner's (1986, 1992) attribution theory. Attribution theory is based on the premise that people are conscious individuals, they make rational decisions, are interested in learning more about themselves, mastering their environments, and have a desire to understand the causes of certain events (Schunk et al., 2014; Weiner, 1985, 1986). Attributions are the perceived causes individuals link to certain events that help them better understand the event. In the context of education, a student's success or failure can be factored into two categories: personal factors and environmental factors. Examples of personal factors include a student's prior knowledge, biases, and differences. Environmental factors include feedback from the teacher on a student's

performance, knowledge about how other students performed, and social norms (Schunk et al., 2014). Weiner's (1992) attribution theory posits a variety of reasons that help individuals make meaning of their attributions. In the context of education, the two most frequently cited attributions are effort and ability (Weiner). Other attribution explanations reference student mood, health, luck, and the difficulty level of the assignment or task. Weiner stated that all attributions can be categorized into three areas of focus: (a) locus (cause is internal/external), (b) controllability (perception of control; controllable/uncontrollable), and (c) stability (cause changes over time; stable/unstable). Weiner also suggested that these three areas are the motivational and psychological foundation of attribution theory.

When examining learning and the effect of grades on student motivation, attribution theory illuminates the mental processes in which students engage to understand the causes behind their academic success or failure. When students receive low letter or numerical grades, attribution theory contends that students begin an investigative process to determine why they were unsuccessful. For example, students who have an internal locus of control are more likely to hold themselves accountable for failure; students with an external locus of control are more likely to hold environmental conditions accountable for their failure. In traditional forms of grading, educators assign students grades based on their ability to meet criteria or complete tasks; students rarely receive specific feedback from their teachers on how to improve their abilities to learn, persist, or overcome the barriers that resulted in the low letter or numerical grade originally assigned. Schunk et al. (2014) noted that "effort feedback can help to raise motivation and achievement, especially among students who have previously encountered learning difficulties [so] teacher feedback can have an important influence on students' attributions and expectancy beliefs" (p. 120). Those who subscribe to an attribution theory would

support the shift to a grading system that prioritizes feedback and communication clarity over the sorting and ranking functions of traditional grading systems.

Goals and goal orientations. Although attribution theory provides the individual with a framework to understand why an event occurred, goals and goal orientations define the motivating factors that influence action or inaction (Schunk et al., 2014). Research on goals and goal orientations highlight the differences between a need and a goal; whereas needs are internal forces that seek to achieve or stop an outcome, goals are outcomes or behaviors one purposefully endeavors to achieve (Schunk et al., 2014). Both needs and goals compel individuals to action, or inaction, in an attempt to fulfill a need or to accomplish a task. Murray's (1936, 1938) taxonomy of needs and Maslow's (1954) hierarchy of needs provides an extensive research base that undergirds goal and goal orientation theory.

Murray's (1936, 1938) taxonomy contends that needs provide the motivation for all behavior, is based in the brain, and can influence perception, internal drive, action and inaction. Murray suggested that unmet needs create internal tension that ultimately drive an individual to act, or refrain from acting, in order to satisfy the unmet need. In the context of education, common needs include the desire for autonomy, achievement, understanding, and connection (Murray; Schunk et al., 2014). Murray also noted that environmental factors can shape or reshape needs, contending that shaping or reshaping of needs based on environmental factors occur as a result of the alpha and beta presses. The alpha press is an objective view of the environmental context, whereas the beta press is an individual's possibly skewed perception of the context (Murray).

Building on Murray's (1936, 1938) taxonomy of needs, Maslow's (1954) hierarchy of needs quantifies five categories of needs that individuals are constantly seeking to meet: (a)

physiological needs such as food and water; (b) safety needs such as protection from fear, anxiety, pain; (c) belongingness needs such as love, affection, acceptance; (d) esteem needs such as recognition and approval; and (e) self-actualization needs such as comprehension and the realization of one's potential. Maslow contended that the basic needs, which are represented on the lowest levels of the hierarchy of needs, must be fully met before the more advanced needs can be realized.

Additionally, when students experience failure, or when their internal need for achievement goes unmet, attribution theory would argue that students internally begin to seek out the reasons why failure occurred. During this investigative process, students begin to examine themselves and create self-theories or beliefs about themselves based on their performance (Dweck, 1991, 1999, 2006, 2010; Dweck & Leggett, 1988; Schunk et al., 2014). Once beliefs and theories are created, students begin to behave consistent with their constructed theories and beliefs about themselves. Two common self-theories scholars link to the educational context are ability theories and self-concept. Within the realm of ability theories, students will subscribe to either entity theory or incremental theory. Entity theory, or more commonly known as fixed mindset, argues that some students believe that their abilities are stable and can only slightly change with effort (Dweck, 1991, 1999, 2006, 2010; Dweck & Leggett, 1988; Schunk et al., 2014). When challenges arise, students with a fixed mindset give up more easily, display lower self-efficacy, and fail to implement alternative strategies. Students who subscribe to incremental theory, or more commonly known as growth mindset, believe that their ability can expand as a result of learning, effort, and experience (Dweck, 1991, 1999, 2006, 2010; Dweck & Leggett, 1988; Schunk et al., 2014). When challenges arise, students who subscribe to incremental theory

view these as opportunities and seek to persevere through the difficulties by expanding their knowledge and skill sets.

The second of the two self-theories, entitled self-concept, is based on one's self-perception generated through experiences and environmental contexts and combines both self-esteem and self-confidence (Pajares & Schunk, 2001, 2002; Schunk et al., 2014; Schunk & Pajares, 2009; Shavelson & Bolus, 1982). Self-esteem refers to one's perception of self-worth while self-confidence is the degree to which an individual believes he/she can accomplish goals, produce results, and complete tasks. Schunk et al. (2014) wrote, "self-esteem and self-confidence are related. The belief that one is capable of performing a task can raise self-esteem. High self-esteem might lead one to attempt difficult tasks, and subsequent success enhances self-confidence" (p. 185). When students experience failure, their self-esteem and self-confidence are affected, resulting in decreased motivation, and flawed perceptions about one's ability.

The research of Murray (1936, 1938) and Maslow (1954) offers key insights into the challenges of traditional grading systems. Because traditional grading systems create both winners and losers, there will always be students who fail to meet their internal need for achievement. As a result of not meeting their internal need for achievement, students are much more likely to feel fear and anxiety, have skewed perceptions of why they were unable to successfully achieve at a high level, re-evaluate their goals and perhaps create less ambitious goals that may seem more attainable, and begin avoiding the environmental context in which failure initially became a reality.

Like goals, goal orientations also influence achievement motivation. Goal orientations are the specific reasons why students engage in certain academic tasks, why they seek to attain a certain goal, and how they perceive and approach achievement tasks (Kaplan & Maehr, 2007;

Pintrich, 2003). Goal orientations describe the various ways in which students approach, engage in, and respond to achievement situations (Kaplan & Maehr, 2007; Pintrich, 2003); goal orientations are used for self-assessment of performance and to determine whether or not success or failure has been realized. The most common goals within goal orientation theory include learning and performance goals, mastery and performance goals, and task-focused and ability-focused goals (Ames, 1992; Ames & Archer, 1987, 1988; Dweck & Leggett, 1988; Maehr & Midgley, 1991). When students exhibit a mastery goal orientation, they are focused on the process of learning, self-improvement, new skill development, and the pursuit of challenging tasks and goals; when students exhibit a performance goal orientation, they are focused on their demonstrated ability in relationship to others as evidenced by their desires to “surpass normative performance standards, attempting to best others, striving to be the best in the group or class on a task, avoiding judgements of low ability or appearing incompetent, and seeking public recognition of high performance levels” (Schunk et al., 2014, p. 187).

In Dweck’s (1999) model of goal orientation, students who subscribe to an entity theory of ability believe that ability is fixed and will likely also subscribe to a performance goal orientation when presented with an achievement task; these students will show immense concern with how they’re evaluated, how they compare to other students, and will have a strong desire to outperform their peers (Dweck, 1991, 1999, 2006, 2010; Dweck & Leggett, 1988; Schunk et al, 2014). Students who subscribe to an incremental theory of ability believe their abilities can grow based on learning and experiences; these students will adopt a mastery goal orientation, seek out opportunities for continuous growth and learning, and spend less time concerned about how they perform in comparison to their peers. Scholars also have noted slight distinctions between performance goals, noting performance goals can take on a performance approach goals

orientation or a performance avoidance goals orientation (Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996). Students take on a performance approach goal orientation when they feel confident about their abilities and are motivated to outperform their peers; when students are less confident about their abilities, they assume a performance avoidance goal orientation and approach achievement tasks motivated to avoid failure and the appearance of incompetence (Schunk et al., 2014).

Volumes of research have been produced on cognitive motivation and its connection to grades and student learning. A student's needs, goals, and goal orientations can all be affected by one's academic experiences. In the context of education, when students experience success in school or on an achievement task, their internal needs are met, their goals have been attained, their confidence is high, and the merits of their goal orientations are strengthened. When students experience failure in school or on an achievement task, their internal need to achieve success goes unmet, their goals go unrealized, and their goal orientations are negatively affected. Constant failure in school or on achievement tasks may result in students assuming an entity theory about their academic abilities. Without the belief that their abilities can improve, students who constantly fail or receive low letter or numerical grades put their self-esteem and self-confidence at risk. When students display low-self-esteem and low-confidence, they risk being disconnected from the classroom environment and lose interest in academic tasks, oftentimes never recovering and resulting in poor behavior and decreased learning; these results are disproportionately high for students of color, students from poverty, and students who are diagnosed with a disability (NCES, 2016).

Inequities in Education

The use of traditional grading practices is one of many factors that can affect student motivation and that can lead to inequitable outcomes for students of color. Since the publication of the Coleman Report (Coleman, 1966), scholars, educational practitioners, and policymakers have been monitoring and attempting to reduce the achievement gap in education. The achievement gap is defined as the gap in achievement generally between White students and minority students on the NAEP assessment (NCES, 2016); this gap is also referenced as the “opportunity gap” and includes factors such as those who show disproportionality based on race/ethnicity and socio-economic status (SES) in high school graduation, dropout, and postsecondary enrollment rates, absenteeism and behavioral infraction rates, and access to—and success in—rigorous curriculum (NCES, 2016).

According to NCES (2016), the White-Black and White-Hispanic achievement gaps in high school are extensive; in 12th grade reading, the White-Black achievement gap in 2016 was 30 points while the White-Hispanic gap was 22 points; in 12th grade mathematics, the White-Black achievement gap was 30 points while the White-Hispanic gap was 21 points. When examining data related to the percentage of high school students earning course credit for taking Advanced Placement (AP) and/or International Baccalaureate (IB) courses, 23% of Black students earned credit for taking AP/IB courses compared to 34% of Hispanic students, 40% of White students, and 72% of Asian students (NCES, 2016). These data depict outcomes that are representative of research-based findings related to the disproportionality of educational experiences based on race; schools that are racially segregated and predominantly serve students from poverty generally have fewer resources to use to support adequate levels of student learning (Kim & Sunderman, 2005; Lee, 2007, 2012). Schools that serve minority students spend

disproportionately lower amounts on educating students than schools serving higher income, predominantly White students (Lee, 2012; Lee & Wong, 2004). Schools serving students who qualify for free/reduced lunch at high levels assign teaching assignments to teachers in areas in which they are less qualified, and the likelihood of students being taught by highly qualified teachers is lower in schools serving majority minority students (Lee, 2012; Lee & Wong, 2004).

The issue of teacher quality and effectiveness has dominated the research over the last 20 years; scholars have shown that teacher quality is the most significant predictor of academic success for students than all other school or home related factors (Chetty, Friedman, & Rockoff, 2013; Darling-Hammond, 1997; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004). Scholars have recognized practices like curriculum mapping and alignment, vertical teaming, and standards-based grading as helping to close the achievement in schools (Brown, Benkovitz, Muttillo, & Urban, 2011). Sanders and Horn (1995) conducted an analysis of the Tennessee Value-Added Assessment System, finding that students who began third grade and received 3 consecutive years of instruction from highly qualified teachers scored in the 96th percentile on the state's mathematics assessment by the end of fifth grade; in contrast, when similar students began third grade and received 3 consecutive years of instruction from low performing teachers, their average mathematics assessment results were in the 44th percentile on the same exam. Lankford, Loeb, and Wyckoff (2002) found the least qualified teachers in New York are the most likely to teach in high minority, high poverty schools. In North Carolina, Clotfelter, Ladd, and Vigdor (2005) found that African American students were more likely to be taught by an inexperienced teacher than their White counterparts, and as a result, learning gaps as high as 38 points were found in seventh grade mathematics assessment results across school districts due to teacher placement. In Washington State, Goldhaber, Lavery, and Theobald (2015) found that

effective teachers were inequitably distributed in elementary, middle, and high schools based on race, SES, and student achievement, resulting in large achievement gaps across distinguishing demographics. Based on the mounds of research on teacher quality and effectiveness, when highly qualified and effective teachers disproportionately serve in high achieving, high wealth, and less diverse schools, schools that are disproportionately high poverty and high minority experience inequitable learning environments, lower academic expectations, and on average, are lower achieving (Darling-Hammond, 2000; Darling-Hammond & Haselkorn, 2009; Darling-Hammond, Holtzman, Gatlin, & Vasquez-Heilig, 2005; Goe, 2007).

In an attempt to investigate the factors that distinguish high achieving, high wealth schools from their lower achieving, high poverty school counterparts, Anyon (1980) conducted a year-long ethnographical study of teachers in five socioeconomically different elementary schools in New Jersey. Through her observations, Anyon (1980) discovered that schools that serve students from lower socioeconomic backgrounds wildly differ in their expectations and pedagogical approaches to student learning than those from schools that serve more affluent students:

In the two working-class schools, work is following the steps of a procedure. The procedure is usually mechanical, involving rote behavior and very little decision making or choice. In the middle-class school, work is getting the right answer. In the affluent professional school, work is creative activity carried out independently. The students are continually asked to express and apply ideas and concepts. Work involves individual thought and expressiveness, expansion and illustration of ideas, and choice of appropriate method and material. In the executive elite school, work is developing one's analytical intellectual powers. Children are continually asked to reason through a problem, to produce intellectual products that are both logically sound and of top academic quality. (p. 1)

Anyon's findings reinforce the significantly different expectations for students teachers possess based on the dominating socioeconomic dynamics of the school; her work corroborates the critical role teachers have in increasing student learning and shaping the future trajectory of

whole groups of people. Anyon also illuminates the significance of differing pedagogical approaches and learning theories and how those are translated into learning experiences that dictate the degree to which students are motivated to learn and the ultimate depth of their learning.

The achievement gap, and factors like teacher quality and effectiveness, are directly correlated to grading practices and the effects can be seen through a concept called differential grading and through data like high school graduation and dropout rates. Rauschenberg (2014) stated that differential grading “occurs when students in courses with the same content, and curriculum receive inconsistent grades across teachers, schools, or districts; many factors can lead to differential grading, including differences in teacher grading standards . . . student behavior, teacher stereotypes, [and] teacher quality” (p. 3). Rauschenberg also noted that “racial, gender, and other stereotypes of student performance also may influence how a teacher issues grades” as “gender, ethnic, and socioeconomic stereotypes have some impact on how teachers view students” (p. 3). Ehrenberg, Goldhaber, and Brewer (1995) conducted a study that examined the correlation between student learning growth and teacher perceptions of their students over a two year period. Results indicated that race, gender, and ethnicity influence a teacher’s subjective evaluation of a student more than a student’s actual achievement as measured by a standardized assessment. Scholars noted that teachers scored white and female students more favorably than other students and that teachers who shared the same race with their students tended to rate those students higher, resulting in differential grading (Ehrenberg et al.).

Rauschenberg (2014) examined differential grading by comparing North Carolina high school course grades and End of Course (EOC) exam results in Algebra I and English I over

multiple years. Study results showed that student race, gender, ethnicity, and SES were all stronger predictors of differential grading than school, district, or teacher characteristics (Rauschenberg). Rauschenberg discovered that female, Limited English Proficient, and 12th grade students earned higher grades than all other students in all subjects; students from poverty earned the lowest grades among all students in both English I and Algebra I, and African American students earned lower grades in English I than white or Asian students with identical test scores.

The effects of differential grading overtime could be a factor in the graduation and dropout rate disparities that exist for minority students in the U.S. Although the adjusted cohort graduation rate (ACGR) for public school students rose to 83% in 2015, American Indian/Alaska Native students had the lowest graduation rate (72%), followed by African American students (75%), and Hispanic students (78%). White (88%) and Asian (90%) students had the highest reported graduation rates in the U.S. Conversely, the dropout rate is highest for American Indian/Alaska Native (13.2%), Hispanic (9.9%), and African American (7.2%) students than their White (4.5%) and Asian (2.4%) counterparts (NCES, 2017b).

The research on differential grading, and the graduation and dropout rate data, all show a correlation between traditional grading practices, inequalities in education, and the resulting achievement gap in the U.S.

Conditions that Motivate Student Learning

Learning theorist are clear about the factors and conditions that motivate students to learn; when grading—void of formative feedback and coaching—is introduced into generally healthy learning environments, some students become less engaged in learning and experience a decrease in motivation. Developmental researcher and psychologist Jean Piaget's (1952) work

focused on the development of the child's mind and how it functions. Piaget offered a cognitive development theory that suggests active engagement in meaningful and relevant learning experiences help students make sense of the world and their environment; Piaget believed that students construct thought and develop understanding based on active interaction with the world. Piaget also contended that certain cognitive processes catapult children through critical stages of development; of the five cognitive processes, the "schemas" cognitive process in particular can be affected by traditional grading practices. Beloglovsky and Daly (2015) defined schemas as past experiences that help stir analysis and influence action. When students experience low or failing grades as a result of their effort or assessed abilities, Piaget would suggest that a schema is developed for that experience that could negatively affect the way a student perceives his or her abilities, behaves in school, and potentially influence his or her long-term outlook on education.

Like Piaget (1952), psychoanalyst Erik Erikson (1963) also contributed substantially to the field of child and human development. Erikson's psychosocial development theory proposed eight stages of human development that involve a series of crises that must be positively resolved to prevent problems in subsequent stages. Particularly for school-aged children, Erikson proposed that the ability to find a sense of identity is a significant factor in the adolescence stage but begins to develop in childhood; Erikson emphasized continuity, consistency, genuine affirmation, and acknowledgment as important components for identity development in childhood (Beloglovsky & Daly, 2015). Often, students will base their identities on their academic performance; students who receive high grades tend to have a higher sense of self-worth and motivation whereas students who receive low and failing grades have a lower sense of self-worth and motivation (Cameron & Pierce, 1994; Dweck, 1986; Dweck & Leggett, 1988).

When grades are introduced into a learning environment, education becomes less about the learning and more about grade attainment (Elliott & Dweck, 1988; Sebart & Krek, 2002; Wiggins, 1994).

Lev Vygotsky (1978) is another educational psychologist whose research has contributed to existing literature on the factors that create healthy learning environments and motivate students to learn. Vygotsky is best known for his research on sociocultural theory, which stated that a child's social and cultural context can affect her language, social, and cognitive maturation. Vygotsky emphasized the need for children to construct knowledge through the use of hands-on and active engagement in relevant learning experiences. Because school-aged children spend at least seven hours of their day in schools with other children and adults, classroom environments are social contexts that can affect and shape their social and cognitive development. When traditional forms of grading are introduced into the social context of classrooms, a competitive culture of winners and losers is created; students who are successful and receive high letter and numerical grades tend to have a more positive self-perception and heightened degree of motivation whereas students who receive low or failing letter grades tend to be less motivated and disconnected from the educational environment. Traditional grade-based competitive classrooms, especially at the high school level, seldom resemble learning environments that incorporate Vygotsky's work around the zone of proximal development, the incorporation of play, and active learning through hands-on experiences and activities. These environments are driven by a culture that values students taking the most advanced courses, so they can achieve the highest grade-point averages, resulting in higher class rankings, in hopes of gaining admissions into highly selective postsecondary institutions. Students who are unsuccessful at navigating the traditional grade-based competitive classroom environment not

only perform poorly in school, they are also at higher risks for more psychological damage; these lasting effects on students can be seen through the work of psychologist Abraham Maslow and his ground-breaking research around the hierarchy of needs.

Maslow (1971) contended that in order for people to reach a sense of self-actualization, one's needs must be met in every area of what he called the "hierarchy of need." In the traditional grade-based competitive classroom, students who are unable to compete and achieve high grades fail to meet their need for esteem, achievement, and self-confidence; when the need for esteem goes unmet, students rarely reach the self-actualization level of Maslow's hierarchy of need and their personal potential and sense of self-fulfillment are rarely realized. Dewey (2008) and Gardner (2011) also advocated for learning environments that promote experiential and self-guided learning that are personalized based on ways in which children demonstrate their differing intelligence.

Research on motivation suggests that the traditional grading system can negatively affect student motivation and cause some students to withdraw from the learning environment (Guskey, 2006, 2009, 2011, 2013; Howley, Kusimo, & Parrott, 1999; Roderick & Camburn, 1999); constructing learning environments based on learning theories that spark students' interest, play to their strengths, and support their areas of need, provides a better degree of motivation for students to learn than the competitive grade-based environment that perpetuates a culture of winners and losers. In order to close the achievement gap that disproportionately affects minority students and students from low socioeconomic backgrounds, schools and districts must ensure that the most effective teachers serve the students who need them the most, that the most effective and research-based best practices are utilized to foster rigorous learning for students, and that structures like the traditional grading system are improved upon. To improve the

traditional grading system, grades should clearly communicate whether students have mastered learning standards and goals and should not include non-academic behaviors or work habits. The use of a standards-based grading system can positively affect student motivation, is learning goal oriented, provides non-evaluative formative feedback for improvement, and is criterion referenced, eliminating the competitive, norm-referenced nature of grading among students within schools.

Research on Standards-Based Grading Practices in Schools

Standards-based grading is the result of the standards-based reform movement, partly driven by a national push to improve public education in the U.S. by political, educational, and leaders from the private sector. Leaders pushed for national standards and educational goals that raised the level of rigor for students (Betts, Costrell, Walberg, Phillips, & Chin, 2001; Hutt & Schneider, 2014). Standards-based grading can be defined by its relationship to what assessment experts consider the purpose of grading: to accurately communicate levels of achievement to students and parents and to provide teachers and administrators with the information needed to adjust instruction and plan school-wide programs (Brookhart, 2009; Guskey, 2001). Standards-based grading measures students' levels of proficiency on explicit course objectives, standards, or skills (Brookhart, 2009; Marzano, 2010; Tomlinson & McTighe, 2006).

Many practitioners confuse standards-based grading and standards-referenced grading (Marzano, 2010; Wiggins, 1994, 1996). In a standards-based grading system, student achievement is reported in relationship to a standard or skill, and students are not allowed to advance to the next topic, standard, or skill without first demonstrating mastery at the current level; in a standards-referenced grading system, student achievement is also reported in relationship to a standard or skill, but students are allowed to progress to the next topic or skill

without first achieving mastery on preceding topics or skills (Marzano, 2010; Wiggins, 1994, 1996).

Standards-based grading relies heavily on the philosophical notion that grades and assessments should be linked to specific standards and skills and should provide feedback to stakeholders on student progress in relationship to objective criteria. Educators are tasked with gaining clarity on what students should know and be able to do, as well as defining the evidence that will measure whether or not students have learned (DuFour, DuFour, Eaker, & Many, 2006; Tyler, 1949; Wiggins & McTighe, 1998, 2007). Clarity on these two factors serve as the basis for standards-based grading and reporting.

The following subsections discuss aspects associated with standards-based grading: (a) the shift from norm-referenced assessment to criterion-referenced assessment, (b) the differences between product, process, and progress criteria; (c) the use of formative and summative assessments; (d) how standards-based grading and mastery learning differ; and (e) the effects of standards-based grading.

Norm-referenced vs. criterion-referenced. Implementing standards-based grading requires educators to shift from a norm-referenced grading system to a criterion-referenced system (Brookhart, 2003, 2004, 2009; Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010; O'Connor, 2002). In a norm-referenced system, student achievement reporting is based on how students compare to other students within their class or group, whereas in a criterion-referenced system, student achievement reporting is based on how students perform in relationship to objective criteria (Brookhart, 2003, 2004, 2009; Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010; O'Connor, 2002).

Product, process, and progress criteria. One of the limitations of the traditional grading system is the lack of clarity around how grades are calculated; educators use a variety of sources to determine a student's grade, also termed "hodgepodge grading" (Guskey, 2001, p. 2). Grading experts cite the shift to standards-based grading as the catalyst for helping educators differentiate grading criteria; product, process, and progress criteria are being used to provide clarity in grading practices (Guskey, 2001). Product criteria measure student achievement on formal summative assessments; grades are generated for students based on their final demonstration of learning on assessments like performances, final papers, final exams, or projects (Guskey, 2001). Process criteria assess the behaviors students demonstrate throughout the course; process criteria focus on classroom behavior, work ethic, attendance, homework completion, and formative products like quizzes and classwork (Guskey, 2001). Finally, progress criteria assess students based on their individual growth and performance on standards throughout the year. In a traditional grading system, educators would combine product, process, and progress criteria and provide students with one grade; in a standards-based grading system, educators distinguish between all three criteria and assess students in each category separately, providing students and parents with a clearer picture of how much students have learned, the type of behaviors students demonstrated in the pursuit of the learning, and how much students have improved over time (Guskey, 2001).

Use of formative and summative assessments. In a standards-based grading system, the use of formative and summative assessments serves as the measuring tool for determining whether or not students have learned; when assessments and assessment questions are aligned to standards or skills, the results derived from those assessments can be used to more clearly communicate learning to students and parents and can serve as the basis for instructional

planning and response by the teacher (Clark, 2010; Hattie, 1999; Hattie & Temperley, 2007; Iamarino, 2014). Stiggins, Arter, Chappuis, and Chappuis (2007) defined formative assessment as assessment for learning that help students improve, noting, “assessments for learning happen while learning is still underway [and are used] to diagnose student needs, plan next steps in instruction, [and] provide students with feedback” (p. 31). In the standards-based grading system, formative assessments occur frequently, are considered practice opportunities for students, and include traditional events like homework, quizzes, and discussion/participation, but are not graded and do not affect a student’s reported grade (Marzano, 2006). In contrast, summative assessments are considered final judgements of student levels of learning and are most traditionally associated with final exams, end of unit exams, portfolios, and performance-based assessments (Marzano, 2010).

Standards-based grading and mastery learning. Standards-based grading is seen as similar to—or sometimes, synonymous with—mastery learning. Mastery learning is based on the research of John Carroll (1963) and Benjamin Bloom (1968). At its core, mastery learning suggests that student aptitude is not fixed and that anyone can learn anything if given the appropriate time and conditions (Carroll; Bloom). In traditional learning systems, students engage in learning a specific standard or skill for a fixed amount a time. Teachers provide assessments to students to measure their understanding, and then continue to the next standard or skill without taking into account whether or not all students actually learned. In a mastery learning based system, students are provided more time to reach a predefined level of proficiency and are not expected to move on until they do so; students may engage in learning one or more standards or skills at a time (Carroll, 1963, 1970; Block, 1971; Bloom, 1968, 1974). Scholars tout the premise that it is better for students to master a smaller number of standards or skills

than to partially learn a portion of an extensive curriculum (Marzano, 2010; Marzano & Heflebower 2011; O'Connor, 2002; Wiggins & McTighe, 2011). Standards-based grading naturally draws upon several core components of mastery learning that calls for students to receive more time, differentiated instruction, and additional opportunities to learn content and show mastery of specific standards and skills after initially failing to do so; however, standards-based grading does not require the use of these elements in its implementation (Bloom, 1968; Carroll, 1963; Tomlinson, 2003).

Effects of standards-based grading. Haptonstall (2010) conducted research analyzing the correlation between students' grades and the scores students received in reading, math, writing, and science on the Colorado Student Assessment Program (CSAP) in five Colorado school districts. Haptonstall also examined whether or not sub-populations of students within each district had higher or lower mean scores on the CSAP. Of the five school districts participating in the study, four school districts utilized traditional grading practices while one school district utilized a standards-based grading approach across all schools, with 11,845 students participating in the study. Findings identified a positive correlation between grades and CSAP test scores across all districts; however, the school district that implemented standards-based grading across all schools saw higher grade and test score correlations, as well as higher mean scores on the CSAP exams, for all students, including students categorized in subgroups (Haptonstall).

Greene (2015) conducted a similar study that sought to determine whether or not student performance could be predicted on the Missouri Assessment Program's (MAP) end of grade level assessment based on the grades students earned in schools utilizing either a traditional approach to grading or a standards-based grading model. Greene analyzed sets of semester

grades and MAP assessment results for 200 seventh- and eighth-grade students from four Missouri school districts, two of which utilize traditional grading practices while the remaining two districts utilize a standards-based grading approach. Using a chi-square goodness-of-fit test to analyze the quantitative results, Greene determined that neither the use of a traditional grading system nor the use of a standards-based grading system could predict student performance on the MAP end of grade level assessments.

Fink (2015) commissioned a study that examined whether or not the use of either traditional grading practices or standards-based grading practices, would ultimately affect student academic achievement, motivation to learn, and the clarity of their understanding of grading practices in a traditional Midwestern high school. Fink examined quantitative and qualitative achievement and perception data from 63 high school students enrolled in either ninth grade Basic English I, Algebra I, Physical Science, or Earth Science; these courses were taught by two teachers participating in the study. Of the courses studied, standards-based grading practices were utilized in at least one of the teacher's courses while traditional grading practices were used in each of their remaining courses. Although the class grade average was lower in classrooms employing standards-based grading than in the classrooms that utilized traditional grading, results from the study show that students enrolled in the courses assessed using standards-based grading practices saw assessment scores and class grade averages better reflect students' understanding and mastery of Common Core State Standards (CCSS). Results showed that students assessed using traditional grading practices saw higher scores because traditional grading practices factored in points earned based on behavior, homework completion, compliance factors, and the submission of extra credit work and not exclusively based on what students knew and were able to demonstrate (Fink). Additional results showed that students in

the standards-based grading courses decreased their reliance on grades as an extrinsic motivator for learning, believed that the process of learning was more important than the grade ultimately earned, and that changes in their behavior would yield more learning, better grades, and a stronger growth mindset.

Rainey (2016) conducted a study to determine whether or not a relationship existed between grades earned by students in reading in a third grade classroom that utilized standards-based grading and reporting and the scale score on the Grade 3 Reading State of Texas Assessment of Academic Readiness (STAAR) exam. Rainey analyzed data sets for 218 third-grade students in a suburban elementary school in the Dallas-Fort Worth, Texas area over a 2-year period. Results showed strong statistical correlations between students' standards-based grades reported on their report cards, and their STAAR performance in reading for students with Limited English Proficiency (LEP), native English speakers, students from economically disadvantaged backgrounds, and for students with economic means (Rainey).

Sieling (2013) also examined the use of a school's standards-based grading system and its effect on student attitude and academic achievement on standardized assessments. Sieling reviewed report card data from a mathematics course, survey data from students in a mathematics course, and standardized assessment data from the Minnesota Comprehensive Assessment (MCA) math exams, for 149 seventh-, eighth-, and ninth-grade students over a 2-year period. The researcher organized 108 seventh- and eighth-grade students into an experimental group and assigned 41 ninth graders into a control group. Students in the experimental group had been exposed to standards-based grading practices and students in the control group had not. Sieling discovered that students who had been exposed to standards-based grading surpassed the state average in math on the MCA exam, doubled the number of students

scoring at the “exceed” level on the MCA, and lowered the number of students scoring at the “not met” level. Additional study results show that students who reached mastery on three-fourths of the standards defined in the classrooms that used standards-based grading had a 96% chance of meeting proficiency levels on the MCA exam; students exposed to standards-based grading and who earned an A letter grade scored at the proficient level or higher on the MCA exam (100%). Qualitative results showed that students exposed to standards-based grading practices experienced less anxiety about achieving success in their mathematics course and experienced higher levels of enjoyment and satisfaction (Sieling, 2013).

Other researchers reported similar findings consistent with student results from classrooms and schools utilizing standards-based grading. Buttrey (2014) analyzed the math and reading scores of 674 fourth- and fifth-grade students and saw significant increases in assessment results after experiencing learning in a standards-based grading environment. Bradbury-Bailey (2011) studied the academic achievement and Standardized End-of-Course Test (EOCT) results for 386 African-American students in a first year Physical Science and a second year Biology I course over a 2-year period. Using an analysis of covariance, Bradbury-Bailey found that course averages were higher for students exposed to standards-based grading than the previous year’s averages where students experienced a traditional grading system. Results also showed a statistically significant correlation between the higher course averages and higher EOCT scores of students exposed to standards-based grading practices. In a study of student mindsets, Miller (2017) utilized a practice-based epistemological approach to study how seventh-grade students in a newly opened middle school experience and make sense of standards-based grading practices and philosophies. Several significant student mindsets and realizations were identified:

- (a) Learning takes time and effort; (b) everyone deserves multiple chances to learn; (c) learning and grades are both important; (d) perseverance should be rewarded in teacher

grading practices; (e) students hold decision-making power with regard to their own learning; (f) learning potential [can be changed] through time and effort; (g) giving effort or practicing is not a sign of lesser talent or intelligence; (5) a moment of failure is not hopeless . . . [and] potential for learning is not predetermined. (Miller, p. 3)

Although not completely exhaustive, recent research on the effects of standards-based grading show potential for positive widespread correlations with student achievement and shifts in teacher practice.

Although several studies cite positive effects from the use of standards-based grading, not all show statistically significant support for the implementation of standards-based grading. Dean (2015) analyzed grade retention rates of 1,600 third- and fifth-grade students across four elementary schools in northeast Georgia over a 2-year period. All four elementary schools implemented standards-based grading during the 2008-09 school year, so a causal-comparative study was used to compare grade retention rates for the year prior to the implementation of standards-based grading with the grade retention rates after the first year of standards-based grading implementation. Dean found no statistically significant difference in the retention rates of third- and fifth-grade students based on their experience in either a standards-based grading environment or a traditional grading system.

School principals' practices in implementing standards-based grading. Very few studies exist that examine the implementation of standards-based grading at any school level, but particularly at the high school level. Of the 11 studies that exist that examined the implementation of standards-based grading, seven elementary and middle-school based studies focused on mindsets, knowledge, beliefs, perceptions, and practices of teachers and principals transitioning to standards-based grading. Researchers noted teachers struggle with making the philosophical mind shifts required to implement standards-based grading, a wide lack of understanding of how standards-based grading is defined and its corresponding practices, the

need for consistent collaboration and professional development, the inability to shift from traditional grading practices to standards-based grading practices, and the need to ensure consistent implementation across classrooms, grade levels, and school buildings (Adrian, 2012; MacCrindle, 2017; Melton, 2015; Paepflow, 2011; Selby, 2012; Szymczak, 2015; Urich, 2012).

The four remaining studies examined the leadership practices used by high school principals to lead standards-based grading in their schools. The primary focus of each study revolves around the leadership practices and dispositions needed to lead change initiatives like standards-based grading. Pritzl (2016) discovered that school leaders must demonstrate patience with teachers and the change process while also staying committed to implementing standards-based grading over time. Andrews, Barnes, and Gibbs (2016) studied the implementation of standards-based grading in two high school teachers' courses; data from their study revealed the need for constant cycles of reflection and evaluation during implementation, relentless communication of the mission and vision for the school and how the transition to standards-based grading aligns, thorough professional development for teachers, the creation of a standards-based report card to provide more communication clarity for students and parents, and the need to implement standards-based grading in elementary and middle school to minimize the significant shift for students.

The last two studies examined the specific leadership actions high school principals took to leading standards-based grading as a change initiative in their schools. Brazouski (2015) conducted an in-depth phenomenological case study of one high school's transition to standards-based grading and discovered leadership behaviors used by the high school principal consistent with the research on leading change: leading and organizing activities, establishing shared control, exerting positive pressure, providing support, technical assistance, and resources, and

leading through the implementation dip (Fullan, 2001, 2002). In a similar study, Carter (2016) surveyed 12 middle school and high school principals from eight states and identified five change leadership practices that led to the implementation of standards-based grading: creating a sense of urgency, creating a vision and shared ownership, building coalitions, identifying short-term wins, and institutionalizing change into the school culture.

Standards-based grading is still a relatively new approach to measuring student learning and scholars cite the clarity in communication and criteria-referenced nature of standards-based grading as two of its core functions (Brookhart, 2009; Marzano, 2010; Tomlinson & McTighe, 2006). Standards-based grading systems report separately, and differentiate between, the product, process, and progress criteria used to measure what students have learned, the behaviors that led to student learning, and whether or not students have shown growth in learning over time (Guskey, 2011). Standards-based grading relies heavily on the use of formative assessments to gauge the progress of student learning over time, and summative assessments as final products and examples of mastered content and skills (Guskey, 2011; Marzano, 2006, 2010). Standards-based grading is often viewed synonymously with mastery learning; however, standards-based grading is defined simply as grading on the basis of comparing a student's work to a standard. Conversely, mastery learning includes core elements like providing additional time to students to demonstrate learning when initially failing to do so, differentiating instruction to better accommodate student learning needs, and allowing students to progress to more challenging standards and content when ready (Bloom, 1968; Brookhart, 2009; Carroll, 1963; Guskey, 2001; Tomlinson, 2003). Research on the effectiveness of standards-based grading in schools, but particularly in high schools, is shallow; however, studies have shown that the use of standards-based grading in schools has positively affected student mindsets, perceptions, and academic

outcomes (Bradbury-Bailey, 2011; Buttrey, 2014; Fink, 2015; Greene, 2015; Haptonstall, 2010; Miller, 2017; Rainey, 2016; Sieling, 2013). Research on the implementation of standards-based grading is also scarce, but initial studies have placed significant emphasis on the school principal's role, behaviors, and ability to lead standards-based grading as a change initiative (Andrews et al., 2016; Carter, 2016; MacCrindle, 2017; Pritzl, 2016).

The dearth of literature on why high school principals decide to lead the implementation of standards-based grading in their schools, the process used to create standards-based grading policies, and the resulting policies that guide the implementation of standards-based grading school-wide, is concerning. Of the research cited in this section, all were doctoral dissertations. In the absence of adequate research, high school principals miss the opportunity to avoid pitfalls and failures during their prospective implementations of standards-based grading; without adequate research, high school principals miss the opportunity to learn from other high school principals who have led successful policy creation processes, created and revised policies and documents that have governed their implementations of standards-based grading, and garner insight into the reasons why other principals decided to implement standards-based grading in their schools.

The Role of the School Principal

Principal leadership is a significant factor in the implementation of standards-based grading and the role's scope, function, and influence has evolved over time (Allen, Grigsby, & Peters, 2015; Bass & Riggio, 2006; Vos, van der Westhuizen, Mentz, & Ellis, 2012). Models of early schools rewarded effective teachers with additional managerial and supervisory responsibilities within the school; as the sheer size of schools began to grow in the early 1800s, the "principal teacher" position was created to manage the administrative and clerical

responsibilities of schools (Kafka, 2009). In addition to classroom teaching obligations, principal teachers were also responsible for overseeing the physical building, constructing class schedules, and monitoring student attendance; eventually, principal teachers shed their classroom teaching responsibilities and fully assumed a more multifaceted leadership role that included instructional, managerial, administrative, and political responsibilities (Brown, 2005; Cuban, 1988; Pierce, 1935; Rousmaniere, 2007).

According to Gaziel (2003), traditionally, the role of school principal had been associated with “classical theories of management . . . which stress planning, organizing, staffing, coordinating, division of work, control and command as the most important factors in effective management” (p. 484). Rousmaniere (2007) described the original scope of the school principal’s role as being like “the foreman in the factory and the mid-level executive in the office building, the school principal was an administrator who was responsible for day-to-day building operations rather than strategic policy decisions” (p. 2). Rousmaniere portrayed the principal as the “assistants of authority whose power we derived from others, and who were responsible for implementing managerial decisions but had limited opportunities for influencing those decisions” and as a “middle manager” with a “dual personality” who stood on “the middle ground between management and employee” (p. 2).

The role of the principal evolved based on the societal conditions in which the school was situated. As a result of the increase in migrant workers, immigration, and the modernization and industrialization of U.S. cities and towns in the 20th century, schools—and school principals—saw the role of the school as becoming essential to the socialization and Americanization of the new blended American community (Kafka, 2009). A number of political and educational leaders sought to force their American values and beliefs on non-Anglo-Saxon immigrants and saw

schools as the most effective apparatus for this indoctrination; naturally, school principals were charged with overseeing these efforts (Tyack & Hansot, 1982). During the 1920s and 1930s, as scientific management and the church dominated the American political environment, school principals were looked upon as spiritual and scientific leaders in their schools and communities; during the World War II era, principals were expected to be democratic leaders to avoid the appearance of fascism, but in the 1950s, principals were again expected to be efficient administrators who led by dictating and managing even the most minute details (Beck & Murphy, 1993; Kafka, 2009). The federal government's increasingly regulatory role in public education during the 1960s and 1970s forced principals to become managers of entitlement programs, and in the 1980s, the concepts of principal as instructional leader and change agent became prevalent in the literature (Hallinger, 1992; Kafka, 2009).

Emergence of an era of accountability. National phenomena like Sputnik and the *A Nation at Risk* report placed a greater focus on the school principal's ability to bolster student achievement as a means to strengthen American resolve and competitiveness on the world's stage (Tirozzi, 2001). The No Child Left Behind Act (2001) ushered in school and district accountability for student learning, was the first federal legislation to mandate all students achieve proficiency in reading and math by a certain date and required educational leaders to monitor and ensure underrepresented students were learning and not falling through the proverbial cracks (U.S. Department of Education, 2010). The Race to the Top (2009) competitive grant program offered millions of dollars in federal grants to states in exchange for greater emphasis on student achievement, linking principal and teacher evaluations to student learning results, the adoption of more robust data systems, and the use of more innovative approaches to improving learning for the lowest performing students. The Every Student

Succeeds Act (2015) continues the focus on student achievement and accountability by specifically requiring schools and districts to close the achievement gaps that exist between demographically unique groups of students. With an increasingly stringent focus on student learning from the federal government, Grigsby, Schumacher, Decman, and Simieou (2010) stated that “ultimate accountability for student achievement is incumbent upon the instructional leader” (p. 2). In the era of accountability, principals must be able to call upon a number of different leadership approaches to ensure all students learn at high levels.

Principals as instructional leaders. The concept of the school principal as an instructional leader materialized as a result of the research conducted on school effectiveness, school and program improvement, and leading change initiatives during the 1980s; researchers concluded that strong principal instructional leadership practices were consistently reflected in the research on effective schools, successful change management, and sustained school improvement (Edmonds, 1979; Leithwood & Montgomery, 1982; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Early literature on instructional leadership highlights the role of the school principal as the central figure responsible for all aspects of curriculum, instruction, and assessment in schools (Bamburg & Andrews, 1991; Hallinger & Murphy, 1985). Instructional leaders were perceived to be directive in nature and strong-willed, actively engaged in instructional activities alongside teachers, considered charismatic, goal oriented, and had positive effects on school culture and climate (Cuban, 1984; Edmonds, 1979; Hallinger & Murphy, 1986). Latter conceptualizations of instructional leadership in scholarship propose a three dimensional model focused on defining and living out the school’s mission, managing the instructional program, and promoting a healthy culture and climate focused on learning

(Hallinger, 2000, 2003); within each dimension, 10 additional leadership functions exist that further concretize the concept of instructional leadership.

Within the school mission dimension, principals are responsible for leading collaborative efforts that result in the creation and communication of a school-wide vision, mission, and goals that are all focused on student learning (Hallinger, 2000, 2003; Hallinger & Murphy, 1985). The instructional program management dimension frames the principal's work around the construction and coordination of all curriculum, instruction, and assessment activities; specifically, principals are responsible for the supervision and evaluation of teachers and classroom instruction, organizing school curriculum, and monitoring student learning (Hallinger, 2000, 2003; Hallinger & Murphy, 1985). The final dimension reflects the principal's responsibilities for creating a healthy culture and climate supportive of teacher and student learning; leadership functions include minimizing interruptions to classroom learning, ensuring access to effective professional learning for teachers, being visible throughout the school, motivating and incentivizing teachers, and motivating and incentivizing students (Hallinger, 2000, 2003; Hallinger & Murphy, 1985). More recently, scholars continue to support the initial research that elevated the concept of instructional leadership; additions to the leadership functions of instructional leaders include motivating and inspiring, setting high performance expectations for all, and building and communicating a compelling vision for the school (Gurley, Anast-May, O'Neal, & Dozier, 2016; Leithwood et al., 2006).

The role of principal as instructional leader is also supported by research that links instructional leadership to increases in student achievement. Studies show that principals ensure effective schools and advance student achievement through their influence on the direction of the school and on the activities that occur in the classroom (Hallinger, 2003). Waters, Marzano, and

McNulty (2003) conducted a meta-analysis of over 5,000 studies and concluded that there is a “significant positive correlation between effective [instructional] leadership and achievement” (p. 49). Additionally, O’Donnell and White (2005) surveyed 75 administrators and 250 English and mathematics educators and found that student achievement on exams were positively influenced by components of instructional leadership like open communication, valuing professional development, and protecting teacher preparation time. Although principals do not directly influence student learning in classrooms on a day-to-day basis, scholars found that principals can affect teaching and learning through the influence and direction of classroom practices and the supervision of teachers (Hallinger, 2005; Hallinger & Heck, 1996a).

Transactional and transformational leadership. Early research on transformational leadership positions transformational leadership in contrast to transactional leadership. Transactional leadership is leadership that relies heavily on the leader’s ability to direct, coerce, and reinforce subordinates to do the job originally agreed upon. Extrinsic motivators, rewards, and punishments are core to transactional leadership; early scholarship on transactional leadership propose three major components: contingent reward, active management by exception, and passive management by exception (Bass, 1997). Contingent reward is concerned with the negotiation of work, the identification of goals and rewards, the setting of expectations, the garnering of support for the leader in exchange for desired benefits, and the establishment of the leader-follower relationship. Active management by exception is concerned with the leader’s ability to monitor performance and intervene with corrective action when needed so that established goals can be met, while passive management by exception reflects a delayed corrective action intervention by the leader until issues with performance are brought to his or her attention (Bass, 1997).

In contrast, transformational leadership is concerned with motivating others to work hard for, and achieve, audacious organizational goals that supersede one's own self-interest. Transformational leaders motivate subordinates to push themselves farther than originally expected for the purpose of the organization. Four main components of transformational leadership have been identified in the early literature: (a) idealized influence, (b) inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration (Bass, 1997). Idealized influence characterizes the transformational leader as one who is purpose and values driven, not afraid to take a stand on complex issues, is committed, loyal, and ethical, seen as a role model, and models empathy (Bass, 1997). Inspirational motivation is reflected in transformational leaders in the way in which they communicate a compelling vision for what the organization could become; leaders consistently incite subordinates to operate from a higher standard, are seen as encouragers, highly enthusiastic and optimistic, and readily provides support for those in need (Bass, 1997). Intellectual stimulation portrays transformational leaders as people who naturally question past norms, traditions, values, beliefs, and ways of operating; these leaders inspire people to think differently, set the stage for new revelations, and challenge people to embrace new perspectives (Bass, 1997). The final component of transformational leadership, individualized consideration, highlights the leader's ability to view subordinates as individuals, understanding that each subordinate is uniquely motivated, has individualized needs, aspirations, and is different from their peers; transformational leaders provide support for subordinates by listening intently to them, providing coaching and mentorship, and advancing their professional skillsets, personal development, and careers (Bass, 1997). A balance of transactional and transformational leadership practices is needed to effectively advance the organization and achieve intended goals (Bass, 1997).

Within the sphere of education, scholars have taken the concepts of transactional and transformational leadership and have studied their transferability and influence on school-level leadership (Hallinger & Heck, 1996a, 1996b; Leithwood & Jantzi, 2000b). Leithwood et al. (1998) developed a model for transformational leadership that contrasted the work of the principal as the instructional leader with the vastly different work of transformational leadership; the model includes components such as individualized support, shared vision and goals, culture building and intellectual stimulation, modeling, high expectations, and rewards. In contrast with the ideals of instructional leadership, transformational leadership does not position the principal as the sole source of leadership functions; within the transformational leadership model, leadership responsibilities can be distributed to—and displayed by—other people throughout the organization (Hallinger, 2003; Leithwood & Jantzi, 2000a; Louis & Marks, 1998; Ogawa & Bossert, 1995). Whereas instructional leadership has garnered the perception of being a top-down, transactional, and managerial approach to leadership in schools, transformational leadership is considered a bottom-up, relational, and inclusive approach to leading change and improvement in schools (Barth, 1990; Cohen & Miller, 1980; Day, Harris, Hadfield, Tolley, & Beresford, 2001). Within the context of schools, examples of instructional leadership would be the ability of the principal to manage existing initiatives and relationships and directly influence the conditions that effect teaching and learning, all to maintain the status quo and realize predetermined goals. A transformational approach to leadership would be the intentional collaboration between the principal and the school staff to develop a vision for what the school could become, goals that define success for the both the individual and the school, the empowerment of teachers and teacher leaders throughout the school to identify and solve

problems, and the creation of a culture of continuous learning and improvement (Cuban, 1984, 1988; Hallinger, 2003; Lambert, 2002; Leithwood & Louis, 1998).

Scholars note the direct effect of transformational leadership primarily on the conditions in which teachers work and the perceived effect the leadership approach has on people; results from studies on the effect of transformational leadership often yield data pertaining to changes in behavior, the degree to which a new program, policy, or procedure has been implemented with fidelity, and changes in school culture, climate, and conditions that result in improved teaching and learning (Bogler, 2001; Bottery, 2001; Fullan, 2002; Hallinger, 2003; Mulford & Bishop, 1997). For principals implementing initiatives like standards-based grading, the utilization of transactional and transformational leadership functions is essential.

Leadership for learning. As the research on effective school leadership has progressed over time, Knapp and colleagues (Knapp et al., 2003; Knapp, Copland, Honig, Plecki, & Portin, 2010) have taken aspects of heavily researched leadership approaches and created a framework that prioritizes continuous learning and improvement system-wide. School leaders who commit to a leadership for learning approach focus their efforts on creating deep learning opportunities for students, teachers, other school leaders, and themselves. Five specific areas help define and create the leadership for learning framework, (a) establishing a focus on learning, (b) building professional communities that value learning, (c) engaging external environments that matter for learning, (d) acting strategically and sharing leadership, and (e) creating coherence (Knapp et al., 2003).

School leaders who create a focus on learning are intentional about gathering multiple forms of student learning data to inform their work while simultaneously directing other educators around activities that focus on student learning. Leaders co-develop and share values

and norms that prioritize a learning-focused culture; specifically, school leaders (a) set ambitious standards for student learning, (b) establish a shared belief in human capacity, (c) commit to achieving equitable outcomes, (d) have a belief in professional support and responsibility, and (e) commit to cycles of continuous inquiry and improvement (Knapp et al., 2003). Leadership actions specific to creating a focus on learning align most closely to the behaviors represented in the transformational leadership research.

The focus on learning is also seen through the formation of professional communities that value learning within schools. Leadership for learning involves the intentional creation of learning communities among teachers that dismantle the professional isolation that exist within schools (Knapp et al., 2003). Learning communities create a culture of shared responsibility for student learning and the myriad of tasks that help educators ensure deep learning experiences occur for students. In learning communities, teachers work collaboratively on identifying what students should know and be able to do, create assessments and learning experiences, analyze student learning data, and create instructional materials and activities to intervene for students when gaps in learning are observed (DuFour et al., 2006). Learning communities force educators to work together, require trusting relationships among adults, structures and schedules that create consistent time within the school day to meet, and job-embedded professional development (Knapp et al., 2003).

In addition to keeping a laser-like focus on learning and creating professional learning communities within the school, leaders who work from a leadership for learning framework understand that improving student learning requires a concerted effort from internal and external actors. Leaders are constantly processing the internal and external conditions in which their work occurs; from those conditions, leaders identify the appropriate allies with whom to establish

relationship, potential threats and roadblocks that could derail key initiatives, identify coalitions that may need to be organized to support the work, and advocate for needed resources to ensure the realization of a learning-focused agenda (Knapp et al., 2003). Operating from a leadership for learning perspective requires school leaders to think and act strategically; unlike the focus of the individual school leader in the instructional leadership research, leadership for learning requires school leaders to distribute the responsibility for instructional leadership and student learning across all levels of the school and in conjunction with external allies (Knapp et al., 2003). Finally, leaders are careful about creating coherence across the organization and clarity concerning the key initiatives that promote and advance a learning-focused agenda. School leaders are relentless about cascading messages that reinforce the school's learning-focused vision and mission and intentionally linking those pieces to the instructional initiatives at work in the school. School leaders also create coherence and clarity by minimizing the number of key initiatives being implemented throughout the school as these leaders understand that teachers and staff have limited capacity to deeply learn and successfully implement too many key levers at once (Knapp et al., 2003).

To further illustrate the leadership for learning approach, Knapp et al. (2010) coordinated a set of qualitative studies that examined leadership practices in Atlanta Public Schools and the New York City/Empowerment Schools Organization. These studies examined investments in staffing, distributed instructional leadership, and district/school relationships that all support a learning focused-agenda in schools; the researchers included over 500 school sites between the two states. Their collective studies produced many significant insights into the leadership actions that promote learning-focused leadership in schools and districts, but four key themes emerged: (a) school leaders “focused persistently and publicly on equitable and powerful teaching,

learning, and instructional improvement” (p. 26), (b) invested in distributed leadership throughout the school by reimagining current roles and responsibilities, (c) constantly reimagined the role of central office and its relationship with schools, and (d) provided leadership support at all levels (Knapp et al.). When applied in concert, the leadership for learning framework creates the learner-focused environment within schools that can yield deep learning for students and adults.

Principal leadership plays a significant role in creating conditions that influence student achievement. From the creation of the “principal teacher” position during the early onset of public education, to the current leadership for learning approach to school leadership, the role of the principal has concerned itself with every aspect of the school, but none more important than those that directly affect school curriculum, teacher practice, and system-wide leadership development and responsibility. Effective principals are able to shift between transactional and transformational leadership approaches based on environmental conditions; however, the most effective principals are grounded in practices that share leadership responsibility among actors throughout the organization and ensure that everyone is guided by a strong organizational mission, vision, and learning-focused agenda.

As with the implementation of any key initiative, leading a school-wide shift in grading practices and policies require the relentless support and involvement of the school principal, but no studies exist that show how school leaders drive the policy creation process that leads to the implementation of standards-based grading at the high school level. Using the *Transformation of Intentions* as a conceptual framework for this research, this study examined how school leaders lead the implementation of standards-based grading through a policy creation lens.

Conceptual Framework: *Transformation of Intentions*

This study was grounded in a conceptual framework used to create and analyze social policy; this study positioned the role of the principal at the center of the school policy creation and implementation processes, of which the conceptual framework was used for analysis. This section provides an overview of the *Transformation of Intentions* framework and the specific components of the framework used in this study.

Policy and process. Policies that govern the implementation of standards-based grading are critical to the overall effectiveness and sustainability of the reform initiative. Hall (1995) defined policy as an “accomplishment within a simultaneously constrained and emergent process” (p. 400) and not as a piece of text or an object. Hall and McGinty (1997) reported that policy is “developed through negotiations shaped by multiple interpretations of intentions under conditions of environmental uncertainty, policy ambiguity, and multiple actors and interests” (p. 441). Hall considered policy as a transformation of intentions where along with the creation of policy, “content, practices, relationships, and consequences are [also] generated” (p. 441) and shape the final policy document.

The creation of policy is seen as segmented, separated, and traditionally occurs through developmental stages that include agenda setting, formulation, enactment, implementation, evaluation, and feedback (Hall, 1995; Hall & McGinty, 1997). Traditional policy creation processes include the presentation of problems that need solutions, debate and analysis about policy particulars, consensus building, and final publication (Hall & McGinty, 1997). Policy initiators are responsible for establishing the parameters that guide the policy process and ultimately, shape the final outcome based on their original intentions.

Transformation of Intentions. The *Transformation of Intentions* framework examines the policy creation process and seeks to explain how an actor's idea can ultimately be realized through the formation of policy (Hall & McGinty, 1997). Estes and Edmonds (1981) argued that "the process becomes the policy outcome—that is, the outcome is generated in the process so that the policy is the process" (p. 81). Hall and McGinty (1997) stated that policy—as stated by Estes and Edmonds—is considered a "transformation of intentions where policy content, practices, and consequences are generated in the dynamics across time and space" (p. 441). The *Transformation of Intentions* framework has a sociological basis, is grounded in interactionist approaches to social policy, and has been used to analyze the creation of public policy—and policy documents themselves—in a variety of fields. This framework is particularly relevant to the examination of policy creation in public schools, specifically at the campus level.

The use of the *Transformation of Intentions* framework in this study relies heavily on the "intentions" aspect of the model, focusing specifically on the *intentions*, *process intentions*, and *content intentions* components. Placier, Hall, McKendall, and Cockrell (2000) defined three aspects of the *Transformation of Intentions* framework:

(a) intentions—purposes and goals meant to shape the behavior of actors in the future and at other sites, motivate actors to act in the policy arena, to use policy as a vehicle for realizing their purposes, (b) process intentions—process intentions are concerned with advancing the process or getting the job done, and (c) content intentions—refer to the product: what is included and what is given priority. (p. 261)

In their qualitative policy study, Placier et al. (2000) used the *Transformation of Intentions* framework to examine the creation of a multicultural education policy in a Midwestern U.S. public school district. As a result of a racial incident at one of the district's high schools, the school district created a committee to develop recommendations for improving race relations. The committee included members from the school district and community with many

members representing the African American community. The researchers conducted interviews with school board members, committee members, and the district appointed committee chairperson. Placier et al. found that over the course of the process, the original intentions of the school board, and the community members on the committee, were transformed and circumvented due to power structures and district conventions. Whereas the school board originally defined the committee scope and policy creation work explicitly through a race relations lens, the committee chair person quickly reframed the work as multicultural education. Whereas the school board's original content intentions called for the creation of district policy, the result of the committee's efforts "was a jumble of cultural activities rather than a well-considered strategy for addressing the causes of racial conflicts, limited parent involvement, and disparities in achievement" (Placier et al., p. 286).

The *Transformation of Intentions* framework provided a means for tracing and analyzing participants' conceptual understandings of standards-based grading, their intentions behind implementing standards-based grading, the processes and leadership actions used to create the standards-based grading policies, and the policies and artifacts created to govern the implementation of standards-based grading.

Conclusion

This chapter discussed the complexities and limitations of the traditional grading system and reviewed aspects of why a standards-based grading system should be considered at the high school level. First, I reviewed the purpose of grading from a historical perspective and how it is currently defined in the literature. I then reviewed scholarship that identified practices and flaws within the traditional grading system and how traditional forms of grading can affect student motivation. I also reviewed research that illuminated inequities in education exacerbated by the

disproportionate use of effective learning theories and practices like standards-based grading in high poverty, high minority dominated schools. Finally, a review of literature on standards-based grading and the use of a conceptual framework rooted in social policy development was documented and used as the foundations for the methodology for this study.

Chapter 3

Research Methodology

This qualitative research study sought to examine and understand how public high school principals create policy, implement, and sustain the use of standards-based grading in their schools. There is a void in the literature that documents how principals use policies to govern the implementation of standards-based grading, specifically in high schools. As such, a phenomenological method of inquiry was used to further investigate the policy creation process and implementation of standards-based grading in public high schools. The overall structure and research methods of this study focused on participant identification, how participants were studied, the instruments used for data collection, and the process used for collecting, analyzing, and protecting participant data (Krathwohl & Smith, 2005). Research methodology scholars note the importance of “assessing the rigor and value of individual reports of research” (Merriam, 2007, p. 11). This chapter includes the research questions that were used to guide this study, a description of the methodology, participant identification criteria, data collection, data analysis procedures, and issues related to reliability and validity.

Research Questions

Three research questions guided the investigation into standards-based grading in the high school setting:

1. From principals’ perspectives, how has the implementation of standards-based grading promoted improved student learning?
2. What core systems and structures must be in place to implement standards-based grading and what process did principals use to create and communicate the policies governing standards-based grading in their high schools?
3. What factors have advanced or hindered the implementation of standards-based grading in high schools?

Research Design

This qualitative research study utilized a phenomenological design of inquiry as the mechanism to understand how principals led and sustained the implementation of standards-based grading in public high schools. The phenomenological method was selected as the design anchor for this study for two reasons. First, Creswell (2014) suggested a phenomenological design of inquiry approach as an option to be used if the researcher is seeking to understand the lived experiences of individuals concerning a specific event or phenomenon. Because this study relied on the lived experiences and perceptions of high school principals who have led the implementation of standards-based grading in their schools, the use of a phenomenological interview study was appropriate. Second, because Creswell encouraged researchers to make explicit the philosophical worldviews from which their research is derived, this study was grounded in the researcher's philosophical belief in social constructivism, a worldview that suggests individuals have a desire to understand the environments in which they work and live. Because of my social constructivist approach to research, the use of a phenomenological design of inquiry helped me explore the complex relationships and interactions needed to create policies that guide and inform the implementation of standards-based grading in public high schools from principals who have gone through the experience.

The use of a phenomenological approach to study the lived experiences of high school principals who have led the implementation of standards-based grading helped me document what Bogdan and Biklen (2011) called "idea[s] the informants take for granted as true" (p. 25). Principals who have led the implementation of standards-based grading in their schools spoke about their leadership experiences definitively; by capturing multiple truths from each principal, patterns and consistencies emerged from the data that revealed themes and transferable learning

applicable to practitioners and scholars. This qualitative phenomenological research study used the interview study approach to capture the truths and lived experiences of 10 principals to compare, contrast, and offer a stronger understanding of the ways in which they thought about, implemented, and sustained standards-based grading in their high schools. Offering more than one viewpoint of how principals thought about, and attacked, the same problem and the same reform initiative will help give other principals a better perspective and understanding as they attempt similar initiatives. Providing comparison and contrasting accounts also unearthed new understandings, questions, and problems for future research.

Participant Selection

The selection of interview participants adhered to what Merriam (2007) described as purposeful sampling. Purposeful sampling requires the researcher to select participants and research sites “based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (p. 61). Miles, Huberman, and Saldaña (2013) identified four aspects researchers should consider when detailing site and sample selection process:

(a) the setting (where the research will take place), (b) the actors (who will be observed or interviewed), (c) the events (what the actors will be observed or interviewed doing), and (d) the process (the evolving nature of events undertaken by the actors within the setting). (p. 189)

The use of standards-based grading is more pronounced in elementary schools, followed by middle schools, and is rarely adopted school-wide in high schools. High school principals served as the actors, as this study was limited to principals who led the school-wide implementation of standards-based grading in their high schools. Research invitations were sent to high school principals who have led the implementation of standards-based grading (Appendix A). Three of the five high school principals agreed to participate in the study. An internet search

engine was used to identify additional high school principals across the U.S. who utilized standards-based grading.

Because there appeared to be a limited number of principals who led the implementation of standards-based grading in a high school setting, snowball sampling was used to assist with the identification of additional study participants. Snowball sampling is a technique used by researchers to identify study participants from subjects currently in the existing study in a non-randomized fashion (Bogdan & Biklen, 2011). Study participants were asked to recommend other high school principals for study who have also led the implementation of standards-based grading in their schools. However, no formal recommendations were received from principals through the use of snowball sampling. Additional research invitations were sent to 20 principals identified through the internet search; of the 20 research requests sent, eight high schools had discontinued their use of standards-based grading, three principals did not respond to the research invitation, and 2 principals declined. A total of 10 high school principals from across six states agreed to participate in this research study. Aside from the required consent form agreement (Appendix B), no specific criteria for the type of school, type of principal, or student body demographic existed for this study. However, high school principals were required to have played a direct leadership role in the implementation of standards-based grading, because the basis for the interview study was grounded in their abilities to recall their experiences leading the policy creation processes and school-wide implementation of standards-based grading.

Selected participants. I selected 10 high school principals from six states to participate in this study; of the 10 participants, seven were male and three were female. Additionally, nine participants identified as White, one participant identified as Black, and the average number of years serving as a principal was five. National data on principal demographics closely mirror the

characteristics of the high school principals participating in this study: NCES (2017a) survey results showed that 9.2% of U.S. high school principals are Black while 78.6% identify as White. In terms of gender, 32.7% of high school principals are female and 67.3% are male (NCES). Participants were representative of public schools in a mix of large urban, rural, and suburban school districts located in the Western, Midwestern, and Eastern regions of the U.S. In terms of the decision to implement standards-based grading, eight principals exercised their local authority and approved the implementation of standards-based grading; two principals led the implementation of standards-based grading after their local school boards adopted standards-based grading practices district-wide. Excluding the principals who led the implementation of standards-based grading as a result of a district-wide adoption, the eight remaining principals all built consensus and worked collaboratively with teachers to implement standards-based grading after receiving approval from their supervisors. At the time of implementation, no state policies directly affected the implementation of standards-based grading. Table 1 presents participant and school demographic information, including their pseudonyms.

Data Collection

Participant data were collected from March 2018 through June 2018 through participant interviews, and document analysis (Bogdan & Biklen, 2011; Creswell, 2014). Through participant interviews, I collected more data on the process principals used to implement standards-based grading at the high school level than I could possibly have used in this research study (Bogdan & Biklen, 2011). To clarify responses, provide additional context, or probe for additional information, follow-up interviews were conducted with selected participants.

Table 1

Interview Participants

Name	State Serving as Principal	Gender	Race	Years as Principal	Years in Education	School Type	Enrollment	% of Free/ Reduced Lunch	% White Students	% Black Students	% Hispanic Students	% Asian Students	% Multi- Racial Students
Barack	Illinois	M	White	7	20	Public— Selective Enrollment	978	33	43	13	22	17	4
Ava	Colorado	F	White	4	28	Public	433	82.2	.05	30	57	.03	.034
Elle	Indiana	F	White	2	17.5	Public	565	39.3	96	0.0	1.4	.02	2.2
Nasir	Vermont	M	White	3	18	Public	1326	12	93	2	2	2	1
Roy	Illinois	M	White	3	10	Public— Selective Enrollment	1292	67	2	72	24	1	1
Michael	Colorado	M	White	13	41	Public	948	32.1	51.3	0.2	44	1.4	2.1
Kanye	Illinois	M	Black	4.75	17	Public— Selective Enrollment	638	80	1	94	4	1	0.0
Jay	Pennsylvania	M	White	5	23	Public	240	100	1	85	3	5	6
Alyssa	Colorado	F	White	4	25	Public	1694	64.5	13	23	56	.04	4
William	Iowa	M	White	4	20	Public	244	26.2	90.2	0.4	4.9	0.0	4.5

As previously stated, pseudonyms were used for each participant. During the transcription of data, all participants were assigned a unique code and all personally identifying information was removed from transcripts. Codes and participant names were housed in a separate location on a secure cloud-based server. Codes were used in the event follow-up interviews were necessary and findings identified from data collection were reported by themes in the aggregate.

Interviews. This research study included two of Creswell's (2014) basic types of collection procedures in qualitative research: qualitative interviews and documents. The qualitative interview method served as my primary mechanism for data collection. Bogdan and Biklen (2011) explained that interviews can serve as the "dominant strategy for data collection or they may be employed in conjunction with participant observation, document analysis, or other techniques" (p. 103). Saldaña (2011) noted that interviews are "an effective way of soliciting and documenting, in their own words, an individual's or group's perspectives, feelings, opinions, values, attitudes, and beliefs about their personal experiences and social world, in addition to factual information about their lives" (p. 32). The purpose of the qualitative interviews in this research phenomenological study was in line with Bogdan and Biklen's (2011) assertion that "the interview is used to gather descriptive data in the subjects' own words so that the researcher can develop insights on how subjects interpret some piece of the world" (p. 103). This research study utilized qualitative interviews to gather descriptive data on how high school principals implemented and sustained the implementation of standards-based grading in their schools. The *Transformation of Intentions* framework (Placier et al., 2000) was used as I developed the protocol for principal interviews. The qualitative interviews followed an interview protocol with open-ended questions designed to reconstruct and unearth each principal's memories, actions,

and tasks related to the implementation of standards-based grading in their schools (Appendix C). Interview questions were open-ended and I encouraged participants to elaborate on their answers. The interview questions asked participants for general information about their schools and their professional work histories; interview questions required principals to think through their actions and decisions during the standards-based grading policy creation and implementation phases. Interviews lasted between 30-60 minutes, were audio recorded with permission of the subject, and were transcribed using a professional transcriptionist (Creswell, 2014). Participants were given the option to decline audio recording but none opted out. Follow-up interviews were conducted with each participant to clarify perceptions and ambiguities, as well as to expand on themes that emerged from the initial interviews. Follow-up interviews occurred either by phone or email depending on the participants' preference. Transcripts of each interview were returned to the principals for member checks (Bogdan & Biklen, 2011; Creswell, 2014).

Documents. I also analyzed any documents voluntarily provided by the participants for additional qualitative data analysis. Documents collected from the subjects and research sites included policies governing standards-based grading and high school websites describing standards-based grading processes. All 10 participants submitted grading policies that were used to govern the implementation of standards-based grading in their schools. Policies were reviewed, analyzed, and common themes were identified across all participants.

Data Analysis

For this study, I utilized traditional qualitative data analysis methods and procedures to make sense of the data provided by participants (Creswell, 2014). Specifically, I utilized simultaneous data collection and analysis during the qualitative interviews, the identification of

themes and the discarding of some data through a process called winnowing, the use of coding to thoroughly develop themes and descriptions based on the data collected, and the use of qualitative documents to either support or refute the identified themes. Additionally, I used the *intentions*, *process intentions*, and *content intentions* aspects of the *Transformation of Intentions* framework (Placier et al., 2000) to provide a theoretical lens for viewing each principal's role in the implementation and sustainability of standards-based grading in their schools.

Once data were collected, I organized and prepared the data for analysis by transcribing the qualitative interviews, typed and edited the notes from the qualitative document review in Microsoft Word, and sorted the data to correspond with the *intentions*, *process intentions*, and *content intentions* aspects of the *Transformation of Intentions* framework. I initially read through the data to capture a general sense of what had been documented, identified early emergent themes, and then began the process of coding (Creswell, 2014). I used a combination of codes from the emerging themes and ideas taken from the data collected from each principal, and the predetermined codes taken from the *Transformation of Intentions* framework. Once the coding process was completed, I began the process of generating descriptions which led to the further development of themes or categories to anchor the study. After rereading the data and cross checking the initial themes/descriptions, I used the themes to compare and contrast each principal's responses to identify consistencies and confirm themes. As it relates to interpreting the data, I offered interpretations and highlighted consistencies as they related to the *Transformations of Intentions* framework and the literature on standards-based grading. Interpretation of the data collected was done in consideration of my personal background and understanding of the research topic. Finally, once the data was compiled and after a final review, a detailed narrative was created.

Throughout the data collection, analysis, and interpretation processes, constant adjustments to the analytic process were made when needed and every attempt was made to ensure an honest and trustworthy study. The following section addresses issues of trustworthiness, validity and reliability.

Trustworthiness, Validity, and Reliability

Trustworthiness. Saldana (2011) described the importance of honesty and integrity by the researcher during the writing process. Researchers are required to be ethical and transparent in through every stage of research, but particularly in the data collection, analysis, and interpretation phases of the research process. Ethical concerns most often occur during the process of collecting data (Merriam, 2007). As a researcher, I was resolute about maintaining the highest ethical standards and adhered to the procedures that govern qualitative research. Through the use of deductive coding and the lens of my conceptual framework, I committed to explore every possible theme unearthed from the data. I also ensured that all confidentiality procedures and agreements were honored and that the security of my participants and their data were protected at all times.

Validity and reliability. Creswell (2014) distinguished between validity and reliability in qualitative research, stating that “validity does not carry the same connotations in qualitative research as it does in quantitative research . . . nor is it a companion of reliability . . . or generalizability” (p. 201). Creswell defined qualitative validity as “the researcher [checking] for the accuracy of the findings by employing certain procedures” (p. 201), and qualitative reliability as the process to ensure that “the researcher’s approach is consistent across different researchers and different projects” (p. 201). Qualitative validity and qualitative reliability are both aspects of qualitative research that endeavor to support the researcher in producing credible findings and

interpretations. However, Lincoln and Guba (1995) contended that the field of qualitative research—or naturalistic inquiry—prefer the concepts of credibility, transferability, dependability, and confirmability over the “naturalist’s equivalents for the conventional terms internal validity, external validity, reliability, and objectivity” (p. 300). To address issues related to credibility, transferability, dependability, and confirmability in qualitative research, Lincoln and Guba suggested the use of prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis, referential adequacy, and member checking. In this study, I used persistent observation, triangulation, and member checks to increase the probability that credible findings were produced.

The persistent observation technique was used to establish a sense of focus and depth. Lincoln and Guba (1995) defined the purpose of persistent observation as the in-depth attention paid to the important details in the observed situation that are central to the problem being studied. To accomplish the goals of this qualitative research study, I utilized the data collected from the first and second rounds of qualitative interviews and the collection of qualitative documents to identify important and emergent themes, facts, and areas of focus. The emergent themes, facts, and areas of focus were labeled and used to identify aspects of standards-based grading that need more in-depth observation, investigation, and focus. Constant data review and analysis occurred until final confirmed themes and findings were made clear.

The use of triangulation was the second technique I used to improve the likelihood of more credible interpretations and findings. Denzin (1978) defined triangulation as “the use of multiple and different sources, methods, investigators, and theories” (p. 6). Creswell (2014) described triangulation as the examining of “evidence from [different data sources] and using it to build a coherent justification for themes” (p. 201), and if themes can be established based on

the multiple data sources, “then this process can be claimed as adding to the validity of the study” (p. 201). I conducted identical data collection processes across all study participants, using the data collected to validate—or invalidate—the findings from other participants in the study. I utilized two different methods for data collection including interviewing high school principals using the same semi-structured interview protocol and reviewing similar qualitative documents related to standards-based grading from each school. The data collected from both methods were compared and contrasted against each principal and the *Transformation of Intentions* theoretical framework to check for confirmation, verification of truthfulness, and the identification of themes, facts, and findings. Additionally, I utilized Microsoft Word to create tables for data analysis to provide further clarity and connections of themes and findings. Finally, member checks were used to allow principals to review transcripts to confirm the accuracy of the transcriptions and to have an opportunity to expand upon their initial responses. Follow-up interviews were used with each participant and an experienced qualitative researcher served as a peer reviewer to confirm the accuracy of the themes I identified in the data.

Background and Role of Researcher

Because qualitative research is based on interpretation, Creswell (2014) asserted that the researcher is “typically involved in a sustained and intensive experience with participants [and] this introduces a range of strategic, ethical, and personal issues into the qualitative research process” (p. 187). To this end, I have been an educator for 12 years. I am an African American male who is originally from a large urban city in the Midwest. After graduating college from a public university in my home state, I worked as a high school English teacher for 4 years in a small economically and racially diverse unit school district. I also spent 4 years teaching and leading a program called Advancement via Individual Determination (AVID); in this program, I

worked primarily with African American and Hispanic students from predominately low-income households. I spent an additional year in the school district serving as an assistant principal at the high school in which I taught and was introduced to the concept of standards-based grading during this time. After 5 years in the school district, I relocated back to the large urban city and served as an assistant principal in a racially diverse, admissions-based high school, where I was a part of the rollout of standards-based grading in two departments within the school. Shortly after, I became the principal of another admissions-based high school, with a predominately African American, Hispanic, and low-income population of students, and I led the implementation of standards-based grading for 4 years. Currently, I am a Community Superintendent in a mid-sized urban/suburban school district in a southern state.

Throughout the data collection and analysis processes, I relied on the perspectives of my participants to guide and shape this study (Creswell, 2014). Although my background and experience with standards-based grading provided context for me, I was intentional about setting aside my experiences and beliefs to focus solely on the views and data collected from my participants.

Conclusion

This chapter provided a brief introduction to standards-based grading, the research questions, and the phenomenological research methodology used for the basis of this study. This chapter provided background information on the participants and their schools and detailed the process used to collect and analyze participant data. In-person interviews and qualitative document review were the two data collection methods used in this study. The *Transformation of Intentions* conceptual framework was the lens from which this study is viewed. This chapter acknowledged my social constructivist philosophical worldviews and my background and prior

experience leading standards-based grading in a high school. Finally, methods and procedures to ensure validity and reliability were described.

Chapter 4

Findings

This phenomenological study sought to identify how high school principals define and implement standards-based grading in their schools. This study investigated how principals described the process and leadership actions employed to create the policies that guide the implementation of standards-based grading, and the required systems and structures needed to support and sustain standards-based grading in high schools. The following research questions guided this study:

1. From principals' perspectives, how has the implementation of standards-based grading promoted improved student learning?
2. What core systems and structures must be in place to implement standards-based grading and what process did principals use to create and communicate the policies governing standards-based grading in their high schools?
3. What factors have advanced or hindered the implementation of standards-based grading in high schools?

Presentation of Reported Findings of the Study

Chapter 4 presents the results and analysis from this study. Emergent themes and findings from participant interviews are organized by each research question and corresponding subsections. Data analysis was driven by the conceptual model, *The Transformation of Intentions*, discussed in Chapter 2. Established through social policy creation literature and theory, *The Transformation of Intentions* examines how one's intentions can be realized through the policy creation process and the subsequent initiative implementation.

Research Question 1: From Principals' Perspectives, how Has the Implementation of Standards-Based Grading Promoted Improved Student Learning?

This question focused on the *intentions* aspect of the *Transformation of Intentions* conceptual framework and was divided into two parts: (a) understanding why principals decided

to lead the implementation of standards-based grading, and (b) the outcomes principals were hoping to achieve. Overall findings revealed a desire to implement standards-based grading by principals as a mechanism to improve the identification of prioritized learning targets that explicitly state what students should know, understand, and be able to do in each course; to provide clarity for students and parents on what should be learned in each course; to ensure students leave high school with a better understanding of content and skills so they could be college and career ready; and to eliminate unreliable and inconsistent grading practices school-wide. Additionally, findings indicated improvements in teacher practice, improved student engagement, positive quantitative outcomes for students, and clearer communication of student learning were all intended outcomes associated with why participants decided to implement standards-based grading in their schools.

Principal intentions behind the implementation of standards-based grading.

Participants were asked to explain why the decision was made to implement standards-based grading at their high-school. From the data, three subthemes emerged: (a) standards-based grading improves the clarity teachers and students have regarding what should be learned in each course, (b) standards-based grading create conditions for students to engage in deeper learning, and (c) standards-based grading minimizes unreliable and inconsistent grading practices.

Standards-based grading improves the clarity teachers and students have regarding what should be learned in each course. Four principals sought improved clarity around what students should know, understand, and be able to do as the goal for the implementation of standards-based grading. Ava noted that she had “seen [standards-based grading] transform teaching and learning” and provide more “clarity about what teachers should teach and kids should learn.” Like Ava, Barack supported the implementation of standards-based grading

because he believed it would help “educators become much more specific about what we’re asking students to learn, both the content and skills, which are genuinely needed and valuable to the student’s growth.” Ava and Elle cited the desire for clear and detailed feedback to students on their learning as a result of teachers having clearer and more specific learning targets based on standards and skills.

Standards-based grading creates conditions for students to engage in deeper learning.

Participants described their desire for students to learn content and skills more deeply as their reason for shifting to standards-based grading. Jay commented,

I was disappointed with the kind of long-term outcomes that my students were having. So, they do well in my class, they do well on the tests, I had good relationships with them. But it seemed like, in the long run, those skills weren’t really sticking or serving them well.

Similarly, Barack discovered that “kids were less able to do complex tasks under the old system,” and Nasir realized that there were “students in our classes who were struggling and that it was our responsibility to do something about it.” Conversely, Michael referenced a philosophical debate about what to do with students who are completely disconnected from the daily transactions of school, but yield perfect scores on Advanced Placement and college admission exams:

Do we want to have a system where we are indifferent to what a student does over the course and we measure through some kind of assessment what it is that they know, understand, and they’re able to do at the end of the course? Do we put some motivational grading in there as a forethought? How do you handle that? Once we’d engaged in that discussion for a while we felt that the only rational thing to do is to adjust our system.

Standards-based grading minimizes unreliable and inconsistent grading practices.

Principals cited unreliable and inconsistent grading practices as the primary reason for implementing standards-based grading. William, Kanye, and Alyssa spoke about grading practices of their teachers as generally being “all over the place,” both from their evaluations of

their schools' grading practices and from their reviews of the literature on grading and assessment. Those principals reported the distribution of inconsistent student grades for teachers who taught the same courses, and were in the same departments, as an example worthy of school-wide concern. Also reported was the widespread use of "this mysterious thing called extra credit, which could be triggered by something like bringing cans for a food drive."

Roy and William commented on the negative correlation between student Grade Point Averages (GPAs) and standardized test scores as a call for the shift to standards-based grading in their schools. Roy stated,

We noticed a disconnect of what our school GPA looks like in relationship to our standardized test scores when we look at the other selective enrollment schools. Our test scores were high just like the other selective enrollments, but our GPAs were low. And so, that's kind of really how we started down that path, was that our data was telling us that we're not serving and doing right by kids.

William highlighted the same correlation issue, but noticed that his students had higher GPAs and lower standardized test scores:

Well, one other thing in the high school is that we were having kids who were teacher pleasers, who would do all their homework, maybe not do very well on the tests and they'd still get high marks or high grades. So, we were having 4.0 kids leaving here that weren't even at an 18, a 17, a 19 on their ACT. So, our test scores, ACT scores did not really indicate that our kids were really—weren't learning a lot. They were learning how to be teacher pleasers and to jump through the hoops but they weren't performing up to standards. So, we'd have 4.0 students that were having to take remedial classes when they got to college.

Both principals attributed the negative correlation between GPAs and standardized test scores to the unreliable and inconsistent grading practices in their schools. Although court rulings have prohibited the use of grades for disciplinary or punitive reasons in schools, other participants cited the unfair application of grades as a behavior management tool as one of the primary reasons why a shift to standards-based grading was made.

Participants cited various reasons as to why standards-based grading was adopted in their schools, but overall, consensus findings suggested the paramount intention was for teachers and students to gain more clarity around what should be learned in their classes. Consensus findings also noted a desire for students to learn content and skills more deeply, and a desire to eliminate the inconsistent grading practices that existed throughout their schools.

Desired outcomes of standards-based grading processes. Principals were clear about the outcomes they hoped to achieve as a result of the implementation of standards-based grading in their high schools. Four subthemes emerged from the data collected: a desire for (a) improved teacher practice, (b) improved student engagement, (c) positive quantitative outcomes for students, and (d) clearer communication of student learning.

Desire for improved teacher practice. Six principals sought—and claimed to achieve—improvements in teacher practice as an explicit desired outcome of their implementations of standards-based grading. They referenced, either explicitly or implicitly, how gaining clarity on the learning outcomes for students led to improvements in how teachers engaged in lesson planning, adjusted their classroom instructional practices, and responded to student learning needs. Barack reported,

The goal is to have clarity first amongst faculty members, specifically within course teams, within departments and across the faculty as to what content and skills we want students to learn. [Teachers] should be working with, researching, and understanding the national standards—content and skills standards. And then translating those into exciting, meaningful learning activities for kids.

Jay hoped to eliminate the constant asking of the age-old “why do I need to know this” question by his students. As a result of the shifts the implementation of standards-based grading has required from his staff, Jay stated, “we do not hear that because what they are learning is

immediately applicable.” Finally, as a result of the implementation of standards-based grading, Elle believes her school achieved what they set out to accomplish:

I feel like our outcomes, our curriculum is better, we have a more focused and open sequence and our assessments are better, so we’ve aligned, we’ve just aligned what we do in the classroom every day to our standards and because there’s specific feedback where we’re getting better results on student learning.

Principals, either explicitly or implicitly, expected the implementation of standards-based grading would result in improved teacher practice, with the ultimate goal of improved student engagement and outcomes.

Desire for improved student engagement. Participants commented specifically on their desires to see students more engaged in learning as a primary goal for the implementation of standards-based grading. Kanye reported changes he has seen throughout the school as he observes students learning:

When we observe classrooms now where teachers are really working at this, we can have conversations with students where the student language has changed. So, the students are no longer saying, “I’m done with my work, give me my grade.” If you go and ask them what they’re working on, “Well I’m working on this standard.” And the standards surround them in the rooms now.

Kanye stated, “I’m really happy with, like I said, the mentality of the students; we can see that as an actual change in the academic culture.” Likewise, Jay and Nasir reported how their desires to lead standards-based grading, and their goals for improved student engagement, led to the creation of innovative ways to deliver teaching and learning in their schools. Jay reported,

We envisioned a space where students could engage in real authentic work. So instead of dissecting learning into kind of these artificial constructs around content, we would look at these holistic problems and challenge the students to solve these larger, real world problems. And then the way that you keep track of learning inside of that, is through standards-based grading and instruction. And so, we tie back each of what we call the deliverables, the assignments that go towards the final product. We tie those back to standards. And so, the final products, the products that the students are generating are being graded up on these standards that are tied to real life problems.

In similar fashion, Nasir sought an outcome that would yield “greater engagement in our students who were possibly feeling left behind or feeling bored.” Nasir stated,

By adopting a framework of standards, we are really able to bring kids out of the traditional classroom experience and create more flexible pathways to graduation, in a way that I think traditional grading systems didn’t really allow for. We are really able to kind of tap into a kid’s natural interests and strengths and have kind of a more of a strength based approach as opposed to the normative approach to education. By the way, it was one of the things we didn’t anticipate but it’s been pretty powerful.

Desire for improved quantitative outcomes for students. Participants described a desire for improved quantitative outcomes for students on metrics that include attendance and graduation rates, higher GPAs, improved scoring on state accountability and college entrance exams, increased scholarship awards, and increased admittance of students into highly selective colleges and universities. Jay commented, “the data around the school is [that] we have much higher attendance rates . . . we have a much higher graduation rate.” Five principals reported improvement in student achievement, specifically in relationship to GPAs and on state and college entrance exams. Michael stated, “I think it was our implicit understanding that [standards-based grading] would raise school achievement.” William attributed growth on the ACT, a college entrance exam, to the implementation of standards-based grading:

So, we have gone from below the national average on our ACT scores to above the state average on our ACT scores. And the number of—it was every once in a while we would get a kid in the 30’s. Now every year we get at least, we have about 60 kids in a class and we at least get five kids in the 30’s every year on the ACT.

Ava also reported improved student achievement on state accountability exams:

When I got to this school it was not performing well on the state performance standard or the school report card and it was in danger of being closed. And we took it from that to meeting state standards in 2 years, my first 2 years here. And some of the early adopters of standards-based grading did so well that in math in particular, our math teacher posted the second highest math growth in the state.

Roy also attributed improved student achievement to the implementation of standards-based grading:

What we've seen is increase in GPAs, so about 45% of our students during this most recent graduating class of 2017 had GPAs above a 3.0, test scores are a little harder to compare because the district switched from ACT to SAT, but when we look at the conversion, they have increased slightly.

As a result of the growth in student achievement, Jay and Roy articulated increases in postsecondary entrances and awards; Jay reported that his school is “sending a higher percentage of students to post-secondary institutions.” Roy commented on both the quality of schools his students are now attending and the increases in scholarship awards earned:

More of our students are being accepted to and attending selective and highly selective universities, so last year 60% of our kids were accepted into highly selective or selective universities, and 40% went to those schools. And our scholarship dollar continues to increase here every year. Last year [students earned] \$57 million, 6 years ago, it was around \$12 million in scholarships for our students.

Desire for improved communication of student learning. Principals identified improved communication of student learning as a goal of their implementations of standards-based grading. Michael wanted grades to “be more transparent to parents and students, and also a more accurate reflection” of what students know and are able to do. Ava expressed a desire for more authentic conversations around student learning:

What I was looking for was a more authentic conversation around mastery of standards between the students and the teachers and the families, as students registered courses. Rather than, I completed unit one or I have a zero in unit two. That doesn't give anybody any information about mastery of standards and skills and the knowledge necessary to complete a course, and then it just makes the conversation more authentic.

Alyssa highlighted the importance of the online gradebook as being a key lever for improved communication between teachers, students, and parents by

making sure that the electronic system that we use on campus was able to align with those [standards] as well, so that parents really understood what does this mean, how do I

understand how to help my child. But then also, in this system, this electronic system, being able to identify things as summative or formative assessment.

Overall findings suggested participants sought the implementation of standards-based grading to improve student engagement and performance on quantitative measures; principals also hoped to improve teacher practice and provide clearer communication of student learning.

Research Question 2: What Core Systems and Structures Must Be in Place to Implement Standards-Based Grading and What Processes Did Principals Use to Create and Communicate the Policies Governing Standards-Based Grading in Their High Schools?

This question focused on the “*content intentions*” and the “*process intentions*” aspects of the *Transformation of Intentions* conceptual framework and was divided into two parts. The first part listed the core systems and structures needed for the implementation of standards-based grading and focused on the *content intentions* aspect of the conceptual framework. The second part detailed the process used to create standards-based grading policies and focused on the *process intentions* and *content intentions* aspects of the conceptual framework.

Core Systems and Structures

Participants identified the core systems and structures needed for implementation of standards-based grading; from the data, three subthemes emerged: (a) the need for a clear definition of standards-based grading; (b) full implementation of the core components of standards-based grading; and (c) the establishment of school-wide systems and practices that promote consistency, teacher collaboration and improved student learning.

The need for a clear definition of standards-based grading. Each principal provided a unique perspective and offered varying degrees of interpretation concerning their definitions of standards-based grading; however, common participant responses were evenly split into two groups based on two common definitions: (a) standards-based grading defined as a function of

teaching and learning, and (b) standards-based grading defined as a mechanism for measuring and communicating student learning.

Standards-based grading defined as a function of teaching and learning. One group of five principals articulated definitions of standards-based grading in relationship to practices consistent with classroom teaching and learning. These principals defined standards-based grading in terms of its focus on standards, skills, assessments, and instructional techniques. Barack stated that “the standards drive the curriculum, followed by the assessments that will help teachers and students understand whether there’s notable progress, or lack thereof, towards those standards.” After students take either formative or summative assessments, Barack reported “some are ready to move on to unit two and others aren’t quite ready. So, standards-based grading allows for variations of students’ speed of progress through the content and skills.” Ava defined standards-based grading as a “standards-based teaching and learning cycle.” Ava explained,

It’s about more than just the assessment and the grading thing. But it is about clearly defining what the standards are and having a common understanding of what it is between students and teachers and families. So, it’s starting with knowing what the standards are and clearly defining them and then providing multiple pathways towards mastery.

Alyssa defined standards-based grading in terms of the process teachers use to design instruction: “We take the standard and then we decide what proficiency looks like. And that is how we start with writing the assessment. This is this way, proficiency will be. Then we plan our units backwards that way.”

Standards-based grading defined as a mechanism for measuring and communicating student learning. The remaining group of five principals defined standards-based grading as a mechanism for more accurately measuring and communicating student learning to stakeholders.

Michael reported, “standards-based grading I guess is the system by which the grade we give the student best captures their final achievement in the subject area.” Kanye stated that “standards-based grading is truly . . . measuring students on purely what they know and are able to do as opposed to compliance or behavior.” Elle reported, “it is a way to align your curriculum and give specific feedback and specific information to your students about what they know and can do.” Other participants like William highlighted the intentional “focusing on individual standards to make sure that [students] are competent in all the standards which we deem to be important,” while Nasir sought clarity with “students about what our learning targets are, what destination it is, being really clear about what proficiency looks like and those learning targets, and then trying to find a variety of routes to get to that learning target.”

All 10 leaders provided conceptual definitions of standards-based grading in relationship to a teacher’s instructional approach to student learning or in relationship to clearer measurement and communication of what students know and are able to do.

Full implementation of the core components of standards-based grading. Building on the participants’ conceptual definitions of standards-based grading, each leader was asked to identify the core components of standards-based grading. From their responses, I identified four consistent components: (a) the need for clearly articulated standards and skills, (b) the use of formative and summative assessments, (c) policies that provide students with multiple opportunities to demonstrate mastery, and (d) the use of consistent scoring criteria and grade calculation.

The need for clearly articulated standards and skills. The use of standards in a standards-based grading system was a major component for implementation as cited by all 10 participants. All principals reported their schools started their implementations of standards-

based grading with the some sort of local or national standards. Ava responded, “it really starts with unpacking the standard . . . communicating that with students and the parents and then plugging away every single day with the content language objective on the board with the matching standard to support it,” Kanye reported, “so we’ve got standards listed, these are our overarching standards maybe for the semester or sometimes even the whole year. These are the specific standards that we’re working on in this unit.” Other leaders spoke about the creation of priority standards, power standards, or graduate aims. Elle reported, “we had to go in and identify power standards and we found that some standards are not really worthy . . . and so those could be like building blocks to . . . some of our standards are building blocks.”

Jay reported his school’s clarity and narrowing of the standards and skills students learn throughout the year:

The standards are like I said, clear from the beginning. . . .The approach we’ve taken is, less is more. We don’t grade on like 27 standards inside a single product. Because we really want the kids to go deep and have a clear understanding like, this product’s going to be graded on these couple standards. I do not know if that is something that’s lost or gained in our approach, but that is definitely one of the compromises that we make.

There was consensus among all 10 participants regarding the use of clear standards and skills as a core component of their implementations of standards-based grading. Additionally, the use of formative and summative assessments was described as being essential to the implementation of the grading reform effort in schools.

The use of formative and summative assessments. Six participants specifically identified the use of formative and summative assessments as a core component of their implementations of standards-based grading. Michael reported the constant use of assessments and its critical role in the implementation of standards-based grading:

We certainly pay attention to the principle of learning being constant. But from a point of view of student achievement, you can attend much more effectively to raising the student

achievement if you do constant tests for understanding in the classroom. If a teacher has a system where you're going minute by minute through the material, checking if the students actually understand the work, and stopping if they don't, and re-teaching and going over it. That is a much more effective way of having the students achieve higher.

After teaching and learning has occurred, Ava reported her school's use of assessments "daily, to monitor progress and then [provide] continuous feedback to students," and how standards-based grading now requires teachers to "design their assessments to [be differentiated] across the board so kids can demonstrate ability of these basic skills." Jay reported a slightly different perspective regarding the use of formative and summative assessments:

In terms of formative assessment, the way we handle that is the final product and using the deliverables along the way and are weighted. So, when we roll a project out, we share the rubrics with the students. And we talk about what the actual work looks like for each of those. In terms of formative assessment, it is really project based. We don't have a test or an exam or anything like that. It is based on the products. The students do a self-evaluation on their final products based on the standards and then the teachers write their evaluation and sit down and have a conversation around how this thing did or didn't do from excellent work level.

Six participants identified the use of formative and summative assessments as a core component of standards-based grading. As a by-product of the use of formative and summative assessments, policies that provide students with multiple opportunities to demonstrate mastery of standards and skills was also identified as a core component of the implementation of standards-based grading.

Policies that provide students with multiple opportunities to demonstrate mastery. Six participants listed the importance of giving students multiple opportunities to demonstrate mastery of standards and skills as a core component of the implementation of standards-based grading. Barack described a structured, school-wide effort to give students more time to re-learn:

Students who don't meet the proficiency standards on any of those assessments at our school are given opportunity to what we call "boost." That comes during the school day, but near the end of the school day, the last 45 minutes of the school day is where we have something called enrichments. Students who are not yet proficient can go boost during

their enrichments, where two things happen. The teacher re-teaches the concept or skill that the student is about to boost on, then they're re-assessed. And the reason we like to have this happen during the enrichment session is if a student is in a class on Monday, and is not yet proficient based on Monday's assessment, usually by Wednesday we can more often than not get them so called caught up to their peers in the class.

After students fail to show proficiency on an assessment, Ava stated that there are “multiple ways for students to develop that mastery and demonstrate that mastery,” specifically through the “math lab and literacy lab, but beyond that and in addition to that, we kind of take a personalized approach that's kind of a surgical student by student” approach. Ava continued, “so rather than having whole school-wide efforts, we really provide the time and the tools for teachers to drill down into each individual student learning and provide the something that each individual student might need.” William stated that they “do allow students to reassess, but they have to show some additional learning before they can reassess on particular standards;” William also made mention of the school's “intervention period [that meets] four days a week” and the “after school standards help.”

So, on Mondays and Thursdays, half of our school our math and science teachers on Monday, and our social studies and English and all of our electives are kind of pushed in there. They have after school tutoring and the teachers actually run it for those kids who have a non-competent standard mark at any of the standards in any of their classes.

Other leaders mentioned policies or expectations that require teachers provide additional time for students to demonstrate learning; Michael described a district-given directive, “in our ideological version of standards-based grading, the rule coming down from the district office was that you accept the student's work kind of forever.”

The majority of principals cited the importance of providing multiple opportunities for students to demonstrate mastery as a core component of standards-based grading. In addition to the ability for students to have multiple opportunities to demonstrate mastery of standards and

skills, principals identified consistent scoring criteria and grade calculation as core components of their implementations of standards-based grading.

The use of consistent scoring criteria and grade calculation. Nine principals reported their efforts to establish consistent scoring criteria and grade calculation as a core component of standards-based grading. Alyssa reported the use of “understanding by design and looking at proficiency scales;” Alyssa continued,

We report out by standards. The teachers kind of created scales for each of those standards and that was really good work for us. We’re reporting out separately for none achievement factors. And then we do have a lot, I feel like part of standards-based grading is offering a lot of support. We have a no zero policy basically, if the student doesn’t do the work we don’t allow our teachers to put in zeros because that’s a non-achievement factor, we want to know what they can do.

Other principals highlighted the use of rubrics and other tools to achieve consistency in grading school-wide: Michael reported, “we do use a 4-3-2-1 scale school-wide,” Jay responded, “so, again I talk about the rubrics and that’s kind of how we define what excellent work looks like inside that rubric,” and Roy added, “then there’s a clear universal scoring criteria for the school of a one through four and each level defines what that means.” Roy further explained,

And so, the students are assessed specifically on those PI’s [Performance Indicators], every assessment . . . and so if there are multiple PI’s, they get a break out score of just those PI’s, none of these scores are combined together or averaged, they get a break out score for each skill so that if I write a paper, I’m not getting an A on it, I’m getting a specific score just for the skills that I’m being assessed on so that I know exactly where I need to target my time and attention as a student for growth.

Finally, three principals reported a few challenges with the consistent scoring criteria and grade reporting efforts in their implementations of standards-based grading; Nasir stated “one of the frustrating things is that we still have a transcript that we are converting. Instead of just doing a pure report out on the standards themselves, we are still converting over to like a GPA course.”

William spoke to the challenge of determining the best school-wide approach to calculating a student's final grade:

We just can't quite figure this out . . . we've adjusted it every single year. We did a mode, but we really are using an average of all the different marks to find the final standard mark and then we average all the standard marks together to come up with the final grade.

Kanye was candid about the school's varied attempts at promoting consistent scoring and grade calculation school-wide:

Yeah, it's a tough one because there are some things where we have one foot in and one foot out. So, for example the rubrics, we've been writing and writing and writing rubrics and even though they don't necessarily use a one-two-three-four approach, they have four categories because you can just as easily switch that over or switch the language over to be something along the range of eventually proficiency and mastery. That doesn't match up with the gradebook. We're still struggling with that and the question for next year, do we want to adopt a separate grading program outside of gradebook, like JumpRope or something like that, where you can have the grade directly assigned to a standard and measure it that way.

When asked to identify the core components of standards-based grading, four major components were consistently identified from the participants' consensus responses: the need for clearly articulated standards and skills, the use of formative and summative assessments, policies that allow students multiple opportunities to demonstrate mastery, and the use of consistent scoring criteria and grade calculation. In order to ensure each component of standards-based grading was implemented with fidelity, participants reported examples of school-wide systems and practices essential for implementation.

The establishment of school-wide systems and practices that promote consistency, teacher collaboration and improved student learning. New initiatives undertaken in schools often require a set of foundational systems and practices. From participants' responses, I identified three subthemes consistent across schools: (a) institutionalize a collaborative culture focused on student learning; (b) create time for enrichment or interventions for students and

systems to progress monitor and communicate student learning; and (c) establish common language, beliefs, and consistent practices school-wide.

Institutionalize a collaborative culture focused on student learning. All 10 principals highlighted the importance of teachers and leaders working together on collaborative teams and list collaboration as a required school-wide system and practice. Ava reported having to “have data teams . . . we expect teachers to collect data on student learning every day, we expect them to sit in data teams every week and look at it with their departments and look at it individually with their coach.” Roy reported the importance of teachers working together to identify standards and design student learning experiences:

In terms of structures, there definitely needs to be time for courses to really, excuse me, for departments to dig in to the standards and make sure that they all have a consistent understanding of what that standard looks like from year to year, and how those standards build on each other and also like a common language for how that standard is taught and understood across that level.

Several principals specifically mentioned the use of the professional learning communities approach in their schools; Elle added, “we do have professional learning communities and making sure our teachers are working together creating common assessments and continuing to go back to those scales and developing those further, that’s a really critical piece too.” Kanye describes collaboration in terms of a theory of action:

But to me it’s more about the culture, the professional culture in your building. My theory of action in trying to improve things [here] really revolves around collaboration. Whether it was very little when I got there, moving towards a professional learning community where we’re more comfortable sharing our practice with each other. We’re not trying to fool each other when somebody comes in the room, but we are genuinely examining student data, trying out new ideas, being comfortable with that.

Again, all 10 principals reported the importance of creating a collaborative culture focused on student learning as an essential school-wide system and practice needed to support the implementation of standards-based grading.

Create time for enrichment and interventions for students and systems to progress monitor and communicate student learning. Participants commented on the importance of schools creating master schedules that incorporate time for intervention and enrichment, web-based gradebooks that communicate student learning, and teams that help monitor student learning school-wide. Barack commented,

Number one is the schedule that we have, the enrichment model where students can boost with regularity without teachers having to go through that complex decision making of, “Boy, 20% of my students are not yet proficient, but I have 80% who are ready to move forward. I have to re-teach this 20% and reassess them, but I simultaneously need to keep the other group moving forward.” Wherein enrichment allows for teachers to immediately identify students who are not yet proficient, re-teach and reassess.

Similarly, Elle spoke to her school’s “learning lunch system and no-zero policy system [as being] a critical system for us.” William echoed a similar school-wide system:

[In] our intervention period . . . we have a Google doc that we created and the kids can choose who they want to go to and the teachers [can also] pull kids. We also do—it’s very similar to Mike Mattos’—we do priority days. So, if a kid has or a teacher wants student A for math and another teacher wants the same student for English, whoever has the priority day gets that student and that’s all set up in the Google doc.

Overall, findings from all 10 principals report the importance of creating opportunities to provide intervention or enrichment for students, the need for an online gradebook, and the importance of establishing teams and tools to monitor student learning school-wide. All 10 principals also reported the importance of establishing common language, beliefs, and consistent practices across the school, as these commonalities are critical to the success standards-based grading.

Establish common language, beliefs, and consistent practices school-wide.

Inconsistencies in language, beliefs, and practices were highlighted as system-wide barriers principals needed to overcome in order to ensure strong implementation of standards-based

grading in their schools. In terms of grading practices, Alyssa reported the inconsistent and varied approaches used school-wide:

There are some people that use the average, there are some people that use letters. And they don't even use the same letters. So, some are using terms like, proficient. Others are using, approaching. It was just all over the place. And so, it was a huge win for us in the second year that we all agreed upon, this is what we are using. We are all using the same language, we're all using the same numbers.

In like fashion, Nasir reported,

I think first and foremost is defining graduation standards and really becoming clear as a community about what you want your graduates to be. And then from there you have to have common agreements about kind of a wide variety of approaches to instruction and assessment. So, okay, these are what formative assessments are, these are what summative assessments are. Are we going to allow zeros, or we are not going to allow zeros. We're not going to be grading extra credit anymore and you have to have the percentage agreements amongst your faculty. What does a revision policy look like? But that all comes out later after getting really clear on kind of what the outcome is.

Several principals referenced grading rubrics and scales as the mechanisms for creating common language and consistent practices across the school; Roy spoke to the need for a common belief system school-wide when approaching student learning:

I would like to say every single one of our teachers believe that every student can learn no matter what, we all will get it eventually. But like you definitely have that being like a system belief in the school and as many, definitely the vast majority of the staff believe that, and that way, we can try to drown out or slowly convince the others that it's possible, but like that real belief that every student can learn is absolutely fundamental.

Leaders, like Michael, spoke to the importance of training teachers and new employees on standards-based grading and the operating norms of the school:

Teachers as they enter the district no longer get indoctrinated in the practices of standards-based grading. This is particularly difficult for someone who has taught for a few years, acquired a lot of experience, consider themselves a good teacher, and they come into our district and our school, and they don't get sufficient training, they're not going to understand why they should be doing standards-based grading nor do they understand how to carry it out. We're beginning to lose institutional memory now here. And we've now got a set of teachers who have an inadequate grasp of the principles behind standards-based grading or understanding the mechanism on how to do it. And so, one of the foundational things is training.

The implementation of standards-based grading required participants to ensure certain school-wide systems and practices be put into place. Overall findings suggested the importance of creating a collaborative culture focused on student learning, the use of time for intervention and enrichment, online gradebooks, systems and tools to monitor student learning, and the development of common language, beliefs, and consistent practices across the school.

Processes Principals Used to Create and Communicate Standards-Based Grading Policies

This section described the *process intentions* and *content intentions* aspects of the *Transformation of Intentions* conceptual framework, specifically related to how the policies that govern standards-based grading were identified and created. Five themes emerged from the data and were documented in this section: (a) critical components of standards-based grading policies, (b) collaborative approach used to create standards-based grading policies, (c) frequent communication of standards-based grading policies, (d) stakeholders responded differently to standards-based grading policies, and (e) revisions to standards-based grading policies.

Critical components of standards-based grading policies. Nine participants identified school-wide policies that were used to govern the implementation of standards-based grading; from the data, three subthemes emerged: (a) regulate gradebooks, weights, and assessments; (b) create common grading rubrics, scales, and conversion to traditional outputs; and (c) establish common requirements for re-teaching and re-assessment practices.

Regulate gradebooks, weights, and assessments. Participants described creating policies that regulate the structure of online gradebooks and reporting mechanisms, weights for grading categories, and the frequency of assessment administration. Although consensus to regulate these structures was built among participants, variations in what each principal and campus included in their policy text was discovered. A review of each participant's policy documents confirmed

their assertions. All 10 principals provided grading policies that included policy text that regulated teacher gradebooks, category weights, and assessments. Four of the 10 policy documents specified the percent teachers must use to weight each category in their gradebooks: two policies required summative assessments be weighted at least 85%, one policy stated 60%, and one policy stated 30% or 40% depending on the grade level. One policy text assigned either a 70% or 60% weight to the formative assessments category in the gradebook (Table 2). Barack reported creating specific weights for each grading category, “the summative has to be at least 85% of the final grade. And then outside that last 15%, you can divide it however you wanted to between formative and habits of work.” Barack also identified a policy requiring teachers to “clearly distinguish between formative assessment, summative assessment, and habits of work.” Jay spoke to a policy that requires teachers to report separately “a product grade and a process grade” for students. Other participants reported—and a review of their policy documents confirmed—policies that govern how to communicate missing or incomplete work, minimum grading practices, and minimum assignment entry requirements for teachers. All 10 policy documents dictated what teachers are allowed to enter into the gradebook; policies that regulated gradebooks, weights, and assessments had significant variations in how they were written and what they included (Table 2).

Table 2

Regulate gradebooks, weights, and assessments.

Participant	Theme	Policy text
Barack	Regulate gradebooks, weights, and assessments	After a student has been rated on each outcome, the overall rating—not individual assignment scores—is used to determine the course grade. For each outcome, a Proficient rating is worth 1 point regardless of how many attempts it took a student to achieve that rating. A Not Yet Proficient rating is worth 0 points. Learning outcomes make up 65% of a student’s grade. There is no outcomes extra credit; only assessments that demonstrate mastery count towards a student’s grade. Summative assessments must be at least 85%

(continued)

Table 2 (continued)

Participant	Theme	Policy text
Ava	Regulate gradebooks, weights, and assessments	All assignments recorded in the grade book must have the accompanying learning objective(s) listed. Grade books must be kept up to date and assignments should be graded & recorded within seven (7) calendar days.
Elle	Regulate gradebooks, weights, and assessments	Study skills/homework cannot compromise more than 10% of the grade
Nasir	Regulate gradebooks, weights, and assessments	Grades determined by achievement scores on instructed and practiced learning targets only: the only scores that inform the aggregate letter grade are ones from targets that have been instructed and practiced. Reporting that separates habits of learning and academic achievement: teachers report academic targets separately from habits of learning targets. If a teacher instructs, practices, and provides feedback on a target that is traditionally thought of as a habit, the teacher might classify this as an academic target.
Alyssa	Regulate gradebooks, weights, and assessments	Use: the 8-point scale for all summative and formative assessment grades Clearly distinguish between formative assessments, summative assessments, and work habits in your gradebook. Place higher emphasis on summative assessment grades. Consider a student's most recent progress toward a standard when determining the final grade. Ensure that if your categories are weighted: (a) the sum of the category weight is 100%, (b) summative assessments are not weighted below 85%, (c) formative assessments are not weighted over 10%, (d) work habits are not weighted over 10% Don't: (a) use attendance, behavior, extra credit, etc. to determine the final grade, (b) use percentages to calculate the final grade, (c) use numbers other than 0-8 as proficiency grades, (d) assign grades based on a student's achievement compared to another student, and (e) create categories or enter assignments/assessments that do not align to the prioritized standards and/or the IB criterion/assessment objectives.
Roy	Regulate gradebooks, weights, and assessments	During the scheduled final exam time, each teacher is expected to provide a summative assessment One goal we have moving forward is to have students as partners in identifying their own projects or artifacts to show their understanding of performance indicators and, when possible, to connect the performance indicators to real-world, problem-based assessments. If students receive a score of Missing (M), they have two weeks (minimum) to make up the assessment. Yet, our need to help students make better decisions has led us to adding the option for teachers to turn an "M" into a "Not-Revisable" (N) after two weeks. An "N" is factored in JumpRope as a "1."

(continued)

Table 2 (continued)

Participant	Theme	Policy text
Kanye	Regulate gradebooks, weights, and assessments	Gradebook must be updated at least once per week. A sufficient number of data points (three columns) must be entered per week (in any category) in order to fairly justify a grade in any category. The recommendation from the administration is 3 per week. This ensures a minimum of 57 data points per semester. Weights for categories must sum to 100%. Weights cannot be changed in the middle of the semester, unless it is to correct an error. Weights must be identical across a course team. There should be a good balance between formative (participation, homework, quizzes, etc.) and summative parts of the grade (tests, final exams, projects). Recommended balance is 70% formative, 30% summative. However, this is a discussion for course teams and grade level teams to have. In the upper grades, a 60% formative/40% summative balance may be more appropriate. No one assignment should be counted as more than 10% of the grade. There must be a distinction between missing assignments, 0's, and excused assignments. Assignments designated as Missing count as a 0 in Gradebook until they are turned in. A "Missing" designation indicates to the student and parent that the assignment can still be turned in. Assignments designated as Excused in Gradebook do not count against the student. An "Excused" designation indicates to the student and parent that the student is exempt from the assignment.
William	Regulate gradebooks, weights, and assessments	Grades will be based on academic achievement tied to standards. Reporting on effort, participation and behaviors will be reported separately, by course or grade. Students are expected to complete all required work by due dates (initial date due for teacher evaluation.) Entries in the gradebook or report card that count towards the final grade will be limited to course or grade level standards. For reporting purposes, there will be firm, school-wide cutoff dates for teachers to evaluate student work. Extra credit practices such as bringing items for the teacher, bringing classroom supplies, obtaining points for turning something in on time, attending events, or other activities unrelated to learning are not appropriate. Not all students learn at the same rate; therefore, penalties distort the achievement record the grade is intended to communicate, can harm student motivation, and for many students do not result in changes in behavior. The appropriate consequence for failing to complete an assignment is completing the assignment. Teachers will keep records of students' timeliness and report this behavior to parents. All students will be given multiple opportunities to demonstrate mastery of each standard. Reassessments will be awarded full credit in order to recognize more current achievement. Students in grades 6-12 have two weeks (10 school days) after receiving initial teacher feedback to reassess or redo an assignment.
Michael	Regulate gradebooks, weights, and assessments	Define course skills and/or content for all classes in our building to align to the state or national academic standards for each course. For classes where state or national standards do not exist, academic standards will be written by a team of content professionals. These standards may include units of study or specific skills and concepts. Instruction is designed so that students have multiple

(continued)

Table 2 (continued)

Participant	Theme	Policy text
Michael (continued)		opportunities to demonstrate their learning. Require that the performance level of students will be derived by a calculation of the learning trend over time, rather than a simple average of the scores. This calculation will only consist of 15% of the weight for opportunity 1 learning opportunities, 25% of the weight for opportunity 2 learning opportunities, and 60% of the weight for opportunity 3 learning opportunities. The score for each standard will be determined based on a body of evidence over the entire semester. A score of zero will not be used. Similar courses taught by different instructors will have similar assessment opportunities that will be scored in a common manner so that the overall expectations for common courses are the same. Each department will agree on how standards are weighted for the courses in their department. Common courses will have standards weighted equally between teachers. Provide the student multiple opportunities to learn and assess with the final grade representing the trended score which reflects the level of competency demonstrated throughout the semester. Grades should be updated in the gradebook at a minimum of once a month, such that all completed and scored assignments are entered, as a communication tool between teachers and parents and students.
Jay	Regulate gradebooks, weights, and assessments	When students complete a project, our grading process looks at both academic content (ideas and concepts) and skills. When a teacher designs a project, one of the first things they do is decide what work students will do by the end of the project. This work is called deliverables. A deliverable could be a research paper, a video, a website, a performance, even a machine or a computer program. It depends on what the project focuses on. The teacher then matches the deliverable with academic standards. Standards communicate the big ideas that students should learn as they move through high school. When a teacher links a standard to a deliverable, they are saying that in order to complete the work, students will need to learn something about that standard. The second part of the grading process focuses on the skills students demonstrated while completing the project. For every project, we grade students' performance in five skill areas: 1. Collaboration: How well do students work with others? 2. Critical thinking and problem solving: Do students ask good questions? Are they creative in coming up with solutions? 3. Project management: Do students organize their time and their work effectively? 4. Reflection: Do students understand the purpose of the work they are doing? Do they understand their strengths and weaknesses as learners? 5. Commitment to improve: Do students use feedback to make their work better? Do they persist through struggles and frustration? A student's final grade for a project is the average of all of their grades on standards attached to that project.

Principals also reported on their policies that regulate minimum grading practices and the use of the zero in grade calculation. Elle stated explicitly, "they're not allowed to give a zero.

And when I say zero, because there is a zero on the scale too, so that's different, [zero] meaning

that kids cannot be punished for not turning in their work.” Kanye commented on an aspect of his school’s policy that requires a minimum number of assignments for each reporting category or standard listed in the gradebook:

There’s a minimum number of assignments that have to go in a category. Teachers [were] not understanding how to set up those gradebooks . . . the categories have to sum up to 100%. So, there is a very, very clear policy on how to structure a gradebook and things that you can or can’t do.

Finally, participants highlighted school policies that regulate how final grades for students are calculated; Alyssa reported that her school’s grading policy requires “the student’s most recent progress to the standard [be used in] determining the final grade,” while William stated that his school’s policy requires the use of “mode” to determine final grade calculations.

Create common grading rubrics, scales, and conversion to traditional outputs. Six participants identified policies that require the use of grading rubrics, scales, and conversion to traditional grade reporting outputs. Five principals spoke to the required use of common standards-based grading scales; Alyssa reported, “you have to use the eight-point scale . . . that is nonnegotiable.” Ava reported the use of a “five-point scale, 4-3-2-1-0. We have a zero in there so if the kid has never come to school.” Other leaders like Jay have a “one, two, three” point scale while Roy adopted a “one through four scale . . . clear and consistent definition of what a one is, what a two is, what a three is, what a four is . . . making sure our student understanding and parent expectations are consistent across classes.” Roy also commented on the school’s use of a grading rubric defined specifically for giving students feedback on their behavior: “we defined ‘habits of life-long (HOLLS)’ learning, our SEL standards. Looking at our mission as a school and then what do we want a graduate to look like, to act like, and to be in terms of those standards.” Roy also sought to provide clarity around the content and skills the school expected students to learn and required the use of performance indicators and student-friendly language:

We made sure from a policy perspective, there is a clear policy standard for what a performance indicator (PIs) should look like and then what kind of language they speak in those PIs in terms of making sure they were student friendly and that the students can see themselves in there.

Barack reported policies requiring “standards-based grading grades [be] translated into the traditional format.” Ava added, “we still do the crazy translation of a 4 as an A and a 3 as a B and you know, because colleges aren’t there yet.” Lastly, Roy spoke to the use of a “decaying average that’s used . . . that teachers can’t then change to power law or straight average . . . that is the school-wide consistency” model used to determine a student’s ultimate level of proficiency.

To assess the accuracy of participants’ self-reports of their practices, I reviewed policy documents submitted by each principal. All 10 principals provided grading policies inclusive of text that provided clarity to stakeholders as to how standards-based grades are constructed, reported, and converted into traditional grades. Of the 10 policies reviewed, nine policies included grading scales, seven policies included a grading rubric, and five policies included conversion tables to traditional grade outputs. Across the 10 schools, no similarities in policy text regarding grading scales, conversion tables, or grading rubrics were observed (Table 3).

Table 3

Grading rubrics, scales, and conversion to traditional outputs.

Participant	Theme	Policy text
Barack	Grading rubrics, scales, and conversion to traditional outputs	Not Yet Proficient (NYP): The student has not yet shown the teacher that he or she can reliably perform the skill or use the concept. This rating is where every student starts on each outcome. Proficient (P): The student understands the concept and can perform the skill reliably enough to do more advanced work that relies on that skill.

(continued)

Table 3 (continued)

Participant	Theme	Policy text
Barack (con't)		Grading Scale: A 85-100% B 72-84% C 60-71% <u>and</u> at least $\frac{3}{4}$ of outcomes rated as “proficient” F 0-59% <u>or</u> less than $\frac{3}{4}$ of outcomes rated as “proficient”
Elle	Grading rubrics, scales, and conversion to traditional outputs	Grading Conversion Scale A – 3.25 (low) – 4.0 (high) – .75 (difference) B – 2.51 (low) – 3.24 (high) – .73 (difference) C – 2.0 (low) – 2.5 (high) – .5 (difference) D – 1.0 (low) – 1.99 (high) – .99 (difference) F – 0 (low) – .99 (high) – .99 (difference)
Nasir	Grading rubrics, scales, and conversion to traditional outputs	Four-point scale scoring: Teachers score student work using a 0-4 scale for each target, where a 3 represents proficiency in the articulated target. Teachers may assign .5s as well (remembering that we should be able to articulate the difference between the whole number and the half number). When scores from individual targets are combined in JumpRope at the end of a period of learning, this will result in composite scores to the tenth place (i.e. 3.1, 2.6, and 2.8). While teachers are developing specific scales for each target, here is a general explanation of the scores, which are based on evidence from student work: 0 = no evidence 1 = limited evidence 2 = nearing proficient 3 = proficient 4 = beyond proficient
Alyssa	Grading rubrics, scales, and conversion to traditional outputs	Proficiency Grade → Letter Grade → Student Demonstration 8 → A → I demonstrated that I completely understand the concept by meeting all requirements and displaying higher level thinking skills. More complex content. 7 → A/B → I demonstrated that I understand the concept by meeting all requirements and by beginning to display some higher level thinking skills. In addition to 6 performance, partial success on more complex content. 5/6 → B → I demonstrated that I understand the concept by meeting all requirements. Target learning goal. 3/4 → C → I demonstrated a developing or partial understanding of the concept. Simpler content. 2 → D → I demonstrated a minimal understanding of the concept. Simpler content with help. 1 → D/F → Even with support, I demonstrated a very minimal understanding of the concept. Very minimal content with help. 0 → F → I did not submit enough work, or I submitted work that was not my own. Not enough evidence to demonstrate understanding.

(continued)

Table 3 (continued)

Participant	Theme	Policy text
Roy	Grading rubrics, scales, and conversion to traditional outputs	Proficiency-Based Learning - Levels of Performance 4.0: Excelling - I have demonstrated the knowledge/skills defined by the standard with a high level of understanding/ability as defined by the discipline. 3.0: Proficient - I have demonstrated that I have the knowledge/skills defined in the standard. 2.0: Developing - I have demonstrated relevant knowledge/skills but have not yet demonstrated convincing evidence of fully meeting the standard. 1.0: Emerging - I have demonstrated the most basic knowledge/skills relevant to the standard. M: Missing/insufficient evidence - I have not provided evidence to allow the teacher to assess. N: Not Revisable -I have refused to take advantage of the two week window to complete missing work. Course Grade Conversion A= A score of 3 or 4 in each performance indicator (PI) B= A score of a 2 in one PI (and 3s and 4s in the rest) No more than two 2s, and the remainder 3s & 4s C= A score of 2 in more than one PI (no score of 1) No more than one 1, and the remainder 2s and up D= Two PI scores of 1, and all other scores must be 2 or higher F= A score of 1 in all performance indicators
William	Grading rubrics, scales, and conversion to traditional outputs	Process Standards Successful behaviors are critical components of career and college readiness. Per grading policy, student behaviors will be reported separately from the academic grade. Process standard rubrics will be used as a feedback tool to self-assess, set goals, and monitor progress. Leadership: Consistently engages self and others, encourages others to make good decisions, and leads by example. Active Engagement: Consistently contributes to the overall learning environment in a positive and productive manner. Work Completion: Consistently completes necessary tasks to their best ability in the time frame expected. At the beginning of each grading period, teachers will communicate to students and parents the expectations and procedures for grading and reporting. Entries in the gradebook or report card that count towards the final grade will be limited to course or grade level standards.
Michael	Grading rubrics, scales, and conversion to traditional outputs	NA Not Applicable: The proficiency was not taught during this grading period. F/1 Not Yet Demonstrated: The proficiency was taught but the learning has not yet been demonstrated. C/2 Basic Proficient: The student is able to demonstrate learning at a basic level. B/3 High Proficient: Student demonstrates learning at a high level consistently. A/4 Advanced: The student demonstrates proficiency at an advanced level and applies learning to new skills or knowledge.

(continued)

Table 3 (continued)

Participant	Theme	Policy text
Jay	Grading rubrics, scales, and conversion to traditional outputs	Outstanding work: exceeds expectations; Good job: meets expectations; You can do better: satisfies minimum requirements only In order to convert rubric ratings into school district grades, the three levels of our rubric are assigned point values. A rating of Outstanding is equivalent to a 95, Good work equates to 85, and You can do better equates to 75. After a teacher has graded students' work on the standards, they then rate each student in these skill areas. Again, we use a three-point scale to rate student performance: Plus: exceeds expectations Neutral: met expectations Minus: fell short of expectations A plus (+) rating in any skill area adds 2 points to the student's grade for every standard covered by the project. A neutral (n) rating leaves the grade unchanged. A minus (-) rating subtracts 2 points from the student's grade for every standard covered by the project.
Kanye	Grading rubrics, scales, and conversion to traditional outputs	Grading scale used (90-80-70-60%)
Ava	Grading rubrics, scales, and conversion to traditional outputs	The grading scale ranges from 50 – 100. The lowest grade given for any grading period is a 50. The grading scale ranges from 1-4 for final exams, 1=basic understanding through 4=complete mastery

Establish common requirements for re-teaching and re-assessment practices. Four participants spoke specifically to school-wide policies that regulate the re-teaching and reassessment component of their standards-based grading systems. Other participants referenced re-teaching and re-assessment practices in their policy documents. Eight principals provided grading policies that included text that required and regulated re-teaching and re-assessment practices school-wide. Although re-teaching and re-assessment policies were widely created, all eight documents differed in their approach to the policy as no similar requirements were observed across the eight entries (Table 4). Barack highlighted his school's system for re-teaching and re-assessment:

We have unified agreements and policies on campus about how we address the re-teaching and reassessing of students who are not yet proficient on a particular standard;

we have a policy and an agreement that-in the event a large number of students are unsuccessful-the teacher then should re-teach to the entire class rather than push it towards the enrichment.

Table 4

Common requirements for re-teaching and re-assessment practices.

Participant	Theme	Policy text
Barack	Re-teaching and re-assessment.	During the semester, students will have several opportunities to demonstrate their proficiency at an outcome. In general, the overall rating is determined by the student's most recent work, not an average: a student can fail several times, and then demonstrate proficiency. Even when the class as a whole has moved on, students can still demonstrate proficiency by doing supplemental work.
Elle	Re-teaching and re-assessment.	Students are provided with re-teaching/re-testing opportunities (subject to parameters) Test scores on a re-test replace the original test score Teachers can establish a limit to the number of retests than can be retaken in a quarter but students must have the opportunity to retest at least 3 of their assessments. Students are required to attend 8 th period, learning lunch or WIN with a teacher in order to re-test. Students could re-work the original assessment during this time. This should be monitored by the teacher.
Roy	Re-teaching and re-assessment.	What/When: Retakes and revisions must be an option for every assessment that is not the final exam/project in January/June. Students should have two weeks minimum to complete the retake/revision. How: You have two options for reporting retakes/revisions in JumpRope. First, you can simply replace the old score with the new score. Second, you can create a separate assessment and put in the new grade for that assessment. If you do this, it is imperative that you label the assessment so the student and parents can clearly see what it is a retake or revision of. There are some workarounds with the lack of weighting in Power Law that can help make an initial attempt not factor into their later scores. Why: Given the principles of PBL and the added rigor of our grade conversion, retakes and revisions are an essential part of helping students see that learning is a process and they will be rewarded for working through that process in order to learn more deeply or master a skill.
William	Re-teaching and re-assessment.	Students may be provided the option to reassess a summative assessment test or project. The reassessment may be initiated by the teacher or the student, but always at the discretion of the teacher. Additional opportunities may include an alternate form of an assessment, student revisions of projects based on descriptive feedback, or alternate methods of assessment. The student must substantially change the content to improve the quality. The changes must involve more than superficial changes such as grammar and mechanics. Teachers may require the student to attach the original assessment in order to better assess the learning of the student and give him/her more feedback for improvement. The student may not retake any summative assessment until the assigned homework has been completed and submitted to the teacher. Students must demonstrate increased understanding (as determined by teacher) before they attempt a reassessment.

(continued)

Table 4 (continued)

Participant	Theme	Policy text
Michael	Re-teaching and re-assessment.	Provide the student multiple opportunities to learn and assess with the final grade representing the trended score which reflects the level of competency demonstrated throughout the semester.
Ava	Re-teaching and re-assessment.	We strongly encourage teachers to provide students with multiple opportunities to redo assignments to demonstrate mastery (re-take tests, resubmit assignments, etc.). The speed at which a student learns is not important. The breadth and depth of their learning is what matters and students will reach the learning targets at different times and through different methods. Students are not to be held hostage to their early attempts by including the failing grades or zeros in the average if they ultimately demonstrate mastery of the content.
Alyssa	Re-teaching and re-assessment.	Consider a student's most recent progress toward a standard when determining the final grade
Nasir	Re-teaching and re-assessment.	Published re-assessment plan for students: Teachers articulate their re-do, retake, or revision plans to students and parents
Jay	Re-teaching and re-assessment	Not stated on policy document
Kanye	Re-teaching and re-assessment	Not stated on policy document

Roy echoed a similar policy, stating, “we have a clear definition of what revision looks like and what that means for students and for teachers. There is a minimum bar of what needs to take place for supporting students in their revision [and] ongoing learning.” Roy continued:

One of the things we did implement [for] teacher sustainability and [after] talking with students, was a 2-week window for revision. The feedback that we've gotten from teachers was that going beyond 2 weeks, from the management of papers, a managing of field tracking, becomes too much when they have 150, 160 kids on their load And in talking with the students, they were saying, “I'm going to keep doing it until I get it a 100% right.” [Students] were getting overwhelmed [with] trying to continually do revisions [of old work] and master new learning.

Other leaders like Kanye provide longer periods of time for students to reassess during the school year, although not specifically articulated on the policy document:

Teachers have to have a section of their gradebook dedicated to [standards-based grading] and that section has to have a standard or standards that they are measuring for that period of time. So, in this case it can be a semester . . . and then that allows for multiple revisits to that standard through usually retakes.

Overall findings suggested a need for standards-based grading policies to regulate gradebook entry, grade category weights, and the parameters around re-teaching/re-assessment practices. Where applicable, perception data collected by the principals were validated by their written policies.

Collaborative approach used to create standards-based grading policies. All 10 participants detailed their policy creation processes and the stakeholders chosen to be included in their policy decision-making efforts. Teachers as co-designers of policy emerged as the prevalent theme as all participants cited working with teachers as a key stakeholder in the creation of standards-based grading regulations.

Alyssa detailed a collaborative process that included both a small group of teacher-leaders and the larger staff:

We took a group of teachers . . . started with our ILT [Instructional Leadership Team] and came up with some parameters. Some of the [parameters] that [we developed] we were going to [be] tight. But we did allow our department chairs, ILT and then anyone in the school could give feedback. Once we came up with our general idea of what we were thinking, we put it out there to get some feedback from the whole staff. We listened to those that were struggling with some of those issues. It gave us a chance to know who needed the most coaching around it. If I knew someone was just absolutely having a hard time with the 100% scale, we put them in a different group than someone that was already on board. We didn't want that individual changing the progress that was being made.

Ava described a “huge big stakeholder” effort that “the whole community came together” to take part; Ava detailed processes that included getting out their “Rick Wormeli book” and trying to “do the mindset shift” by sending “teacher leaders to see models, working models with SBG and then [coming] back and creating the policy through teacher leader meetings every week at school.”

Roy detailed his policy creation process that included multiple working groups inclusive of parents, teachers, students, and/or administrators:

In terms of the school wide policies, there was an ad-hoc committee of the most passionate teachers probably around 20 teachers, administrators, and myself, so there were various teachers across the building who helped develop the school wide policies. [The policies were] mostly based on the research and feedback from the people at the Great School Partnership Conference. So most come from there . . . they've been significantly revised since that initial draft. But it was really working over that summer before roll-out of drafting those policies with that ad-hoc team. That first year of implementation was a group of the teachers that met during the school year, that first year to identify areas that need clarity or areas that we have to consider in creating policies, creating adjustments based on that and then since then it's really lived with the PTLC [Professional Teaching and Learning Committee] in terms of any revision, any new adjustments there. And the revision policies before we went whole school standards-based grading, those were developed by the Assessment Evaluation Committee based on recommendation. They came up with a recommended revision policy and that was adopted in full. So that committee was made up of like I said earlier; teachers, students, administrators and parents.

Principals also listed policy creation processes that included their leadership teams and teacher groups. Principals reported giving those teachers considerable agency to develop policy recommendations, as Kanye reported: "They wrote it, they created it, they rolled it out to the teachers and because it came from them, the teachers just accepted it . . . this is our target instruction area. We're doing proficiency based grading and nobody pushed back."

Frequent communication of standards-based grading policies. All 10 participants identified communication with stakeholders as an important aspect of the policy creation process. Data collected from each participant revealed the following subthemes: (a) communicate standards-based grading policies to students in multiple ways, (b) build awareness with parents using multiple modes of communication, (c) use professional development time for two-way communication with teachers, and (d) communicate frequently with all stakeholders.

Communicate standards-based grading policies to students in multiple ways.

Participants identified communication of standards-based grading policies to students as a significant part of the policy creation process and listed a number of communication mediums used to educate students. Two principals relied on teachers to communicate standards-based

grading policies to students as Barack reported, “the primary way was at the beginning of the year, literally on day one and that first week when teachers were discussing their syllabus and the scope and sequence of the course and the grading policies.” Roy voiced similar communication mechanisms but reported being concerned that teachers were learning the new policies simultaneously with students: “you know we had to rely on teachers a lot to explain stuff to the students which was a real struggle because they were learning it themselves at the same time.” Ava spoke to the use of student-led conferences: “we do student-led conferencing which also helps get the word out to our stakeholders.” Roy gave a more comprehensive communication mechanism:

So, students came back for orientation, I met with all the students from grade level by grade level and did like a “here’s what we’re doing, here’s why we’re doing it,” and then, “here is some of the logistics of what this means and changes that you will see in classes for that.”

Build awareness with parents using multiple modes of communication. Principals identified communication of standards-based grading policies to parents as a significant part of the policy creation process. Participants reported using written communication and formal meetings with parents as the primary mode for communication. Roy spoke to a multipronged approach for communication to parents:

I’d send out communication emails, letters to parents during the orientation week as well, explaining what this means and then during the Back to School Night that we have for parents which is the second Tuesday of the school year. We created short like three to five minutes YouTube videos for the parents to watch and understand. We also created a section on our website that goes through all of our policies and everything for our parents, our students and anyone else so that they can look at it and they can have understanding. We also had regular parent sessions throughout the school year and they continue for parents that have questions about; “I don’t know how to use JumpRope” or “I don’t understand why this means this,” or “What does this mean?” To make sure that parents can ask questions then we can provide them with support around it as that goes forward.

Ava spoke to creating “shiny brochures and letters,” giving out Rick Wormeli books and encouraging parents to “just read chapter one if nothing else and ask me what questions you have,” and organizing “informational sessions around what it meant.”

Use professional development time for two-way communication with teachers.

Principals highlighted the use of professional development opportunities as the primary mechanism for communicating standards-based grading policies with teachers. Barack commented, “within the faculty, it was through our professional development series. We had open conversation about it. And we had associated written policies but we always presented the written policy before the professional development.” Roy added, “with staff, majorly around walking through everyone together as they came back from the summer, about what that looked like,” and Ava added, using “teacher leaders” to “carry the messaging” to other teachers. Kanye also spoke to the use of professional development opportunities and the use of teachers to deliver the communication of the policies with other teachers:

Before official professional development started the ILT was meeting with teachers. These were usually the key people. And so, when we hit PD time and we laid out what the work was going to be, they’ve got a whole professional development calendar for the whole year with the message that these are the things we’re going to be continually pushing and learning about throughout the year. ILT is going to be here to support you, these are the times that we are going to be able to come in and do pure observations. They do the full professional learning cycle.

Communicate frequently with all stakeholders. Principals spoke to the need to communicate aspects of the standards-based grading policies to all stakeholders relentlessly, and on a continuous basis. Alyssa stated that she spoke to her constituents “every time [I] get a chance, I would say this is still going on,” years after the initial implementation of the standards-based grading policies. Ava added,

So, I think if you just become a broken record and just keep talking about the benefits of it and showing examples and letting people be part of the creation of the policy and

certainly keep your door open to listen to concerns, the kids are really the ones that convince the parents and once the kids and the parents are convinced, it's easy.

When asked to what degree was there communication with stakeholders during the initial implementation of standards-based grading, Michael stated,

The airwaves were consumed. Anybody who didn't know what was going on must have [had] their head stuck in a bucket of concrete. It seemed at times it was all we talked about. Everybody knew at every stage, every development because it was just the permanent talk and obsession of the district.

Nasir reported a lack of communication during the process to create and implement standards-based grading policies and practices in his school:

Well, I think that's one of the biggest mistakes we made, was that we didn't communicate clearly enough years ago and I think that led to the pitchfork meeting that one time. Primarily it was like individual discussions with, kind of the leadership team working with teachers, teachers working with students and again, I think if we're going to do it all over again we'd be like really working with more parents from the outside and having a better communication system there.

All 10 principals were unified in stating the importance of frequent and varied communication with key stakeholders during the creation and implementation of standards-based grading policies and practices.

Stakeholders responded differently to standards-based grading policies. All 10 participants commented on how their stakeholders responded to the new policies that governed the implementations of standards-based grading in their schools. Data gathered from the participants are reported out by stakeholder group: (a) student response varied over time, (b) parents responded favorably to standards-based grading, and (c) teacher response varied over time. Overall findings suggested a mixed response from students, parents, and staff, but gradually, with policy changes and consistent, varied communication, stakeholder support increased.

Student response varied over time. Principals reported a mixed response from students with the majority of the participants observing a higher degree of student frustration during the initial phases of implementation and increasing degrees of satisfaction over time. Alyssa stated that she believed “overall, they like it,” noting that “kids have more opportunities to learn, and so, I think overall, it was very positive.” Barack stated, “the first year there was a lot of intellectual buy-in, but our students and parents had some struggles with how it was being implemented,” but, “the super majority, I’m talking 90%-95% plus of our parents and students understood and agreed with the rationale of standards-based-grading. “After surveying students throughout the process, Elle concluded,

Our kids like it. I will say that it is harder to get an A for those kids that really care about their grades, they’re motivated by that. And so, they have to work harder and we get a little push back from that, but for me that’s healthy, that’s good.

Nasir linked student satisfaction to the quality of implementation of standards-based grading policies and practices in the classroom:

I look at our key stakeholders as being students. A lot of it is dependent on how well it’s been implemented. In places where standards-based learning is being done really well, our kids are like amazing and appreciative. Like, “Wow, it’s so much clearer what somebody wants me to know, not like a trick.”

William reported student perceptions regarding the need to do more work: “I think at first they were not really excited because they thought they had to do more work.”

Parents responded favorably to standards-based grading. Although some parent concern was reported, participants primarily spoke to parents responding favorably to standards-based grading policies and practices. One of the biggest questions participants reported their parents had revolved around the effect standards-based grading would have on the college admission process. Ava shared,

Sometimes [parents] say “Well, how is this going to translate to colleges?” and we still give them the transcript you know, because we still do the crazy, translation of a 4 as an A and a 3 as a B and you know, because colleges aren’t there yet. But once they realized it’s not going to affect their GPA meaning or college admissions and whatever, then they’re fine with it.

Alyssa provided an example of an interaction she had with a parent concerning standards-based grading and its effect on the college admissions process:

There was probably only one parent that just gave me a run for my money. She was afraid that colleges weren’t going to accept her child. And when I was able to demonstrate to her that everything was the same as far as colleges because they all get transcribed out, but recognizing that when they take the ACTs, if they truly have matched with an A or a B, then their test scores should also start showing with that group as well. Sure enough, the kid identified with the ACT, knocking the ACT out of the park. He got accepted to all four schools that he applied to, so his mom was ok with that.

Some leaders reported parent satisfaction was explicitly tied to their children’s satisfaction. Jay commented, “when kids are engaged and happy and they’re doing real work, it’s awesome. Parents . . . that’s the most important thing. If kids are engaged and happy and creating work and are excited about it, that’s pretty good . . . parents are thrilled with that.” Nasir added, “because of the connection between the students and the parents, as long as their kids are expressing and feeling really engaged and motivated, you don’t hear a lot” from the parents. Other leaders reported parents gradually getting onboard with standards-based grading policies and practices after the school made key policy and implementation adjustments. Kanye stated, “the initial pushback is now gone from the parents because the language has become kind of normalized throughout the school. So, all of that’s died down from the parents, we don’t get any pushback from them at all.” Elle described the parent response as “fairly well,” noting,

I think converting back to letter grades has helped us tremendously, because we really did take that away from parents. And that decision was made because of our research with other schools that took letter grades away and they were just in this constant battle with parents. And we felt like we didn’t want the process to be so negative and that’s all they needed that we could figure that piece out. So, people have responded well to it.

Michael described the parent response in terms of war, citing “parents were active guerrilla fighters in the 5-year process when we were consumed by this. It eased when the focus switched away from standards-based grading, [but] they would still focus on the policy. It’s now largely adopted by parents.”

Finally, Roy reported that the response to standards-based grading varied between different parents in his school’s community:

You know when I talk with parents, especially with students who might be struggling, they have a much clearer understanding when I talk to them of where their student knowledge or skill gaps are than they did before. And talking with them about that has been really helpful with those parents and to have them see it.

Surprised by the response from the second group of parents in his community, Roy continued:

But what I’ve gotten from some parents, “Well, now there are other kids getting straight As too, there are too many kids getting straight As and my child is not special anymore.” You know I don’t think I could ever convince that parent that it’s okay that other kids are getting As and being successful too. But you know I share with them our goal and belief is that every kid can learn and can be successful and it’s not us granting a grade to a select few, but really reflecting what they know and what they don’t and that’s what the grades are meant to do.

Teacher response varied over time. Participants reported mixed responses from teachers in response to the standards-based grading policies and practices adopted in their schools. Ava reported,

That’s almost like the 80-20 rule. Ten percent of the people are on board just because they love you and they will do anything you ask them to do, 10% of the people are never going to get on board because you’re the devil in their eyes and they’re never going to do anything you want them to do, and 80% just kind of wait to see what’s happening.

Michael reported that teachers are “more informed about the intellectual argument in favor of standards-based grading” and that they “operate the grading system, which will vary from teacher to teacher, but which largely tries to reward a student with a grade that accurately captures what they know, understand, and are able to do.” Kanye distinguished the response

from teachers by commenting on the response from those that attempted to implement standards-based grading with fidelity:

The teacher feedback from those that are genuinely implementing is overwhelmingly positive. It's like night and day in some classrooms when you compare, when you walk into a room. We're seeing teachers pushing themselves in their own comfort levels with what they're willing to try in the classroom, they are willing to experiment and allow.

Elle commented on how teachers have committed to standards-based grading after initially demonstrating resistance:

I think our teachers now that they're into it, they wouldn't go back because it has given us, now we've got all this data and now we're trying to learn how to best use it because we feel like now our data is getting to the point where it's very valuable.

Revisions to standards-based grading policies. All 10 participants identified aspects of their policies that were revised based on stakeholder feedback after the initial implementation standards-based grading. From the data collected, two subthemes emerged: (a) revisions to the assessment and reassessment policy, and (b) revisions to policies that regulate grading categories, criteria, and calculations. Overall findings revealed the need for participants to make revisions to their policies during, and immediately after, the initial implementation of standards-based grading.

Revisions to the assessment and reassessment policy. Participants reported making revisions to the policies that regulated the frequency and type of assessment that would be used to demonstrate mastery of standards and skills, and the frequency for which students could reassess after initially failing to demonstrate mastery. Barack commented on the need to add 5-week synthesis assessments to his school's standards-based grading approach after noticing low-levels of higher-order application:

In our third year our geometry team had 31 outcomes for the entire first semester. They were these bite-sized outcomes that made sense but there was no synthesis going on. And there was no transfer of knowledge and skill. Going into our fourth year we decided

every five weeks there would be a synthesis assessment where the previous five weeks' content and skills would be aggregated into a larger scale, more complex assessment, which is also outcomes based. And if a student is not yet proficient, they'd have the opportunity to do it again, but it was a much more complete task rather than a very laser beam focused, tighter content and skills [task].

Other leaders reported the reassessment policy and making adjustments so that it is more manageable for teachers. Elle stated, "So retesting, [teachers] can put parameters around that within the classroom, they don't have to do it for every test every time. That's one of the main changes." Barack reported their previous policy allowed students to "retake assessments as many times as they wanted at any time throughout a semester," but noted that they've "since changed that, that students need to demonstrate proficiency in the current outcome before they are ready to move on." Finally, Jay reported a policy change that was addressed for the upcoming school year; the leader commented, "two of the big ones are this idea of what we'd do with incomplete work and how we move students along so that they have opportunities to improve their final products. And so that's evolved."

Revisions to policies that regulate grading categories, criteria, and calculations.

Principals reported having to make a lot of changes to the standards-based grading policies that regulated grading categories, criteria, and calculations. Participants commented on changes made to grading practices that determined how much categories could be weighted in a teacher's gradebook; Alyssa stated, "early on we said that summative had to be 90%, which we cut back down to 85%." Ava commented on the policy change that required the use of an assessment scale instead of the percentage scale, "the teachers took it from that modified percentage grade scale to a true 1-0-2-4 assessment scale, so that's changed." Kanye spoke to the change that was made in calculating a student's final grade, which he noted is still a controversial practice in his school:

Definitely that final exam situation. Even though that's more about communication as well, there's still a little pushback on that and still some debate around it honestly . . . [Students say] 'I've taken all these formative [assessments] throughout this semester or unit assessments and now we get to this final exam which is this big summative piece and you're telling me that if I don't do as well on this final that that overrides even if I had 100% on this formative of assessment or unit assessment.' I think there's debate on either side of that issue.

After their initial implementation of standards-based grading, William reported having to add new policies: "We've added some things like for example- well, first of all just how we come up with the final standard mark and how we find out the final grade pre-standard that has been adjusted because it just wasn't working." Other leaders also added new elements to their policies after their initial implementations of standards-based grading. Jay identified the need to assess skills and student effort separately:

And then the other one is this idea of how do you grade the skills? So, a product grade versus a process grade. So, when we started off, we weren't grading the skills, we call them workshop skills. We weren't really grading them in the first year, and now we've come to a place where we actually have a product grade and a process grade that's reported out on our internal grading system.

William identified the need to create and require the use of a school-wide rubric, stating, "for example making the standardized rubric that everybody needs to use . . . it's what our kids wanted and it made them feel better and I think it was partly for teachers not to have to create their own rubric." Roy made adjustments to the number of performance indicators required in each content area and the method used to calculate a student's final grade:

So, after year one we went from lots of PI's [Performance Indicators] per content area, to trying to narrow it to like ideally 5 to 8 PI's a person. That's like 4 for each course. And then we also adjusted how we convert it to a letter grade, we went from a decaying average in year one to using Marzano's power law for year 2 and that was based on the instructional leadership team's guidance, looking at the data, getting feedback from the department. But what we found out is we actually had to change that after semester one back to decaying average for semester 2 because it was too complex for most teachers to be able to explain and way too complex for parents to understand.

This section identified how the policies that governed the implementation of standards-based grading were created and communicated. Participants detailed the critical aspects of their standards-based grading policies, spoke to how the policies were created and the type of stakeholders involved in the creation process, how the policies were communicated to key stakeholders, how stakeholders responded to the new policies and practices, and identified changes that were made to the standards-based grading policies after the initial implementation.

Research Question 3: What Factors Have Advanced or Hindered the Implementation of Standards-Based Grading in High Schools?

This research question sought to detail the implementation of standards-based grading in high schools. Three themes focused on (a) factors that advanced the implementation of standards-based grading, (b) factors that hindered the implementation of standards-based grading, and (c) advice and reflections on leadership practices were created and explored.

Factors that Advanced the Implementation of Standards-Based Grading in High Schools

This section listed the factors principals stated advanced the implementation of standards-based grading in their high schools. Five subthemes emerged from the data and were detailed in this section: (a) principal preparation and understanding of standards-based grading practices is important; (b) continuous learning, empowering people, school-wide consistency, and gradual expansion of standards-based grading positively affected implementation; (c) intentional decisions/actions made by the principal to advance implementation; (d) intentional decisions/actions made by the principal to sustain standards-based grading; and (e) operationalizing problem solving.

Principal preparation and understanding of standards-based grading practices is important. All participants identified principal training and preparation as a factor that helped advance the implementation of standards-based grading in their schools. Three common

subthemes were identified from the data: (a) principals engaged in informal training regarding standards-based grading, (b) peer-to-peer collaboration helps prepare principals to lead the implementation standards-based grading, and (c) prior professional experience and continuous learning helps prepare principals to lead the implementation of standards-based grading.

Principals engaged in informal training regarding standards-based grading. Eight principals specifically identified having attended conferences and/or engaged in readings related to standards-based grading and traditional grading practices as the sole source of their preparation for implementation of standards-based grading. Barack “had to do quite a bit of reading in the evenings and weekends to get caught up.” When Ava began her first principalship, she recalled the entire district agreeing to implement standards-based grading; she stated, “so, I had to learn, with all these articles to read you know, *The Case Against the Zero* and all these articles that I still pull out when I take a team through the transition.” Roy reported,

From the beginning, I had been through quite a bit of professional learning myself. Never been in a standards-based grading school. It was all through conferences or just reading on my own. And through some articles that I had read and the ideas that I had and that I wanted to bring forth to [the school]. Almost immediately when I got hired, it was a conversation I started pretty quickly.

Kanye reported the benefit of being in a graduate program and the readings he was exposed to during that experience:

A lot of reading man, thankfully I was in the grad program and I’ve been doing a lot of this research already. It was almost a constant stream of stuff on grading practice. My first two and a half years I was pretty subscribed to Marshall Memo, so I was using that as a resource and pulling anything on grading practice and just constantly pushing that stuff out. Either through the ILT as part of the professional learning cycle or just I used to do weekly readings, send that stuff out in the hopes that they’d pick it up and start the conversation around that.

Elle reported that she was “just a learner right along with the rest of them. . . . I just learned a lot right along with everybody else. [I was] not afraid to learn with everybody [and] I

read books and went to trainings, too.” Nasir spoke about his state facilitating “a really nice series with the Great Schools Partnership that was really powerful.” Nasir continued, “what we found was taking groups to various conferences ended up being great because you’ve got time to reflect about what we are learning.”

Peer-to-peer collaboration helps prepare principals to lead the implementation

standards-based grading. Three principals identified peer-to-peer collaboration with other leaders and organizations engaged in similar work as being a positive influence on their preparation for leading standards-based grading in their high schools. Roy commented,

A lot of the support from [non-profit organization] has been really instrumental, and the guidance and the thought process around it. That has really helped a lot . . . support on different topics [and the] different resources they have. I would say for me, I have relied on them quite a bit in the change process. Besides the text and the research from Great Schools Partnership they would probably be the other big factor both in giving us funds to kind of play with and additional PD for our teachers.

Kanye described collaborating with other principals:

Talking to other principals at other schools. . . . Some of this was not always by design but just happened to be at different network events where they were talking about these things anyway. But recognizing that as something that I knew [my school] needed, I started pushing the envelope on those things, approaching those principals asking them for advice or tools that they used with their staff and then taking advantage of opportunities to send staff to some of those schools. Sending my teachers over to [see another school] was one of the best moves I could have made because they came back like so excited about trying it.

Prior professional experience and continuous learning helps prepare principals to lead

the implementation of standards-based grading. Four principals reported their prior professional experience and the ongoing learning that occurs during the implementation of standards-based grading as important factors of their preparation and training. Jay inadvertently began his preparation for leading the implementation of standards-based grading while working as a teacher:

I think that my working experience prepared me, so I kind of accidentally fell into the project based, standards-based stuff in my after-school program. And saw that kids were learning more and were more engaged in this informal space and learning things in a deeper way I should say.

Nasir also reported prior teaching experience; “for me, a lot of it was teaching . . . so that helped a lot. Roy reported the continuous learning associated with leading the implementation of standards-based grading in their schools:

Well, I don’t think the preparation really ever ends, it’s always looking and listening to what’s working and what’s not and trying to figure out how to make it better. So, from that perspective I don’t know if that preparation ever ends because if something is not working then we have to problem solve with the different stakeholders and teacher leaders and students to figure out what exactly is the problem and then trying to develop solutions and then figuring out how, what is the true impact from those solutions that we came up with before trying to roll something out.

Similarly, Michael highlighted the iterative nature of leading the implementation of standards-based grading:

Once again, if you think of a process that lasted for multiple years with multiple iterations, one is in a constant state of preparation for it, with endless meetings at the district office, endless discussions with staff reporting on those. This is what we’re doing right now, this is where we are. A constant discussion and trying to bring people to a place of concert with both the principle of the standards-based grading and the technology that we were trying to use to implement it. Unlike any other reform that I’ve been involved in, and over 40 years I’ve been involved in many, many reforms, this one is the most all-consuming. You couldn’t help but be in a constant state of examination, exploration, discussion, listening, speaking, and generally talking about it.

All 10 principals listed their informal preparation and learning about standards-based grading and grading practices as a key factor for advancing the implementation of standards-based grading in their schools.

Continuous learning, empowering people, school-wide consistency, and gradual expansion of standards-based grading positively affected implementation. All participants identified similar factors that aided in the successful implementation of standards-based grading in their schools; from the data, five subthemes emerged: (a) continuous learning of standards-

based grading practices and beliefs; (b) empower early adopters; (c) empower teams and teachers to define standards-based grading; (d) gradually expand of standards-based grading across the school; and (e) use standards, proficiency scales, and assessments to create school-wide consistency.

Continuous learning of standards-based grading practices and beliefs. Eight principals highlighted the importance of creating opportunities for teachers and leaders in the school to continuously learn about standards-based grading. Barack reported that prior to beginning the implementation of standards-based grading, “we were able to send a number of teachers to standards-based grading workshops and conferences. And they would come back, meet with me, and we would decide together what learnings we should be sharing with the broader faculty.” Jay “brought local experts in during our planning year,” Alyssa reported that her district “helped to put some money [aside] just to work with the Marzano group, Bob Marzano and his team,” while Roy reported his reliance on the “Great Schools Partnership . . . we sent staff out there for training.” Similarly, Elle stated,

We started with a committee of teachers that were just interested in learning and we read several books and they traveled to see Marzano, we traveled to different places just to kind of learn. Then we actually got several [experts] in the building for a few days and had a day long training to teach them the basics of standards-based grading and the why behind it. And our teachers came back excited.

Other participants identified school-wide readings as the strategy used to build understanding and capacity. Ava stated, “getting out the Rick Wormeli book and talking about what a standard is and talking about how zeros are numerically ridiculous in our setting,” and William reported, “we did some book studies and also sent people to different conferences to kind of understand standards-based grading.”

Empower early adopters. Six school leaders identified empowering early adopters as being a strategy that aided in their successful implementations of standards-based grading. Barack revealed that his “then math department chair proposed the idea. And we spent a bit of time over the summer thinking through it. We launched it as a beta test for the algebra and geometry classes in 2011.” Jay reported that after spending a year planning, “the first year was a great witness test to figure out what you got right and what you got wrong. We used the same process entirely, it’s been a kind of continuous feedback, tweak, [and] improve model.” Ava called early adopters “the born-again that are even more powerful than the disciples on your staff that help you move the cause forward.” Kanye used an opt-in approach, stating,

So, we decided the best approach was, let’s see how many people are going to opt-in. And so, on a staff of between 30 and 40 teachers at that time I was kind of surprised to see that there were about 10 to 12 teachers who showed up to the initial meetings to find out what it was about and then say, let’s voluntarily all learn about this standards-based learning. So, the idea was to kind of have that you know, infectious approach that started with a small group of teachers, get them to really say this has either worked or not worked and hopefully worked, in their classrooms and then grow it throughout the school and that’s really what happened.

Nasir stated that the early adopters formed a team that created a grassroots effort:

They started this like curriculum instruction team and then what they did in the first year was it was almost more like a grassroots movement that described what standards-based learning looked like and just put it out momentarily. “Hey, who is interested in being a part of this?” And they got a cohort of probably 15 to 20, maybe not that many, 15 teachers who really wanted to study their own practice and study how standards-based planning could fit into it.

Empower teams and teachers to define standards-based grading. Participants spoke specifically about how empowering teams and teachers to define standards-based grading had a positive effect on their implementation in the school. Roy commented,

So, our assessment and evaluation committee, which was made up of teachers, students, parents, and administrators, spent the year looking at our data, looking at research. At the end of the year, the committee made a recommendation to the administration of here is stuff that we can take to fix this and how we can better serve our students, making sure

we're not harming our students. And so, one of those recommendations was . . . looking at proficiency based learning and standards-based grading . . . and then [we] had a group of about 20 staff members or probably 70 at the time, meeting over the summer to kind of define what will this look like? How does this work? Trying to identify possible problems [and solutions] into our structures.

Jay added,

It is an ongoing process. And one of the values is that we're culling designers here. We took those principles and we spent a ton of staff time in the summer and we meet on a weekly basis to figure out what does that implementation look like. It's a collaborative process . . . if you build a school that believes in the ideas and the voice of the students, you have to do the same thing with the staff. That is the plan that we had from the beginning, to involve everybody in the planning. The flip side of that is, there is a high level of buy in. And when something doesn't work, there is no finger pointing. It is like, "Well, we all built it together, so let's figure out how to fix it and make it better."

Michael mentioned having a "a group of high power teachers, well-respected . . . who aim to review where we are, distil our knowledge of the system, and come up with a policy, the policy and practices of how we go forward in the future." Kanye spoke about his Instructional Leadership Team (ILT) making the decision to implement standards-based grading school-wide:

The ILT felt confident that because it was about a quarter of the teachers who'd got their feet wet last school year, they decided that this year let's go school wide. So, getting those teachers together, sitting them down and saying, what do you all think would be necessary to kind of change the culture?

Gradually expand standards-based grading across the school. Participants identified the gradual expansion of standards-based grading throughout the school district as being critical to implementation. Seven school leaders gradually expanded the implementation of standards-based grading throughout the school, in most cases, starting with the freshman grade and extending to the next grade each subsequent year, while three school leaders took a whole-school approach and implemented throughout the school at the same time (Table 5). Four school leaders began the implementation of standards-based grading as a result of teachers, considered early-adopters, who introduced or pioneered the grading reform initiative and its practices to other teachers in

the school. After beginning implementation in algebra and geometry classes during his first year, Barack stated,

We learned a lot about what to do and what not to do. And then we were able to, in my second year, expand it to our trigonometry classes and our physics classes. And each year we've basically added one more discipline or content area. We were able to slowly add on throughout the years. And in more recent years we've been able to commence school-wide discussions and actions with standards-based grading. We really started with small pods of specific courses. And we've now moved that out to the entire curriculum.

Table 5

Rollout of Standards-Based Grading

Participant	Rollout approach
Nasir	Two teacher early adopters, started a committee of 15 teachers to learn, expanded to all 9 th grade classes, gradually expanded to all 10 th , 11 th , and 12 th grade classes each year.
William	Started in middle school progressed to all 9 th grade classes, gradually expanded to all 10 th , 11 th , and 12 th grade classes each year.
Elle	Started in all Kindergarten, 1 st and 2 nd grade classes, gradually progressed to all elementary, middle, and high school classes.
Alyssa	Ten teacher early adopters, expanded by grade-level
Kanye	Twelve teacher early adopters, expanded to other teachers throughout the school.
Barack	Specific courses/teachers began as early adopters, gradually expanded to departments, and then school-wide implementation
Jay	Started in 9 th grade, expanded by grade-level each year
Michael	School-wide implementation
Roy	School-wide implementation
Ava	School-wide implementation

In similar fashion, Nasir commented on the gradual expansion of standards-based grading practices from a few early adopters to the entire school community:

It started to spread from there and because those teachers had a lot of social power, I think other teachers kind of wanted to be a part of that. It became kind of like, for lack of a better term, it was like cool. And then we have a freshmen program, so we have four 9th grade teams who all work together so it made sense to start implementing standards-based planning within our freshmen or ninth grade program because it was already team based and because they are looking at kids as a whole, because it's interdisciplinary and

they can basically structure their own day so they are not going to be broken into classes if they don't want to. So, it started from there and then it kind of started filtering up through the organization after that.

Other principals described the gradual expansion of standards-based grading practices across their schools. Elle reported, "so they started with K2 and then grade six and then the class right now that's graduating is the first class to stand all the way through on the standards-based grading from the sixth grade." William explained how a few teachers influenced a middle school to adopt standards-based grading practices, and as a result, the high school did as well:

Our middle school principal just said, we're going to do this as a building and let's be consistent [with] how we do it. And then we got to the point where those 8th graders who were coming to the 9th grade had only utilized standards-based grading and it just didn't make sense for us to go back to traditional grading practices for that group of kids. So, when they came to the high school, any classes that had a 9th grade student in it had to be graded through standards-based grading. And then the year after that everybody in the high school was utilizing standards-based grading. It was a grassroots start and then it became a holistic practice for our entire school district.

Use standards, proficiency scales, and assessments to create school-wide consistency.

Principals commented specifically on their effort around identifying and unpacking standards, creating proficiency scales, and developing assessments to promote school-wide consistency as being a factor that advanced the implementation of standards-based grading in their schools.

Alyssa reflected, "the very first thing that we did was unpack standards. What we did first is unpack those standards and the Marzano group worked with us once a month. We took an entire year at standards and writing proficiency scales." Roy responded, "we spent a year making sure there's clear vertical and horizontal alignment of what's taught in various courses, to make sure there's consistency and not overlap or replication or gaps for students as they learn." Principals also reported their efforts around developing assessments aligned to the standards; Alyssa stated, "the second thing we did in year two, was to begin working on our assessments themselves. I would say that we are still working on writing assessments. We keep getting better." Elle added,

“we started digging into creating scales and assessments and we had a few tears and some grey hair over that. But we’ve kind of—we’ve gotten through that piece. So that’s kind of how it’s evolved over time.”

Although many factors contributed to the implementation of standards-based grading in their schools, principals all agreed that school-wide learning and capacity building, empowering early adopters and risk takers, and empowering teams and teachers to define standards-based grading in their school were all critical factors that led to success. Principals also agreed that the gradual expansion of standards-based grading practices in their school, and the strategic work of unpacking standards, creating proficiency scales, and developing aligned assessments, were also critical to advancing the adoption of standards-based grading practices school-wide.

Principal-made decisions that advanced the implementation of standards-based grading. All 10 principals identified at least one decision or action they made that best advanced the implementation of standards-based grading in the schools. From the data collected, two subthemes emerged: (a) supporting and collaborating with teachers and (b) developing capacity and making course-correcting changes.

Supporting and collaborating with teachers. Participants cited their decision to support and collaborate with teachers as playing a significant role in the advancement of standards-based grading in their schools. Ava described her decision to collaborate with teachers as “giving away the leadership and the power and the control to the teachers . . . they’re the ones that created it, they’re the ones that implement it, and they’re the ones that got to be on board.” Jay reported the decision to work collaboratively with teachers on designing and implementing standards-based grading: “the thing that we did get right is . . . you have to have the buy-in of the staff that are

implementing the work . . . the way that we do it, the way that I think is best, is making them co-designers.” Roy shared similar thoughts about his decision to relinquish control to teachers:

But, really working with the teachers to make sure they are the ones guiding that work, and having them to address the policies, one because they are on the frontline with the kids. But also, then to expand the ownership and the buy in of the staff around that. I might be the principal but it’s the team of teachers that we have here that is really driven and willing to pull up their sleeves.

Other principals also reported the decision to share decision making power with teachers. As Ava stated, “you know, it’s not as pretty of a journey when you let other people lead, but it’s more lasting, it’s systemic.”

Developing capacity and making course-correcting changes. Participants spoke to their decisions to develop teacher capacity and make course-correcting changes as being a significant factor in the advancement of standards-based grading in their schools. Elle commented that she and her team “really worked hard to develop those skills . . . to learn how to create common assessments and doing table grading, so [we all know] what good looks like.” Elle also spoke to her decision to separate non-achievement factors from grading and requiring retesting for students who failed to initial achieve mastery: “I think that being strong and knowing that it’s good for kids to be able to retest and to hold them accountable for their work and to separate non-achievement factors.”

Other principals reported their decisions to change the grading scale and adopt electronic gradebook systems that complimented their implementations of standards-based grading. Alyssa stated, “[the decision to change] the grading scale. I think that was the game changer. And then getting the electronic system to mimic it. That was huge.” Elle made a similar decision to change their electronic systems, “we even changed our student information system because sometimes

that’s a barrier for creating a report card. So, we were able to really work hard to create a report card that people could read and understand.”

Overall findings suggested decisions that supported improving teacher practice and expertise in standards-based grading helped to advance the implementation school-wide. Findings also suggested that intentional decisions, made by principals, to collaborate with teachers and make adjustments to practices and policies during implementation, all aided in the success of standards-based grading in their schools.

Principal-made decisions that have sustained the implementation of standards-based grading. All 10 principals reported specific decisions or actions they made that has helped to sustain the use of standards-based grading in their schools. From the data, the following subthemes emerged: (a) the decision to consider teachers leaders and co-designers of standards-based grading practices, (b) the decision to provide ongoing professional learning, and (c) the decision to differentiate leadership approaches.

The decision to consider teachers leaders and co-designers of standards-based grading practices. Principals reported their decisions to include teachers as leaders and co-designers of their standards-based grading initiative, citing their co-leadership as being significant to sustaining standards-based grading in their schools. Jay commented on how the decision to include teacher as co-designers was intentional and was made early in the process:

The second, the internal [decision] is this idea that teachers are co-designers. While it stretches us at times and we’re still trying to figure out the workload aspect of it, I think that was a brilliant decision from the beginning. And it’s not just mine, I can’t take the full credit for that, but that has given teachers voice and it’s really made us all have a part, have a stake in the success of the school.

Other leaders offered similar sentiments. Ava spoke to her decision to “really be committed to the teacher leaders . . . really getting your leaders to feel valued and thinking

outside the box and creating positions for leadership for teachers . . . [who] have a lot of great expertise to share with their colleagues.” Michael spoke to his “decision to setup a task force, to have a review branch of standards-based grading, is another leadership activity that I think is, that I know is effective.” Kanye claimed, “so definitely not making it about me, this is not a principal-led initiative, so it’s something that even when I leave this school, [it] should still be in place.”

In addition to co-leading the implementation of standards-based grading, principals also reported the importance of continued professional learning as being paramount to sustaining standards-based grading in their schools.

The decision to provide ongoing professional learning. Participants highlighted their decision to continuously provide teachers with professional learning opportunities focused on standards-based grading practices. Several leaders spoke to a yearly revisiting of the core components of beliefs around standards-based grading. Alyssa reported,

Every year when we go back, we talk through our grading procedures. When we hire new staff, we do an entire day of how to do standards-based grading, so they can learn pretty quickly. We give them a mentor, especially around grading period. That way they know what is expected. They know how to influence them. We generally get them people who get in at eye level. I think those distinct abilities have really helped us.

Nasir commented on the decision to “always come back to the why and then really talking about why we’re engaged in this work.” Similarly, Elle spoke to regularly reviewing the why and developing capacity in new teachers as they enter the school:

But I do think we—and another hard tough piece is when you get new teachers because you just don’t have the time to go back and do the sit down really strong studying like we did when we started the process. We created our PLCs [Professional Learning Communities] so that we have professional development and we try to always make sure we’re providing them information about feedback and reminding them [about SBG practices].

In addition to sharing the responsibility of leading standards-based grading with teachers and providing ongoing professional learning for them, data from the principals also identified principal leadership skills and practices as being significant for sustaining standards-based grading in their schools.

The decision to differentiate leadership approaches. Participants identified aspects of their leadership as actions that led to sustained implementation of standards-based grading in their schools. Barack recognized that in order for standards-based grading practices to take root in the school, he needed to develop and exercise a sense of patience:

I've been patient with helping to shift the mindset. And we're still evolving some mindsets 7 years in. Solid organizational shift at minimum takes 3 years. And we still have a few people who are not resistant, but just don't take the time to really dedicate to it. We've had degrees of patient—energy on the one hand to really focus on the development of the practice and theory, but also some patience. That it takes time for these ideas to root, particularly for persons who've been teaching the same course with great success for 7, 8, 10, 15 years.

Jay identified the relationship he developed with district leaders as being the key to sustainability, “we’ve maintained a great relationship with the senior leadership, also with [our superintendent] and his executive team, so that’s . . . ultimately when push comes to shove, that protects us.” Michael recognized that standards-based grading has been sustained in his school because he, and other teacher leaders, own and support the initiative:

Twelve years in the post as principal, my word carries a lot of weight. And it is understood that this is how I believe we should approach grading. It is the principal's intention and message . . . that we're in the standards-based grading system. I'm also fortunate in that some of my teachers have probably even stronger attachment to standards-based grading than I have. They make the kids do it forcefully. And because they are respected, people look to them and they think, if Linda is passionate about the importance of standards-based grading, it probably does mean that this is something that is worth. . . , It's something that I should be doing as well. That puts quite a weight behind it.

Finally, Roy reported how the inclusion of standards-based grading in the school's strategic plan has been critical to sustaining the reform effort over time:

We have the [strategic plan]. It's just like when we redid the standards we teach two years ago, we made sure that [standards-based grading] was illustrated and a key part of [strategic plan]. The [strategic plan] guides the budget, a guide that [allocates] resources. So, that has been really helpful in terms of making sure that we have the core documents that guides that work.

Overall findings revealed the sustainability of standards-based grading in schools rests on principals' willingness to empower teachers as leaders and share the responsibility with teachers to design and implement standards-based grading. Findings also conclude that ongoing professional learning for teachers is non-negotiable and that principals must be able to exercise a diverse set of leadership approaches when implementing standards-based grading.

Operationalizing problem solving. All 10 leaders acknowledged a variety of problems and challenges that occurred during the implementation of standards-based grading in their schools. The major subtheme that emerged from the data was the use of collaborative teams and protocols for inquiry and problem solving school-wide.

The use of collaborative teams and protocols for inquiry and problem solving. Barack detailed a school-wide system for problem solving that helped in advancing the school-wide implementation of standards-based grading:

We have implemented a cycles of inquiry model to guide our thinking. Our faculty can come to whichever team they're addressing this problem towards . . . with a clear question or problem of practice that's really honed so that good answers can start to be formulated. Then we cull different answers, and we specifically spend a lot of time thinking about the antithetical viewpoints on that issue. Because that stretches our thinking and it forces us to really ensure that the decisions we're making can stand up against intellectual challenges, and best practice challenges. Then we implement a solution. And then we iteratively look at whether that solution is working or not. But that system of problem solving has helped us a great deal in the standards-based grading design and implementation.

Jay offered similar structures that involved collective ownership for problem solving across the school:

From the beginning this idea that we are going to collaborate as a staff, and part of our job, each person here, no matter what your title is, that we're co-designers and co-builders of this model. As the challenge arises, we have weekly staff meetings and that is the primary mechanism. We have time in the summer [that is devoted to] changes that are too hard to make during the school year. Often the big questions will be raised to the higher staff, but we will create working groups to take on [the smaller issues].

Kanye also referenced his instructional leadership team as the entity used to solve problems,

My [instructional leadership team] is an entity on its own. So, the core group of teachers that are on that ILT, any question that comes up actually goes through them before it even goes through me. I've learned as a principal, at a certain point you've got to let go of certain things. But letting go actually allows you in a weird backwards way, greater control over it because you've got a wider base as opposed to everything coming from you. It really has become more of a teacher led school. But really that's what it is and it's empowering the teachers. Those decisions and those problems now no longer come to me unless there's some kind of extreme deviation from what the norm is . . . it's really a great freeing thing, it frees me up to do a lot of big picture work.

In like fashion, Michael reported,

I chose to form a task force of some interested people which I ensured that some of them were thoughtful and informed, that's teachers who assessed students on standards-based grading, that they served on the committee. And I've asked them to operate like a senate committee . . . explore a wide range of possible problems and obstacles [and] to present [their findings] to the building leadership team and ask the extended leadership team to either accept and adopt the policy or to send them back to do some more work, or to suggest some revisions, and then to present that to me for the final seal of approval.

Principals make a number of decisions when implementing new initiatives in their schools. Principals in this study identified specific decisions and actions around collaborating with teachers, providing ongoing professional learning, and aspects of their leadership that have all helped to sustain standards-based grading in their schools. Principals also acknowledged that although standards-based grading has been sustained in their schools, their implementations were not void of problems and challenges along the way. All principals made decisions to create, or

utilize existing teams, to solve problems or address challenges related to the implementation of standards-based grading in their schools.

Factors that Hindered the Implementation of Standards-Based Grading in High Schools

This subsection explored the factors principals stated hindered the implementation of standards-based grading in their high schools. Three subthemes emerged from the data and were explored in this section: (a) decisions principals regretted, (b) errors that inspired adjustments to the implementation of standards-based grading, and (c) challenges and resistance to implementation.

Decisions principals made that they later regretted. All 10 principals identified decisions or actions made that they regretted in hindsight. From their responses, the following subthemes emerged from the data: (a) engaging the broader community earlier, (b) challenging bureaucracies and applying pressure, (c) providing more guidance around grading practices, and (d) delaying implementation.

Engaging the broader community earlier. Although all 10 principals highlighted the collaboration between teachers and administrators needed to lead the implementation of standards-based grading, in hindsight, three principals expressed a desire to have included more teachers and parents in the decision-making process earlier. Barack acknowledged the unintended consequence of his decision to implement standards-based grading a few courses at a time:

Letting one department, one small subset of one department lead the initiative without having the active input of the other members of the instructional leadership team and other departments. And then when phase two, three, and four as more departments started to buy into this, they were almost forced to accept the model that this one department had created when I should have had more departments from the get-go put their fingerprints on it so that there was more universal understanding buy-in towards the theory and practice.

Ava also reported similar sentiments: “I think not being as inclusive, not providing enough opportunities for enough teachers to get involved.” Nasir regretted not including parents during the early phases of implementation, claiming “I would’ve been meeting with parents more frequently.”

Challenging bureaucracies and applying pressure. Three principals regretted their decisions to not fight through organizational bureaucracy or apply strategic pressure. Jay reported not being good at navigating political battles and regretted not being more strategic with central office and leveraging his political capital early in the process:

I don’t think we anticipated the amount of pushback from the lower level in the school district. I’m not good at the kind of political battling that this job has required. We could have said “Look, let’s start with a contract” or “[superintendent], this is awesome that you’re so excited and we’re super appreciative of this opportunity and we’re anticipating a whole bunch of challenges from your bureaucracy. Can we set up a structure that litigates that?” if I could go back, that’s the one thing that we really, really didn’t see being as challenging as it was.

Upon further reflection, Michael wished he would have challenged the school district on its approach to standards-based grading. He stated, “I should have fought the particular practices that we sought to implement at the district level, I should have more aggressively challenged the ideological excesses of the particular type of standards-based grading that our district [wanted to implement].”

At the building level, Kanye reflected on his decision to not apply more pressure during the earlier phases of implementation:

I think that there are definitely some instances where there are some teachers that need a little bit more pressure placed on them to collaborate and that’s a tough one. If you try to gauge if you stepping in is either going to cause them to withdraw even further or spur them to action, and that’s a tough one to gauge. So, recognizing that I need to find time to kind of apply appropriate pressure in certain places is something I would go back and change.

Providing more guidance around grading practices. Two principals regretted not providing more definitive guidance to teacher leaders and collaborators around specific grading practices. Alyssa expressed a desire to take a different approach around the decision to assign students grades for their performance on formative assessments:

I'm not sure that I would add formative assessment to the grade. That is something I know we are struggling with. And I just think that we need to know that we do not punish kids when they are trying to learn how to do something new or practice. You do not grade them until they are in the game. That is what I struggle with. That formative can really impact a kid's grade, GPA wise. And that is a major regret.

Upon further reflection, Roy would not have made the decision to allow teachers the final approval for how students' final grades would be calculated. He stated, "[what] I do regret is, you know the ILT really . . . the teachers really thought power law was the better way to go, and from the start I said, can you explain this?" Roy continued,

We made that decision based on a vote at ILT. I would have said no, we're not . . . I need a clear tangible example of how this is going to be explained to parents or how it's going to be explained to students or even other staff before we make this switch. I think that set us back quite a bit in our implementation, [the] switching to power law. Then we switched back after a semester. That change on top of change was too much change. I definitely wouldn't do it again.

Delaying implementation. Reflecting on their practices, two principals wished they had reduced the pace with which they began the implementation of standards-based grading in their schools. Elle stated, "I think sometimes we might have been getting in a little bit too quick and gotten soft about a few things at the same time." Although listed as an action she would have done differently, Elle seemed to believe that the expedited implementation was still beneficial for her staff:

I think it had to happen just so people can kind of work through it and then we've been able to come back and make it better. Because it is really, really overwhelming to get started, very overwhelming. So, I really honestly do not think it's been a terrible process.

Roy also expressed concern for not delaying the implementation of standards-based grading and stated a desire to have implemented standards-based grading one grade level at a time:

I talked about delaying a little longer. I don't know that I would have delayed a whole year but I think having time to either start seventh grade up or taking a semester for us to kind of let teachers play around with JumpRope and learn it instead of saying go from day one. I think that might have helped with teacher understanding, buy in, and some of the students not feeling like they're learning this at the same time as their teachers. I think that would have been helpful.

Upon reflection, all 10 principals believed their approaches could have been more effective if they would have made some decisions differently during the implementation of standards-based grading. Although participants highlighted a number of decisions or actions they would make or do differently, participants all agreed the decision to not engage the broader community earlier, challenge bureaucracy, apply more pressure earlier in the process, provide more guidance around grading practices, and to not delay the implementation of standards-based grading, were the decisions or actions met with the most regret.

Errors that inspired adjustments to the implementation of standards-based grading.

All 10 participants identified adjustments they would make to their implementations of standards-based grading if given the opportunity for a fresh start. From the data collected, the following subthemes emerged: (a) gradual implementation of standards-based grading, (b) broader inclusion of staff and consensus building around grading practices, (c) additional time for teachers to learn, and (d) better communication.

Gradual implementation of standards-based grading. Participants articulated a desire to revise their implementations of standards-based grading by taking a more gradual approach to school-wide adoption. Seven school leaders gradually expanded the implementation of standards-based grading throughout the school, while three school leaders took a whole-school approach and implemented throughout the school at the same time. Barack reported,

I think I would get more departments involved earlier in the process. The first 2 years it was just the math department. Then the science department, then one social studies teacher, then one English teacher. . . . And so there was a lot of tiptoes, and it was individual courses or individual teachers. . . . Instead I think in a perfect world I would've asked all of our freshman courses to tiptoe into this. And then to slowly grow over 4 years with our student population with standards-based grading, kind of phase out the old model and phase in the new model with regular conversation.

Roy articulated similar sentiments,

If I could have gone back over those 6 years, [I would have] just started with our seventh and eighth grade and built it up rather than a whole school change since some of our students have shared. . . . "I've been under three different iterations of what grading and assessment looks like [here]". I look at their GPAs and I [say], regardless [of the iterations], it has helped them, but also the stress of the change and everything on the students, that hasn't helped them. And so, phasing it up rather than whole school change I think would have been helpful.

Broader inclusion of staff and consensus building around grading practices. Principals indicated a desire to include more staff in the implementation of standards-based grading, as well as a desire to build more consensus around school-wide grading practices. Realizing that he could have been more inclusive during the implementation of standards-based grading, Nasir stated, "I think one of the challenges in the way that we implemented it would be having the instructional coaches doing a lot of leadership . . . it put them in a difficult position . . . that created some divisions that we could have avoided." The other two principals highlighted the need for building consensus around school-wide grading practices earlier in the process; Alyssa reported, "I think, we would first work on the rubric that we all agreed upon, so that we can deal with the philosophical challenges first, so that the work that we are doing, they would understand." Jay voiced a similar desire for consensus around how the school would systematically provide opportunities to demonstrate mastery throughout the year:

One of the big struggles that we're still trying to sort out is, how do students improve their work and what does that mean? [For example] if a product is due, so the cellphone charger is due at the end of the grading quarter and [a student] got a one or a two on it

and [she wants] to really work towards a three, what does that mean and where and how does that happen?”

Additional time for teachers to learn. Participants commented on their desire to give more time for teachers to learn about standards-based grading. Roy stated that he “would have preferred to give a little more time for teachers to digest some of these policies before expecting them to implement.” Kanye reported his desire for additional time after an initially tough rollout of standards-based grading:

We did not have a really good rollout strategically; no examining literature and best practice and looking at other schools that are doing this. What we had was, some teachers would say, “Hey, we’re going to try this out,” and then we, like I said, built a plane as we’re flying it. To have it work more smoothly, more of a fundamental approach of let’s study this as a school, let’s develop some strategies and let’s all implement them consistently would have been the way to go but it just was not feasible or possible.

Ava expressed her desire to “send more people to see more examples of exemplary [models],” while William found fault in the way his school on boarded new hires:

I think probably the thing that we struggle with is we got to make sure when we hire new staff, that they understand our process. So that’s probably the hardest, being a new teacher and then you have all these different initiatives that you’re doing and you’ve got to get them up to speed.

Improve stakeholder communication. Principals expressed a desire to improve the way aspects of standards-based grading were communicated to stakeholders. Kanye stated definitively, “it’s definitely communication. If I had a time machine, I would help the teachers with their messaging from the very beginning. Probably like a school community meeting about this in terms of how we’re rolling it out.” Kanye continued:

We didn’t know to do that in the first year and especially because it wasn’t a school wide effort. And in retrospect, it is tough when you’re not doing it as a school because then they’re getting inconsistent messages. So, it’s like, hey in these classes they’re saying they’re being graded on standards, whereas the other one, if I just do all my homework I know I’m going to get an A. So, it’s very tough to change mindsets when you’ve got these inconsistent messages.

Nasir reported a desire to improve communication among teachers in the building:

I would have done a lot more communication with smaller groups of people to establish buy in. I think a lot of time, and we have a faculty of 120 and I think the temptation is always to do like these huge group meetings instead of thinking about, all right, let's have smaller focus groups which really pay attention to how people are feeling.

If given a fresh opportunity to implement standards-based grading again in their schools, participants expressed a consensus desire to take a more gradual approach to implementation of standards-based grading, include more staff in the process and focus more on consensus building around grading practices, provide additional time for teachers to learn, and improve the communication of standards-based grading to both internal and external audiences.

Challenges and resistance. All 10 participants identified several challenges and examples of resistance during their implementations of standards-based grading; from the data collected, the following subthemes emerged: (a) lack of communication with stakeholders, and (b) resistance and lack of understanding from faculty.

Lack of communication with stakeholders. Two principals reported experiencing challenges and resistance related to the lack of clear communication of standards-based grading practices and policies. Barack spoke to frustrations voiced by parents and students after the initial rollout of standards-based grading:

Initially from the student and parent perspective we received some pushback. They just didn't understand it. It was a new language. Parents would come to us, "This isn't how I learned." And so, we put together a one-pager for parents and they started to come to understand it. Same thing with students. Just about all of our students came from very traditional learning models of ABCDEF or 0 through 100 percentile basis. Once we explained it most of their fears and concerns were satiated. And very quickly students started to realize this is pretty good for them. Rather than being one and done with any assessment, there are multiple opportunities to demonstrate proficiency.

Other principals also reported resistance from students and parents as a result of unclear, or nonexistent, communication. Kanye stated, "there was a lot of pushback from the students

when we first [rolled it out]; I was not prepared for that. They like to do sit-ins, it was almost a sit-in over grading.” He continued,

We had this huge backlash in the beginning of the school year when grades first dropped. We had to go back, draft a document to send out to all the parents and say this is what [standards-based grading] is [here]. So that they had a better understanding of what we were trying to do. Definitely with the messaging that this is supposed to help your child achieve a deeper understanding and ability with regard to these standards as opposed to just getting an A.

Resistance and lack of understanding from faculty. Eight principals identified resistance and lack of understanding from faculty as significant hindrances to the implementation of standards-based grading. Barack reported, “the larger barrier was faculty. Not traditional resistance; the old guard sticking with what they knew and how they’ve been teaching for 10, 15, 20, 25 years.” Ava agreed, citing “it’s so hard for some teachers . . . if a teacher didn’t grow up in a standards-based grading environment, it’s hard to take that subjectivity out of grading.” Ava also reported the resistance from faculty in the form of competing philosophies on preparing students for post-secondary education and the real world:

[Our faculty often said] colleges aren’t going to understand our grading, we’re not preparing them for real life. There’s not a deadline and they don’t understand what deadlines are in the world then they won’t make it through college and all that kind of stuff. But I kept saying, “Well, this isn’t college, it’s high school. And don’t you want the kids in your life that you teach to ride a bike to actually ride the bike or you are just going to give up on them because time’s up.” So, what you have to do is just to change the mindset of teachers from learning being the variable to learning being the content and time becoming the variable.

Nasir reported challenges related to school culture and climate as a result of a divided faculty and staff, “It was pretty divisive on the faculty. So, my job coming back in was to say, how do we bring this faculty back together? How do we move forward? It got tricky for a while there, that’s for sure.” Kanye reported examples of covert teacher resistance, stating “it’s not so much that they were outright resistant, it’s the ones that say I’m on board, but secretly are not.

They don't want to say, no I actually don't agree with this." Kanye added, "so it's difficult for an administrator to determine what is secret resistance, versus incompetency, versus just an honest, 'I just don't know [how to do] this'. So, the resistance and fear from students were the toughest challenges."

Alyssa also reported resistance from teachers concerning the minimum grade policy:

We also had a lot of push back on the zero percent. Trying to get teachers not to accept zeros. Or have that zero really play into the calculation piece. The other side of that is that they realize this is about logging evidence. If there is no evidence, there is no evidence.

Other participants highlighted the challenges of implementing an assessment retake system that was manageable for teachers, prioritized a student's ability to demonstrate learning over time, but would not allow students to take advantage of the opportunity to constantly reassess. Elle commented:

We started that process to be very open because we believe . . . that learning can happen at any time and not everybody is on the same page at the same time. . . . What has been a struggle is for teachers to be able to manage that . . . some have allowed them to create their own process. So sometimes they will only allow them to retest certain tests. We do encourage them to say that they only have a couple weeks to do that, because otherwise it's just hard to- the management piece becomes such an issue. The other thing about retesting is that our kids figured out that they didn't really have to do well the first time because they knew they could retest. And that became a lot of extra work for our teachers to recreate a test all the time.

Michael reported resistance from teachers around the use of a new, district-required, gradebook:

There was grumbling and resistance. I think people were quite gleeful when [the gradebook] collapsed. And when gradebook two came along at that point it was like, this is getting absurd. I think that there was more lip service, I don't think, I know that people paid lip service to the standards-based gradebook [they] probably embraced some of the valuable ideas of standards-based grading but didn't by themselves want to implement the system in the way that the district had devised it.

Alyssa spoke to the resistance from teachers regarding the discontinuation of the traditional grading scale:

The biggest challenge was for teachers that love calculations and they wanted the 100-point scale. That was a big push back. Especially the veteran teachers. Officially, we were able to demonstrate to them, when you give a 30 on something versus giving a one or a two, the difference in terms of mathematically, children really have a hard time with the major assessments ever getting out of that hole. And that is really not what standards-based grading is. But what we are looking for is the effort indicated over time and the end results of the assessments being powerful, because you have time to grow and learn and re-teach and reassess. So, you can't really weight it from that backend. That was a real challenge. It was a push back from teachers because they'd have to go in and look at it like a big body of evidence.

Participants clearly identified a number of shared challenges and examples of resistance that became hindrances to their implementations of standards-based grading. Participants identified a lack of communication with stakeholders, resistance and lack of understanding from faculty, and resistance from central office as being paramount to all other challenges and forms of resistance.

Advice and Reflections on Leadership Practices

This section reported the reflections participants had on their own leadership practices and the advice they would give to other high school principals interested in the implementation of standards-based grading in their schools. Six subthemes emerged from the data: (a) Make a firm decision with your staff to implement standards-based grading and never give up, (b) immediately involve teachers in the implementation and decision-making processes, (c) be prepared to clearly articulate your reasons for implementing standards-based grading, (d) exercise patience during the implementation and decision-making processes, and (e) be prepared to differentiate your leadership approach.

Make a firm decision with your staff to implement standards-based grading and never give up. Participants stated that they would encourage other high school principals to definitely lead the implementation of standards-based grading and to persevere through the

challenges that may arise. Barack reported the positive effects standards-based grading had on his faculty:

Do it. The collegiality of faculty who are developing and implementing standards-based grading goes way up. And I've just seen much higher quality pedagogues, and activities/assessments come out of collaborative models rather than teachers all kind of doing their own thing, saying they're kind of aligned but they're not. Standards-based grading has a lot of positives for the students and the faculty.

Ava echoed similar sentiments: "Do it early and stay the course and don't let the naysayers drag you down and just stay grounded in your beliefs and know it's best for kids." Elle advised principals to stay the course during the implementation of standards-based grading, "don't give up, sometimes you want to . . . stay focused on the process because what I've been able to see . . . is that the process gives kids hope and it allows for learning to occur and that's what we're here for." Elle also added:

I'll tell you, sometimes I do second guess myself, because sometimes the noise on the outside about why this is wrong, is loud at times. So, you have to go back and then you read again, it's like no we're doing the right thing. Just that reassurance sometimes is really helpful. Because I think everybody wants to do the right thing. But we do look at everything through a different lens.

Immediately involve teachers in the implementation and decision-making processes.

Participants identified the need to immediately involve teachers during the onset of the implementation of standards-based grading. Jay stated, "there has got to be a cohort of teachers in the school that are interested in implementing it." Jay encouraged future adopters to "start it as a pilot program . . . find a group of teachers that want to work together on this and have some sense of community inside the school and pilot it;" Ava advised leaders to "get those early adopters to help you quickly . . . [that will help you] establish teacher leaders quickly." William shared similar sentiments, "include your staff right away. If you can get them bought in, everything else will fall in line if you can get them passionate about [the] why." Kanye reported

the benefit of building trust with teachers when they are allowed to experiment and own aspects of the initiative design and implementation process:

Build the trust with the teachers. Ultimately that's what it comes down to. The word trust, everything's about trust. The teachers have to trust that they're going to be allowed to experiment to a certain extent, to try some things that may or may not work. So, you've got to give up some of that control assuming that you've had good conversation and good relationships and implemented good structures to have those check-ins on the work so that you know that the work is occurring. You've got to trust them to do that work and support them in doing it.

Be prepared to clearly articulate your reasons for implementing standards-based grading. Participants highlighted the importance of clearly understanding and articulating the rationale behind leading the implementation of standards-based grading. Alyssa commented:

I would say throughout, it's like really making sure that you're explaining to families and to students and the staff the why. Why is it needed? Yeah, why is it needed and then just really making sure that they understand that as we go through this, there may be bumps along the way, but where we're going is really better for student outcomes and making sure that they understand that and really making sure that there is a clear structure for how it's going to work.

Roy was also adamant about having a vision for what the school could become as a result of the implementation of standards-based grading:

I would say throughout, it's like really making sure that you're explaining to families and to students and the staff the why. Why is it needed? Yeah, why is it needed and then just really making sure that they understand that like as we go through this, there may be bumps along the way, but where we're going is really better for student outcomes and making sure that they understand that and really making sure that there is a clear structure of how it's going to work.

Exercise patience during the implementation and decision-making processes.

Principals identified the need to exercise patience during the implementation of standards-based grading. Barack reported the importance of restraint when deciding on the number of things to implement at one time:

Patience. It's so easy for a principal to work with his administrative team, and even instructional leadership team and come up with ideas. It's then my job to come back and

start wedding people's ideas and helping them move us towards that vision. But then I've got to be patient to allow those seeds to germinate . . . if we're giving them agency to germinate seeds and really develop practice over time, [we've got to have] patience. So, it's caused my leadership style to have degrees of patience so that the standards-based grading model can be here for the long-term. And it's not just a fad that is attributed to one individual in the principal's office.

Roy acknowledged the need for patience when implementing standards-based grading:

I would say what I have learned along this process is really to make sure that getting that team buy in, getting that stakeholders feedback, identifying potential issues and being okay and taking things slow and testing things before we go even if everyone looks and says, "Oh, we're good. We've got this. We've got this." So, let's try it slow, let's go slower and see what the issues pop up that we don't expect along the way. But, really getting input from all and even if that means forcing people to give input.

Ava also spoke to the need for patience when teachers are learning something new for the first time:

So really learning to just be patient . . . and watch people . . . oh my gosh, it's exhausting to watch people struggle with the same struggle you've seen multiple times and you know what the answer is, but letting them find it themselves rather than giving it to them, that's super hard every single time but I think I've had to learn to just, you've got to go slow to go fast, you know? You've got to really build that buy-in to make it stick.

Be prepared to differentiate your leadership approach. Principals reported the implementation of standards-based grading forced application of different, and sometimes new, leadership approaches. Jay reported that although he is a naturally collaborative leader, the implementation of standards-based grading forced him to be more directive:

One of the challenges for me is that we started off with this highly collaborative, highly motivated group and as we settled in, my instinct is always to trust staff and kind of collaboratively problem solve. But I find myself this year needing to make some changes around, especially with the younger teachers being more directive saying you know, "You can't cut corners here" or "We've all agreed to do X, Y or Z and that means that you need to do it and if you're struggling, you need to ask for help." And so, yeah, exercising my authority more so has been one of the things that I've been coming to terms with.

Alyssa spoke to the need for her to think more strategically about how she overcame resistance:

I think having to think for the people that were so much against it. I had some passive aggressive people that would tell you on the outside that they were doing it and they could talk the talk, but when we pulled up their grade book, that wasn't there. . . . It really made me think strategically about how to handle some of those passive aggressive teachers.

Other leaders commented on the need to be more collaborative and distribute more leadership responsibilities to others. Nasir stated:

I know it's a cliché but the distributed leadership teams and then the other systems of communication. I am not sure I can make decisions by myself anymore. It's constantly working with other people which is tiring. But at the end of the day, definitely worth it.

Kanye and William also reported having to “work through these teachers” and “being more transparent and incorporating more voices into the decision making process” as leadership approaches developed while implementing standards-based grading. Roy cited learning to rely on and develop teachers and leaders as a skillset that grew out of this undertaking:

I mean I'm really relying on the teachers and developing teachers to be the leaders because there's one of me. I can't be the one that answers everyone's questions or convinces other people of something. And so really supporting those future leaders and creating new teacher leaders along the way to pick up that mantle and to help lead their peers in different directions and questions along the way.

The findings in this section identified specific actions participants believe other leaders should take if the decision is made to implement standards-based grading in their schools.

Overall findings suggested prospective principals should definitely make the decision to implement the grading reform initiative and to never waver, get the support of their central office administration and immediately involve teachers in the process. Participants were adamant that future adopters have a clear and compelling reason for why they're leading the implementation of standards-based grading; findings also suggested the need for patience and the ability to differentiate their leadership approaches during the implementation of standards-based grading.

Conclusion

This chapter presented findings focused on 10 high school principals who have led the implementation of standards-based grading in their schools. Specifically, this study focused on how principals described the process and leadership actions used to create the policies that guide the implementation of standards-based grading, and the required systems and structures needed to support and sustain standards-based grading in high schools where whole-school implementation of standards-based grading is rare.

Chapter 5

Discussion, Implications, and Recommendations

This provides a summary of the research project and begins with an overview of the research methodology and brief synopsis of the findings. The discussion section explains the results by addressing the findings within the context of the applicable literature and conceptual framework. This chapter also includes the implications and recommendations for practitioners along with suggestions for future research studies.

Overview of Research Methodology

This phenomenological study sought to identify how high school principals define and implement standards-based grading in their schools. This study investigated how 10 principals from six states described the process and leadership actions used to create and communicate the policies that guided the implementation of standards-based grading and the required systems and structures needed to support and sustain standards-based grading in high schools where whole-school implementation of standards-based grading is rare. The following research questions guided this study:

1. From principals' perspectives, how has the implementation of standards-based grading promoted improved student learning?
2. What core systems and structures must be in place to implement standards-based grading and what process did principals use to create and communicate the policies governing standards-based grading in their high schools?
3. What factors have advanced or hindered the implementation of standards-based grading in high schools?

Ten participants from six states were included in this research study. Of the 10 participants, seven males and three females were included. The primary mechanism for data collection included in-depth individual interviews for each participant, and secondary data collection

methods included a document review of each principal's standards-based grading policy of her/his school, if in existence. Additionally, select participants engaged in follow-up interviews and email communications. Data were analyzed using the *Transformation of Intentions* conceptual framework; emergent themes were identified and research findings were established.

Findings

A short synopsis of the findings is presented in this section and organized by each of the three research questions. Emergent themes are reported for each research question and subsequent subsections.

Research Question 1: From Principals' Perspectives, how Has the Implementation of Standards-Based Grading Promoted Improved Student Learning?

Several emergent themes were identified in the data as being associated with improved student learning. As a result of the implementation of standards-based grading, the following themes articulate both reasons why principals decided to lead the implementation of standards-based grading and outcomes principals hoped to achieve: (a) standards-based grading improves the clarity teachers and students have regarding what should be learned in each course; (b) standards-based grading creates conditions for students to engage in deeper learning; (c) standards-based grading minimizes unreliable and inconsistent grading practices; and (d) promotes improved teacher practice, improved student engagement, positive quantitative outcomes for students, and clearer communication of student learning.

The 10 principals reported working with their faculties to implement standards-based grading because they sought better clarity around what students should know, understand, and be able to do on a daily basis. Principals desired more specificity in the creation and assessment of learning targets that guided teachers' daily instructional practices. As a result of using more focused learning targets, participants believed teachers would be able to provide clearer and

more specific feedback to students about their learning. Likely as a result of not having school-wide clarity on what students should know, understand, and be able to do, participants listed their desire for students to learn content and skills that would transcend their high school experience as a reason for implementing standards-based grading in their schools. Participants reported being disappointed that students were unable to successfully complete complex tasks, master rigorous assessments, and/or forget key content or skills upon completion of courses and grade levels, even though their academic letter grades or GPAs often stated otherwise. This disappointment and desire for more accurate student grade reports prompted them to implement standards-based grading in their schools.

Principals reported the unreliable nature of traditional grades and the inconsistent distribution of grades among teachers as a reason for facilitating the implementation of standards-based grading in their schools. Participants stated that grading practices differed among teachers who taught the same courses in the same departments, as well as teachers in different departments within the school and across the school district. Principals mentioned teachers' awarding of extra credit assignments to inflate grades and also the inclusion of non-academic factors in grade calculations as key ingredients that made the summative grades assigned to students unreliable, at best.

As a result of their implementation of standards-based grading, participants sought improvement to teacher practice as a desired outcome. Principals reported improvements in how teachers prepared and delivered curriculum content, and how they responded to student learning needs. Principals listed improved learning experiences for students, increased teacher collaboration, and increased clarity for students around daily learning targets and their immediate and long-term applicability. Principals also cited improved student engagement in classroom

learning and involvement within the school as a desired outcome of their implementations of standards-based grading. Principals were clear in their commitment for students to engage in more real-world and relevant learning experiences and tasks. Participants reported a goal to better engage all students, but specifically those students who felt left behind or bored in their classes. Again, principals reported increased understanding of what teachers expected students to learn as another example of improved student engagement.

Participants also were candid on their desires to see improved quantitative outcomes for students on key high-school metrics. As such, principal perception data confirmed improved results on attendance and graduation rates, higher GPAs, improved scores on state accountability and college entrance exams, increased scholarship awards, and increased admittance of students into highly selective colleges and universities.

Finally, participants stated a desire to see the communication of student learning improve between teachers, students, and parents as a result of their implementations of standards-based grading. Participants desired a better correlation between grades entered into the gradebook and the actual knowledge students really know and understand. Participants also reported a need for better transparency with between teachers, students, and parents so adjustments to the online gradebook was also a sentiment widely shared among participants.

Research Question 2: What Core Systems and Structures Must Be in Place to Implement Standards-Based Grading and What Process Did Principals Use to Create and Communicate the Policies Governing Standards-Based Grading in Their High Schools?

When identifying the core systems and structures needed for school-wide implementation of standards-based grading, participants described the necessity to first define what standards-based grading means in their schools. Participant feedback regarding the definition of standards-based grading was categorized into two groups: standards-based grading defined as a function of

teaching and student learning and standards-based grading defined as a mechanism for measuring and communicating student learning. In the first group, principals defined standards-based grading in relationship to the implications on teacher practice and the type of learning that occurs in the classroom. Standards-based grading required teachers to have an in-depth understanding of learning standards, more attention to planning and designing learning for students, and better alignment between learning targets, in-class learning experiences, and subsequent assessments. In the second group, principals defined standards-based grading based on its ability to provide clearer communication of what students know, understand, and are able to do to students, parents, and other teachers.

In addition to being able to define standards-based grading, participants identified what they believed were the core components of standards-based grading. From the data, four themes emerged: clearly articulated standards and skills, the use of formative and summative assessments, multiple opportunities to demonstrate mastery, and consistent scoring criteria and grade calculation. Participants were unanimous in stating the need for uniform learning standards in a standards-based grading environment. Leaders reported the need for teachers to “unpack” standards and create learning targets for students as well as the need to create standards-aligned formative and summative assessments to determine the extent to which students had mastered learning targets, content, and skills. Once the degree to which students have demonstrated learning is known, participants spoke of the need for teachers to give students multiple opportunities to relearn content and reassess after initially failing to meet minimum levels of proficiency. Participants also reported the importance of consistent scoring criteria and grade calculation as being a core component of standards-based grading, highlighting the use of school-wide grading rubrics and 4-3-2-1 scoring scales.

Additionally, participants identified additional school-wide systems, structures, or practices that need to be in place in order to support the implementation of standards-based grading. Themes included the following: (a) the need to institutionalize a collaborative culture focused on student learning; (b) create time for enrichment/interventions for students and systems to progress monitor and communicate student learning; and (c) the need to establish common language, beliefs, and consistent practices school-wide. Participants highlighted the intentional systems and structures that require teachers to collaborate and work on content, grade-level, and department-level teams as being necessary to support the implementation of standards-based grading. Through collaborative team structures, participants spoke to teachers' abilities to plan and design lessons and units of study, review and respond to student learning data, make decisions regarding curriculum, and problem-solve aspects of the implementation of standards-based grading and other issues related to teacher practice.

Other school-wide systems and structures participants identified as essential to the implementation of standards-based grading included the provision of time in the master schedule for intervention or acceleration of student learning, using web-based gradebooks, and creating school-wide systems and teams to monitor student learning. Principals reported the importance of establishing a common language, consistent beliefs, and consistent practices school-wide as being essential to supporting the implementation of standards-based grading. Participants expressed a need for teachers to consistently use the same grading symbols, descriptors, and rubrics in terms of grading practices, identifying and gaining consensus on the skills, standards, and dispositions defined in a school's graduate profile, and the need to train and prepare all teachers, but specifically new hires, in the grading practices and prevailing beliefs of the school.

The second aspect focused on the policies and policy creation processes to support the implementation of standards-based grading. Five themes were identified: the actual standards-based grading policies that were created, the process each principal used to create the policies, communication of the policies to stakeholders, the response to the policies from stakeholders, and the changes made to the policies during the implementation of standards-based grading.

In terms of the types of policies created to govern the implementation of standards-based grading, principals identified creating policies regulating the use of gradebooks, the frequency of assessments, the manner to which students received grades, the way that scores were calculated and converted to traditional reporting measures, and the frequency of re-teaching and re-assessment practices throughout the school. Participants reported creating policies that required certain categories in teachers' gradebooks to have specific weights that were consistently applied across the school. The weights required for categories in the gradebook varied across participants and were a function of teacher input specific to their campuses. Principals also reported having to create policies that standardized how formative and summative assessments were to be used, as well as defining a uniform way to calculate students' final grades across the school. Participants spoke to the need for policies that govern the frequency and ability for students to receive re-testing and re-assessment on standards and skills previously unlearned. Participants reported some resistance among teachers to repeatedly allow students to reassess while other participants reported the sometimes frequent abuse of the policy by students who refuse to take the original assessment seriously or who wait until the end of the quarter, semester, or school year before attempting to retake the exam.

When asked what stakeholders were included and the process used to create the standards-based grading policies in their schools, all 10 principals mentioned involving teachers

as co-designers and the regular involvement of working groups and advisory committees to bring their policy intentions to life. Participants described the creation of working groups, filled with teachers and leaders, who often attended conferences or engaged in readings related to standards-based grading prior to the actual creation of policy. Once working groups formed a common understanding of standards-based grading, principals described a collaborative process that required identifying aspects of the system in need of regulation, establishing policy parameters and general guidelines for teachers, and creating draft policies that would subsequently be sent to the advisory group and the entire school community, for feedback or revision. Participants reported that teachers were primarily responsible for the creation of the policies.

Once the policies were created, principals commented on how the policies were communicated to stakeholders and their subsequent responses. Principals describing creating communication plans and activities designed for students, parents, and teachers. Most principals relied on teachers to communicate the new policies to students; others reported the use of student assemblies and start-of-school-year orientations as communications mechanisms.

Communication with parents primarily occurred through written correspondence, posting policies on the school website, and parent forums. Although teachers were generally involved in the policy creation process, principals reported using professional development time at the beginning of the year and throughout the year as the sole mechanism to communicate with teachers. Principals also spoke to the need to communicate aspects of the standards-based grading policies to all stakeholders relentlessly and continually.

In response to the new policies, principals reported variation among the three stakeholder groups. Principals spoke to a mixed response from students, with the majority of principals observing a higher degree of student frustration during the initial phases of implementation and

increasing degrees of student satisfaction over time. Principals reported that parents' responses were generally favorable, in some instances linked to the satisfaction or frustration of their students. Some parents questioned the transferability of standards-based grading to postsecondary institutions, while others were concerned too many students would achieve at high levels. One factor that principals believed contributed to the generally favorable response by parents to the standards-based grading policies included the multiple communication avenues used to build understanding and awareness of the changes. Finally, in terms of teachers, participants reported receiving responses ranging from being very supportive of the move to standards-based grading, to hesitation, to direct and indirect resistance.

For those stakeholders who experienced frustration, hesitation, or were resistant, participants reported how policy changes improved the implementation of standards-based grading and eventually won the support of those stakeholders. Participants described changes to the reassessment policies and the policies that regulate grading categories, criteria, and calculations. Participants reported revisions to the policies that regulated the frequency and type of assessments used to demonstrate mastery of standards and skills, and the frequency with which students could reassess after initially failing to demonstrate mastery. Participants reported the need to include parameters for regulating when graded assessments should be given and the degree of complexity and synthesis those assessments should require of students. Reassessment policies were modified to prevent teachers from becoming overwhelmed with managing the recreation and re-administration of assessments throughout the year. Policies that originally allowed students unlimited opportunities to reassess, were limited to more specific periods of time.

Other policy readjustments revolved around the regulations of grading categories, criteria, and how final grades were calculated school-wide. Principals reported adjusting the weight assigned to the summative assessment category in the gradebook, the transition from a modified percentage scale to a true 4-point scale, the way teachers assessed behavior, effort, and learning, and the formula used to determine a student's final grade.

Research Question 3: What Factors Have Advanced or Hindered the Implementation of Standards-Based Grading in High Schools?

This question sought to explore the implementation of standards-based grading in high schools. Three subsections focused on factors that advanced the implementation of standards-based grading and factors that hindered the implementation of standards-based grading.

A plethora of decisions and actions were credited by participants for advancing the implementation of standards-based grading. Principal preparation and understanding of standards-based grading practices was identified as being an important factor that helped advance the implementation of standards-based grading in schools. Principals reported their informal learning about standards-based grading, conversations and school visits with other principals leading the implementation of standards-based grading, and their prior experiences and continuous learning of standards-based grading, as essential to the advancement of the grading reform initiative.

Participants identified other factors, decisions, and actions that aided in the advancement of standards-based grading in their schools; themes included school-wide learning; empowering early adopters; empowering teams and teachers; the gradual expansion of standards-based grading by grade-level throughout the school; and the use of standards, proficiency scales, and assessments. Principals highlighted the importance of engaging teachers and leaders in ongoing learning about standards-based grading, whether within the confines of the school, or by sending

teachers and leaders to conferences and trainings. Participants reported empowering teachers considered early-adopters to try out the initiative in their classes, make adjustments, and validate their effectiveness to other teachers and the administration. In like manner, participants reported the importance of empowering teams and teachers with the authority to define the policies and practices associated with standards-based grading. Several principals described the effectiveness of a gradual expansion of standards-based grading, either yearly by grade level or yearly by department.

Participants described their efforts to identify and unpack standards, create proficiency scales, and develop aligned assessments as being factors that advanced the implementation of standards-based grading in their schools. Additionally, participants cited decisions to support and collaborate with teachers as playing a significant role in the advancing standards-based grading in their schools. Principals provided professional development for teachers throughout the year to promote the shift to a criterion-based grading system, and again, principals reported the intentional empowerment of teachers to define standards-based grading policies and practices. When garnering support from stakeholders, participants commented on the selective use of political capital as a mechanism to advance the implementation of standards-based grading. Finally, participants reported their ability to be flexible and agile during the implementation process and the constant emphasis on developing the skills of teachers to assess students based solely on what they know, understand, and are able to demonstrate.

When asked about the decisions or actions that have helped to sustain standards-based grading on their campuses, participants referenced their collaboration with teachers, ongoing professional learning, and their own leadership actions as primary factors. Participants reported their decisions to view teachers as co-designers of standards-based grading policies and practices

as being critical for teacher support. As challenges arise, leaders reported ongoing professional development was essential to build the capacity of teachers and identify areas in need of adjustment. Finally, leaders reported their ability to be patient, include standards-based grading in the school's improvement plan, and making their support for the grading reform initiative clear, as other factors that have helped with sustainability.

Participants identified the ability to operationalize problem solving as another factor that helped to advance the implementation of standards-based grading. All 10 leaders acknowledged several problems and challenges that occurred during the implementation of standards-based grading. The major theme that emerged was using collaborative teams and protocols for inquiry and school-wide problem solving. Principals highlighted their use of problem-solving protocols and teacher-led teams to address implementation problems as they arose. Principals reported their decisions to distribute authority to teachers to debate problems and build consensus on possible solutions as actions that helped facilitate the implementation of standards-based grading.

Although many factors were identified that advanced standards-based grading in their schools, principals also identified several factors that hindered their efforts to advance standards-based grading. Principals reported their choices to not thoroughly engage the broader school community in initial conversations around standards-based grading, not being politically astute to navigate bureaucracies, and not applying sufficient pressure when directing teachers to implement aspects of the standards-based grading policies in fear of harming teacher-principal relationships. Principals spoke to their decisions to rush school-wide implementation of standards-based grading; in hindsight, participants reported they should have delayed implementation until they had provided sufficient professional development to the faculty. If given an opportunity to redo their implementations of standards-based grading, participants

stated they would take a more gradual approach to ensure there was a broader coalition of stakeholders included in the initial learning and creation of policies and practices. Participants stated they would allocate more time for teachers to learn about standards-based grading and develop a better communication plans for all stakeholders.

Moreover, when reflecting on challenges and resistance, participants identified their lack of communication with stakeholders as a leading cause of resistance for parents and students. Participants identified resistance and lack of understanding from faculty, and resistance to innovation from central office, as having created a hindrance to their implementation efforts.

Finally, when asked to reflect on their roles and give advice to other principals regarding the implementation of standards-based grading, participants encouraged leaders to engage in the hard work of implementing grading reform and to never give up. Participants advised other principals to obtain central office support, involve teachers and stakeholders early in the process, be clear on the purpose behind leading standards-based grading, be patient with the ebb and flow of implementation, and to be prepared to differentiate their leadership approaches.

Discussion

This study sought to identify how high school principals define and implement standards-based grading in their schools. I investigated how principals described the process and leadership actions used to create policies to guide implementation, and the required systems and structures needed to support and sustain standards-based grading in their high schools.

I examined principal insights through the *Transformation of Intentions* conceptual framework. This framework allowed me to examine the policy creation process and endeavors to explain how an idea can ultimately become realized through the formation of policy. The framework has a sociological basis, is grounded in interactionist approaches to social policy, and

has been used to analyze the creation of public policy—and policy documents themselves—in a variety of fields. Overall, findings suggested a strong alignment between participant intentions and the final policies created; the conceptual framework illuminated the alignment between principal intentions, the process to create policy, and the final policy documents. Participant intentions also could be seen through the aspects of implementation that were given priority. Because this study focused solely on the high school principal and her/his ability to create policy and implement school-wide changes that improve outcomes for students, the *Transformation of Intentions* framework was an ideal match for this study and accomplished the goals of this research.

In this section, three key findings associated with principal leadership, policy, and school-wide systems and structures are discussed. Furthermore, this section interprets and analyzes the bulk of the results of this research study through the lenses of the intentions, process intentions, and content intentions aspects of the *Transformation of Intentions* conceptual framework.

Three key findings for discussion. Several findings were discovered through perception data collected from participants. Although the bulk of my findings are analyzed and discussed through the lens of my conceptual framework, three key findings beyond the scope of my framework were identified: (a) pioneering leadership, (b) policies are created to be monitored, and (c) schools must function as Professional Learning Communities.

Pioneering leadership. Each of the 10 high school principals included in this study recognized a need to improve student learning and teacher practice. Although representative of six different states, these leaders all identified the use of standards-based grading as a key lever for achieving their stated goals. What was most intriguing about these principals was the sense of

empowered leadership shown when the decision was made to implement grading reform. When the principals in this study first embraced the idea of standards-based grading, no state or district policies were created that required or provided incentive for these leaders to take on this challenging initiative. Except in two cases in which actual district policy required the use of standards-based grading, participants in this study reported making collaborative decisions within their schools to implement grading reform without influence or direction from central office administrators. In most cases, these leaders were pioneers, often the only principals in their districts brave enough to tackle grading reform at the high school level, a quality consistent with the literature on leadership for learning (Knapp et al., 2003).

The relationship between participants and their central office administrators varied. As I reviewed the data, I noticed principals working in large urban districts reported having considerable freedom, first in the ability to decide to lead standards-based grading, often without needing prior approval from their supervisors, the superintendent, or the board of education; and second, that they enjoyed considerable latitude in their abilities to create school policy, make adjustments, set priorities, allocate funds, and communicate with stakeholders. In one state, where teacher collective bargaining legislation is strong, recent contract negotiations included giving more discretion in student grading to teachers, attempting to limit building leaders' abilities to regulate policies like standards-based grading in schools. Principals who led in smaller school districts reported needing more conversations with central office administrators, but they also retained significant autonomy to lead and shape the grading reform initiative in their schools. All principals reported feeling frustrated with central office staff or traditional district practices that made the transition to standards-based grading challenging. Issues like having to report student learning in multiple systems, having to convert and report student

learning via traditional letter grades and report cards, and having to constantly explain the differences between standards-based grading and traditional grading to central office administrators, were all concerns widely shared among participants. However, each leader was able to navigate the political terrain in which they lived and continued their efforts to lead grade reform on their campuses. The ability to persevere and advance an agenda through challenges is a quality and characteristic identified in the literature on transformational leadership (Bass, 1997). In many cases, other schools began to explore grading reform, and in some cases, the reform initiative expanded district-wide. My interactions with these participants confirmed the importance of the role of the principal; these leaders demonstrated courage to take on an initiative rare in U.S. high schools and perseverance to continue with the implementation of this initiative in spite of challenges and resistance from multiple stakeholder groups.

Policies are created to be monitored. From my conversations with participants, the role school policies play in regulating initiatives designed to improve student learning is significant. As I reflected on the data, I found that monitoring these policies and holding teachers accountable when they violated policies was much more significant and brought about the most change in practice. Creating policies without a plan to support or hold teachers accountable for adhering to the policies does little to improve teacher practice and student learning. Monitoring teacher practice, providing continuous feedback and coaching, and providing formal documentation and evaluation of teachers are essential practices reported in the literature on principal leadership and change management (Fullan, 2002; Knapp et al., 2003; Leithwood & Jantzi, 2000b). Although this study focused on the process used to create standards-based grading policies, the ability to monitor for compliance and commitment to those policies is

critical to the success of any initiative or policy designed to improve teacher practice and student learning and is consistent with the literature on principal leadership and change management.

Schools must function as Professional Learning Communities. Before the principals began the process to implement grading reform, they reported having to create school-wide systems, structures, practices and beliefs that would prepare teachers for this, and other, change initiatives. I was most fascinated to learn that principals reported having to teach teachers how to collaborate with their peers. Principals reported a culture of isolation existed among teachers at the high school level, exacerbated by complex master scheduling approaches that did not include consistent time for teachers to work together on job functions essential to student learning. Before standards-based grading could be implemented, or policies created, principals had to spend a considerable amount of time focusing the school on shared vision, mission, values, and goals, consistent with the literature on Professional Learning Communities (DuFour et al., 2006). Leaders had to create time for collaboration in the master schedule for teachers in the same department and teachers teaching the same courses; principals were then required to teach teachers how to collaborate by helping them learn how to establish behavioral norms to regulate adult interactions in meetings, student achievement goals for which to strive, and meeting agendas focused on teacher practice and student learning.

Discussion of results through the lens of the conceptual framework. This study explored high school principals' perceptions of the implementation of standards-based grading in their schools, applying the lens of the Transformations of Intentions conceptual framework. This framework explored the reasons why principals decided to implement standards-based grading and traced those intentions through the policy creation process. Ultimately, I sought to discover whether principals' intentions were realized in the final policy documents. This section interprets

and analyzes the findings through the intentions, process intentions, and content intentions aspects of the conceptual framework.

Intentions. The intentions aspect of the *Transformation of Intentions* conceptual framework involves the ultimate goals or purposes that motivate and inspire policy creation (Placier et al., 2000). Participants in this study articulated goals and purposes for the implementation of standards-based grading that were consistent with their roles as instructional leaders and the literature on leadership for learning (Hallinger, 2000, 2003; Hallinger & Murphy, 1985; Knapp et al., 2003, Knapp et al., 2010). The principals' ultimate goals and purposes for the implementation of standards-based grading were to improve student learning, teacher practice, and to improve both the reliability and communication of student grades. The findings in this section add to the literature as no other studies exist that examine principal intentions behind leading the implementation of standards-based grading.

A desire for improved student engagement and learning. Principals in this study cited the desire to improve student learning as their primary intention for implementing standards-based grading. The goal to improve student learning is consistent with the literature that posits improved outcomes for students as both the primary responsibility of principal leadership and the second most important influence of it (Hallinger, 2000, 2003; Waters et al., 2003). This study revealed the clarity participants had regarding their ambition to improve student learning as the primary reason for implementing standards-based grading, the specific areas in which they hoped to improve, and the specific outcomes they hoped to achieve. As it relates to improving student learning, findings pointed to improvement in student engagement, deepening understanding and content knowledge, and improvement in an array of measures and outcomes for students.

For the principals, one clear goal for improving student engagement focused on improving student awareness of daily learning targets and overarching standards spanning a unit of study or time period within an academic year. Providing clarity for students regarding what they are expected to learn is consistent with the literature on standards-based grading and has been proven to increase student engagement and achievement (Brookhart, 2003, 2004, 2009; Fink, 2015; Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010; O'Connor, 2002; Tomlinson & McTighe, 2006).

Principals were also clear about their desires for students to deepen their understanding of content knowledge and skills. For example, principals identified goals for students to be more aware of their learning in comparison to specific standards, the ability to track their academic growth and progress over time, improved academically-focused cultures, and increased student participation in more rigorous and relevant learning experiences. These goals are grounded in the literature that speak to the effects that engaging classroom instructional practices, high teacher expectations, and supportive classroom cultures can have on student engagement and achievement. Classroom environments that empower students to take ownership in and track their learning, are clear with students about what they are expected to learn and require students to grapple with tasks that are both within their zones of proximal development and relevant to their worlds and social contexts, consistently yield improved engagement for students (Anyon, 1980; Piaget, 1952; Vygotsky, 1978).

Findings showed a desire for increased quantifiable outcomes for students as a goal for the implementation of standards-based grading. Participants wanted to see increases in student GPAs; improved scores on external assessments like the ACT, SAT, and AP exams; improvements in student attendance and graduation rates; increased postsecondary scholarship

awards; and increased admittance of students into highly selective colleges and universities. Principals reported experiencing demonstrable growth in their high schools in student performance related to these indicators. The goal of improved academic measures and outcomes for students is grounded in previous research findings that have noted the effects of standards-based grading. For example, Haptsonstall (2010) found that schools that implemented standards-based grading had higher grade and test score correlations, as well as higher mean scores on the Colorado Student Assessment Program exams, for all students, including students categorized in subgroups, than schools that did not implement standards-based grading. Rainey (2016) found strong correlations between students' standards-based grades reported on their report cards, and state assessment performance in reading. My findings suggest a corollary belief by principals that assessment practices are linked to student engagement and achievement outcomes.

A desire for improved teacher practice. Students learn more when teachers continually improve their practice. Research on raising student achievement identifies the quality and effectiveness of the teacher as the most influential factor (Chetty et al., 2013; Darling-Hammond, 1997; Rivkin et al., 2005; Rockoff, 2004), and participants in this study identified improving classroom practices as one of their primary intentions behind the implementation of standards-based grading.

As a result of the implementation of this grading reform measure, principals sought improvements in the ways teachers identified, monitored, and communicated student learning. Improvements in the ways teachers collaborated among their peers, lesson planned, and delivered daily instruction were also expressed desires by participants. Principals also highlighted the need for improved clarity for teachers around the identification and selection of learning targets for students; when learning targets are appropriately identified and used to create

aligned instruction and assessment, they serve as the basis for standards-based grading (Brookhart, 2009; Guskey, 2001; Marzano, 2010; Tomlinson & McTighe, 2006).

Implied in the study was the principals' concern that teachers struggle with identifying learning standards and unpacking standards into daily, measurable learning targets for students. To help remedy these deficiencies, principals intended for the implementation of standards-based grading to force more collaboration among teachers, particularly in the areas of unit and lesson plan development. Collaborative planning naturally includes the joint identification and deconstruction of standards and the subsequent creation of measurable learning targets; such practices have been researched and advocated for in the literature (Bailey & Jakicic, 2011; DuFour et al., 2006; Konrad et al., 2014). Once standards have been unpacked and appropriate learning targets developed, designing aligned and rigorous learning experiences and assessments can occur.

Rigorous learning experiences for students, including complex tasks in which students are engaged on a daily basis and assessments used to measure to student learning, are indicative of teachers' academic expectations for students and serve as mechanisms for equitably rigorous student learning (Anyon, 19980; Piaget, 1952; Vygotsky, 1978). Ensuring there is clear alignment across standards, learning targets, learning experiences, performance tasks, and assessments, and that there is an appropriate level of rigor that reinforces the use of a variety of skills and degrees of cognition, has been shown to improve student engagement, learning, and the closing of the achievement gap for historically underserved students (Brown et al., 2011).

Gaining clarity on what students should know and the incorporation of collaborative planning practices also helps teachers better identify and provide more targeted support for students who fail to achieve mastery (DuFour et al., 2006; Tyler, 1949; Wiggins & McTighe,

1998, 2007). Findings showed a linkage between the deconstruction of standards into measurable learning targets and the principals' belief that through collaborative planning, collegial conversations about specific academic deficiencies—and the identification of appropriate remediation—would occur more frequently among teachers. Gaining clarity on student outcomes and more thorough collaboration among teachers were intentions principals had when deciding to implement standards-based grading.

Improving the reliability and communication of grades. Improving the reliability and communication of grades was another important goal for principals. My results showed a collective frustration among principals regarding vastly different and wildly inconsistent grading practices occurring on their campuses before the implementation of standards-based grading. As a result, the principals reported discrepancies between the level at which students performed academically by the school's standards, and the level at which they performed on external exams and assessments. These principals' frustrations and concerns are consistent with the literature on assessment and measurement practices (Guskey, 2009, 2013; Marzano, 2010). Inconsistent and unreliable grading practices give students and parents a false sense of learners' academic accomplishments. Including non-academic factors in the calculation and measurement of student learning severely distorts the communication of what students genuinely know, understand, and are able to do, especially to parents and postsecondary institutions. By identifying and standardizing grading practices across the school, leaders can create a baseline for what rigorous academic learning should look like for students and minimize the degree to which unreliable and inconsistent grading practices are employed (Brookhart, 2009; Guskey, 2001).

Process intentions. Social policy scholars define the process intentions aspect of the *Transformation of Intentions* conceptual framework as the process used to advance the creation

of policy, or the actions one employs to accomplish a task or goal identified in the “intentions” aspect of the framework (Placier et al., 2000). Findings yielded evidence of two processes used, either to create policies for standards-based grading or the process used to implement standards-based grading. No prior research studies have been conducted that examine the processes principals use to create policy or implement standards-based grading; the results from this section add to the literature.

Policy creation. Results revealed all principals employed similar processes to create policies governing the implementation of standards-based grading. All principals reported their policy creation processes started with the intentional identification of committed teachers and the formation of a standards-based grading working group. Principals stated that the teachers selected to be involved in the policy creation process had an interest in both standards-based grading and the ability to shape school-wide policies. The literature on social policy creation and the *Transformation of Intentions* conceptual framework identifies competing interests as an aspect of the policy creation process that must be amicably solved (Hall, 1995; Hall & McGinty, 1997; Placier et al., 2000). Strategic decisions by participants to include and empower teachers in the process of creating standards-based grading policies underscores the theme of “teachers as co-designers” and the recognition that changes to teacher practice should include teacher leadership in this process. Establishing teacher leaders, forming empowered teams, and distributing decision-making power to those most affected by policies are all thoroughly reported in the literature on transformational leadership, distributed leadership, and leadership for learning (Hallinger, 2003; Knapp et al., 2010; Leithwood & Jantzi, 2000a).

Consistent with the leadership for learning research, through the creation of teacher-led working groups, participants created conditions that required deep learning for teachers in a

variety of standards-based grading related practices and beliefs that had implications for their daily work (Knapp et al., 2010). Explicitly, the learning opportunities prepared working group members to make informed decisions about the content of the standards-based grading policies they were asked to create; implicitly, the opportunities allowed teachers to reflect on and adjust their own professional practices and beliefs, consistent with the goals of job-embedded professional learning. Ultimately, learning about standards-based grading and providing an opportunity for teachers to shape school policy helped the principals create a cadre of informal teacher leaders with the ability to influence their peers within the school.

After an understanding was developed, participants began the process of identifying aspects of standards-based grading in need of school-wide regulation. The processes used by participants were consistent with the literature on transformational leadership and leadership for learning. Scholars suggest a transformational approach to leadership involves intentional collaboration between the principal and her/his faculty to develop a vision for what the school could become, goals that define success for both the individual and the school, the empowerment of teachers and teacher leaders to identify and solve problems, and the creation of a culture of continuous learning and improvement (Cuban, 1988; Hallinger, 2003; Leithwood & Louis, 1998). In this study, participants reported acting consistently by seeking out teachers to be members of policy working groups, building teacher capacity to lead a school-wide change in teacher practice, empowering working group members to problem solve potential issues, and providing an intentional opportunity for the larger school community to learn, provide feedback, and shape the development of standards-based grading policies and practices. Scholarship on leadership for learning categorizes the actions of participants as possessing the ability to act

strategically, share leadership, and build professional communities that value teaching (Knapp et al., 2010).

Implementation of standards-based grading. Although each participant reported varying approaches to their implementation processes for standards-based grading my findings identified several process-oriented discoveries that were consistent across participants.

The first finding pertains to capacity building and professional learning for the principal. Eight participants reported having attended conferences, conducting site visits to other schools engaged in similar implementations, or engagement in deep literature study of standards-based practices. Having a strong understanding of the requirements of a significant reform before leading school-wide adoption is a critical stage in the process. Principals who lead school-wide initiatives, without having a significant understanding of the theoretical underpinnings, or an awareness of the implications for teacher practice, run the risk of failed implementations, discord among staff, and negative effects to student achievement (Bogler, 2001; Bottery, 2001; Fullan, 2002; Hallinger, 2003).

After building their personal understandings of standards-based grading, the second finding highlights participants' intentional identification and empowerment of teachers considered early adopters. Findings revealed a pilot period when early adopters experimented with aspects of standards-based grading as they learned about the new initiative. Early adopters were added to working groups or leadership teams responsible for developing standards-based grading policies and practices; empowering early adopters is consistent with the literature on leadership for learning and shared leadership (Knapp et al., 2010). By empowering early adopters to pilot aspects of standards-based grading in their classrooms, principals built on their successes and learnings to garner interest and support from other teachers. Early adopters were

ambassadors for the grading reform initiative and made the effort seem like a grassroots, teacher-inspired initiative, a decision that was strategic in nature (Knapp et al., 2003).

Similarly, the third finding pertains to intentional decisions to empower teams of teachers to define standards-based grading policies and practices. Since this reform initiative directly affects teachers' practices and beliefs, empowering teachers to define what and how standards-based grading exists in their school represents strategic thinking and is indicative of a culture that values shared leadership and decision making (Knapp et al., 2003; Knapp et al., 2010). However, some principals regretted not making the decision to require aspects of standards-based grading unpopular among teachers be implemented in a way consistent with the literature and their beliefs. Because teachers must balance their motivations to protect aspects of their professional practice that may be pedagogically inconsistent with standards-based grading, there is a need for principals to play a more active role in policy development and implementation.

The fourth finding focused on the process to define learning standards, establish proficiency scales, and create aligned assessments. Identifying standards is a critical step in the process to implement standards-based grading. High school teachers are consumed with an array of local and national standards that are often too numerous for teachers to teach and students to learn during an academic school year. The pressures of local, state, and national assessments also can force teachers to wrestle with covering the breadth of the curriculum at the expense of taking an in-depth approach to teaching and learning. As such, principals reported making intentional decisions to require teachers to first identify the most important standards and skills critical to their course, and then to sequence them over the course of a year. Principals also reported that they required teachers to unpack standards, to identify the specific skills, understandings, and cognitive products required of each standard. Once standards were deconstructed, it was reported

that learning targets were created and used to measure student mastery of each part of the standard. These actions support the premise that it is more desirable for students to master a smaller number of standards or skills than to partially learn a portion of a far-reaching curriculum (Marzano, 2010; Marzano & Heflebower, 2011; Wiggins & McTighe, 2011). Principals also reported creating and using proficiency scales, which are course-specific and department-aligned rubrics that help establish a baseline for evidence of mastery for each standard. Proficiency scales help take the guesswork out of the inconsistent determination of whether students have mastered standards and norms proficiency across all classrooms, ensuring an acceptable level of rigor for all students. Finally, teachers were expected to align their formative and summative assessments to the standards and proficiency scales (Stiggins et al., 2007).

Efforts to identify and unpack standards, develop proficiency scales, and align formative and summative assessments are aligned with the literature on standards-based grading, leadership for learning, transformational leadership, and professional learning communities (Brookhart, 2009; Guskey et al., 2011; Hallinger, 2003; Marzano, 2010). Tyler (1949) wrote extensively about the alignment among learning targets, learning experiences, and assessments being the foundation for student learning. Implementing standards-based grading created conditions for teachers to work collaboratively to determine what students should learn, build consensus and clarity around what proficiency should look like for each standard, and ensure formative and summative assessments were appropriately designed to yield student learning data needed to determine if students were making acceptable progress toward mastery (DuFour et al., 2006; Knapp et al., 2010).

The fifth finding pertains to gradual expansion of standards-based grading within the schools. Participants began rollout of standards-based grading in a variety of ways; some elected to immediately implement standards-based grading school-wide, while others chose a gradual approach. Principals applying a whole-school approach lamented this decision and expressed a desire for a more gradual expansion; principals who took a gradual approach to implementation did so in varied ways. Some began within a single course or department, although this method failed to include other members of the school community in the learning and construction of policies and practices. In hindsight, principals expressed a desire to implement the process yearly by grade levels instead. Others chose to rely on early adopters, supporting the gradual involvement of others each subsequent year. Principals employing this approach required early adopters share their learnings with their colleagues although no expectation for implementation existed for other teachers. No literature exists regarding how principals implement and expand standards-based grading practices throughout the school, but scholarship on leadership for learning, instructional leadership, and transformational leadership speak to a principal's ability to lead successful change initiatives that affect teacher practice and student learning (Fullan, 2002; Hallinger, 2003; Knapp et al., 2003).

The sixth finding pertains to the inclusion of professional learning opportunities as critical to the implementation of standards-based grading. Consistent with the literature on leadership for learning (Knapp et al., 2010), principals created multiple opportunities for teachers to learn and to reflect on their practices. In addition to continuous training on policies and practices, professional learning opportunities revolved around supporting philosophical and pedagogical shifts teachers needed to make. Principals described having to constantly revisit their rationales for implementing standards-based grading and the goals they hoped to achieve to

truly affect teacher beliefs and practices. As such, these findings are aligned with the literature on transformational leadership practices related to the principal's ability to change teacher mindsets (Bogler, 2001; Bottery, 2001; Fullan, 2002; Hallinger, 2003). Providing professional learning opportunities allowed participants to intentionally build teacher capacity and address implementation concerns in real-time; having the school operate as a Professional Learning Community (PLC) is noted as a high leverage best practice in both the literature on advancing student achievement and the literature on effective leadership approaches (DuFour et al., 2006; Fullan, 2002; Knapp et al., 2003; Leithwood & Jantzi, 2000b).

The last finding pertains to how principals addressed teacher implementation issues and concerns. All 10 leaders acknowledged numerous problems and challenges that occurred during the implementation in their schools. Findings revealed the establishment of collaborative teams and use of problem-solving protocols helped leaders operationalize problem-solving school-wide. Several leaders created opportunities for teachers to present issues and concerns to the school's instructional leadership team for discussion, while others created teams to resolve issues related to standards-based grading. Findings revealed an iterative problem-solving process that included discussion, debate, revision, implementation, and review; although some revisions could only be implemented at the beginning of the year, the cycle of inquiry and problem solving occurred throughout the year.

Content intentions. The content intentions aspect of the *Transformation of Intentions* framework refers to the finalized products of the policy creation process; content intentions detail the specific policies that were given priority and ultimately approved through the policy creation process (Placier et al., 2000). The results in this section adds to the literature as no other

studies that examine the content of schools' standards-based grading policy documents have been conducted.

Policies. Policy documents created as products of the collaborative policy creation process all included regulations that governed the implementation of standards-based grading in five categories: (a) teacher and student clarity on learning targets; (b) long-term knowledge transfer for students (including re-teach and re-assessment); (c) unreliable and inconsistent grading practices among teachers; and (d) grading rubrics, scales, and conversion to traditional outputs. Although each participant's policy document references multiple regulated categories, the original policy intentions of some principals may have been realized in a single category. Accept in minor cases, each policy document supported the implementation and policy claims reported by each participant.

Policies that included regulations regarding teacher and student clarity on learning targets did so primarily by requiring teachers to identify standards and skills that students would be required to learn throughout an academic year. Policies included expectations for teachers to clearly link assignments listed in the gradebook to specific learning targets, general school-wide beliefs and philosophies that require all grades to be reflections of what students know, understand, and can do in relationship to learning targets, and clear directions for teachers on how to write daily objectives and performance descriptors for students. Four participants cited original policy intentions that spoke directly to the need to improve teacher and student clarity of learning targets. These participants included policy text in this category that required a change in teacher practice that ultimately realized their intended goal.

Policies that promote improved teacher and student clarity on learning targets are consistent with the literature on standards-based grading. In order to assess students based on

their performance relative to a standard or skill, teachers must first be able to clearly identify what each standard or skill requires students to know, understand, and be able to do (Brookhart, 2009; Marzano, 2010; Tomlinson & McTighe, 2006). Once teachers understand the contents of a deconstructed standard and create learning targets to guide learning progression, clearer communication of student progress toward mastery can be achieved. In terms of assessment practices, standards-based grading requires educators to shift from a norm-referenced grading system to a criterion-referenced system (Brookhart, 2009; Guskey et al., 2011; Marzano, 2010). In a criterion-referenced system, student achievement reporting is based on how students perform in relationship to objective criteria, making the identification of appropriate standards and learning targets critical in school-wide implementation (Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010; O'Connor, 2002).

Participants identified improved outcomes for students as a primary reason for standards-based grading; to attain this goal, policies promoting long-term knowledge transfer were created. For some principals, regulations for teachers to create complex performance assessments that required students to synthesize and apply their learning were created. For others, policy text that allowed students to re-assess after initially failing to demonstrate mastery were developed. Both regulations emphasized a desire for students to learn and apply content and skills more deeply; however, the re-teaching and re-assessment policy text was more intensely regulated.

Findings suggested two prevailing perspectives regarding policies that regulate the re-teaching and re-assessment aspect of standards-based grading. First, principals identified the re-teaching and re-assessment policy as being the most contentious and difficult for teachers to align philosophically. Traditional teaching and assessment practices rarely provide multiple opportunities for students to demonstrate mastery of learning; second attempts at re-assessment

typically have been permitted by teachers on a case-by-case basis, but never as a school-wide required practice. The second concern involves teachers' inability to manage the constant need for, and paperwork associated with, re-teaching and re-assessment on a student-by-student basis. Findings identified changes in policies over time that narrowed the window for students to reassess from unlimited opportunities over the course of a semester or year, to sometimes limited numbers of reassessment opportunities throughout a quarter or unit of study. Although contentious and difficult to manage, permitting students re-assess after initially failing to show mastery is directly connected with their ability to learn content and skills more deeply; when coupled with the requirement to relearn previously unlearned material, as a byproduct, students learn academic perseverance, build confidence and self-esteem, become more motivated to learn, and learn that intelligence is not fixed (Dweck, 2010; Dweck & Leggett, 1988; Schunk et al., 2014).

From a research perspective, the re-assessment regulation highlights a larger concern revolving around the blending of literature on mastery learning and standards-based grading. Findings revealed a perception of standards-based grading by principals that included aspects of the mastery learning model. Instead of reporting on these two models separately, participants consistently associated components of mastery learning with standards-based grading and created policies integrating both models. My findings suggest leaders perceive standards-based grading and mastery learning as synonymous. Providing students with extended time to demonstrate mastery of a standard or skill, or differentiating the instructional content, process, or products for students based on their level of mastery, are components of mastery learning (Block, 1971; Bloom, 1974; Carroll, 1970). Although most principals spoke to the concept of re-teaching and re-assessment in their policy documents, based on the definition of standards-based grading

found in the literature, the grading reform initiative can be implemented without the re-teaching and re-assessment policy, whereas standards-based grading cannot be implemented without the use of standards or skills, for example. Because all principals reported providing expanded time for students to receive more instructional intervention, additional time to learn, and more time to demonstrate student learning on assessments, this study reveals a need for additional study to determine whether or not the standards-based grading definition should be expanded, or if leaders should differentiate between standards-based grading and mastery learning.

Other policy regulations addressed flaws participants identified in teacher gradebooks, how grading categories were weighted, the use of assessments, and other grading practices considered unreliable and inconsistent across the school. Policies revealed school-wide standardization around the codes used in the gradebook to communicate progress toward learning. For example, one principal defined a consistent meaning of the letter “M,” which for her staff meant that student assignments were missing but could be turned in for full credit any time during the semester, while another leader defined consistent meaning for “proficient (P)” or not yet proficient (NYP), both of which were used in place of traditional numerical scores.

In an effort to increase clarity in communication and school-wide consistency, principals regulated the category names listed in teacher gradebooks and the weights associated with those categories. Some participants required two categories in the gradebook while others may have required three; the most common category names listed in the teacher gradebook were “formative” and “summative.” Other leaders required categories to be listed by the standards or learning targets. All principals either excluded behavior from being reported in the gradebook or established a separate category for non-academic related entries. In terms of category weights, most school policies weighted summative categories at least 80% of a student’s grade, although

many leaders struggled with the decision to assign a grade or category weight to formative assessments. Study results revealed that in order to remedy unreliable grading practices, principals created policies that prohibited practices such as grading on a curve, adding or deducting points for conduct, giving points for attendance and effort, and providing extra credit assignments for students to improve their grades, all of which were identified in the research as being unreliable grading practices (Cameron & Pierce, 1994, 1996; Guskey, 2009; Kulick & Wright, 2008).

Finally, participants created policies that required the use of school-wide, consistent grading rubrics, scales, and common conversion to traditional grade outputs. Most common was the use of a 5-point grading scale that translated numerical scores into letter grades. Several principals reported using grading scales setting the minimum score a student could receive on an assignment at 50%; other principals retained the traditional 0-100% scale. Grading rubrics that detailed the skills and content knowledge students needed to score at the mastery, proficient, or near mastery levels were also documented and used across participants.

Consistent with the literature on standards-based grading, principals identified inconsistencies related to grade entry, category weights, and the inclusion of non-academic related factors into students' grades as teacher practices in need of policy regulation (Guskey & Jung, 2006, 2009; Guskey et al., 2011; Marzano, 2010; O'Connor, 2002). Several studies have cited widespread variations in teacher grading practices (Brimi, 2011; Starch & Elliott, 1912, 1913a, 1913b); by clearly delineating categories all teachers should include in their gradebooks, the use of uniform gradebook symbols and meanings, and weights assigned to each category, participants created conditions to provide consistent and clear communication to stakeholders regarding students' learning levels. By excluding non-academic factors (e.g., behavior, extra-

credit, participation points), participants created policies that advanced a criterion-based assessment system and removed a large degree of subjectivity from grading (Brookhart, 2011; Guskey & Bailey, 2001; O'Connor, 2009). Additionally, some principals included a policy provision the literature references as minimum grading (Carey & Carifio, 2012). In a traditional 0-100 point scale, there are 60 degrees of failure and 40 degrees of success; factoring grades of 0 into a student's final grade, for instance, can have disastrous consequences that prevent the student from ever being able to recover to attain a passing numerical score (Canady & Hotchkiss, 1989; Stiggins & Duke, 1991). Including minimum grading eliminates unfair assessment practices that can lead to decreased student motivation, loss of academic confidence, and student dropouts (Carey & Carifio, 2012). Finally, the use of the 5-point grading scales provides more clarity for students and parents about what students know, understand, and can do, while decreasing the 100 different levels of success and failure a teacher could use to assess student learning. Five-point scales were accompanied by detailed descriptions of what each level meant in terms of student mastery. These scales and grading rubrics provided an additional level of clarity for teachers, students, and parents regarding the level of students learning compared to a standard or skill.

Implications

The results of this study provide evidence that standards-based grading can be effectively implemented in a high school setting. Several findings from this study present implications for central office, administrators, teachers, students, parents, and postsecondary institutions.

Garnering support from central office administrators is important. Although it was not the focal point of this study, participants cited central office leaders as either a support for the implementation of standards-based grading or a barrier to success. One principal reported that

although his superintendent was supportive of his school's decision to implement grading reform, the organizational bureaucracy and constraints that existed within departments at central office created barriers for the school. Although superintendents may fully support schools attempting to implement grading reforms, Board policies, district-wide systems and applications, as well as past practices, may all reinforce the use of traditional grading systems and place barriers that can fight against standards-based grading reforms. Implementing standards-based grading in schools will require a deeper level of understanding of this reform and how it differs from the traditional grading system. Key personnel from central office departments, including the superintendent, assistant superintendents of curriculum and instruction, directors of communications, and directors of accountability, must all understand and provide public support for schools implementing standards-based grading. Some participants reported experiencing barriers from central office administrators, citing their lack of understanding of standards-based grading and their unwillingness to make accommodations for their schools; other reported receiving full support from their central office administrators. Having a deeper understanding of standards-based grading and allowing schools to have local control over its development, will have implications on the policies, practices, systems, and procedures in place that have supported traditional grading systems district-wide, and their needed modifications to incorporate standards-based grading practices.

Learning-focused leadership is critical for building-level administrators. Because high school principals were the focus of this study, several implications for administrators were identified. Building-level administrators must understand that the implementation of standards-based grading will require an increased emphasis on learning-focused leadership. Because the use of standards-based grading focuses on the degree to which students are learning, building-

level administrators will need to support continuous improvement and skill development for teachers.

Additionally, leading the implementation of grading reform will also require that building leaders understand the fundamentals of systemic reforms and leading change. Participants reported a shift in teacher mindset and practice was needed to implement this reform in their schools; helping teachers understand the implications standards-based grading will have on their classroom practices and getting teachers to implement the new policies with fidelity, will require intentional strategies.

Participants in this study also reported the effect the implementation of grading reform had on their leadership approaches. Because the implementation of this reform requires leading organizational and behavioral change, implications exist for the way administrators approach the overall process. Findings from this study emphasize the important role policies play in the implementation of standards-based grading; as such, implications exist for how grading policies co-exist with other district or building-level policies that regulate aspects of teaching and learning, grading, student promotion, class rank, and postsecondary credentialing.

Grading reform affects teacher mindset and practice. As with implications for central office leaders, teachers were not a focal point for this study. However, participants reported the inclusion of teachers in the policy creation and implementation of standards-based grading. Findings showed far-reaching implications for teachers as grading reforms directly affect their daily practices. In schools where standards-based grading is employed, implications exist for how teachers identify what students should learn, the planning and designing of learning experiences, how teachers deliver classroom instruction, how teachers assess student learning, the way teachers manage the re-teaching and re-assessment process, tracking student learning,

and communicating student learning to stakeholders. Additionally, because the monitoring of student learning becomes more pronounced, implications exist for how teachers intervene for students who have not mastered learning goals and how they accelerate learning for those students who have more quickly mastered content and skills. Illuminating distinct levels of student learning can reveal inadequacies in teacher practice and requires increased professional development, coaching, and administrative support.

More than any other stakeholder group, teachers are the most affected by the standards-based grading reforms. In addition to adjustments teachers must make regarding their daily practices, they also must shift their professional orientations toward grading. Additional implications exist for teachers that revolve around issues of fairness and ethics. The use of standards-based grading encourages the adoption of such practices as minimum grading, the elimination of zeroes on assignments, allowing students multiple attempts to master learning, providing extended time to submit assignments and demonstrate learning, and the discontinuation of grading practices that increase subjectivity and are considered unreliable.

Students are more accountable for learning in schools that employ standards-based grading practices. The principals in this study also reported implications for students. Because standards-based grading refocuses attention on the degree to which students are learning, students become more accountable for learning and are required to demonstrate their learning more frequently and in more authentic ways. There is a belief that students who have progressed through the traditional grading system in education understand that ways exist to earn high grades without having to necessarily demonstrate high levels of learning. The use of extra-credit assignments, demonstrating positive behavior in class, turning in homework, and being an active participant in classroom discussions are all areas under traditional classroom grading schemes

that help students accumulate enough points to pass their courses. The use of standards-based grading eliminates the availability of these social and behavioral safeguards to students. Therefore, in a standards-based grading environment, implications exist for student mindset, work ethic, motivation, agility, and their abilities to learn and consistently demonstrate their learning. Implications also exist for students who were successful under the traditional grading system and very rarely experienced academic challenges.

Educating parents and garnering their support for grading reform is critical. The use of standards-based grading also has implications for parents. Like teachers and students, parents are also more familiar with traditional grading practices and student grade reports. Standards-based grading requires more engagement and understanding of academic vernacular; when parents view student progress on an online gradebook, they will see documentation of standards, skills, or learning objectives in place of traditional assignments and activities. Instead of letter grades or traditional percent grades, parents will see single numbers or letters that align to communication found in a rubric that details student academic progress more clearly. Additional implications exist for parents who have students who largely benefit from the traditional grading system, as participants in this study reported parent concern regarding more students learning at high levels and increased competition in regard to class rank, postsecondary scholarships, and college admissions.

Postsecondary institutions will need to support efforts to reform traditional grading and reporting. Findings revealed implications for post-secondary institutions. Although high school educators are responsible for translating standards-based grades into traditional reporting measures for inclusion on official high school transcripts, implications exist for how postsecondary institutions assess students from schools that utilize this approach. Additional

implications exist for the creation of a new transcript that communicates more clearly what students know and understand as a result of their academic experiences in high schools.

Furthermore, if students have proven to learn and understand more deeply in standards-based grading environments, implications exist for how postsecondary institutions embrace similar grading reform measures and practices. Finally, as standards-based grading becomes more pronounced, implications exist for teacher preparation programs and their effectiveness in preparing pre-service teachers for changing assessment and reporting practices.

Recommendations for Policy and Practice

This study presents an array of understandings regarding policy creation and implementation of standards-based grading in high schools. This section provides recommendations for practitioners and policy developers.

Recommendations for policy. The increased use of standards-based grading in schools will have implications for state, district, and building-level policies. School district leaders and building-level administrators will be in need of a greater degree of flexibility in regard to student promotion requirements, how grades are reported on the high school transcript, and in other areas specific to traditional grading practices. This section includes (a) recommendations for state policy, (b) recommendations for district policy, and (c) recommendations for building-level policies.

Recommendations for state policy. Although state education agencies give local control to districts to determine district-level policies and practices related to student grading, state education agencies must provide the legislation or flexibility for schools and districts to exempt themselves from state policies that are affected by the implementation of standards-based grading. In the event a student is able to master content at an accelerated pace, schools and

districts should be empowered to exempt themselves from state policies that prevent students from advancing through courses and content because of their age, grade level, or because a minimum number of credits must be attained. If students demonstrate a need for additional time beyond the defined academic year to master course content, schools and districts should be empowered to remove barriers related to the traditional school calendar so that every student can learn at the rate and pace most appropriate for them. Several states are creating comprehensive state-wide approaches to grading reform and proficiency-based learning. For example, in 2013 the Vermont state legislature enacted legislation permitting proficiency-based graduation requirements, flexible learning pathways for students, personalized learning, and provisions for new assessment models; these policy provisions created the conditions for districts and schools to explore new models of education, assessment, and promotion requirements for students (Frost, 2016). Illinois also is experimenting with proficiency-based learning and graduation requirements through its Postsecondary and Workforce Readiness Act (Advance Illinois, 2018).

State education agency officials should also advocate for, and adopt, policies that support the creation of standards-based transcripts. Schools and districts that utilize standards-based grading currently must convert grades given in a standards-based grading environment back into traditional grade-reporting formats. Letter grades on transcripts in their traditional form give very little information about the skills and concepts mastered by each student; a more standards-based transcript can provide more comprehensive information to postsecondary institutions regarding core skills and concepts mastered by each student.

Recommendations for district policy. School district leaders and school boards should adopt standards-based grading policies and practices district-wide and gradually implement the grading reform across all schools strategically, based on the needs of each campus. Gaining

clarity on what students should know, understand, and be able to do, and then grading students on the degree to which they can show mastery of said concepts or skills, is an effective practice for students and teachers at every level. District leaders should engage a broad spectrum of stakeholders to create overarching policies that govern category weights, minimum grading, the use of formative and summative assessments, the length of time students have to turn in assignments and demonstrate mastery, and the policies for re-teaching and re-assessment. District leaders should also develop a process that allows individual schools to petition for adjustments or variations to district-created policies based on school-specific stakeholder engagement and local contexts.

Finally, districts that elect not to adopt standards-based grading practices district-wide should support individual schools that are adopting this grading approach. District leaders should work with individual school principals and teachers to determine what district-wide policy exemptions may be needed as a result of standards-based grading. District leaders also should allow schools to use online gradebooks that better support the implementation of standards-based grading.

Recommendations for building-level policies. As I reflected on the interviews conducted with each principal, participants did not view standards-based grading policies within their schools as essential to implementation. Principals must understand that the quality and consistency of the implementation of standards-based grading will rely heavily on the policies that govern standards-based grading and consistent support from central office and the reinforcement provided by teachers and school-based leaders. Principals should develop policies that require the use of common categories, weights, and symbols teachers use to communicate student learning through their gradebooks. Principals should also regulate the number of grade

entries during an academic year, the scales used to assign numerical value to student learning, include the use of minimum grading, exclude the use of non-academic factors in grading, and regulate the details regarding students' ability re-learn and re-assess after initially failing to demonstrate mastery. Finally, principals should include policy provisions that regulate how final grades will be calculated and the conversion formula used for translating standards-based grading scores back into a traditional letter grade reporting system.

Recommendations for practice. This study posited an array of best practices regarding the implementation of standards-based grading at the high school level. Based on the results of this study, this section presents the following recommendations for practice.

Principals should begin the implementation of standards-based grading by ensuring foundational school-wide systems, beliefs, and practices are in place. My research revealed the implementation of standards-based grading was preceded by the institutionalization of school-wide practices and beliefs, including the professional learning communities philosophy, inclusive of the creation of teacher teams and common planning time for those teams, guiding beliefs that student learning and continuous improvement for teachers are paramount for school improvement, and the consistent use of data to inform the work of teachers and the direction of the school. Principals in this study understood the importance of creating a collaborative culture as a precursor to the change in practices and beliefs required by the implementation of standards-based grading. Principals interested in leading this reform must first ensure that their schools are organized in such a way that allows for collaboration among teachers, the use of data to inform the work of teachers and the school, and a belief that improved student learning and continuous improvement for adults should be the school's primary focus.

Principals should implement standards-based grading gradually by grade level. My findings revealed a desire by principals to either delay the implementation of standards-based grading until greater understanding and learning could occur for teachers or to implement standards-based grading gradually throughout their schools. Although my findings revealed a variety of ways to implement standards-based grading, the consensus recommendation was to implement gradually by grade level. Principals must understand that grade-level implementation minimizes the number of students who may experience dramatic changes in assessment practices. Adopting a whole-school approach to implementation increases the likelihood of larger numbers of students being forced to learn new policies and practices associated with grading. Gradual implementation also provides principals with smaller groups of teachers who are in need of resource supports and problem-solving meetings. With fewer teachers to lead through the change process, principals and teacher leaders can be more responsive to teacher needs and more agile in the ability to quickly make real-time adjustments, thus minimizing the number of teachers who may be frustrated at any given time. In a sense, gradual implementation of standards-based grading functions as a pilot and allows teachers and administrators the time to identify and solve problems before school-wide implementation occurs. In addition, teachers who may be skeptical of this reform will have an opportunity to observe their colleagues who are early adopters, potentially benefiting from their experiences and becoming more accepting of this practice.

High school principals interested in leading standards-based grading should gradually implement standards-based grading by grade level; depending on the success of the first grade level, leaders can determine if more than one grade level should be added each subsequent year. Critics of a gradual by grade-level approach would cite the time it would take for whole-school

implementation to occur, as well as the fact that some teachers may teach courses that span multiple grade levels, thus requiring the use of two different grading systems during this transition period. However, in terms of best practices in change management, a gradual approach that minimized the number of teachers teaching multiple grade levels would still be preferable.

Principals and teacher leaders should attend professional development workshops on policy creation. This study suggests leaders interested in the implementation of standards-based grading in their schools should learn about formal policy creation processes and procedures. Since local control was given to principals to alter policies and regulations that govern grading practices in their schools, attending formal policy creation training provided by the district, regional, or state education agency would be helpful. Although participants reported satisfaction with the processes used to create their standards-based grading policies, there were many variations in how the policies were created and what was given priority, leading some to conclude that they had made some missteps along the way. Principals must familiarize themselves, and all working group members, with best practices in policy creation. Study results found no formal training related to the creation of policy at the building level. Having a better understanding of the formal policy creation processes, and the roles and responsibilities of the members of working groups, will lead to better policies and more inclusive processes.

Principals, teachers, and the larger school community should be included in the policy creation process. My study found that principals, although essential actors in the policy creation process, reported that they relinquished more control to teachers than they felt they should have during the initial creation of standards-based grading policy. Although principals desired a collaborative approach to policy creation, they provided several examples noting when they did not advocate for or force the formation of policies they knew would be critical to the realization

of their intentions, improved student learning, or a more consistent implementation of standards-based grading. These findings revealed either a sense of restraint by principals to allow teachers to accept ownership over as much of the process as possible or a sense of fear that the implementation would be perceived as a principal-mandated and created initiative with little teacher involvement and ownership. Every participant acknowledged revising their original grading policies to include factors or provisions principals originally deemed important. During the policy creation process, principals should not be afraid to voice their support or concerns regarding policy text. Being clear at the initial stages of the process will create a more effective space for collaborative policy creation.

Findings from this study also suggest principals should engage teachers at every phase of the policy creation process. The revised policies associated with standards-based grading will directly affect teacher practice and beliefs. A process that is inclusive of teachers helps to generate ownership of the initiative and empowers teachers as leaders and ambassadors for their colleagues. Principals should identify a representative from each department and include them as members of a school-wide working group charged with creating the policies for standards-based grading.

Finally, participants in the study regretted not including the larger school community in the policy creation process. Although participants were pleased with the efficient and collegial nature provided by the limited number of teachers on their working groups, the principals realized that the learning around standards-based grading other teachers received was not adequate or comparable to the learning working group members received, resulting in longer periods of cognitive dissonance and teacher resistance. Some participants also regretted their decisions to exclude parents and students from participating in the policy creation process;

omitting these two stakeholder groups may have added to some of the frustrations and protests experienced during the initial rollout of standards-based grading. Principals must create opportunities for the larger school community to learn about grading reform, the implications for teacher practice and daily experiences, and create opportunities for all stakeholders to have a voice in policy creation. A cyclical process that includes conversation and debate on grading policies must occur with members of the working group, the larger teaching staff, student groups, and parents. Suggestions and revisions from those groups should be taken, policy drafts should be created, additional feedback should be solicited, and a final policy document, inclusive of justification and explanation of what was included and excluded from policy, should be provided.

Principals, teacher leaders, and teachers must deeply learn about standards-based grading throughout the school year and a school-wide approach to problem solving should be created. The creation of standards-based grading policies and practices requires a deep understanding of standards-based grading. Principals and teachers cannot simply read a few articles or websites and then decide to create policies that govern standards-based grading in their schools. Principals interested in the implementation of standards-based grading must provide sufficient time and opportunities to deeply learn about standards-based grading. These learning experiences should be multifaceted, consisting of book studies, formal trainings, site visits to exemplary campuses, and time to process learnings. Teachers on the working groups should be permitted to pilot standards-based grading so that their experiences could be both shared with the entire staff for collective learning and leveraged in the overall process to create the school-wide grading policies.

Leading change in organizations like high schools requires constant learning and reflection. Principals must understand that the implementation of standards-based grading will have strong implications on teachers' practices and beliefs. Principals must also understand that school-wide reforms will always produce unanticipated problems to be solved. Findings showed the inclusion of ongoing professional learning for teachers and a school-wide approach for solving problems related to standards-based grading is a necessity during implementation. Principals should offer professional learning opportunities related to the fundamental practices of standards-based grading on a regular basis throughout the school year. Professional learning should occur among common course team members, in and across departments and grade levels, and as an entire school faculty. Standards-based grading forces teachers to disassociate their reliance on the use of grades to manage student behavior and as an incentive for student engagement. Therefore, professional learning around best practices in teaching and learning must be provided to teachers who are no longer able to use grading as an extrinsic motivator or behavior enforcer.

In addition to providing ongoing professional learning for teachers, principals should create systems to manage school-wide problem solving related to standards-based grading. Procedures must be established for teachers that detail how to communicate problems appropriately, as well as processes that provide space and time for the appropriate people to analyze the problem and develop and test possible solutions for the problem. Study results highlighted the use of protocols and problem solving teams as ways to operationalize problem solving school-wide.

Principals should require the creation and use of a standards-based and academically coherent curriculum. The use of a developmentally appropriate curriculum derived from

approved national and/or state learning standards is paramount. Student assessment based on inappropriate and unaligned standards or skills will not result in appropriate learning for students. Principals must understand that teachers need time to engage in horizontal and vertical team conversations about what students must know, understand, and be able to do relative to the approved standards. This process generally precedes the use of standards-based grading and will require time and a strategy to properly execute. Principals should provide time and a proven process for teachers to backwards map standards and skills across their respective departments and courses. Principals should ensure that each department and course identify priority standards that must be learned by students; priority standards are identified based on long-term need for success in future courses, on state and national assessments, for postsecondary success, and applicability in the world in which students live. Principals should also require teachers to create a scope and sequence document that ensures standards and skills are taught in the appropriate courses and not inadvertently repeated through subsequent courses within each discipline. Principals should require teachers unpack all standards and create measurable learning targets for teachers to guide daily instruction; proficiency scales should be created for each standard or learning target that standardizes what mastery of each standard should look like in practice. Finally, standards and learning targets should all be inextricably linked to formative and summative assessments as data from the assessments provide the basis for which teachers can measure student learning solely on their performance against a standard or skill.

Principals should deeply understand standards-based grading and rely on a variety of leadership approaches during implementation. The implementation of standards-based grading directly affects all aspects of the teaching and learning experience at the high school level. Principals who decide to lead this process must understand the initiative and the implications for

teacher practice and student experience, on a much deeper level. Because the implementation of standards-based grading requires policy creation, teacher development, team leadership, change management, trust building, strategic thinking and planning, political will, and collaboration, principals must be able to differentiate their leadership approach depending on the situation and needs of others. Principals reported the need for leaders to exercise patience during the implementation process, not only for the rollout of standards-based grading but also because the process to change people's behavior and beliefs is slow and requires steady and differentiated leadership from the principal.

Principals also must develop their capacity and understanding of the grading reform initiative. The intensive reading of scholarly articles, books, and the attending of conferences and trainings are all strongly suggested for the leader prior to implementation. Principals must know and have a deep understanding of what aspects of standards-based grading are required, and what aspects have room for negotiation. In concert, principals must also be able to utilize a variety of leadership approaches when leading grading reforms to guide teachers, students, parents, and teams through the change process. Principals should be thoughtful and anticipate challenges to implementation and the actions needed to overcome those challenges. Principals should also be prepared to be both collaborative with teachers, as this initiative primarily affects their professional practices, and directive with teachers, as some of their practices don't support improved learning for students. Finally, a sense of bravery is required for leaders who embark on standards-based grading implementation. Principals encouraged prospective leaders to never give up pursuing this reform because they witnessed first-hand the transformational work that occurred in their teachers and schools, resulting in improved outcomes for students.

Recommendations for Future Research

Future research regarding the implementation of standards-based grading in a high school setting should include a broader study sample inclusive of teachers, counselors, students, and parents. Additional research should be conducted at the state education agency and postsecondary levels.

First, a comparative case study that examines the strengths and weaknesses of the gradual and whole-school approaches used to implement standards-based grading could be conducted. In this study, perception data were collected from high school principals and used to study their reported approaches when implementing standards-based grading. Practitioners and policy makers would benefit from research that investigates the benefits and barriers to both gradual and whole-school implementation approaches to standards-based grading.

Second, an in-depth case study that examines the implementation of standards-based grading from the principal, teacher, student, school counselor, parent, and central office administrator perspective could be conducted. This study was delimited to the perspectives of high school principals; therefore, insights were only gained from one group—albeit an essential one. Garnering perception data from multiple stakeholder groups on the implementation and use of standards-based grading would add to the literature and help improve its use in schools. This research also would support principals and teachers who endeavor to lead the implementation of grading reform in their schools.

Third, a quantitative study that examines the effect of standards-based grading on high school student achievement for all students, but specifically for students of color, students with disabilities, and students from poverty, could be commissioned. Additional studies that can substantiate or refute perception data that attributes increases in student

achievement to the use of standards-based grading are needed. Studies that can examine specific aspects of standards-based grading practices and determine their individual effect on student achievement would add to the literature.

Fourth, a mixed qualitative and quantitative study that examines perceptions college admissions counselors of schools that utilize standards-based grading and its effect on their admissions decisions for students could be completed. College admissions counselors are responsible for assessing the quality of high schools, reviewing high school transcripts, and making admission decisions based on these factors. Research examining the degree to which college admissions counselors understand standards-based grading, their perceptions of schools that utilize the approach, and the degree to which their knowledge of standards-based grading plays into their admissions decisions, would add to the literature.

Finally, future research that examine the roles state policies and education agencies play in the expansion of standards-based grading and competency-based learning should be conducted. State policies and education agencies play a significant role in validating and expanding education reform models state-wide. The use of standards-based grading and competency-based learning have implications on high schools graduation and college admissions requirements. As the efficacy of grading reform and competency-based learning in education are studied, the role state policies and education agencies play in promoting these reforms should be researched.

Conclusion

The implementation and use of standards-based grading school-wide in traditional public high schools is relatively uncommon but is gradually beginning to expand throughout the United States. In this study, 10 high schools principals from across the U.S., all experienced in leading

the implementation of standards-based grading, shared their experience in this phenomenological qualitative study. This study sought to identify the processes principals employed to create the policies that governed standards-based grading in their schools and the identification of the core systems, structures, and aspects of standards-based grading needed for implementation. This study also sought understanding of the factors that helped advance the implementation of this reform and the factors that almost hindered advancement during implementation. Finally, this study sought to understand principal perception regarding the affect standards-based grading had on the promotion of improved student learning. The conceptual framework utilized in this study had a sociological basis and has been used to trace the policy creation process from idea inception to policy implementation. The *Transformation of Intentions* conceptual framework provided the lens to examine the reasons why high school principals decided to lead standards-based grading, the process they used to create grading policies, and the basis for which to determine to what degree did the finalized policies represent principals' initial intentions behind standards-based grading implementation.

Findings included principals' desire to see improved student outcomes, improved teacher practice, and better communication of student learning to stakeholders as the original intentions for implementing standards-based grading. Interestingly, out of all the reform initiatives presently operating in the education space, findings suggested that principals identified grading reform as the strategic entry point for improving other teacher practices and school-wide conditions that affect student belonging and achievement. Findings also suggested that principal intentions were realized in the policy creation arena in spite of the collaborative approach taken by principals that included the intentional empowering of teachers to create the standards-based grading policies. Participants also reported seeing increases in student achievement and metrics

that measure student outcomes. Study results also suggested participant intentions were realized through the aspects of standards-based grading that were implemented throughout the school. Aspects that promoted greater clarity around the communication of student learning were adopted and put into practice, aspects that required students to learn content and skills deeply were included in policy and implemented in practice, and aspects that required teachers to improve their practices were eventually adopted and became the norm over time.

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Appendix A

Email Soliciting Candidates

Dear Sir or Madam,

You are invited to participate in a study examining how principals support the implementation of standards-based grading in public high schools. This study will examine the process and leadership actions used to create the policies that guide the implementation of standards-based grading, and the required systems and structures needed to support and sustain standards-based grading in high schools. This research is being conducted by D'Andre Weaver, Doctor of Philosophy student in Education Policy, Organization and Leadership at the University of Illinois at Urbana-Champaign. Dr. Donald Hackmann is my advisor and dissertation director.

I plan to interview principals who have led the implementation of standards-based grading. Should you choose to participate, I will conduct two interviews with you in-person to collect information about your experience as a principal leading this reform. I anticipate that interviews will last approximately 30-60 minutes each, and there likely will be a follow-up interview lasting 15-30 minutes. The interviews will be audiotaped with your permission. It is our hope that findings from this study will be informative for both researchers and school leaders. All communication will be treated as confidential. At no time will your name be disclosed to school district personnel or other organizations.

I hope that you will participate. Please see the consent form that is attached to this message. Should you agree, you may either sign and attach the consent form back to me via email, or you can send a return email, noting that you agree to participate and indicate whether you give permission for the interview to be audio recorded.

Additionally, if you may know of any other high school principals who have led the implementation of standards-based grading in their schools, please send the individual's name and contact information in the body of an email to djweaver@illinois.edu.

Thank you for considering this request. If you have questions, please feel free to contact D'Andre Weaver (djweaver@illinois.edu; 773.354.1641) or Donald Hackmann (dghack@illinois.edu; 217-333-0230) or at any time.

Regards,

D'Andre Weaver
Graduate Student
University of Illinois

Dr. Donald Hackmann
Professor
University of Illinois

Appendix B

Consent Form

You are invited to participate in a study about principal leadership around implementing standards-based grading in public high schools. This study will examine the process and principals' leadership actions used to create the policies that guide the implementation of standards-based grading, and the required systems and structures needed to support and sustain standards-based grading in high schools. This research is being conducted by D'Andre Weaver, Doctor of Philosophy degree student in Education Policy, Organization and Leadership at the University of Illinois at Urbana-Champaign; Professor Donald Hackmann is the dissertation director. Mr. Weaver will collect information about your experience leading standards-based grading via two individual interviews, conducted face to face (or virtually) and lasting approximately 30-60 minutes each. Follow-up interviews also may be conducted, lasting approximately 15-30 minutes. The interviews may be audiotaped with your permission (see below). Data will be reported in the aggregate, and information collected through your interviews will be held confidential. Any interview quotes will use a pseudonym. Information collected may be shared through conference presentations and through publications (e.g., dissertation, journal articles). When this research is discussed or published, no one will know that you were in the study, unless you choose to be identified. However, laws and university rules might require us to disclose information about you. For example, if required by laws or University policy, study information that identifies you and the consent you have provided may be seen or copied by the following people or groups:

- The university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for Protection of Research Subjects;
- University and state auditors, and Departments of the university responsible for oversight of research.

Participation is strictly voluntary. You may choose to participate in the interview but decline to participate in a follow-up interview if it is requested of you. You may opt out of participation at any time during interview without negative consequence or without jeopardizing your relationship with us, the University of Illinois, or the programs and services in which you.

If you have any questions about your rights as a participant in this study or any concerns or complaints, please contact the University of Illinois Institutional Review Board (University of Illinois: 217-333-2670; irb@illinois.edu). For more information about the project, you can contact Mr. D'Andre Weaver (djweaver@illinois.edu) or Dr. Donald Hackmann (dghack@illinois.edu).

CONSENT TO PARTICIPATE

I have read and understand this project and indicate my willingness to voluntarily take part in this research study. I have been given a copy of this consent form for my records.

I agree to be interviewed for this study ____YES ____NO

I agree to have my interview audiotaped for the purpose of transcription ____YES ____NO

Printed Name: _____

Signature: _____ Date: _____

Appendix C

Interview Protocol and Questions

Read: Thank you for agreeing to share your experience leading standards-based grading at your school.

- A. Review official letter and ask if there are questions
- B. Confirm end time or possible impeding conflicts
- C. Review and sign consent form
- D. Ask for permission to turn on the recording device and remind participant it can be turned off at any time if they wish to exclude their comments
- E. Share the purpose of the study, date, and time
- F. Let participant know I will from time to time take down notes and ask follow-up questions
- G. Thank participant for volunteering and remind them they can stop at any time
- H. Start questions

Time of Interview: _____

Date: _____

Location: _____

Interviewer: _____

Interviewee: _____

Position of Interviewee: _____

Interview One

Items 1-5: Background Information

1. Please share your name, identified ethnicity, and current position.
2. How many years have you currently been in this position?
3. What is your education background?
4. What were your prior professional roles before becoming a principal?
5. How would you describe your current school and school district?

Items 6-8: Principal Intentions for Adopting Standards-Based Grading

6. Why did you decide to lead standards-based grading at your school?
7. What problem were you trying to address by moving to standards-based grading?
8. What outcomes did you expect to achieve as a result of the implementation of standards-based grading? Were they achieved?

Items 9-15: Core Systems and Structures Needed for Standards-Based Grading?

9. How do you define standards-based grading?
10. What components of standards-based grading are – and are not – represented in your school?
11. What school-wide systems or structures do you consider foundational to the implementation of standards-based grading in your school?
12. What school-wide changes were necessary to implement standards-based grading in your school?

13. In what ways did you specifically support the implementation of standards-based grading at your school?
14. What systems or structural supports were created to support the implementation of standards-based grading at your school?
15. Please describe how standards-based grading was implemented in your school?

Interview Two

Items 16-20: Policy Creation

16. What policies exist that govern standards-based grading in your school?
17. How were the policies that govern standards-based grading created? What members of your school community were involved in the policy creation process?
18. Can you please describe the decision making process, or how consensus was built, around the implementation of standards-based grading?
19. How did you communicate the new standards-based grading policies to your key stakeholders?
20. What policy changes have been made since the initial implementation of standards-based grading?

Items 21-30: Leadership Actions & Challenges to Implementation and Sustainability

21. How did you prepare for the implementation of standards-based grading?
22. What leadership decisions or actions did you make that you feel best advanced the implementation of standards-based grading at your school?
23. What leadership decisions or actions did you make that you regret and would do differently if given a fresh start?
24. What leadership decisions or actions did you make that has helped sustain standards-based grading at your school?
25. In what ways has the implementation of standards-based grading required changes in your leadership approach?
26. What resistance did you encounter during your implementation of standards-based grading and how did you respond?
27. What challenges did you experience during your implementation – and now in the sustainability – of standards-based grading in your school and how have you responded?
28. As new challenges arise, in what ways have you operationalized problem-solving at your school?
29. If you had to go through the whole implementation process again, what would you do differently and why?
30. What is the most important piece of advice you would give another high school principal considering implementing standards-based grading?

Items 31-32: Effects of Standards-based grading

31. What results have you seen related to the implementation of standards-based grading?
32. How has standards-based grading affected student learning?

Item 33: Closing Question

33. Is there any additional information you would like to share about standards-based grading?