

ABSTRACT

STANDARDS-BASED GRADING IN TRADITIONAL-GRADING CONTEXTS: A CASE STUDY IN ASYNCHRONOUS PROFESSIONAL DEVELOPMENT

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With a growing conversation around best practices in assessment, there are teachers out there seeking to make a shift to standards-based grading despite the fact that they work in a school system that uses traditional grading systems. This dissertation explores the differences between traditional grading and standard-based grading, the supports teachers need to make a shift to standards-based grading, and the effectiveness of an asynchronous professional development course on teachers' knowledge base around and implementation of standards-based grading. The professional development course that is the research context for this study is shown to impact participants' knowledge of standards-based grading as well as confidence in implementing the change to standards-based grading, but there were areas for improvement identified as a result of the study. The dissertation concludes with revisions and enhancements to the course which are grounded in the literature reviewed and the empirical study of the course.

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STUDY IN ASYNCHRONOUS PROFESSIONAL DEVELOPMENT

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DEDICATION

This dissertation is dedicated to two amazing groups of people. First, to all the first-generation college students out there, past, present, and future, your work matters. Your effort is worth it, and nothing nor anyone can stop you. Keep changing the world.

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CHAPTER 1

INTRODUCTION

Grades matter. They matter to the students working hard to earn (or “earn”) them. They matter to the teachers who spend hours assigning them. They matter to the families who support their students daily. They matter to school administrators who have to navigate the fallout when disagreements arise. They matter to college admission officers making acceptance decisions. Grades matter. In fact, “the use of grades is one of the most sacred traditions in American education” (Olson, 1995, p. 24). Grades and grading create emotional responses from teachers, students, and families, alike (Brookhart, 1994). Virtually everyone has been graded before, has had the experience of doing work and earning or receiving a grade. Yet, often teachers struggle to articulate any sort of rationale for the way they grade and the techniques they use therein. When asked, they are often unable to justify their approach (McMillian, 2003).

Grades are deeply entrenched and widely rooted across our society so much so that the concept reaches beyond education. We grade things like eggs and meat, cars and appliances, and even wine. Grades are everywhere and experienced by everyone. In fact, in this country, some form of noting a student's learning can be formally traced back as far as 1780 with even more historic examples dating back to scholars such as Plato and Aristotle (Feldman, 2019).

Yet current grading practices used in most schools do not accurately capture what students actually know and can do (Muñoz & Guskey, 2015) because of a variety of reasons such as the use of a mathematical average, a 59-point range for the F, and the inclusion of non-

academic factors. Because of this reality, there are other systems for grading students that are slowly gaining traction across the country. One of those is standards-based grading which attempts to more precisely provide a student (and all stakeholders) with specific feedback on clear academic standards. However, teachers seeking to implement standards-based grading are faced with a wide range of implementation challenges that often prevent this change from happening.

Purpose

This dissertation focuses on the implementation challenges that teachers seeking to use standards-based grading face when working in a school that uses traditional grades. While it would be great to see a widespread, systemic change away from traditional grading practices, the magnitude of such a change seems almost impossible given the depths at which traditional grades have become rooted in American society. To that end, this study seeks to learn from and support individual teachers who want to make a change to standards-based grading despite the fact that their educational context is a system is still using traditional grading practices.

Significance

The aim of this study is to better understand the barriers that teachers face when they attempt to change to standards-based grading and what sort of support they need in order to overcome these barriers. This work is significant because the research shows that this change is not an easy one for teachers; therefore, by attempting to better understand why the change is hard and provide support for teachers seeking to make this change, more teachers can move to standards-based grading. By reviewing feedback from teachers who have taken the professional

development course that is at the center of the research, improvements to that course can be made and/or additional supports developed to best support teachers in changing to standards-based grading.

Dissertation Structure

This study will be structured as a three-product dissertation with the goal of improving a current online PD course on standard-based grading. Product number one is a comprehensive review of the literature around standards-based grading. Product number two is an empirical study of teachers enrolled in an online course on standards-based grading with the aim of determining what is working to support this transition to standards-based grading and what is missing. Product three is two-fold. First, there is a protocol with a think-aloud model of how to use examples from different grade levels and/or disciplines to improve one's own practice. The additional products all revolve around improvements to this online course. It is worth noting that papers number one and number two, in and of themselves, could stand alone as a contribution to the conversation around the use and implementation of standards-based grading; however, this study does function best with all three papers working collectively.

Intended Audience

The primary intended audience of this study would be K-12 teachers who are currently working in a school that uses traditional grades but want to at least consider making the change to standards-based grading. These teachers would either already believe that standards-based grading is a better way to assess students or are at least starting to think standards-based grading is better. Additionally, school administrators who interact with assessment policy and practices

might find this study useful as they reflect on current practices used in their setting. However, the audience for this study is not teachers or administrators who want to be convinced that standards-based grading is a better approach.

My Professional Setting/Positionality Statement

I remember it like it was yesterday. He was one of those students who had always been a bit on the sarcastic side, but in good ways; to him, it was a vehicle to show off his intelligence, and he had no shortage of intelligence. But on this particular day, as the sun warmed the winter air inside Room 251, I had no idea that his wit and sarcasm would change my professional life forever. We spent the last five minutes of class with me passing back their most recent piece of writing, and as the bell rang, he sauntered over to me, a wry smile and confident eyes, and questioned, “Mr. Bronke, can you please help me understand what 15% of writing I didn’t get on this paper?” Now, there was no doubting that much of what he was doing was continuing his tongue-in-cheek banter with me; however, the simple reality was that I really did not have much of an answer. Sure, there was a rubric, but this question paralyzed me.

Because of this, about six years ago, I decided to begin a personal research journey into assessment practices that, eventually, led me to convert my classroom to a standards-based system, consult nationally on standards-based grading, and even pursue this topic for this dissertation study. I was confused and disheartened by the reality of a 100-point numeric system that gave points over feedback, or worse still, deducted points over promoting intellectual growth. Motivated by his question (“What 15% of writing don’t I get”), I was no longer okay with the lack of clarity provided by traditional letter-based grades, especially around the skills needed in something as subjective as writing. All this to say, I am very much an insider within

the standards-based grading world with a strong bias towards this approach to grading; however, given that this study is rooted in implementation and not effectiveness, this bias actually can be a good thing as I seek to better support teachers who also seek to make this change. I, too, work in a system that uses traditional grading, and yet have found a way by which I can use standards-based grading in my classroom.

Terminology

While these terms will be explored in much greater detail and depth over the course of this study, for the sake of context, here are key terms that are used throughout this study.

Traditional Grading: assigning a letter grade (A-F) and/or percentage (100%-0%) to a student's work holistically and includes factors such as late penalties and extra credit. Final grades are a mathematical average/compilation of some sort.

Standards-Based Grading: assigning a number (usually 1-4, but other scales are used) to express a student's level of mastery of individual, specific academic standards. Final grades are based on mastery demonstrated throughout the duration of the course.

CHAPTER 2

REVIEW OF LITERATURE

Historically, traditional grading practices have been used to sort students into categories: those who are learners and those who are not learners (Brookhart, 2011). But even with that reality, the current way that most students are graded, with traditional letter grades, was not always the case. As far back as Plato and Aristotle, students were given feedback but nothing like the current grades given out in school today (Feldman, 2019). In fact, even public schools used to be feedback/mastery-based in how they graded students, but because of an increase in the number of students for which each teacher was responsible as well as a shift to traditional grades at the collegiate level, public schools began to transition to what we now know as traditional letter grades. It was more time-efficient for teachers and more directly connected to college (Townsend & Buckmiller, 2020). Even with this shift and considering the way most schools currently grade, there is evidence that supports that teachers want to grade fairly, but that they are also extremely stressed by the pressure to do so (Brookhart et al., 2016). Teachers are faced with the fact that the grades they assign are, maybe more than anything else that they do, public-facing. Families see them, administrators can see them, colleges see them, and this leads to this pressure to do it right.

In spite of the pressures mentioned above and the desire to do it correctly, when teachers are asked about the choices they make around their assessment practices, their own internal beliefs and values on the right way(s) to assess continue to be the biggest factor(s) even when not

supported by best practices nor measurement principles (McMillan, 2003). Given this reality, the challenges and issues with assessment practices in schools today become something much greater than a mere technical issue. It is much more complicated than that. Assessment practices in schools today are a social and personal issue as much or more than a technical one (Black & William, 1998).

The purpose of this literature review is three-fold.

1. First, it aims to define current, traditional grading practices, explore why they are commonly used, and explore their strengths and limitations.
2. From there, an exploration of one alternative approach to traditional grading, standards-based grading, is defined and the benefits are explored.
3. Finally, implementation challenges associated with standards-based grading are discussed.

It is also important to be clear about what this literature review and study are *not* seeking to do in order to best focus on the aims of this work. While there are scholars and educational theorists out there who are calling for the elimination of grades altogether, that is not the aim here. This dissertation assumes grades as part of the educational system for the foreseeable future. Furthermore, this study is not seeking to establish or prove whether standards-based grading systems are more effective than traditional grading systems. Instead, there is an assumption that standards-based grading is a more effective practice but that teachers choose not to implement it due to a wide range of contextual factors, including schools, administrators, and parents, as well as a lack of individual knowledge on how to implement standards-based grading. The literature review does have a discussion of traditional grades but the aim here is to juxtapose

traditional grading with standards-based grading to compare the implementation of the two approaches. This narrow focus allows for a more in-depth discussion of the implementation challenges around standards-based grading and supporting those practitioners who desire to make this change.

Below is a discussion of two types of grading: traditional grading and standards-based grading, but it is important to note that regardless of the system used, the purpose of grading is to make visible to all stakeholders the learning progress a student is making over the course of their time in a class. There are many ways to do this, but the focus here will be on two approaches. Traditional letter grading is the dominant approach across the country and, as such, will be discussed first. From there, one alternative to traditional grading, standards-based grading, will be explored. In each section, the system itself will be defined, benefits established, and challenges/limitations explored. For standards-based grading, the implementation challenges will also be discussed.

Traditional Grades

For the purpose of this study, it is important to clearly define what is meant by traditional grades. While virtually anyone who has received formal schooling has been graded before, there is a wide range of approaches to grading, so for the sake of clarity, this section of this literature review seeks to establish the working definition for traditional grades. From there, it goes on to explore some of the issues associated with traditional grading practices and their impact on students.

What is Traditional Grading

“Grading refers to the symbols assigned to individual pieces of student work or to composite measures of student performance on student report cards” (Brookhart et al., 2016, p. 804). However, part of the challenge with attempting to define traditional grading is that traditional grades are a hodgepodge of such a wide range of factors (Brookhart, 1994). There are, though, several attempts to capture this range of elements that make up a traditional grade. McMillan (2001) conducted a study of 6-12th grade teachers across 69 schools in an attempt to ascertain what factors were most consistently associated with grading practice. These factors fell into four categories: “academic achievement, academic enablers (such as effort, ability, improvement, and participation), use of external benchmarks, and the use of extra credit” (McMillan, 2001, p. 28). This study also notes that there was much evidence to suggest that teachers were divided on the use of the zero as well as whether to grade homework. This work lays a foundation for understanding the myriad of variables that go into traditional grades, and the divided nature of factors such as the zero and graded homework do speak directly to some of the challenges with traditional grades (which will be explored in more depth later in this review). These factors, even if not directly labeled as such, are supported by additional studies that found growth, participation, achievement, and other nonacademic indicators to be just some of the factors that go into teachers’ grades in a traditional grading system (Townesley, 2019; Townesley et al., 2019). Brookhart et al. (2016) also discuss the wide range of factors that go into a traditional grade. They did a study of 100 years of assessment practices and came to the conclusion that traditional grades typically represent a whole host of factors including the subjective, nebulous idea of student effort. Brookhart and colleagues (2016) note that teachers

generally believe that if a student tries hard, they do not deserve to fail even if their achievement is not representative of work that earns a passing grade. While there may not be one seminal definition of a traditional grade, there is enough research that agrees that traditional grading is best viewed as a multidimensional process that encompasses both academic and non-academic factors (Brookhart et al., 2016). And for the sake of this study, it is this definition that will be used.

But before getting into the numerous and varied challenges associated with traditional grading, it is worth exploring some of the benefits of traditional grading. Simply put, traditional grading is a system that is fueled and sustained by efficiency and the goal of student compliance. By the 1940s, the current system of grades was standardized across the country in large part because of the speed at which it allows teachers to assign grades as well as to help “train” students to be compliant, to work for the carrot of a grade, much like they would go on to do in the factories (Willis, 1977). This is important because teachers and the teaching day are busy. In one 2012 study, it was found that teachers in Chicago Public Schools were working an average of 58 hours a week which equates to over 800 hours a year more than their contractual obligations (Ciciora, 2012). In addition to efficiency, traditional grading is seemingly clear to all stakeholders and functions as a system with which all stakeholders are familiar and, therefore, assume they can interpret. This also allows for an ease of transferability across schools if/when students relocate (Schneider & Hutt, 2014). A transcript can be sent that is in the same “language” as the school to which it is being sent: letter grades. Also, families are not upset with current traditional practices. In one study of families’ perceptions of student report cards (done in a district using traditional grades), over 90% of families surveyed shared they were either

satisfied or somewhat satisfied with their current report cards (Ohlhausen, 1994). While this study will go on to point out the various shortcomings of traditional grades, it is important to acknowledge that there are practical reasons why traditional grading “works” and continues to be the way in which virtually all students are assessed.

Challenges with Traditional Grades

One of the more interesting aspects of the challenges around traditional grading is that, at least in one study, teachers self-reported that they were unhappy with and/or knew that their assessments were not great/needed improvement (Black et al., 2011). This could be connected to the fact that there is a simple reality that teachers often do not follow recommended grading practices because there is a conflict between the recommended grading practices and what teachers believe should be part of a grade (Brookhart, 1993). Black et al. (2011) found this to be the case, too when they noted that most, if not all, teachers in their study continued to rely upon factors other than academic achievement even when they knew that these other factors go against the suggestions of experts in the field of measurement. This cognitive dissonance poses challenges for all involved; if teachers are self-admitting that they wish their assessments were better, but, at the same time, are not willing to follow and/or actually disagree with recommended grading practices, traditional grading is already situated on a framework of issues and concerns. When those who implement grading systems acknowledge that it isn't working but refuse to accept best practices as defined by measurement experts, traditional grades clearly are at a crossroads of their very name: tradition.

One of the biggest issues with this reality is the lack of consistency across teachers, departments, and buildings. Most people, since they have been graded and gone through school

with traditional grades, assume that an A is an A and a B is a B; what else could it be, right?

“Everyone knows the difference between an A or B, or between 89% and 91%, right?

Unfortunately, many people think they do.” (Marion, 2022). However, for a wide range of reasons such as weights of categories and assignments, rules around late penalties and the zero, and use of extra credit, to name a few, what a letter grade means in one class can be vastly different than what it means in another, and even teachers, when given that chance to collaborate around assessment practices, admit this reality (Reeves, 2004). Teachers who engage in interrater reliability work self-reported that their ratings were vastly different and that they were surprised by this (Black et al., 2011). In other cases, it has also been shown that the methods teachers use are not shared with other teachers in the same school at all (Black & William, 1998; Brookhart et al., 2016). In effect, public education has created a system whereby it is okay for two students in the same class but with different teachers to be assessed and graded in two very different ways.

In addition to inconsistency, traditional grades paint an unclear picture of what a student actually knows and can do. As O’Connor et al. (2018) point out, factors such as late penalties, deductions for academic dishonesty, absences, poor behavior, and adding extra credit all lead to inaccurate grades that do not directly reflect what that student actually can do. Oftentimes, these non-academic factors are used as punishment with teachers lowering grades to control behavior (Knight & Cooper, 2019). One of the biggest examples of this is the use of the zero for the purpose of “student motivation.” A zero on an assignment does not tell stakeholders involved about a student's understanding or skill; it simply tells stakeholders that a student didn’t do the work (Marion, 2021). And yet, teachers believe that if there is no threat of a zero, students will not do the work. In fact, 85% of teachers in one study self-reported that they believe effort

should be part of a grade (McMillian, 2003). Additionally, some teachers are worried that the elimination of the zero will lead to inflated grades, but as Carey and Carifio (2012) point out, a minimum grading scale does not lead to increased grade inflation nor social promotion. In fact, the elimination of the zero and subsequent move to something such as a five-point scale actually leads to more reliable, consistent, and accurate measures of student achievement. Still, the zero, which comes with it a 59-point deduction on the standard grading scale, is commonplace in public education (Brookhart, et al., 2016).

In addition to the lack of clarity, traditional grading does not provide students or families with the sort of feedback needed to grow and improve. Be it because the grade is such a wide range of components all put into one marking/symbol or because trying to interpret what each actual specific letter grade means, the lack of clarity provides challenges for students looking to improve (Black & William, 1998; Peters & Buckmiller, 2014). Furthermore, “a single letter grade offers no information about what was specifically learned” (Guskey & Jung, 2006). And in some cases, it empowers the teacher to help the student “improve”, or at least improve their grade, even when the actual learning hasn’t improved. McMillian (2003) calls this “pulling for students” and notes that it is reflected in many ways including measures as extreme as significantly modifying assessments or offering non-academic extra credit for students that the teacher feels are working hard or deserve to pass. While this is a sign of caring for individual students, modifying assessments and/or giving any sort of extra credit, be it academic or not, on an individual level is an equity issue fraught with bias and creates an unfair system for students.

A final challenge or concern with standards-based grading is the possible inequities that can stem from them. Given their historical use to sort students, these grades, by design, have

been, and continue to be, used to label students during their time in school and create forced pathways and limit or empower opportunities post-high school (Feldman, 2019; Schneider & Hutt, 2014; Willis, 1977).

Traditional grades are what they are, tradition, but the literature speaks to all the ways that these traditional grading systems are flawed, creating vast inconsistencies across schools, unclear representations of student learning, and unfair manipulation of the final grade. That said, there is a version of grading, standards-based grading, that functions in a way that combats many of the issues presented by traditional grading.

Standards-Based Grading

Standards-based grading provides educators with the framework to shift the traditional grading paradigm. As mentioned earlier, standards-based grading is not new, and in fact, was historically how public schools used to assess student learning (Townesley & Buckmiller, 2020). This section of the literature review attempts to establish a working definition for standards-based grading that will be used throughout this paper as well as explore the benefits of moving to such a system.

What is Standards-Based Grading

Conceptually, standards-based grading puts the focus on what a student has learned as opposed to what the student can earn (Brookhart, 2011). In doing so, standards-based grading creates more consistent and accurate reporting in ways that help all stakeholders better understand how a student is doing with their learning relative to specific standards (Townesley et al., 2019). When implemented well, it creates a system for assessing students that is fair,

accurate, and meaningful (Peters & Buckmiller, 2014). And at the end of the day, this is what all stakeholders need to help ensure the success of all students. Whereas traditional grading is a compilation of an unwritten and wide-ranging set of variables, standards-based grading is a system that is focused on how a student is performing relative to specific standards. It forces individual teachers, course teams, departments, and schools as a whole to ask themselves what they really want a grade to represent. By doing so, educators work to establish a clear and consistent definition of what a grade actually means. They agree upon what does and doesn't go into a grade, the standards that will be used, and the pathways for students to show their understanding (Brookhart, 2011).

This definition has been broken down and conceptualized in several ways but at the core, these definitions all seek to remove the use of non-academic factors in assigning a grade. Generally speaking, to do this, grades are directly connected to specific academic standards, have a meaning void of non-academic behaviors, and are not artificially enhanced through the use of extra credit. The other factors that almost always go into traditional grades (such as effort, completion, and timeliness) can still be assessed, but they are reported completely separately from the reporting of a student's progress toward the academic standard. Additionally, students are given multiple opportunities to demonstrate mastery without the use of averaging those performances (Guskey et al., 2020; Townsley, 2019; Townsley & Schmid, 2020).

One way this is conceptualized is to split traditional grades into three categories each representing a unique aspect of the student: the product, the progress, and the process (Muñoz & Guskey, 2015). In this model, teachers are still able to report on non-academic behaviors but without those factors impacting the clarity of what a student knows and can do. Teachers can

give a clear picture of a student's learning via the product which is aligned to specific academic standards; their growth via the progress criteria; and factors such as effort, meeting deadlines, and completion of work via the process criteria (Guskey & Jung, 2006). This matches McMillan's (2003) thoughts when it is argued that assessment should be viewed as ongoing opportunities to gather, interpret, and evaluate information about the students.

However, before exploring the wide range of benefits associated with standards-based grading, it is important to understand this system is not perfect. While this will be further explored in greater depth later in the section on implementation challenges, standards-based grading takes time, lots of it (Schneider & Hutt, 2014). Specific, individual feedback to all students is exponentially more time-consuming than simply entering a letter or a percentage, and as such, can be the single biggest reason why standards-based grading does not work (Peters & Buckmiller, 2014). Additionally, families are just not familiar with this approach; given that the history of traditional grades reaches back as far as the 1940s (Schneider & Hutt, 2014), caregivers of current students grew up in a system that used traditional grades. Trying to help families understand phrases such as "approaching mastery" (a phrase often used in some versions of standards-based grading) can present logistical challenges and lead to more time spent in an already time-consuming system. Plus, given the depths in which traditional grades are embedded across the educational landscape, students seeking admission to college often need (or believe they need) a traditional grade, though even this is starting to change. That said, there is research to suggest that, despite these challenges, there are numerous benefits to standards-based grading.

Table 1 articulates some common differences between traditional grading and standards-based grading to help bring to life more clearly just what standards-based grading is. To see an example of standards-based grading from my own classroom at a suburban high school outside of Chicago, refer to Appendix A; it is worth noting that this school still requires the assigning of a traditional grade by the end of the semester.

Table 1

Common Traits of Traditional and Standards-Based Grading Systems

Common Traits of Traditional Grades	Common Traits of Standards-Based Grades
100-point scale	Most often a 3, 4, or 5 point-scale and sometimes even a 1-point scale
Grades are a mathematical average of all assignments	No averages. Scores reported per standard/skill
Grade book lists assignment names	Grade book lists names of academic standards
Feedback based on the product	Feedback based on the learning target
Factors in completion, late-work penalties, and extra credit	Academic grade based on what a student knows/can do

Benefits of Standards-Based Grading

While there is a wide range of benefits, at the core, the biggest benefit of using standards-based grading is clarity. Stakeholders are no longer left to guess what a grade, which traditionally is a mathematical average of some unwritten combination of academic and non-

academic factors, actually means. Standards-based grading provides validity, reliability, and fairness to all students. While initially confusing to most stakeholders due to how different it is from all they have experienced as students, the fact that student performance is directly linked to clearly stated academic standards, grading and reporting provide students (and all stakeholders) with the ability to better understand their progress toward learning and ultimately, mastery (Muñoz & Guskey, 2015). This clarity provides a pathway for direct, specific, and nuanced conversations about areas in which students are strong and areas in which they are struggling as well as how they can improve (Peters & Buckmiller, 2014). Instead of a student who earned an 88% asking a teacher how they can earn two more points, the conversations are now about what else needs to be done to demonstrate mastery of standards that are not currently mastered.

Another important benefit of standards-based grading is improved instructional planning. Primary research done by Knight and Cooper (2019) which interviewed teachers using standards-based grading reported many connections between the shift to standards-based grading and improved planning. They noted teachers expressed ways in which moving to standards-based grading made them more purposeful in their planning and instruction, increased rigor, more attention to individual student needs, and increased ability of students to ask meaningful questions about their learning. Directly stated, “When participants began utilizing SBG, they redesigned assessments and instructional planning to be more purposeful to students’ needs” (Knight & Cooper, 2019, p. 23). The hope here is, that with increased clarity and planning, student learning increases, and this is supported by Schoen et al. (2003) who suggest that standards-based grading can have a positive impact on student achievement and even their ability to problem-solve. There is a clear connection between assessment practices and

planning/instruction, and when teachers move towards standards-based grading, they are better able to see this interconnectedness and improve on all fronts (McMillian, 2003).

There are practicing educators who have made this shift and written about the impact on students and their own practice. Vanhala (2020), a high school science teacher, and Scriffiny (2008), a high school math teacher, have both articulated the importance and benefits of changing to standards-based grading. Both share the need for grades to carry actual meaning and address the ways that traditional grades fail to do so. As such, both have stopped grading homework, linked their grades directly to academic standards, gotten rid of non-academic factors in a grade, and spoken about how all of these factors and changes have helped improve the quality of their instruction and intervention work with students. A study by Knight and Cooper (2019) echoes some of these same thoughts. Knight, a standards-based practitioner, shares some experiences and those of colleagues who also have shifted to standards-based grading. Their findings showed that not only did teachers prefer the clarity that standards-based grading provided, but that students also appreciated this change. Students began asking better questions about their own learning and the standards on which they had not yet demonstrated mastery; this was possible because, at the core, standards-based grading is a system that provides multiple opportunities for students to demonstrate their learning and mastery. It also provides students with a clearer picture of their academic progress and learning. Conversations between students and the teacher shifted to a discussion about what still needs more evidence to prove mastery and not what can be done to improve the grade.

With a robust collection of evidence and literature to support the benefits of standards-based grading compared to traditional practices, one must ask themselves why more school

systems as a whole nor individual teachers have/are not making the shift away from traditional grading. Standards-based grading provides more clarity, better planning and instruction, and more pathways for students to demonstrate their learning. It seems as if the educational system should be moving to this approach, and yet, overall, that is not happening.

Implementation Challenges with Standards-Based Grading

Changing tradition is hard; it requires time, training, willingness, and support at multiple levels of the school system and beyond. And in this case, “grading is as deeply rooted as a tradition as there is. There are few other things in our society where people have had such universal common lived experiences than grading in school” (J. Burkey, personal communication, January 16, 2023). Because of this, it is no surprise that the shift to standards-based grading is fraught with a wide range of implementation challenges. This section attempts to explore the various reasons why this shift is such a difficult undertaking for individual teachers. Divided into two subsections, it will explore the practical challenges and the logistical challenges; however, it is important to note that the focus of these challenges will center on the individual classroom teacher.

Of course, the implementation challenges associated with changing tradition are wider-reaching than just the individual teacher, but this study is focused on the teacher, so while this section will explore some of the system-level challenges, it will be through the lens of the teacher and the ways in which those system-level challenges might prevent the individual teacher from shifting to standards-based grading.

Practical Challenges to Implementation

When considering the reasons why individual teachers might not make this shift to standards-based grading, there are a variety of practical challenges. For the purpose of this section, practical challenges are defined as the day-to-day ways in which teachers are challenged by a shift to standards-based grading. This shift is all about a move from students working to earn a grade to students demonstrating what they have learned (Brookhart, 2011), but this presents a wide range of challenges.

Impact on Students

Teachers seeking to or being told to make any change want to know how it will impact their students, and there is research to suggest that the impact of changing to standards-based grading impacts the students in a variety of ways, and not all positively (as the earlier presented research supports). Students were impacted in two unique ways: the impact on their overall disposition and the impact on their actual grades.

Dispositionally, a shift to standards-based grading can lead to students feeling as if they do not need to work as hard. Since this shift leads to many of the traditional boosters of a grade, factors like effort and homework completion, being eliminated from earning points, some studies suggest that students simply stopped doing any work that wasn't graded (Peters & Buckmiller, 2014). Traditional grading creates conditions by which every assignment has points, and those points become a motivation to complete the work; however, in standards-based grading, it becomes about students showing what they know and can do (Muñoz & Guskey, 2015; Knight & Cooper, 2019). Students who were in classrooms using standards-based grading expressed the

fact that they missed getting points/credit for homework completion. They also shared that they missed being able to get extra credit to improve their grade (Peters et al., 2017). All of these, though, are factors outside the actual academic scope of what a student knows and can do.

Some of the research also speaks to students not working as hard because of the ability to reassess and/or the fact that standards-based grading typically provides multiple opportunities for students to demonstrate their understanding (Peters et al., 2017). In fact, this reality was even expressed by some parents of students in standards-based classrooms. Families of students in Kennewick, WA shared that they noticed their students losing their motivation to complete these non-graded assignments and even to study for tests because they knew they could redo/reassess later (Spencer, 2012).

That said, there is also research to support that these factors were always present even in traditional grading systems. In fact, Knight and Cooper (2019) share teachers' reflections on the shift to standards-based grading and note several teachers expressed that even when all assignments had points assigned to them and/or there were late penalties to motivate students to complete work, it didn't change behaviors. Those who were going to do the work always did and those who weren't going to didn't. While there is evidence that suggests student motivation and overall disposition are impacted by and could be an implementation challenge for teachers, there is also evidence that suggests student motivation and disposition were always challenges for teachers regardless of the grading system.

Another implementation challenge connected to student disposition centers on the student (and family) beliefs that standards-based grading is not preparing students for college. There is a belief that in college, all assignments are graded and worth points plus the belief that in college

students are not allowed to revise their work and/or reassess to demonstrate mastery. This leaves students and families worried that the standards-based classroom and teachers employing this approach to assessment are not preparing students for college (Peters et al., 2017), “and this may be true in some ways, but the reality is there are many different systems of grading in most colleges and universities, and if students come prepared for that, it may enhance pathways to success” (N. DeJoy, personal communication, March 4, 2023). There is also evidence, even if a small sample size, to suggest that standards-based grading has, at worst, a neutral impact on the transition to college, or perhaps, a slightly positive one. Guskey et al. (2020) studied first-year college students from standards-based grading high schools and noted that there was no discernible difference in their performance from peers from traditional grading systems. Additionally, Knight and Cooper (2019) noted that the school they studied which was using standards-based grading actually was one of the most successful buildings in the state with regards to students not having to take remedial classes in college. Furthermore, more and more colleges are accepting standards-based report cards, including Harvard, Brown, and MIT (Percell & Meyer, 2021; O’Connor et al., 2018).

The other aspect of standards-based grading on students is the actual achievement/grades they are earning/their actual learning. Interesting to note, however, is that studies in this lane actually contradicted one another with some suggesting an implementation dip (Peters & Buckmiller 2014; Peters et al., 2017) while others suggesting grade inflation (Townsend & Buckmiller, 2020).

Early on in implementation, some teachers reported seeing students performing at lower levels as a result of not doing the homework since it wasn’t graded, and while the lack of

completion (which is described as a dispositional issue above) didn't impact a student's grade as it would in a traditional-grading system (by earning a "0"), teachers noted that by not doing the homework, students were less prepared to do well on assessments and lacked the knowledge needed to demonstrate mastery (Peters & Buckmiller, 2014). Additionally, students themselves reported that standards-based classrooms became harder. Since they were no longer earning points for simple tasks like homework completion nor able to earn extra credit for non-sequitur tasks such as bringing in a box of facial tissues, they reported that earning a good grade became more difficult (Peters et al., 2017).

One study sought to determine whether there was a correlation between standards-based grading practices and students' ACT scores, and it did find at least some possible connection between the two. In this study (Townesley & Varga, 2018), it was found that GPA stayed the same and/or was slightly higher in standards-based grading while ACT scores saw a drop proportionally. However, the authors go on to suggest that this is as a result of mastery learning leading to a higher GPA since students are working towards learning not earning for a grade (Brookhart, 2011).

There are studies that suggest grade inflation as a result of standards-based grading due to the fact that students are now given multiple opportunities to demonstrate their learning. When students can retake tests, revise papers, and have multiple opportunities to show what they have learned, grades increase (Townesley, 2019; Townesley & Buckmiller, 2020). While supporters of traditional grading may see this as a drawback because it could "dilute" the prestige of sorting mechanisms such as the honor role, this should be viewed as a good thing as opposed to an implementation challenge. In fact, "when students are provided with multiple opportunities to

demonstrate their understanding based on assessment feedback, they are held accountable for their learning in a way that honors learners who acquire knowledge and skills at different rates” (Wormeli, 2011, as cited in Townsley, 2019). But this paradigm shift does come with it an additional implementation challenge for teachers: workload and time.

Teacher Workload and Time

For teachers who have made the shift to standards-based grading, one of the biggest issues they have found is the increased time that it takes. The American school system only went to the 100-point scale and letter grades because teachers were being tasked with more and more students each year (Townsley & Buckmiller, 2020); however, that reality has not changed, and, at least in some contexts, class sizes have increased. The combination of reporting students' learning in a more narrative form and providing multiple opportunities for students to demonstrate that learning comes with it an increase in the amount of time it takes to assess student learning (Townsley, 2019; Townsley & Buckmiller, 2020). This concern and challenge is real and cannot be diminished nor ignored. The demands on a teacher's time are high and vast; however, there is research to suggest that despite this challenge, the extra time might just be worth it. Peters and Buckmiller (2014) found that while it took teachers more time to fill out the report card and to provide feedback, teachers reported valuing the increase in the quality of feedback enough to say that it was worth this extra time and effort. Spencer (2012) also references a survey conducted by Guskey of Kentucky teachers who had shifted to standards-based grading and notes that teachers openly admitted that it became more work and time-consuming. However, they also noted that, as a whole, they liked the quality of feedback to students that this provided. All of this said, though, there is no way around what might be the

biggest implementation challenge, and that is the extra time that it takes to assess students using standards-based grading because the additional time isn't just what is needed to do the actual assessing, but it is also the time associated with the training to do it right.

Execution Consistency and Quality

As is the case with any initiative in education, consistency and quality of implementation can be the reason the concept of the initiative is or isn't successful, and standards-based grading is a great example of this. Guskey et al. (2020) found that, at least in the schools that they studied, most high schools claiming to use standards-based grading are actually implementing it at either moderate or low levels. This is interesting given that the purpose of their study was actually to explore the impact of standards-based grading on the transition to college, and while they found no real correlation one way or another between standards-based grading and college success, they did find the actual implementation of standards-based grading lacked consistency across the building and was not being executed with high levels of quality.

But Guskey et al. (2020) are not alone in these findings as Peters et al. (2017) found something similar, but their findings came as a result of interviewing students to better understand the impact of standards-based grading. Students noted three main themes that are clearly challenges for teachers trying to implement standards-based grading:

1. Inconsistency across courses and departments.
2. What it takes to be able to reassess.
3. Not all teachers know how to actually assess using standards-based grading.

The fact that students report these implementation challenges is significant given the obvious reality that this is actually who the system is for. If teachers are unable to execute this shift with

quality and consistency, students are the ones most impacted. That said, it is widely acknowledged by many teachers that there are inconsistencies in assessment practices across courses and departments with traditional grading practices, too. These challenges are not unique nor specific to standard-based grading; however, inconsistencies with regard to retake policies and overall quality of implementation are seemingly more directly connected to a shift towards standards-based grading and do present significant implementation challenges for teachers looking to make this shift.

Gradebooks and Reporting Challenges

Because of the depths to which traditional grading practices are tradition in today's schools, these grading practices have led to the development and creation of traditional grading software programs; these programs are built around the concept of a 100-point scale, and as such, are designed to empower teachers in the traditional system; however, teachers seeking to transition away from traditional grades and into a standards-based grading system are left fairly helpless and unsupported by the software options in most districts. Peters and Buckmiller (2014) put it best when they share, "One of the more pedestrian – yet daunting and universal – challenges to effective and comprehensive standards-based reporting is that grading software and related online student information systems have not yet sufficiently evolved to accommodate SBG" (p. 14). This is because most systems are designed around points and percentages and fail to take into account the entire purpose of standards-based grading which is to provide narrative feedback on individual standards and not to mathematically average a series of numbers/points. Percell and Meyer (2021) echo this thought and list the actual gradebook as the second biggest implementation challenge after teacher buy-in (which will be discussed later in this literature

review). They offer the reality that grading systems and reporting challenges are not just on the teachers' end, though they agree with that, but that how standards-based grading is recorded and reported impacts the families just as much. Going back to the previous challenge of additional time, Percell and Meyer (2021) also report that in addition to the extra time to actually give the feedback, teachers reported that trying to record their grades was a "nightmare" (p. 188). Townsley and Buckmiller (2014) and Townsley et al. (2019) express similar challenges and suggest that one of the biggest challenges is that districts too often decide on their software programs before considering the actual purpose of grades. Additionally, there is a "noble desire to keep parents aware of how students are performing and progressing...teachers are pressured to enter essentially every assignment into their LMS" (Marion, 2022). However, in a standards-based system, the purpose of a grade is to provide feedback towards mastery, and a numerically based program that is rooted in the averaging of numbers simply cannot achieve the goal of the type of feedback standards-based grading seeks to provide.

This shift to standards-based grading is not an easy one, and clearly, the path forward is littered with a wide range of practical, day-to-day challenges for those teachers seeking to make this change; however, these teachers are also faced with implementation challenges at the systems and more macro-levels.

Logistical Challenges

While the focus of this study is centered on the individual classroom teacher, it is worth acknowledging the reality that no classroom teacher operates void of larger systems that impact the work they do. These systems and those who control them provide unique challenges when seeking to move an individual classroom from traditional grades to a standards-based classroom.

For the purpose of this section, logistical challenges are defined as the more macro-level challenges that might not impact a teacher daily but do when the larger context of their role and work is considered. As a whole, this section speaks to the system-level time this work takes to do this right (Townesley et al., 2019).

Professional Development

The concept of professional development around assessment practices is not new. In fact, Black et al. (2011) suggest that when teachers are given the time and training, they feel as if their ability to evaluate and assess improves, regardless of if it is traditional practices or standards-based. However, as teachers attempt to move into a new system, one that might sound good in theory but be very new in practice, it is important to remember that this work needs support. As Black and William (1998) share:

Teachers will not take up new ideas that sound attractive, no matter how extensive the research base, if the ideas are presented as general principles that leave the task of translating them into everyday practice entirely up to the teachers. (p. 10)

They go on to express that changes like this cannot happen without extensive training, and this is where the implementation challenge lies for the classroom teachers; they are not the ones, at least most of the time, who get to choose what their professional development consists of. That said, Townesley et al. (2019) point out that teachers should have the ability to have feedback on the potential topics of professional development as well as feedback on that professional development. This suggestion is specific to teachers who wish to implement standards-based grading, so the importance of this training is clear, but it is not happening as often as the individual teacher might want.

Peters and Buckmiller (2014) do note, though, that there is a benefit when schools dedicate time to this sort of professional development. One school principal they spoke to expressed the ways in which professional development around standards, standards-based grading, and student assessment was extremely important and valuable to all involved. In fact, this school had a three-year professional development plan to help support students to move from their wonderings about how standards-based grading might look on the individual level to collaboratively working to build the system that worked best for them.

The importance of professional development is even stressed by students in schools that have moved to standards-based grading. Noting the high level of inconsistencies, some students went as far as to offer that they believed teachers who did not have the right level of training in standards-based grading should be allowed to/made to opt out of implementation until they have had the needed training (Peters et al., 2017).

The importance of meaningful professional development around the shift to standards-based grading must be overlaid by the reality that only roughly half of the states require teachers to take any sort of assessment training (Stiggins, 1999 as cited by McMillian, 2003). And as individual teachers seek to make the change to standards-based grading when working in a district that is still using traditional grades, the professional development just isn't there. Generally speaking, most of a teacher's day is spent with students and not receiving training, and the professional development that is provided is often in one-off sessions scattered throughout the year with little to no connection nor follow-up.

Teacher Mindset

For individual teachers looking to make this shift, their mindset is most likely in a good place and committed to this work; however, by looking at the literature around whole schools or districts that have been required to make this shift, an exploration of the mindset of the resisters in those settings can shed light on another implementation challenge for the individual teacher looking to do this work: the perception of other teachers around the lack of validity associated with standards-based grading.

Two important insights on this shift and possible resistance teachers might meet from other teachers come from Townsley et al. (2019) when they quote school leaders that they interviewed. One shared that, “the culture in the building does not lend itself to a change to standards-based grading” while another shared, “I believe the biggest barrier to implementation of SBG is the mindset of teachers” (p. 289). If this is how school administrators are feeling, imagine the implementation challenges, pressure, and possible pushback that will come to the individual teacher seeking to make this shift in isolation. Percell and Meyer (2021) share a similar sentiment when they rank teacher buy-in as the biggest challenge for school administrators looking to shift to standards-based grading. They found that there are just so many teachers who firmly believe that reform efforts like this come and go, so there is no need to buy in, but again, this provides a challenge for the individual teacher seeking to do this work. The teaching profession is already an isolating one. So, being the only one to move forward with this shift only provides additional layers of isolation and possible sources of conflict with colleagues on the same team and/or in the same department.

Reactions from and Expectations of Families

Teachers are not only beholden to their students but also to their students' families, so it is important to explore the ways in which families have responded to the implementation of standards-based grading in schools/systems where this shift was required by all. These reactions typically have been one of two concerns:

1. Confusion and lack of understanding around how standards-based grading works.
2. Worry about preparation for and application to college.

Both factors are important for the individual teacher who is looking to make this shift to consider.

Traditional grades are called this for a reason, and as such, most students' family members have almost certainly been graded in this traditional way, with the 100-point scale, all grades averaged into one, and non-academic factors such as late penalties and extra credit. When teachers switch to standards-based grading, then, families are left confused as to why there is a change in that tradition and also how to navigate the new system (Townsend & Buckmiller, 2020). Additionally, when factors such as effort and homework completion are taken out of a grade, families are generally not happy and expect those factors to matter. This was echoed by Percell & Meyer (2021) who worried that when factors like doing homework are taken out of the grade, families were upset because there was no longer motivation for their students to complete the work. So, for the individual classroom teacher seeking to make this shift in isolation, communication with families will be an important part of this work.

Additionally, families are worried about how this shift might impact their student's college admission process. They are worried that university admission officers will struggle to

understand the students' transcripts. They fear that their students will have an unfair disadvantage when applying for admission (Peters & Buckmiller, 2014; Townsley, 2019). While there isn't much an individual teacher can do about this directly, odds are the individual teacher seeking to make this shift in a school that is requiring traditional grades will still be issuing some sort of traditional grade by the end of a marking period, and by doing so, they are working to ensure those transcripts are evaluated similarly by the universities (Townsley, 2019; Townsley et al., 2019).

The Contextual Reality

Despite mounting evidence and arguments for adopting standards-based grading, there are still barriers to implementation. Primary amongst them is that school districts still retain systems that give priority to traditional grading systems. This reality inhibits the professional development that individuals or groups of teachers interested in implementing standards-based grading have access to; districts are unlikely to sponsor professional learning related to standards-based grading if they are not implementing/requiring standards-based grading across the school/district. Why would a school or a district provide professional development on a concept that they are not supporting or requiring? However, the literature speaks the to reality that teachers interested in standards-based grading need professional development to deepen their knowledge about standards-based grading, to understand how to implement standards-based grading locally, and to build their capacity to do so in a system that is traditional in the assigning of grades. At the core of this sort of work is the reality that professional development is a factor that teachers should be engaging in throughout their career (Fishman, 2016), and even more so, should have a say in what and how that professional learning is delivered (Townsley et al.,

2019). More so, while research reveals that professional development should be ongoing and relevant to teachers' needs, only 23% of teachers surveyed felt that professional development was meeting their needs (Chung & Kim, 2010).

Because of this, online learning in the world of education has begun to take hold as a valuable learning tool for teachers, and this is why the research setting for this study is an online course. "Online learning allows options for selection of learning tools" (Elliott, 2017, p. 18). The use of online professional learning does "offer one promising direction for providing increased professional learning..." (Little & Housand, 2011, p. 19). In the case of trying to make a shift to standards-based grading in a system that does not require it, one benefit of online learning is that it can open up opportunities for collaboration for cohorts of teachers in different districts who are all trying to shift to standard-based grading (Elliott, 2017). Given the reality that a teacher attempting to move to standards-based grading when working in a school that assigned traditional grades might be (or probably is) doing this alone, this element of online learning is extremely valuable. Online professional development also provides two other forms of interaction in addition to student-to-student. Teachers who take these courses also have opportunities to interact with a teacher (if the course has some form of synchronicity to it) and with the content itself. And while it is just one study, 95% of teachers indicated that online learning directly impacted their learning and practices (Elliott, 2017).

There is Reason to Push Forward

Traditional grades as we know them are as deeply entrenched in education as just about any other practice and have been since the 1940s when schools shifted to them (Olson, 1995; Willis, 1977). They impact virtually all students across the country and are a fixture in students'

households given that the current students' parents also studied with the use of traditional grades. This system of grading is efficient and fast for teachers, supposedly clear and familiar to students and families, and works well to sort students into programs both in school and after graduation (Brookhart et al., 2018; McMillan, 2001). However, these traditional grades come with a series of flaws and challenges, such as including nonacademic factors, the use of a zero, and a 59-point range for failure, all of which create distorted pictures of what students actually know and can do and provide fewer pathways for student ownership, reflection, growth, and learning (Brookhart et al., 2016; McMillan, 2001; Townsley et al. 2019).

Standards-based grading, on the other hand, is an approach that separates out these nonacademic factors, creates clear pathways for narrative feedback for increased learning, and empowers students to take ownership of their learning (Knight & Cooper, 2019; Munoz & Guskey, 2015; Townsley & Buckmiller, 2020). This system of grading, while new in the landscape of the shift to traditional grades during the 1940s, had been used as far back as Plato and Aristotle (Feldman, 2019). While standard-based grading addresses the challenges and limitations of traditional grading, it does not come without its own challenges including the time it takes, the lack of professional development to support it, and a lack of technological support from current gradebook systems (Townsley, 2019; Townsley et al., 2018).

The literature is clear that the road to standards-based grading is both a step forward to creating more accurate and meaningful grade as well as more purposeful and intentional instruction; however, the literature is also clear that there is a myriad of challenges that might prevent teachers from making this change.

With all of these implementation challenges, it can be easy to see why an individual teacher might be hesitant, even if highly interested, in making this shift. However, an interview with a principal sharing their experiences making this shift (Peters & Buckmiller, 2014) as well as the overall conclusion of the Knight and Cooper (2019) study gives teachers hope. The principal of a school that uses standards-based grading shared that ““We can’t go back. Let’s say the Board just wiped this out and said we are not doing it anymore. Not only would I not be here, I...have teachers who would say, ‘I’m not going to teach in the system we previously did’” (Peters & Buckmiller, 2014, p. 17). Additionally, “Every participant believed SBG was more conducive to student learning than traditional grading, and most could not justify a return to the latter” (Knight & Cooper, 2019, p. 79). The road might be daunting, but the payoff is transformational.

Given the wide range of challenges facing teachers seeking to make this shift, targeted professional development courses are needed as a method of support and to provide a pathway to this change. While limited in number, these do exist; however, more information about the effectiveness of these courses is needed to best support teachers along this challenging journey toward implementation. The use of online learning provides one pathway for teachers to get the support, the knowledge, and the examples needed to make the shift to standards-based grading.

CHAPTER 3

THE EMPIRICAL STUDY

“The use of grades is one of the most sacred traditions in American education” (Olson, 1995, p. 24). This is a reality that faces not only teachers but all stakeholders on a daily basis. Some form of noting a student's progress with learning can be traced back as far as 1780 with even more historical examples from the work of Plato and Aristotle (Feldman, 2019). However, it wasn't until relatively recently that the concept of “traditional grades” (using a 100-point scale and assigning letter grades as most people know them) came to be. As public school enrollment rapidly increased in the 1940s and beyond, teachers became pressed for time given the number of students in their class, and as a means to train students to be compliant, schools switched from mastery-based feedback to what we now know as traditional grades (Townsley & Buckmiller, 2020; Willis, 1977).

However, these now traditional grades are flawed with regard to painting a clear and accurate picture of what a student knows and can do. Traditional grading systems take into account a wide range of factors other than just academic achievement (such as effort, participation, behavior, and extra credit) which leaves all stakeholders with a letter grade that does not accurately reflect what the student knows or can do (Brookhart et al., 2016; McMillan, 2001; Townsley et al., 2019). In addition, because of the 100-point scale having a 59-point floor for the F letter grade, assigning a zero for work, and the averaging of assignments into a single mark, a letter grade offers no insight into what was actually learned and what wasn't, making it

hard for all involved to know what a student can do and where they still need to grow (Guskey & Jung, 2006; Peters & Buckmiller, 2014).

As a result, there are some teachers and schools who are using standards-based grading, which actually is a return to the mastery-oriented approach that this country (and beyond) had used for centuries prior to the change in the 1940s (Willis, 1977). At the core of this approach is the fact that a “grade” is replaced with specific feedback on what a student can or cannot do based on each standard of a course (Brookhart, 2011). In a standards-based grading system, non-academic factors such as effort, participation, timeliness, and extra credit are removed in favor of specific academic feedback (Guskey & Jung, 2006). For those teachers who still want to record these non-academic factors, there is a way to conceptualize that in a standards-based grading system. Teachers can provide feedback on a student's products, progress, and process, and by splitting these three very different factors into individual categories with mastery-based feedback, all stakeholders have a sense of what a student knows and can do as well as how hard they are working and if they are improving (Muñoz & Guskey, 2015).

While it sounds good in theory, standards-based grading comes with its challenges that can and do prevent schools and individual teachers from making this change. Most importantly, standards-based grading is time and labor-intensive, much more so than assigning a percentage or letter grade to a student's work, and is the biggest factor preventing this shift from occurring (Peters & Buckmiller, 2014; Schneider & Hutt, 2014). Additionally, given the fact that traditional grades have been used since the 1940s, all families with students in public schools today have themselves gone through a schooling experience in which traditional grades were used. As such, one big obstacle with standards-based grading is the lift of educating all

stakeholders, students and families in particular, as to what standards-based grading is and what a phrase such as “approaching mastery” means (Townasley & Buckmiller, 2020). And for teachers who want to make this shift and are committed to the extra time and have found ways to communicate with their students and families, there are still two massive challenges: the actual gradebook programs most districts use and the lack of training/professional development (Percell & Meyer, 2021). “One of the most pedestrian – yet daunting and universal – challenges to effective and comprehensive standards-based reporting is that grading software and related online student information systems have not yet sufficiently evolved to accommodate SBG” (Peters & Buckmiller, 2014, p. 14). This barrier only compounds the previously discussed issues of time and clarity with stakeholders. Yet, there are still teachers willing to push forward, but they are not getting the professional development they want to make this change. Teachers will not make changes, be it standards-based grading or anything else, if the concept is only presented as “general principles that leave the task of translating them into everyday practice entirely up to the teachers” (Black & William, 1998, p. 10).

Additionally, for teachers working in a school that requires traditional grading, there is a lack of professional development around making a shift to standards-based grading. Any teacher looking to make a change in practice will not follow through with the change if there is not sufficient professional development and examples of how this change plays out in the classroom (Black & William, 1998). Because of this contradiction, teachers need professional development to make a change in practice but the absence of professional development for those seeking to change to standards-based grading in a system that is still using traditional grades, “Online learning allows options for selection of learning tools” (Elliott, 2017, p. 18). The use of online

professional learning does “offer one promising direction for providing increased professional learning.” (Little & Housand, 2011, p. 19).

Despite these challenges, the teachers who have made this shift are very clear and deliberate about the results: it is perceived as a better system for improved learning (Knight & Cooper, 2019; Scriffiny, 2008; Vanhala, 2020). These specific teachers (Cooper, Scriffiny, and Vanhala) have all made and written about this change, and each notes improvements in not only the feedback their students receive but also improved planning and better assessments. In fact, one principal who helped lead this shift in their building shared, “We can’t go back. Let’s say the Board just wiped this out and said we are not doing it anymore. Not only would I not be there, I...have teachers who would say, ‘I’m not going to teach in this system we previously did’” (Peters & Buckmiller, 2014, p. 17). Additionally, the study done by Knight and Cooper (2019) concluded, “every participant believed SBG was more conducive to student learning than traditional grading, and most could not justify a return to the latter” (p. 79).

Problem Statement

Traditional grades, while efficient for teachers, are flawed with regard to providing stakeholders with a clear and accurate picture of what a student knows and can do (O’Connor et al., 2018). However, many teachers who are interested in standards-based grading work in schools in which traditional grades are required. This creates implementation barriers for those teachers that prevent them from moving their practice into a standards-based grading learning environment. There is limited research on whether asynchronous PD can alter practice generally, and none has been found that examines if asynchronous PD can impact practice around SBG.

Research Questions

1. What is the impact of a one-credit, asynchronous professional development course on educators' knowledge of the key concepts of standards-based grading?
 - 1a. What, if any, variation existed in increasing educators' knowledge related to the key concepts of standard-based grading?
 - 1b. What gaps remained in educators' knowledge of the concepts behind standards-based grading?
 - 1c. What factors were identified by these educators as impacting their learning of the key concepts of standards-based grading?

This first set of questions attempted to understand if a one-credit, asynchronous professional development course can improve the foundational knowledge base related to standards-based grading. Any change in practice, especially one as big as a shift in assessment practices that differs from what the school expects, a certain level of foundational knowledge is needed, and that is what question one attempts to better understand about the effectiveness of the course. Without a firm understanding of the concepts, implementation is unlikely and/or could be done in ways that are unsuccessful and therefore frustrate the teacher and other stakeholders.

2. What impact does a one-credit, asynchronous professional development course have on educators' ability to actually shift their practice to standards-based grading despite working in a school that uses traditional grading systems?
 - 2a. What areas of implementation did educators report feeling confident about?
 - 2b. What areas of implementation did educators report having gaps with regard to making this shift?

2c. What factors were identified by educators as influencing their confidence in implementing standards-based grading?

This second set of questions attempted to uncover to what extent this course and the knowledge gained from it actually led to changes in practice for educators. It is one thing for a course to provide foundational knowledge to support educators' learning, but it is another thing to have that knowledge gain lead to changes in practice; these questions attempted to ascertain to what extent, if any, that actually occurred.

Methodology

The design of this mixed-methods study revolved around an asynchronous, graduate-level, online professional development course that has been created for and is offered by Novak Educational Consulting. This course currently provides educators the opportunity to learn more about standards-based grading implementation. It is three modules in length: "The What and Why of SBG," "SBG in Practice," and "Now What?" This study consisted of three distinct data collection phases and utilized three overlapping yet unique surveys. The first instrument attempted to gain a baseline understanding of participants' knowledge of standards-based grading as they entered the course. It was a brief, five-question quantitative survey that asked questions about the key concepts of standards-based grading. Next, there was a post-course survey that asked the same five knowledge-based questions as well as two open-ended qualitative questions about the overall design of the course itself. Once this pre- and post-course data was collected, it was analyzed using an open-coding process to identify emerging themes for further investigation during the third phase of data collection. As such, the third instrument was a post, post-course survey that had both quantitative and qualitative questions. The quantitative questions were three

of the five previously asked knowledge-based questions and focused on understanding the longer-term retention of knowledge developed from the course. The qualitative data attempted to better understand the course's impact on the implementation of standards-based grading as well as to identify any new themes related to course improvement.

Research Setting and Population

The professional development course offered by Novak Education is the research setting for this study, and it is important to understand Novak Education as a company, how its courses are designed and marketed, and who typically enrolls in them. Novak Education Consulting is an international educational consulting firm with a primary focus on equitable and inclusive practices. Under that umbrella, Universal Design for Learning is the most sought-after and delivered professional development offering and online course. Workshops and courses in leading equity work, standards-based grading, social-emotional learning, deeper learning, literacy work, and more are offered. Novak Education consultants work in a variety of ways. There are workshops (which can range from an hour to a full day to a series of days), webinars, study series, professional learning communities, and on-site coaching for leaders and/or teachers. Additionally, Novak Education designs its own synchronous and asynchronous online professional development courses and partners with colleges and universities to offer graduate credit for these. Courses offered through Novak Education are open to anyone who wants to take them and can afford the registration cost.

The standards-based grading course which is the focus of this study, is an asynchronous, professional development course offered within the above framework of the Novak Education organization. This course, "Standards-Based Grading for All," is a ten-hour course with a

registration fee of \$50. Successful completion earns a participant ten professional development credits, and there are two additional options. One, participants can choose to do a comprehensive final project for an additional five professional development credits. Two, they can choose to pay an additional \$75 dollars to register with a partnering college to earn one graduate credit.

The course itself is designed with the aim of providing knowledge about what standards-based grading is and why it is a better choice for assessing students. From there, it attempts to provide participants with examples and pathways for implementation with the hope of changing practice. The final project gives them options, but at the core, it asks them to act with regard to changing their own practice and/or the practice in their setting (if they are administrators).

The participants in this study are educators who have signed up and completed the course. Their roles vary and include classroom teachers, administrators, instructional coaches, and department chairs, and come from all grade levels. There really are no inclusionary nor exclusionary criteria for this study. The sample is simply any educator who signed up for and completed the course. No educator who signed up for and completed the course was excluded for any factor such as their role in education or geographic location.

Given that I am both the creator of this course and using it as a research setting with the goal of ascertaining the course's effectiveness in increasing knowledge and implementation changes, it is worth noting my role as a scholarly practitioner in this work. "Scholarship emanates from curiosity, a love of learning, an appreciation of complexity, a tolerance for ambiguity, and a relentless need to make sense of one's experience" (Piantanida et al., 2019, p. 17). In addition to being the course designer and researcher, the class I teach at the high school level uses standards-based grading, and I have made this change to standards-based grading. This

work is truly a love of learning for me yet is also grounded in the fact that learning is experiential, relational, situated, and recursive; I learn from and with others, explore different vantage points, and my learning “continues far beyond the end of a particular course, semester, or academic program” (Piantanida et al., 2019, p. 21). In short, the aim of this study is not to prove that the course I designed is “working”, but instead, to find ways to improve it to best support all teachers in making this shift, especially given the various and numerous challenges associated with moving to standards-based grading when working in a traditional grading system. The study uses systematic inquiry to examine the impact the course had on key learning goals, identify aspects for further improvement, and learn from participants what additional improvements could lead to course improvement.

Sampling, Strategy, and Sample

This study had two different sampling methods, and, as a result, two different samples. The first revolved around the pre- and post-course survey. All participants who signed up for and finished this course were required to complete these two surveys. Therefore, that sampling strategy was forced. From there, though, there was a post, post-course survey which was emailed to anyone who had completed this course, and therefore, was optional to complete. 94 educators completed the pre- and post-course survey (the forced sampling) and 14 completed the post, post-course survey (the optional sampling). There was no demographic information collected from the forced sample; for those who completed the post, post-course survey, information related to their professional position was collected.

Data Collection and Methods

Survey data was collected at three distinct points during the course: at the beginning (pre), immediately after completing the course (post), and then a follow-up survey after completing the course (post-post) which was a required part of the final module. By having three data collection time points at the beginning, end, and after the course, changes in participants' knowledge and their knowledge retention can be explored. The data collected from the pre- and post-course surveys served to inform the design of the third survey (post-post). The follow-up survey (post-post) allowed participants to reflect on the course after some time had passed to better capture opportunities to improve the course.

The first instrument was a survey focused on identifying the baseline level of knowledge about standards-based grading amongst the participants as they enrolled in the course. At the beginning of the course, participants were asked to fill out a pre-course survey consisting of five statements designed to assess participants' current knowledge of standards-based grading. Participants who are part of this study completed the first survey anywhere between March 2022 and March 2023 because of the rolling, open-enrollment nature of the course.

Those questions are as follows with response options of “agree”, “disagree”, or “unsure.”

1. Standards-based grading measures a student's progress relative to specific and clearly defined learning standards. (correct answer = agree)
2. When using standards-based grading, traditional letter grades are no longer used. (correct answer = disagree)

3. Standard-based grading completely removes behavioral and non-academic factors from student achievement and mastery. (correct answer = agree)
4. Standards-based grading allows teachers to better plan targeted instruction than traditional assessment practices. (correct answer = agree)
5. Standards-based grading is the grading system that is best for student learning. (correct answer = agree)

These questions attempt to capture participants' baseline knowledge of the key concepts of standards-based grading. They focus on the areas in which standards-based grading is most different from traditional grading as well as the ways in which standards-based grading impacts more aspects of the classroom than just the grading process.

The second survey instrument contained both quantitative and qualitative data which captured standards-based grading knowledge and perceptions about the quality of the course itself. The survey was administered to participants upon completion of the course which also ranged from March 2022 to March 2023. It asked the same five knowledge-based questions as the pre-course survey. The results were analyzed using a simple comparative analysis of the pre-course survey. Additionally, it asked three quantitative questions with response options on a six-point scale in which six was "strongly agree" and one was "strongly disagree." Those questions were:

1. The content was engaging and helped me better understand the concepts and topics covered in each module.
2. I was provided with opportunities to reflect on my learning and think about what I need to work on to be a better educator.

3. I would recommend this course to colleagues.

It is important to note here that questions number one and two are double-barreled in nature and could lead to data that lack clarity around the actual design of the course. For example, a participant could have found the content engaging but not have gained a deeper understanding of the concepts or found the content not very engaging but still useful for learning; however, that would be impossible to parcel out given the nature of the question. This is an unavoidable limitation of this study because those questions were designed by Novak Education as a company and are used for all of their online courses (of which there are many). And yet, each of these questions provides information about participants' satisfaction with key elements of this course. The first speaks to whether the course provided exposure to and understanding of the various concepts and topics associated with standards-based grading. The second captures participant's perceptions about whether the course met their needs for reflection which is a key facet of successful professional development. Together, these three questions provide information on participants' overall satisfaction with the course.

Additionally, this post-course survey had two qualitative, open-ended questions.

1. What did you like best about this course?
2. How could we make this course better? Think "It would be cool if."

These two questions provided insight into the overall design of the course and allowed participants to share what worked and what was missing or could be improved. The open-ended nature of these questions allowed participants to share their thoughts, without selecting from a forced set of options. The results from these questions were very important in the creation of the third instrument, the post, post-course survey.

The third instrument was the post, post-course implementation survey which was designed by me specifically for this study and is not standard to Novak Education. This survey was sent to those individuals who completed the course to gauge the impact the course had on creating change to their assessment practices. It was sent in May of 2023, and participants had a two-week window to complete the survey. Given that demographic information wasn't collected in the first two surveys, this post, post-course survey started by asking participants to identify their role in education and the grade level in which they work. From there, it repeated some of the knowledge-based questions from the pre- and post-course survey: questions one, two, and four:

1. Standards-based grading measures a student's progress relative to specific and clearly defined learning standards.
2. When using standards-based grading, traditional letter grades are no longer used.
3. Standards-based grading allows teachers to better plan targeted instruction than traditional assessment practices.

The choice to only use these three questions as opposed to all five was two-fold. First, it was deliberate to keep the length of this post, post-survey manageable, and second, after analyzing the results of the pre- and post-course surveys, these three questions stood out as the place of importance that needed to be addressed for two different reasons. The first question is the most foundational of the knowledge questions, so it was important to determine if that knowledge was held after the course ended. The second and third questions (questions two and four from the pre- and post-course survey) were important because they were knowledge-based but more directly

tied to the implementation work, a measurement of which was ultimately the aim of the post, post-course survey.

After asking these questions, this instrument focused on the impact the course had on implementation as well as other contextual factors that impact implementation. It asked these three questions using a six-point scale with six being “greatly” and one being “not at all”:

1. Given your current professional setting and context, how confident are you in implementing standards-based grading?
2. If you were working in the ideal professional setting and context, how confident are you in implementing standards-based grading?
3. Since you completed the course, have your assessment practices changed towards standards-based grading? Please explain your answer.

From there, this survey asked two questions about the course design itself. The first question asked about what additional support participants would have found valuable. The second focused on whether participants wanted human interaction.

1. Looking back now that you have had some time since the completion of the course, what supports (e.g., example implementation plans, sample SBG templates, evidence about the effectiveness of SBG, etc.) do you wish this course had offered?
2. Feedback from the exit survey of this virtual course suggested that many people wished that this course had human interaction. Would you have preferred human interaction (synchronous meetings with others, office hours with the instructor, more interaction on the discussion board, etc.)? If so, in what way(s) and why?

The last section of this post, post-course survey was designed to try to better understand what sort of options and offerings helped support the participants as well as what else they might have found valuable. This section listed six elements of professional development and asked participants two questions: “Would you be interested in X?” and “Would you pay extra for X?” with a “yes” or “no” for each question. Those six elements were:

1. Synchronous meetings with others enrolled in the course
2. Instructor/course designer office hours
3. 1:1 coaching session with the course designer
4. Taking the course as a cohort to increase the use of the discussion boards
5. More modules and resources
6. More credit hours/time with it

While responses to these questions will be discussed more in the data analysis and results sections, it is worth noting here that the post, post-course survey questions were created as a result of an open-coding of the responses from the pre- and post-course surveys, using that data to drive the creation of the post, post-course questions.

The sets of qualitative data, which included open-ended survey questions at the end of the course and in the post, post-course survey were analyzed using open coding. The codes that emerged with the post-course and post, post-course survey really fell into two categories: strengths of the course and what is missing from the course, not surprising that these two themes emerged given the nature of the questions asked and the focus on what was working and what they wished the course had. From there, codes emerged in both of those categories: physical

resources, human resources, and overall design elements. Participants spoke about the strengths and weaknesses of the course in those three ways.

The quantitative data was analyzed using a simple comparative analysis by which the responses from the pre- and post-course survey were compared on all five questions.

Additionally, the responses for the three knowledge-based questions that were on the post, post-course survey were also then added to the comparative analysis.

Data Analysis Plan

In an effort to answer research question number one, quantitative data from all three surveys was analyzed. The first step was to examine if more participants responded correctly to the knowledge questions pre- to post-course survey. Each of these three questions had a correct answer. The next step was to see how the knowledge was held by comparing the knowledge questions from the post-course survey to the post, post-course survey. For research questions 1b and 1c the open-ended questions on the post-course and post, post-course surveys were analyzed using open-coding (inductive approach) in an attempt to uncover any themes that emerged from the data, and those themes were compared to the quantitative data to examine to what extent these data sets confirmed and or challenged one another and/or added additional nuances to the overall exploration of these research questions.

To answer research question two, the quantitative data gathered from the post, post-course survey was examined to get a sense of how many of the participants had a change in practice after completion of the course. There was no data set for comparison; it was simply a look at how many participants self-reported any sort of change in practice. For research questions 2a and 2b, the open-ended, qualitative data from the post, post-course survey was

analyzed using an open-coding approach. After the qualitative question about a shift in practice, participants were asked to explain their answer in an open-ended question, so that data was analyzed in an effort to answer questions 2a and 2b. Finally, for question 2c, the series of questions around what else participants wanted and if they would pay for these extra items were comparatively analyzed to see to what extent what people wanted additions to the course matched or didn't match with if they would pay extra for it.

Results

Information about the respondents themselves was only collected in the post-post survey. Of the 14 respondents to the post-post survey, there were 11 teachers and 3 instructional coaches. Of those, six individuals worked in K-5, three worked in grades 6-8, four worked in grades 9-12, and one individual worked in grades K-12. Since the pre- and post-course surveys were required as part of the modules within the course and this study only used participants who had finished the course, the number of participants in those two surveys was 74.

The results of the three surveys are discussed below. First, the quantitative data around knowledge acquisition and retention are explored. From there the quantitative and qualitative data around implementation and changes in practice are discussed. Then, the data around the course design and what participants wanted and were or were not willing to pay for is explored.

Content-Specific Knowledge Change

To begin, quantitatively, this course is, overall, working on foundational knowledge acquisition around standards-based grading. Each of these questions had a correct answer which is how the series of surveys is attempting to measure knowledge gain and retention. Each

question had the response options of “agree”, “disagree”, or “unsure.” Questions one, three, four, and five all have a correct answer of “agree” with question number two having a correct answer of “disagree.”

From the pre- to post-course survey, all five questions revealed growth in participants’ knowledge of the key elements and concepts of standards-based grading. Additionally, of the three questions asked again via the post, post-course survey, two of the three showed not only retention but growth; that said, question number four did show a slight regression in knowledge retention.

For questions one and four, the positive changes from pre to post were not significant which is not surprising given the high level in the initial percent correct. However, for questions two, three, and five, the growth was significant overall growth at the .000 level for pre to post. This data is displayed in Table 2.

There were similar patterns when the data was disaggregated to only the group of 14 who completed all three surveys (Table 3). Growth occurred on question two from pre to post (statistically significant at the .000 level) and pre to post-post (significant at the .004). Knowledge was maintained from questions one and four as the differences in percentage correct were not statistically significant for Q4.

Factors Related to Participants’ Learning

There were a few themes that emerged from the open coding of the open-ended questions, and the most prominent of these was the way in which their experience with the course and actual learning was impacted by two types of resources: human resources and physical resources. In this study, human resources are defined as elements such as office hours

with the instructor, individual coaching, regular use of a discussion board, or ongoing feedback on participants' learning throughout the course. Physical resources include elements such as more examples, and more modules/opportunities for learning.

Table 2

Responses to Knowledge-Based Questions in the Three Surveys

Standards-Based Knowledge Question	Pre		Post		Post-post	
	N	% Correct	N	% Correct	N	% Correct
Question 1: Standards-based grading measures a student's progress relative to specific and clearly defined learning standards. (correct answer = agree)	74	93.6	74	98.4	14	100
Question 2: When using standards-based grading, traditional letter grades are no longer used. (correct answer = disagree)	74	31.9	74	60.7	14	64.3
Question 3: Standard-based grading completely removes behavioral and non-academic factors from student achievement and mastery. (correct answer = agree_)	74	58.5	74	78.7	n/a	n/a
Question 4: Standards-based grading allows teachers to better plan targeted instruction than traditional assessment practices. (correct answer = agree)	74	93.6	74	96.7	14	92.9
Question 5: Standards-based grading is the grading system that is best for student learning. (correct answer = agree)	74	59.6	74	88.5	n/a	n/a

Table 3

Responses to Knowledge-Based Questions for Those Who Completed Three Surveys

Standards-Based Knowledge Question	Pre		Post		Post-post	
	N	% Correct	N	% Correct	N	% Correct
Question 1: Standards-based grading measures a student's progress relative to specific and clearly defined learning standards.	14	100	14	100	14	100
Question 2: When using standards-based grading, traditional letter grades are no longer used.	14	21.4	14	78.6	14	64.3
Question 4: Standards-based grading allows teachers to better plan targeted instruction than traditional assessment practices.	14	100	14	100	14	92.9

Human Resources Impact on Learning

Data about human resources came from open-ended questions on course design as well as close-ended questions in which human resources were defined for participants as office hours with the instructor, individual coaching, regular use of the discussion board, and ongoing feedback from the instructor. Here, the introduction videos at the start of each module were the center of the human resources that impacted participant learning, and even these videos are probably best labeled as human touches as they don't fully create human interaction in the ways that traditional or synchronous professional development can. The introduction videos at the start of each module were identified by participants as being the core human resource that impacted their learning. As one participant noted, "The opening videos to each module made me feel

connected to the course and the material and centered my learning experience in the stories that were shared.” The most sought-after human resource to improve their learning was ongoing feedback from the instructor which was flagged by seven of the 14 in the post, post-course survey and 35 of the 74 in the post-course design questions. Currently, the only point of instructor feedback is when they complete the final project, but one theme was to get feedback from the course designer throughout the process as that would be useful to guide their learning throughout as opposed to just at the end. While there was a desire from participants to include some version of additional forms of human resources to aid in their learning, there was minimal willingness to pay extra for additional human resources. Clearly, one perceived limitation of the course is the provision of human resources in an asynchronous environment without an increase in the cost of the course.

Physical Resources Impact on Learning

Participants deeply valued the physical resources provided, and yet, they wanted more. To begin, one of the most consistent themes that emerged from the surveys was that the actual physical resources available in the asynchronous learning environment were valued and noted as a factor in helping improve participants' learning. In the post-course, 74% of respondents noted the value of the recourse and 85% noted their value in the post, post-course survey. One participant noted that “the fact that I could do this learning and work through these modules on my own time and at my own pace yet still interact with such great recourses was key to my experience.” Yet, the resources are also a place for improvement. Participants consistently expressed a need for more examples of standards-based grading in practice. In the post-course

survey, 54% of participants shared that it would have been helpful to have more resources. This is very much worth nothing given that the resources provided were stated as having a positive impact on participants' learning, and yet, they were left wanting more examples within those resources.

Factors Related to Participants' Implementation

After analyzing the quantitative and qualitative data gathered from the post, post-course survey, it became clear, again, that the themes that emerged were centered around the ways in which the human resources and physical resources did or did not enhance learning as well as what participants wished was present.

Human Resources Impact on Implementation

The themes that emerged here were actually similar to the ways in which human resources impacted knowledge gains. Given that the only human interaction occurred through the intro videos for each module, those, again, stood out as something participants valued. Specific to implementation, the theme that emerged revolved around being able to hear tangible stories of standards-based grading implementation from the course designer (me). On the other hand, some wished they had the chance to bounce ideas off others in some form, be it a discussion board or actual synchronous meet-ups.

Perhaps the biggest takeaway here is how, overall, participants were not willing to pay extra for any additional human resources even when they identified them as something that would be useful for their learning and overall implementation of standards-based grading (Table 4). That is worth noting, too given the fact that all participants, in some form, greatly valued the

asynchronous nature of the course. So, there is a contradiction here inasmuch as there is a desire to take an asynchronous course and yet want human resources to help with implementation.

Table 4

Post, Post-Course Survey Desire for Additional Human Resources

Human Resource Options	N	# Interested	# Willing to Pay Extra
Synchronous meeting with others enrolled in this class	14	4	0
Instructor/course designer office hours	14	8	2
1:1 coaching session with the course designer at the completion of and/or at some point during the course	14	5	2
Taking it as a cohort to increase conversations on the discussion board	14	9	2

Physical Resources Impact on Implementation

The most prominent themes here mirror the physical resource themes with regard to learning (Table 5). That is, the models and resources were very helpful, and yet, “I want more examples,” according to one respondent, specifically.

Table 5

Post, Post-Course Responses for Physical Resources

Physical Resource Options	N	# Interested	# Willing to Pay Extra
More modules and/or resources	14	10	3
More course/credit hours	14	4	3

It is clear that teachers want more examples, and more models to help them see how this actually plays out in practice so that they can best implement it in their classrooms. Additionally, in the post-course survey, this emerged as well with 60 of the 74 respondents making some sort of reference to wanting more examples in the open-ended question about what else they would have wanted. Knowledge gain is one thing, and yet, there is a difference between knowledge gain and confidence to implement such a massive change, and the biggest theme around physical resources was the need for more examples to help with implementation.

Course Design Implications

Both the post-course survey and the post, post-course survey asked participants about the design of the course, what worked and what didn't, as well as if they were interested in a variety of add-ons. The first question asked, "Looking back now that you have had some time since the completion of the course, what supports (e.g., example implementation plans, sample SBG templates, evidence about the effectiveness of SBG, etc.) do you wish this course had offered?" The second one asked, "Feedback from the exit survey of this virtual course suggested that many people wished that this course had human interaction. Would you have preferred human interaction (synchronous meetings with others, office hours with the instructor, more interaction on the discussion board, etc.)? If so, in what way(s) and why?" These two questions were asked separately, without the ability for participants to go back and edit the responses to the first question based on the ask of the second question. And yet, they revealed very similar themes. These fall into three categories. First and foremost, participants wanted more examples/models of standards-based grading in practice. As mentioned above, in the post-course survey, 60 out of 74 respondents made some sort of reference to wanting more examples of standards-based

grading in practice as well as 10 out of the 14 in the post, post-course survey. Second, there was a need for some sort of human interaction. In the post-course survey, 50 out of the 74 made some reference to this in the open-responses questions. Some wanted actual office hours with the course designer, others wanted a more robust discussion board. There were also some who wanted individual coaching and some who wanted more human feedback on their learning and products along the way.

Discussion

The findings of this study fall into two categories. First, there are findings around what educators do or don't need from professional development in order to make the shift from traditional grades to standards-based grading when working in a traditional grading system. Second, and unexpectedly, there are possible insights gained around the overall design and implementation of asynchronous online learning for educators.

Research question number one and its sub-questions attempted to better understand educators' knowledge gained from this course. There are two areas in which this course is doing great work to help educators with their knowledge base on standards-based grading and one area in which the course needs improvement to better support educators' knowledge.

The pre- and post-course survey questions that asked participants to wrestle with the statement, "Standard-based grading completely removes behavioral and non-academic factors from student achievement and mastery" showed great knowledge gains during the course. Pre-course, 58.5% agreed, 22.3% disagreed, and 19.1% were unsure. In the post-course survey, 78.7% agreed, 16.4% disagreed, and 4.9% were unsure. A knowledge gain of nearly a 20-point gain in agreement with this statement supports that the course is helping educators understand

this key component of standards-based grading. The foundational knowledge assessed in this question is essential to this shift. Muñoz and Guskey (2015) speak to this in their work around supporting teachers in moving to standards-based grading. They advocate for a separation of feedback into the buckets of product, process, and progress. The fact that his course is helping teachers understand this fundamental concept is extremely valuable for educators if/when making this transition.

The next knowledge gained from this course that stands out is around the question which asked, “Standards-based grading is the grading system that is best for student learning.” Pre-course, 59.6% agreed, 3.2% disagreed, and 37.2 were unsure. In the post-course survey, 88.5% agreed, 3.3% disagreed, and 8.2% were unsure. While this question may read as more of a dispositional question, there is a level of foundational knowledge needed to get teachers to shift their disposition on a change as big as standards-based grading. To see a nearly 30% increase in teachers who now agree that standards-based grading is best for students' learning is huge. Even more so, the fact that the “unsure” response moved from 37.2% down to only 8.2% is an indication, especially since the percentage that disagreed didn’t change, that this course did help change teachers’ mindsets around the value of standards-based grading. There are other educators who have made this shift and written about it, and they speak to this reality as well with all three of their pieces sharing that one of the biggest takeaways from the shift to standards-based grading is an overall improvement in student learning (Knight & Cooper, 2019; Scriffiny, 2008; Vanhala, 2020).

Despite these areas in which the knowledge gained from this course is working, there is one big area for growth in the ways that this course increases knowledge for those who take it.

The question that asked, “When using standards-based grading, traditional letter grades are no longer used” did not seem to create the knowledge that the course hoped it would. The correct answer here would be to disagree as there are ways for educators to use standards-based grading and still assign a traditional letter grade. For this question post, post-course, 64.3% disagreed, 28.6 agreed, and 7.1% were unsure. It is important to note that this survey question was not clear in its design and response options, and as such, the data might be skewed by that reality; however, even as such, this is an extremely important finding. This is especially important given the aim of this study since the hope is to support teachers who want to use standards-based grading but work in a traditional grading system. Given that professional context and reality, they will still need to, at some point throughout or at the end of the semester, assign a letter grade. Clearly, this course does not do enough to help educators see that one can use standards-based grading throughout the school year and still convert it to a traditional grade at the end of a marking period.

Research question number two and its sub-questions sought to see if the design of the asynchronous course helped prepare teachers to implement a change to standards-based grading. The results here are mixed for a variety of reasons including context and role in education. Overall, the course does help educators feel prepared to make from traditional grades to standards-based grading; however, it was clear that educators felt more prepared to make the shift if they worked in the ideal professional setting and context than their current reality. Of course, an asynchronous course cannot change an educator’s professional setting and context; however, the data shared around the role of professional context when making a shift to standards-based grading does shed light on the importance of workplace culture in supporting

teachers' desire and ability to enact change. The literature speaks to this in a wide range of ways, too. There are macro-level challenges that prevent this sort of change from happening (Townsend et al., 2019). After taking this course, 78.6% of teachers feel they could make this shift in the ideal context compared to 50% feeling confident to make this shift in their current setting. That said, educators who took this course did feel as if the course provided them with the resources, research, and examples to enact change. No educator who took this class indicated that their practices did not change. Everyone in the post, post-course survey indicated at least some level of change. There is hope, therefore, that the design of this course and its content is useful; however, there is a need to consider how to factor in navigating contextual factors when improving the course.

Embedded throughout both research questions and the sub questions were an attempt to uncover what aspects of this course were not working and/or what was missing to help support teachers in the shift to standards-based grading. Data was gathered in both the post-course survey and the post, post-course survey. The biggest takeaway from the data gathered is that teachers want more examples of what standards-based grading can/does look like. Knowing this is encouraging because it means teachers want to do the work, and yet, they do not feel as if they have the examples and models needed to change. As the literature suggests,

Teachers will not take up new ideas that sound attractive, no matter how extensive the research base, if the ideas are presented as general principles that leave the task of translating them into everyday practice entirely up to the teachers. (Black & William, 1998, p. 10)

It is important to note here that this course has a wide range of examples embedded throughout, yet, most of the educators who took the course left some feedback in one or both of the post-surveys that indicated they wanted more examples. Additionally, three of the course

participants noted in the post, post-course survey that while there were a lot of examples, there were more examples from high school classes than from middle school and elementary classes. This is valuable to learn but also poses a challenge because any course can only provide so many examples, and also, standards-based grading doesn't have one "right" answer, especially when making the shift as an individual teacher working in a traditional grading school. However, adding more examples is something that will be done (and discussed in paper three) because adding more examples is possible.

While not the direct aim of this study, there are findings that emerged around the course design that might be useful for future research on and/or begin to speak to online, asynchronous professional development overall. One factor of the course that almost everyone spoke to in the post-course surveys was that they loved the ability to work at their own pace. This is both useful as a data point and also biased in nature. Given that people signed up for this course knowing it was asynchronous means they, in some form, came to the course with a bias for this sort of learning, and still, that was the biggest theme that emerged as a strength of the course.

Additionally, just about everyone who took the post, post-course survey would have preferred some sort of human interaction; however, the type of human interaction varied greatly, and most people indicated that they would not have been willing to pay more for that interaction. This leaves designers of asynchronous professional development in a challenging spot, but this information is valuable for future research around asynchronous PD.

Limitations

This implementation study carries a variety of limitations. The first and perhaps most significant limitation of this study could be my dual role as both the course designer of the

research setting and the researcher examining that same setting. Additionally, my role as a practicing high school teacher who uses standards-based grading in a traditional grading system could be seen as a bias as well. To this later point, however, the focus of this study was never to prove if standards-based grading is better or “works”; it is an implementation study designed to help improve professional development to support teachers in this work, and as such, my role as a classroom teacher provides practical insight into the work. However, being both the course designer and the researcher of that course does bring with it possible limitations. One could ask if, given this duality of roles, the analysis of the feedback was reviewed with an open mind or if the bias as the course designer simply looked for ways to prove that this course is working. There is no way to avoid this possible perceived bias, and as such, much time was spent discussing the ways in which this course can improve.

There are two limitations to the data itself. First of all, all data were gathered with tools that were not researched-based, per se. All questions asked were created by Novak Education for the overall purpose of gathering feedback on their courses not for the purpose of a dissertation study such as this. Plus, when it comes to surveys such as this, all data is self-reported and therefore carries with it the possibility of bias and a reliance on perception data. Additionally, the response rates for the different phases of data collection vary greatly. Given that only 14 people completed the post, post-course survey, the knowledge retention data collected as well as the implementation data comes from a rather small sample size compared to the pre- and post-course surveys. Also, the post, post-course survey was optional, so it is likely that the only participants who filled it out either loved or hated this course.

The final and somewhat minor limitation is the double-barreled nature of two of the post-course design questions in the survey. In asking if the content was both “engaging” and “helpful to learning” in the same question, the data gathered does not delineate these two different concepts. One could engage in a course without learning much as well as not be very engaged but still learn. So, it is hard to parcel out these two factors given the nature of the question asked. The second question that is double-barreled is the second post-course design question which asked if there were “opportunities to reflect on the learning” and chances to “think about what I need to work on to be a better educator.” While similar, these are not the same, and as such, again, it is hard to fully understand the effectiveness of the course to do either of these individually. As discussed previously, these questions are standard to all Novak Education courses, and as such, were an unavoidable part of this implementation study. One place for improvement would be in the design of this post-course survey to ensure that the questions asked are not double-barreled and allow participants to provide feedback specifically to each aspect of the course.

Conclusions

The conclusions from this study fall into two categories: the professional development needed to make the change to standards-based grading and the implications for improved asynchronous learning as a whole. While the latter was never the aim of this study, it is worth discussing and encouraging future research around asynchronous professional development.

When it comes to the teachers who work in situations in which they have to give traditional grades but are attempting or wanting to make the shift to standards-based grading, this professional development course is helpful for them, and yet, they are still craving more

examples to best support their shift. Of course, there are only so many examples that can be provided, so additional work (which will be addressed in paper three) should be considered around ways to better support teachers in their ability to use examples that might not directly relate to their grade level and/or content. This skill, as much as the examples themselves, might be the most important aspect of this study. Teachers do not inherently see the ways in which examples and models that do not directly apply to their content and/or grade level can apply to their work. More work should be considered in this lane.

As for the unexpected learnings around asynchronous professional development, it seems as if educators do want some sort of human interaction, be it discussion boards, office hours, individual coaching, instructor feedback, or synchronous sessions. Almost everyone who took this course praised the asynchronous nature of it and the ability to work at their own pace yet still also indicated a desire for some form of human interaction. Further still, however, they were not willing to pay more for said human interaction, as a whole. This is problematic because human resources as defined above cost the course provider money; there is no way around that. Uncovering insights around the design of asynchronous PD was not the aim of this study, and yet, the findings might be useful for those who design asynchronous PD and/or are seeking to do further research on asynchronous PD. More research should be done specifically around the value of and needs within asynchronous learning for educators to better understand how to design these courses with some human touches/recourse. Those enrolled in this course deeply valued having asynchronous PD, so it would be worth individual school districts exploring this concept, too, be it through their own development of an asynchronous professional learning plan and/or through joining cohorts of currently existing asynchronous learning.

Given that Novak Education does collect feedback on their online courses, it would be useful to analyze that feedback to better understand, regardless of the topic, what educators seeking asynchronous professional development want from that learning experience. Much could be gleaned from a deep dive into that feedback, and moving forward, could help guide not only the professional development offered by Novak Education but also by districts across the country.

Additionally, future work around the various types and methods of asynchronous PD would build on the work done in this study as well as Elliott's (2017). As districts and individual teachers grapple with the demands placed on educators today, asynchronous PD can be a useful tool; a better understanding of how it could be designed and testing those design elements with teachers taking the PD could be useful to move this work forward for more educators.

With standards-based implementation, there is potential future work to continue to understand the needs of individual teachers as well as whole districts looking to make this shift. One of the biggest challenges that surfaced in this study and the literature (Towsley, 2019) is how incompatible electronic grade book software is, and as a result, the process of recording standards-based grades is cumbersome at best. Work could be done to uncover what is needed from these software programs in order to truly make this change seamlessly.

Finally, continued research around the implementation impact of this Novak course on teachers' practice would continue to help develop and refine an understanding of what really drives change in teachers' practice when looking to make a shift to standards-based grading despite working in a system that assigns traditional grades.

CHAPTER 4

PRACTICAL PRODUCTS

Papers one and two attempted to lay a foundation for the literature that supports a shift to standards-based grading, share stories from public educators who have made or are attempting to make a shift to standards-based grading, and then provide new empirical research around what might be needed for teachers to make a shift to standards-based grading. One reality is clear from both the literature and the empirical research of this study, there is a desire from teachers to make this shift to standards-based grading, even when working in a school that requires traditional grades, and yet, shifting assessment practices is complex, challenging, and time-consuming (Townsend, 2019; Townsend & Buckmiller, 2020). My own role as a practitioner in public education who has made the shift to standards-based grading despite working in a system that requires traditional grades is important here, too. Paper three seeks to improve the course that I designed for Novak Education based on all of the learnings from this study as well as my own experiences in the standards-based grading world.

Two themes/trends emerged from this research study that directly pertain to working on improving the online, asynchronous course on standards-based grading. First and foremost, teachers want more examples of what making a shift to standards-based grading means and look like. At the core, the literature supports this for all shifts in practice.

Teachers will not take up new ideas that sound attractive, no matter how extensive the research base, if the ideas are presented as general principles that leave the task of translating them into everyday practice entirely up to the teachers. (Black & William, 1998, p. 10).

The concept of professional development around assessment practices is not new. When teachers are given the time and training around changes with and for improved assessment practices, they feel as if their ability to accurately assess improves (Black et al., 2011). Yet often, the professional learning opportunities offered by schools are not in line with the intended audience of this study. The teachers who are the focus of this work want to make a shift to standards-based grading but work in a system that is not making that shift and does require traditional grades. Because of this, their districts would not be providing professional development around standards-based grading. Townsley et al. (2019) point out that teachers should have the ability to have feedback on the potential topics for their professional development, but in this situation, teachers are not given the opportunity from their districts to learn about standard-based grading because, often, the district itself, isn't seeking to make a shift in assessment and/or does not want to see a change to standards-based grading.

Because of this, the educators who have taken the course on standards-based grading that I designed for Novak Education want more examples of what standards-based grading can and does look like in practice. That is one place in which paper three will seek to improve the course offerings. The course is asynchronous for a reason, and that reality is valued deeply by the participants. That does, though, make it impossible for me, as the course designer, to respond with fluidity to the needs of the participants in real-time which is why more examples, overall, will be useful.

There are some places for improvement with regard to knowledge gain, because the course, as a whole, does not improve participants' understanding of the fact that, even when making a shift to standards-based grading, a final letter grade can (and oftentimes must) be

given. While there is evidence of knowledge gain here, it is not nearly as steep of a gain as other aspects of this course, and understanding that a letter grade can still be given even when working with standards-based grading is a deeply important aspect of making a shift to standards-based grading when still working in a traditional grading system. This will require more deliberate instruction within the course to help support teachers in this reality.

As a result of this study and the literature review, there are some changes and improvements to this course that are needed. They are explored below.

Improvement 1: Knowledge Around Assigning Grades

One thing that was clear is that participants in this class did not leave the course with an understanding of whether a traditional letter grade has to be/can be given in a standards-based classroom. The answer to this is “no.” In fact, given the audience of this course, understanding this concept might be the most important takeaway. Overall, those who are taking this course are teachers seeking this shift to standards-based grading while working in a system that requires traditional grades, and as such, there are pathways by which a teacher can use standard-based grading throughout the marking period and still convert that to a traditional grade for the end of said marking period (Townesley, 2019; Townesley et al., 2019). Because of this, the first area of improvement for this course is to add a new video from me in the third module that deliberately discusses both the knowledge needed to understand that a grade still can be given as well as one example of how one can use standards-based grading and still give a traditional grade at the end of a marking period. This module is all about “What Now?” and attempts to support teachers in making the change to standards-based grading, so hearing more about how they can use standards-based grading while still assigning a grade will be helpful here. Additionally, in that

video, I will talk through how making a conversion from standards-based grading to a traditional grade plays out within my own class.

Improvement 2: Variety of Examples Shared

Given my role as a high school English teacher, it is perhaps natural that the course would, to some extent, be more packed with examples from the high school level and of the ELA variety. This is one place in which the course should grow and evolve. One theme that emerged is that a wider range of examples would have been helpful for elementary and middle school teachers. While there are only so many examples one course can provide, additional examples from these grade levels will be added to better support all learners as they attempt to make the shift to standards-based grading. These additional examples will be added to module two which is all about “Standards-Based Grading in Practice” and is where the current examples are.

Improvement 3: Helping Teachers Better Utilize Models

Finding ways to help teachers digest and make sense of models that are not directly applicable to their grade level or discipline is the biggest and most important takeaway for course improvement. Each piece of qualitative empirical data, in some way, shape, or form, spoke to the reality that participants wanted more models. The literature supports the need for models and speaks to the fact that without enough tangible examples, no change will take hold (Black & William, 1998). There are only so many models one can provide, and given the fact that traditional grades still dominate the school systems, there are a finite number of standards-based grading examples out there. So, it seems crucial to the success of this course to build a protocol that better helps teachers explore and make use of models and examples that might not directly

connect to their grade level and/or content. Therefore, a protocol (Appendix B) was developed and will be embedded into the course in module two (where the majority of the examples/models are) to support teachers in making sense of models that might not directly, at least on the surface, apply to their class. Additionally, two videos were created. First, there is a video of me talking through the protocol. Second, there is video of two teachers using this protocol to help teachers see how the protocol can be used to better explore and learn from any model, even if they don't seem to directly apply to their specific class. While these videos are not included in this dissertation, they have been added to the course and were reviewed by the dissertation committee during the defense process. The hope of these tools was two-fold. First, they were designed with the aim of supporting teachers in being able to make better sense of examples outside their content and/or grade level. One of the biggest takeaways from the study was that teachers wanted more examples that directly applied to them, but since the course is asynchronous, that isn't always feasible; therefore, this protocol should help teachers get more value out of resources that are there but don't directly apply to them. Second, the study revealed that some sort of human interaction is preferred, but that is not possible given the nature of the course. This protocol and specifically the video with it attempt to add some sort of increased feel of human interaction. The protocol itself has the sorts of questions that I would ask if I were doing a 1:1 session with teachers, and the video adds a sense of human interaction not previously in the course (the only videos currently are the opening videos for each module which are only one person).

Final Thoughts

The work of shifting assessment practices isn't easy nor is it often widely accepted (Townsend & Buckmiller, 2020), and yet, there is hope that teachers working in school systems

that require traditional grades can find a pathway forward to using standards-based grading (Knight & Cooper, 2019; Scriffiny, 2008; Vanhala, 2020). The Novak Education online course on standards-based grading is just one example of ways teachers can get professional development to improve their assessment practices and make a shift towards standards-based grading. Grades are inevitable, and yet, that doesn't mean they need to be traditional.

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APPENDIX A

EXAMPLE OF STANDARDS-BASED GRADING

Bronke 3rd Hour Academic Skills/Standards for Mastery

Academic Skill	Mastery Criteria
Universal/Needed in all Units	
Purpose/Audience/Task	All stylistic choices and the overall organizational structure of the piece match the mode of writing, are tailored to the intended audience, and enhance the task at hand.
Voice	Student's use of language is specific and to the point. Syntactical and grammatical stylistic choices enhance clarity and emphasis as well as lead to a unique writer's voice. As a result, the reader is left with no confusion or uncertainty and enjoys reading.
Grammar	All grammatical choices are executed correctly unless the author has purpose and intent as to why an incorrect grammatical choice was made.
Revision Process	Student has made significant changes and revision to all pieces. These revisions go above and beyond simple grammar/spelling editing, and instead, they are substantial improvements to the overall writing and product.
Story-Telling Unit	
Narrative Structure	Engage and orient the reader by setting out a problem, situation, or observation and its real-world significance, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
Characterization	Use precise words and phrases, telling details, and use sensory language to convey a vivid picture of the experiences, events, environment, and/or characters.
Literary Elements	Use techniques, such as dialogue, pacing, description, reflection, control of language, and figurative language, to develop experiences, events, and/or characters.
Evaluation Unit	
Credibility and Support	All sources (personal and secondary) are used effectively and appropriately to support both sides of the evaluation. The author displays clear transparency of bias/action desired from evaluation as well as extensive knowledge of their topic and assessment.
Criteria and Assessment	Has an appropriate and clearly defined set of criteria to effectively measure the quality of their topic. The writer uses their research and experience as evidence appropriately and skillfully to assess and explain their topic within each category or criterion.
Scope and Focus	Ability to explore multiple facets of what is being evaluated (according to established criteria), present essential information, and compare with other similar works or events while either taking a clear stance on the value of what is being evaluated or remaining obviously neutral.

Persuasion Unit	
Claim and Counterclaim	Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.
Research and Evidence	integrate information into the text selectively to maintain the flow of ideas, considering audience/purpose/task, avoiding plagiarism and overreliance on any one source, and following a standard format for citation.
Rhetorical Appeals	Select and utilize appropriate rhetorical appeals by incorporating the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.
Presentation Unit	
Presentation Choices	Student defends the deliberate reasons why this piece was chosen and the way in which the selected presentation medium enhances the content. Any visual media used are designed to enhance the message and the presentation mode.
Presentation Delivery	Student speaks with a consistent pace and appropriate volume and uses verbal techniques like pauses and inflection purposefully. If applicable, student's physical movement enhances the presentation. Consistent eye contact is made with the entire audience as opposed to reading from notes or staring at a screen.

Converting Mastery into a Traditional Grade

Each standard listed above will be evaluated on a simple 1 or 0 scale with 1 signifying that the student has mastered this standard/skill and 0 representing that the student has not mastered this standard/skill. Below is the conversion chart for turning this standards-based system into a traditional academic grade.

An Important Note on Revisions

Students will not be allowed to revise their work if they do not do the required pre-writing activities and check in with Mr. Bronke at the required check-in points. This is a vital part of the writing process for all writers.

Conversion Chart - Number of Standards Mastered = Grade

A = 15

B = 14-13

C = 12-11

D = 10-9 with sufficient work

F = 8 or fewer and/or insufficient evidence to evaluate the standards (i.e. didn't do the work or not nearly enough work)

Lack of Traditional Grades

Throughout the semester, students will not receive traditional grades on individual assignments. Instead, while working on and at the conclusion of a specific assignment, students will be given detailed feedback for continued growth on the specific skills/standards and an update on their progress toward mastery of the standards.

APPENDIX B

PROTOCOL FOR EXPLORING EXAMPLES AND MODELS OUTSIDE ONE'S
DISCIPLINE OR GRADE LEVEL

Protocol: Assessment Example Review and Adaptation

Step 1: Review the Example

- Choose an example from this module that is from a content area outside your expertise and/or a grade level different than yours
- Review the assessment, the standards, and any additional information
 - What stands out to you?
 - What confirms something you currently do or believe?
 - What contradicts something you currently do or believe?
 - What questions do you have?

Step 2: Identify Similarities

- Reflect on your own teaching experiences and assessments/assessment practices
- Identify at least one aspect of the reviewed lesson that is similar to something you have done before. Consider possible instructional strategies that might help support students as they attempt to demonstrate mastery of the standards in this example.

Step 3: Note Potential Barriers

- Analyze the reviewed lesson and identify potential barriers that might hinder the implementation of this approach to standards-based grading in your grade/content area.
- Note these potential barriers, such as resource limitations, time constraints, or content-specific challenges.

Step 4: Revise and Adapt

- Consider how this analysis and your findings can:
 - Apply to one current assessment you use.
 - Impact how you approach standards-based grading as a whole.

Step 5: Celebrate and Share to Grow

- Find a colleague who teaches in a different grade or content area and share what you learned and created.