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The Warner School of Education at the University of Rochester

Standards-Based Grading: History, Practices, Benefits, Challenges, and Next Steps

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Is the purpose of assessment and grading to select talent or develop it? If it is indeed to develop it, then it entails a different approach to our work. ~Peters et al., 2017

What is the purpose of grading student work? Should grades represent academic achievement, or should they encompass other factors, like work habits? These questions lie at the center of a movement toward Standards-Based Grading (SBG) (Guskey, 2001). In brief, SBG is an assessment system that focuses on student progress toward clearly defined learning goals. This approach differs from the familiar and predominant traditional grading system, in which teachers take an average of scores from a wide variety of assignments to produce a letter grade for report cards.

This brief explores research that: reviews the historical context of grading, defines SBG, examines the practices, benefits, and challenges of SBG, and recommends the next steps for educators considering a transition to SBG. As a relatively new field of study, the body of research on SBG is limited and relatively new. In fact, according to Guskey and colleagues (2020), “SBG implementation in high schools is in its infancy” (p. 265). Nevertheless, there is enough evidence to provide educators with information to guide their decision-making about SBG.

Evolution and Limitations of Traditional Grading

The practice of grading can be traced back to the 17th century in higher education when a 4.0 scale was implemented at Yale University. Subsequently, there was a significant increase in the practice of grading in the 20th century due to the increase of public high schools, where the letter grade system took over. Contemporary schools continue to rely on traditional letter grades or percentages to demonstrate student progress on report cards (Townesley & Buckmiller, 2020).

Although insufficient evidence supports traditional grading (Brookhart et al., 2016; Huey et al., 2022; Marzano, 2000), it is nevertheless entrenched in schools (Cross & Frary, 1999). According to Peters and colleagues (2017), “There is so much trust in the messages conveyed by grades that they have gone without challenge and are resistant to change” (p. 9). Traditional grading involves a cycle of teaching, assessing, and then moving on, regardless of student success, often leaving students behind. According to Fergus & Smith (2022), “this kind of system only allows those students who can learn at the expected pace to be successful, which leads to persistent inequities in the classroom” (p. 4). Students’ grades and grade point averages are tied to other

real consequences – admission into honor societies, college scholarships, college admissions, extracurricular activities, and sports (Hiss & Frank, 2014).

The century-long tradition of using grades has been widely criticized as an unreliable and invalid way to measure and report academic achievement (Brookhart et al., 2016; Townsley, 2020), to sort and select students, and even as a means of control (Peters et al., 2017; Townsley et al., 2019). A primary criticism of validity has to do with the incorporation of a variety of academic and non-academic factors into grades, such as task completion, homework, participation, academic knowledge, and behavior (Knight & Cooper, 2019) all mixed together, which “misrepresents students’ learning attainment” (Guskey, 2009, p. 22). Critics have called it a “hodgepodge of attitude, effort, and achievement” (Brookhart, 1991, p. 36), producing distorted grades. According to Marzano (2000), traditional grades “are so imprecise that they are almost meaningless” (p. 1). Hodgepodge grades are unreliable indicators of learning (Brookhart et al., 2016; Cross & Frary, 1999; Guskey, 2009) and difficult for parents to interpret (Friedman & Frisbie, 1995). Since the emergence of the Common Core State Standards (2010), issues of grade inflation and deflation in interpreting them have surfaced (Brookhart et al., 2016), drawing increased attention to flaws in the traditional grading system.

Factoring non-academic behaviors into grading is highly subjective, leading to inconsistencies across districts, buildings, and even within a teacher’s practice (Brookhart, 2011; Tierney et al., 2011). Townsley (2020) explains, “While one teacher may award extra credit for bringing a box of tissues to class and emphasize homework completion, a colleague down the hall may not offer any extra credit and strongly emphasize test scores in the final grade calculation” (p. 35). When implementing an inclusion model, teachers are given little guidance when it comes to determining grades for students with disabilities. Classroom teachers often make “individual, informal” grade adaptations – another inconsistency tied to traditional grading (Jung & Guskey, 2020). Teachers often rely on their professional judgment, individual understandings, and beliefs, which vary from teacher to teacher when determining grades, especially in borderline situations (Tierney et al., 2011).

According to some research, a significant portion (approximately 20%) of a teacher’s grading calculation is based on non-cognitive factors (Guskey & Link, 2018). Notably, teacher perceptions of urban high school students’ behaviors, including preparedness, punctuality, and homework completion, correlate more strongly with grade averages than academic performance itself (Steward et al., 2008), raising concerns about equity issues embedded in traditional grading practices.

Traditional grades only moderately correlate with student scores on standardized tests (Bowers, 2011). For students from minority backgrounds and lower socio-economic levels, this correlation is even lower, indicating that traditional grades are even less reliable indicators of achievement for these students (Brennan et al., 2001; Lekholm & Cliffordson, 2008), an underexplored contributor to the so-called achievement gap.

According to Miller (2013), an ELA teacher who surveyed her students about how they define school success, “many [students] experience high school as an ordeal that must be endured to get into college, get a good-paying job, and, finally, sometime in the hazy future, get the security and

happiness that will make it all worthwhile” (p. 111). This sentiment captures another criticism of traditional grading as a demotivating influence on students (Huey et al., 2022; Peters et al., 2017). From her students’ responses, Miller (2013) decided to change how she graded to be more student-centered and focused on “what the student is learning, rather than how much the student is doing” (p. 112). She shifted to SBG.

By examining the history and current practices of grading, educators can better understand its limitations and explore alternative approaches that provide a more comprehensive and accurate representation of student proficiency. SBG is a compelling alternative, which is “gaining widespread attention as a way to address the shortcomings and inequities in traditional grading practices” (Fergus & Smith, 2022, p. 2). The first wave of SBG implementation began around 2014, and scholars say we are now in a “second wave” (Townesley et al., 2019, p. 282). With the emergence and widespread national implementation of the Common Core State Standards, combined with the COVID-19 pandemic, which has had a huge impact on schooling and assessment (Pollio & Hochbein, 2015; Townesley, 2020), many schools are moving toward SBG, either because their state education departments require it or because they deem the evidence to be convincing (Townesley & Buckmiller, 2020).

Standards-Based Grading: An Alternative Approach

While SBG is considered both “innovative and highly controversial” (Iamarino, 2014), it is gaining attention for its utility in addressing the inequities and validity issues of traditional grading.

Defining SBG

SBG is a system for assessing students based on proficiency in clearly defined learning standards, allowing teachers to report more specifically on learning (Guskey, 2001). SBG is also known by the terms *competency-based grading* and *proficiency-based grading*; however, this brief, like most of the research reviewed here, uses SBG. The emphasis in SBG is to promote teaching and learning that meet learning goals based on standards. Moreover, students are assessed on their level of mastery of specified standards rather than points accrued for individual assignments (Iamarino, 2014). Teachers then base course grades on students’ progress in meeting the standards (Lewis, 2022). This shift prioritizes learning, equity, and formative assessment to inform student improvements and teacher instruction (Guskey, 2011; Iamarino, 2014; Link & Guskey, 2022). Instead of relying on summative assessment, which is more aligned with the traditional 100-point system, SBG uses formative assessment to measure standards rather than assignments.

Purpose of SBG: Communication to Improve Learning

The purposes of SBG are distinctly different from those of traditional grading – that is, grades should communicate what students have learned and can do versus tallying up points for an assortment of activities that may or may not have contributed to their learning (e.g., work completion, attendance, and effort) (Link & Guskey, 2022). Scholars contend that the SBG approach is better aligned with the contemporary purposes of K-12 education: to educate,

develop, and prepare all students. Teachers can communicate with students, parents, and other teachers through formative assessment, which provides specific feedback about student progress toward meeting specific objectives (Peters et al., 2017). Feedback can take various forms, such as face-to-face conferences, notes in paper margins, emails, and inserted assignment comments (Miller, 2013). Therefore, formative assessment's purpose is to provide students feedback on their learning progress, which is different from traditional grading's reliance on summative assessment to "make judgments about the amount of learning" (O'Conner, 2009, p. 116). Advocates argue that SBG's focus on feedback is more meaningful and accurate, ultimately improving learning (Knight & Cooper, 2019; Marzano, 2000).

SBG Practices

The following five practices characterize SBG:

- 1. Student progress is tied directly to standards** (Campbell et al., 2020; Jung & Guskey, 2020; Knight & Cooper, 2019; Link & Guskey, 2022; Swan et al., 2014). Student performance is based on key grade-level standards referenced in curriculum objectives or learning expectations, thus creating alignment among standards, objectives, and assessments. Teachers assess student work for mastery of these standards. Feedback is provided by standard rather than by assignment. No overall score is given for assignments. For this practice to work, teachers must clearly communicate what students should learn and be able to do and include these details in learning goals by providing a clear list of standards and how course grades will correlate with how many standards a student has mastered by the end of the course.
- 2. Limited number of performance categories to communicate achievement** (Guskey et al., 2020; Link & Guskey, 2022). Once teachers have identified standards, they develop three to five categories to assess student progress (e.g., *beginning*, *progressing*, *proficient*, *exemplary*). Teachers use these categories, rather than percentage scores, to communicate performance.
- 3. Cognitive factors are separated from non-cognitive factors to represent achievement** (Campbell et al., 2020; Jung & Guskey, 2020; Link & Guskey, 2022; Iamarino, 2014; O'Connor, 2018; Swan et al., 2014; Townsley & Buckmiller, 2020). According to this practice, grades become accurate representations of achievement. Non-cognitive or behavioral factors – sometimes called "extraneous factors" (O'Connor, 2018) such as homework completion, effort, attendance, and class participation – are reported separately to avoid the "hodgepodge" (Brookhart, 1991) that distorts a grade's meaning. Proficiency rubrics, proficiency scales, and/or learning progressions are used to assess and provide feedback on progress. Link and Guskey (2022) recommend reporting multiple grades in a "dashboard" format that conveys student progress on product (achievement), process (behavioral), and progress (behavioral). Activities, like homework and extra credit, are repurposed as practice rather than academic achievement.
- 4. Multiple attempts to master a standard – reassessment** (Campbell et al., 2020; Cox, 2011; Fergus & Smith, 2022; Great Schools Partnership, n.d.; Iamarino, 2014; Link & Guskey, 2022; O'Connor, 2018; Peters et al., 2017; Townsley, 2020; Wormelli, 2011). Since mastery is the goal of SBG, students have multiple opportunities to demonstrate understanding, often called "reassessment," and are not penalized for taking these

opportunities. With each assessment, students receive feedback that promotes reflection, which they can use to improve. Teachers emphasize a student's most recent evidence of learning instead of averaging all attempts.

- 5. Reflection** (Fergus & Smith, 2022). After receiving feedback on progress toward standards, students engage in critical thinking about a learning experience and identify possible changes for moving forward (Quinton & Smallbone, 2010). For example, students respond to a prompt, like "I learned...", share ideas with a partner, and then revise their response. Reflection supports the development of metacognitive skills and positively impacts achievement.

Benefits of Using an SBG System

Depending on a school's purpose for grading students, SBG can be the preferred approach. According to scholars, SBG's purpose is to "compare student performance to established levels of proficiency in knowledge, understanding, and skills" (McMillan, 2009, p. 108) rather than traditional grading's purpose of supporting individual learning or ranking students. Therefore, in this light, SBG is considered a fairer system.

Research has shown several benefits to using SBG. Specifically, SBG can improve student achievement, relieve student anxiety, support student motivation to learn, help shift the classroom culture to one centered on learning rather than competition, improve communication about student learning, and shift the interdependent pedagogical practices of planning, instruction, and assessment.

Improves Achievement

In theory, if SBG is better at determining and improving academic learning, students should perform better on standardized assessments (Iamarino, 2014). And, in fact, a small body of evidence shows that SBG increases student achievement (Huey et al., 2022; Pollio & Hochbein, 2015). Secondary students generally view SBG as more reflective of their knowledge and beneficial to their learning (Peters et al., 2017).

In their study of a low-performing school district in Kentucky, where the student population was racially diverse and the majority of students were from low socioeconomic status households, Pollio and Hochbein (2015) evaluated the district's transition to SBG as part of a reform effort to standardize curriculum and instruction. The study focused on student performance in grade 11 Algebra 2 classes and corresponding state math assessments. Findings showed that SBG was a stronger predictor of performance in math than traditional grading. In courses where teachers used SBG, not only did the number of students earning A's and B's increase, but the percentage of students who did well on the exams nearly doubled compared to students who experienced traditional grading. For "at-risk students," they found that the use of SBG indicated greater validity and reliability on state exams, suggesting that SBG is a way to reduce inequities in achievement. Likewise, in their study of middle school students' math anxiety, Fergus and Smith (2022) found that using SBG led to students' self-directed learning, individualized instruction, immediate feedback in a low-stakes way, and improved achievement. In Huey and colleagues'

(2021) research evaluating the SBG practice of removing homework from grade calculations, student performance increased for some standards, yet homework completion decreased overall.

Lessens Anxiety

Student anxiety is an under-researched aspect of SBG; however, the findings show that SBG lowers test anxiety (Fergus & Smith, 2022; Harsy, 2020; Kelly, 2020; Lewis, 2022).

In their study of middle school students' anxiety related to math tests, Fergus and Smith (2022) focused on key SBG practices (clear learning objectives, formative assessment learning, feedback, reassessment, and reflection) and their influence on student anxiety. Of all the practices they studied, reassessment was most closely associated with relieving math anxiety. Additionally, effective feedback and clear learning objectives were particularly helpful. In Lewis's (2022) re-analysis of his findings about secondary students' math anxiety, he found that students experienced lower test anxiety in their SBG course than in their other courses, which used a traditional grading approach.

ELA teacher Miller (2013) believes SBG helped to lower her students' anxiety "because scores build over the year rather than being averaged, [so] there's no need for a student to feel anxious about a low score at the beginning of the year" (p. 116).

Supports Motivation

Some scholars have examined the connection between SBG and increased student motivation (Wormeli, 2014), explaining that the SBG practice of setting and communicating clear objectives guides teacher instruction and serves as learning targets for students. Clear objectives help students with motivation, self-regulation, academic performance, and goal setting, thus producing greater learning gains (Fergus & Smith, 2022). When students are clear about learning goals, they can take more initiative and exercise agency in their learning (Link & Guskey, 2022). The shift to increased student interest in learning and self-assessment takes time, and motivation usually takes a dip before it improves (Knight & Cooper, 2019).

Shifts Classroom Culture

Research supporting SBG emphasizes the shift in priority from working for grades to working for learning. In ELA teacher Miller's (2013) experience, SBG "releases students from the chore of doing assignments for the sole purpose of protecting their final grade" (p. 112). In SBG classrooms, students feel an increased sense of belonging and community and less competition with fellow classmates (Knight & Cooper, 2019).

This SBG emphasis on moving toward a learning-conducive environment can also be described as a "growth mindset," one in which students feel more comfortable taking risks, where making mistakes is embraced as part of learning, and where they feel more academically confident (Knight & Cooper, 2019). According to Fergus & Smith (2022), "the importance of a mathematics classroom culture centered on learning, rather than only achieving high grades," helps students identify a "meaningful purpose" (p. 10). Teachers attribute classroom culture

shifts to SBG practices of clear objectives that focus on learning rather than grade performance; formative assessment, which is less evaluative and more supportive of learning; multiple assessment opportunities, which communicates a value on learning the material; and offering choice in assessment, which supports student autonomy (Knight & Cooper, 2019).

As fellow members of the classroom community, teachers can also experience a shift in their roles. According to ELA teacher Miller (2013), “I was spending much less time on bookkeeping and much more time conferring with students and responding to their work” (p. 113).

Improves Communication

In their review of research, Link & Guskey (2022) found that “as a tool for bolstering communication with students and parents, SBG can be resoundingly effective” (p. 413). Similarly, Knight and Cooper (2019) found that once learning became the focal point of communication, students better understood purpose and expectation, teachers provided clearer feedback, and students engaged with each other in learning-centered conversations. This clearer communication about nuanced information is what students, teachers, parents, and other educators prefer (Link & Guskey, 2022); they experience these conversations as “more meaningful and thoughtful” (Pollio & Hochbein, 2015, p. 20). Jung & Guskey (2020) argue that the quality of communication provided by using SBG is beneficial for students with disabilities, as it factors into “pivotal placement and intervention decisions” for these students (p. 48).

Shifts Pedagogical Practices

Using SBG has been found to impact a teacher’s practice, specifically around planning, instruction, and assessment. In Knight & Cooper’s (2019) study, high school teachers implementing SBG reported that their practice in these three categories became more purposeful. In gaining a better understanding of their students’ needs, teachers became more intentional in planning for assessments and instruction, assessment data drove their instruction, and they could differentiate both better. Furthermore, their assessments became more rigorous because they felt accountable for creating assessments that accurately reflected the rigor of standards. Similarly, Pollio & Hochbein (2015) found that high school math teachers attributed using specific and a small number of standards motivated them to go deeper into content rather than wider coverage. They had more time to plan and improve their instruction, which invited students’ deeper understanding of key standards.

Challenges to Implementing SBG

While a growing body of evidence supports the transition to SBG, there are well-documented challenges to implementing the SBG approach, especially in the beginning (Peters & Buckmiller, 2014; Townsley et al., 2019). Many schools implement SBG without fully understanding it, often leading to confusion, inconsistency, and abandonment. This literature review found that the challenges break down into these categories: inconsistent understandings, critiques, stakeholder resistance, and implementation dip.

Inconsistent Understandings

SBG differs from the traditional system of grading, and understanding it is essential to implementation, yet there is little consensus on what SBG means (Guskey & Jung, 2013; Knight & Cooper, 2019; Link & Guskey, 2022; Peters et al., 2017). In Tierney and colleagues' (2011) study of teacher understanding of their schools' SBG system, the authors concluded that "although many teachers...reported at least some awareness and use of [SBG] grading principles, they had difficulty identifying relevant principles, and the grading practices they reported suggest that underlying principles were not well understood" (p. 222). (In this statement, "principles refer to the practices of SBG explained in the "SBG Practices" section of this brief, pages 4-5). When teachers' understanding and implementation of SBG are inconsistent, students may perceive the system as unfair (Guskey et al., 2020).

Against the recommendation of current research to separate and report three categories of grades (academic, behavioral, and progress), many schools implementing SBG only report on the academic product grade (Knight & Cooper, 2019; Townsley, 2018), and, in fact, there seem to be differing recommendations about whether to separate non-academic grades (Schimmer, 2016) or to eliminate them altogether (Vatterott, 2015) – another example of the confusion and inconsistent understandings about SBG (Link & Guskey, 2022).

With regard to separating the academic (product) from the non-academic (process), Huey and colleagues (2022) found that teachers do not easily delineate between the two. Further, for students in classes where practice work did not count toward their grades, they completed less homework and subsequently demonstrated lower proficiency on math assessments. Students had varied understandings of the practice of separating homework from the final academic grade. Some understood the larger goal of SBG and how practice work fits into it; others understood practice work to be optional and, therefore, did less of it. Researchers concluded that implementing a product only (academic grade) is likely to put "teachers in an extremely uncomfortable position that deemphasizes traits essential to learning mathematics well" (p. 8). When school staff lacks a common understanding of the principles of SBG, schools fail to implement the system with fidelity (Guskey et al., 2020).

Critiques of Reassessment Practice

Of all the SBG practices, reassessment has attracted the most controversy. As a reminder, reassessment allows students multiple attempts at proficiency on a given standard (O'Connor, 2018; Vatterott, 2015). Some students and teachers think of this practice by the informal term "retakes." The rationale for reassessment is that when teachers and students are focused on learning, and if the assessment is repositioned as a form of feedback for learning, then students should have the opportunity to "try again" to demonstrate their learning, which is informed by the feedback they received on prior assessments. Critics think these opportunities do not reflect real-world situations and, therefore, do not properly prepare students for life (Guskey & Jung, 2013; Spencer, 2012). Some say that reassessments fail to bring about more accurate results – that reassessments have made SBG more confusing, and that unlimited retakes are unrealistic for teachers to implement (Scarlett, 2018; Townsley, 2019). Others point out that reassessment is less effective for students who try hard but do not reach proficiency on standards, regardless of

the number of opportunities. For these students, reassessment might be discouraging (Pollio & Hochbein, 2015). While some scholars suggest that reassessment should be eliminated from SBG implementation, others point out that transitioning to a new grading system like SBG without changes to curriculum and instruction, and assessment does not work and that in order to implement reassessment successfully, curriculum and instruction need to change first (Link & Guskey, 2022).

Stakeholder Resistance: Parents, Teachers, and Students

Change is hard, especially when it centers around long-held beliefs and traditions, such as the 100-point grading system (Guskey, 2011; O'Connor, 2018; Yost, 2015). Reporting grades as an average of individual assignments is “a practice that is not only widely accepted but is also expected in high school” (Miller, 2013, p. 111).

In this system, grades and GPAs are gatekeepers to higher education, scholarships, extracurricular activities, and sports participation. Stakeholders – parents, teachers, students, and administrators – resist disruption to this familiar system (Townesley & Buckmiller, 2020). Research documents resistance to SBG from each of these stakeholder groups.

Parent Resistance

Relative comfort and familiarity with the traditional grading system, which parents experienced when they were students themselves, helps explain some of their uncertainty and resistance to SBG (Frankin et al., 2016; Yost, 2015). Parents resist (and sometimes protest) the move toward SBG because they fear that SBG could foster poor work habits, hinder motivation, and threaten their children's chances of college admittance and other post-secondary opportunities (e.g., scholarships and academic success) (Guskey et al., 2020; Peters & Buckmiller, 2014; Townesley et al., 2019). Some parents find SBG report cards to be “cumbersome and confusing” and an inadequate communication tool (Knight & Cooper, 2019, p. 66).

Teacher Resistance

Moving to any new practice makes considerable demands on teachers. As Wormeli (2006) puts it, teacher hesitation “stems from any number of factors, including ... distrust, unclear outcomes, perceived increased workload, or because they are in survival mode and cannot extend any more of themselves to any new cause or concept” (p. 181). Indeed, the most common barrier to transitioning to SBG, as cited by principals in Townesley and colleagues' (2019) study, was teacher resistance, particularly from veteran teachers. This concern is supported by research findings that young teachers tend to view SBG more favorably than experienced teachers (Hany et al., 2016; Hill, 2018).

Like parents, some teachers believe that the SBG practice of separating student effort from academic factors hinders student motivation to try at academic tasks (Knight & Cooper, 2019). In fact, Huey and colleagues (2021) claim that requiring “teachers to transition to a grading system entirely focused on product performance measures is also asking teachers to implement assessment policies that are often in direct conflict with their own belief systems” (p. 8).

Reasons teachers may resist moving to an SBG system include perceptions of increased workload (Hill, 2018; Townsley & Buckmiller, 2020), concern over adequately developing students' work habits (Tierney et al., 2011; Townsley et al., 2019), the perceived threat of grade inflation, figuring out which standards to prioritize, finding additional time to reassess, and figuring out how to convert SBG to letter grades for report cards (Townsley & Buckmiller, 2020). The latter was the concern of ELA teacher Miller (2013), who explained that despite her discomfort with traditional grading, "I couldn't figure out how to take a student-centered approach to grading that would work with the school's reporting system," (p. 111) until she did.

Student Resistance

Like their teachers and parents, students have concerns about shifting to an SBG system. In their survey of students in a high school implementing SBG, Peters and colleagues (2017) reported that students are most concerned about the following:

- **Inconsistent implementation.** Especially concerning reassessment timelines and number of opportunities, students complained that many teachers were confused over the particulars of SBG, which frustrated them. Students felt that their teachers were not fully committed to SBG or that "some teachers seem to [purposely] make it hard to reassess" (p. 16).
- **Negative impact on grades.** Students felt that SBG made it "harder to get an A" (p. 17) and did not understand how standard proficiency translated into grades. They disliked the SBG practice of not including homework in their academic grade average, feeling that they should receive credit for the homework, especially for students who tend not to perform well on tests and for whom homework served as a "cushion."
- **College preparation.** Students worried that SBG was not adequately preparing them for college. For example, they believed that reassessment was not an option in college. One student response said, "Colleges don't have [SBG], so it's setting us up for failure" (p. 18).
- **Social issues.** While less prevalent but "interesting," according to researchers, some students were annoyed by other students' whining about SBG. While others felt embarrassed by classmates knowing that they had reassessed because "when you reassess, you appear stupid for getting an undesirable score" (p. 18).
- **Lack of motivation.** Reassessment, again, contributed to students' concern over their motivation to be prepared and learn. As one student put it, "I can just reassess later" (p. 19), implying a perception that preparation is not important.

Student sentiments like these are indicative of Huey and colleagues' (2021) conclusion that "the grade mindset [traditional grading] versus growth mindset [SBG] has proven difficult to shift with secondary students in particular" (p. 3). It should be noted that most of the research on student resistance to SBG has been conducted in suburban, white districts and with high-achieving students.

Implementation Dip

When schools embark on new reforms that challenge long-held beliefs, stakeholder resistance (documented in the prior section) leads to some level of non-compliance, especially in schools experiencing “initiative fatigue” (Reeves, 2010). This response is to be expected, creating what education researchers call an “implementation dip” (Clough & Kruse, 2010; Townsley et al., 2019) – a decrease in compliance while teachers in the system are learning and starting to enact a new practice. Students, feeling less accountable at the beginning of SBG implementation, may start to turn in fewer assignments and prepare less for assessments (Knight & Cooper, 2019). In their eyes, these tasks may no longer count in the new SBG system (Townsley et al., 2019). However, given time, students take more ownership, thus indicating that the implementation dip is temporary. It should be noted that most of the studies reviewed in this section on challenges to SBG took place at the beginning of SBG implementation.

Next Steps

Despite concerns, schools are still implementing SBG, which some scholars call the “second wave” of SBG implementation. Research on this most recent phase of implementation indicates that schools planning to transition to SBG must plan for it to take time, due to the challenges covered in the prior section, as well as the need for significant and sustained professional development (Townsley et al., 2019). In transitioning to SBG, schools can do the following:

- 1. Develop Teacher Capacity.** Before implementation, teachers and administrators need to come to a solid understanding of their school’s purpose and commitment to SBG (see prior sections, “Purpose of SBG: Communication to Improve Learning,” p. 3 and “SBG Practices,” pp. 4-5). Without it, researchers say that “teachers may continue to struggle with assessment policies in SBG” (Tierney et al., 2011, p. 223). Professional learning is recommended to build consensus on SBG philosophy and purposes as well as the larger aims of education. Professional learning requires schools to have access to the “strong logic for the new system along with a thorough accounting of the inadequacies of the old system” (Guskey & Jung, 2009).

Some discussion prompts for teachers to use while developing an understanding of purpose and commitment include the following: *Why do we assign grades? Why do we do it the way we do it? How does the assessment process help students move forward with their learning (assessment for learning) instead of providing information that cannot be used to move forward (assessment of learning)?*

School leaders need to approach these early conversations with an attitude that values teachers’ voices and concerns. Teachers must be partners in decision-making, and leaders must be willing to compromise. In addition, educators need clear parameters that clarify what SBG is (See “SBG Practices” section on p. 4-5) and what it is not. In order to ensure consistency in understanding and implementation, teachers need agreed-upon assessment policies and practices using a common language and vocabulary. Teacher buy-in can be a “determining factor” in SBG’s success.

Research synthesized in this section: Guskey et al., 2020; Huey et al., 2022; Iamarino, 2014; Knight & Cooper, 2019; Peters & Buckmiller, 2014; Reeves et al., 2017; Townsley, 2020; Townsley & Buckmiller, 2020; Vatterot, 2015; Wormeli, 2011.

- 2. Communicate with Stakeholders.** Not only is communication about student learning a major purpose of SBG, but communication about the transition to SBG is required for successful implementation. Scholars recommend that principals “overcommunicate” (Townsley et al., 2019, p. 283) with students, parents, and community members (e.g., Board of Education) about what will change and what will remain, seeking input throughout the process. Principals must devote ample time to communicating with parents in various ways (e.g., social media, email, and in-person).

For example, to allay parents’ concerns about their children’s postsecondary opportunities, school leaders “should know that university officials have communicated that applicant transcripts from SBG schools are assessed equally to those from traditional grading schools, ensuring a fair and equitable admissions process” (Townsley, 2019, p. 37). Schools can consider inviting local college/university admissions officials to be involved in directly addressing parents’ concerns. According to research on the second wave of SBG implementation, parents’ concerns are starting to wane somewhat.

Students need time, understanding, and explicit coaching to shift to SBG; therefore, teachers must be clear and transparent about learning goals. Since the standards for learning are the new basis for assessment in SBG, teachers need to be transparent about these standards, goals, and the purpose of each lesson. The less vagueness and guessing among students about what matters and what they need to do to improve, the better.

The shift to a classroom culture that values a growth mindset requires teachers to help students understand SBG, which may alleviate some concerns. Students may also hold misconceptions about SBG. For example, students in Peters and colleagues’ (2017) study worried that they would be unprepared for college life; however, evidence suggests that some college professors are moving toward SBG.

Research reviewed in this section: Hill, 2018; Huey et al., 2022; Iamarino, 2014; Knight & Cooper, 2019; Link & Guskey, 2022; Peters et al., 2017; Reeves, 2010; Reeves et al., 2017; Reide, 2018; Townsley, 2020; Townsley & Buckmiller, 2020; Townsley et al., 2019; Vatterot, 2015.

Research-informed Implementation. Shifting to SBG requires not only changing grading but also changing planning, instruction, assessment, and classroom environment. Together, teachers can identify priority standards, create proficiency scales, redesign assessments, align instruction with standards, and then incorporate natural consequences for work habits. Link and Guskey (2022) emphatically state, “Let’s be clear: *“No grading system by itself improves student learning. Why would we expect it to? Changing grading does not alter the curriculum or instruction – the two major factors determining what and how well students learn”* (p. 4). In other words, SBG is tied to a comprehensive reform effort to revamp a system to focus on learning.

Schools must continue providing differentiated professional learning opportunities that support staff in developing a grading policy consistent with all school-wide systems to support teachers in transition. For example, research suggests a differentiated model of implementation for students with Individualized Education Plans (IEPs), which can fit into the school's overall grading policy (See Appendix A).

Professional learning should provide teachers with time to practice using SBG. Schools can consider allowing teachers to start small and implement SBG in one or two classes. Some additional topics to consider in developing a school's SBG grading policy: accounting for student non-academic behaviors; finding new ways to promote desirable behaviors; developing learning-centered consequences and school-wide interventions; accounting for diligent students who are unable to master standards and students with IEPs in special education; developing policies to ensure consistency in the grading scale and to determine final course grades. Questions to address include: *How many performance levels will be reported for each standard? How will the levels be labeled? How will the information be arranged on the scale or report?*

Schools should not rush the transition to SBG and use ongoing professional learning and targeted coaching to sort through the myriad decisions schools must make and to support teachers in making one change at a time as they align their practices to SBG (allowing for the implementation dip). Report cards should be the last thing to change in implementation.

For example, ELA teacher Miller implemented SBG in her English classes in ways that also fit within her school's system of reporting final letter grades (See Appendix B)

It cannot be overstated that schools should anticipate that it will take time to support teachers and to build community understanding around the purposes, policies, and practices of SBG.

Research reviewed in this section: Huey et al., 2022; Jung & Guskey, 2020; Guskey & Bailey, 2001; Guskey et al., 2020; Iamarino, 2014; Knight & Cooper, 2019; Link & Guskey, 2022; Miller, 2013; Reeves et al., 2017; Peters et al., 2017; Townsley, 2020; Townsley & Buckmiller, 2020; Vatterot, 2015

Conclusion

Before considering SBG, schools need to start by thinking and talking about what they believe is the purpose of education. Next, they can ask themselves the same questions about assessment purposes. According to educator Rick Wormeli (2006), "It's time to talk about grades, grading, and report cards openly, if we haven't before, questioning assumptions, embracing alternatives, and focusing on the promise of what teaching and learning can be" (p. 90).

While the body of research on SBG is still relatively new and limited, the evidence supporting its challenges and effectiveness continues to grow. As educators decide whether and how to transition to SBG, they can draw upon existing research to inform their practices. Understanding

that assessment is embedded with school culture and interconnected teacher practices of planning and instruction, schools that move to SBG can create a more equitable and meaningful assessment system that promotes student learning and achievement.

References

- Bond, J. B., & Ellis, A. K. (2013). The effects of metacognitive reflective assessment on fifth and sixth graders' mathematics achievement. *School Science and Mathematics, 113*(5), 227–234. <https://doi.org/10.1111/ssm.12021>.
- Bowers, A. J. (2011). What's in a grade? The multidimensional nature of what teacher- assigned grades assess in high school. *Educational Research and Evaluation, 17*(3), 141-159. <https://doi.org/10.7916/D8WM1QF6>.
- Brennan, R. T., Kim, T., Wenz-Gross, M., & Sipperstein, G. N. (2001). The relative equitability of high-stakes testing versus teacher assigned grades: An analysis of the Massachusetts Comprehensive Assessment System. *Harvard Education Review, 71*(2), 173–216.
- Brookhart, S. M. (1991). Grading practices and validity. *Educational Measurement: Issues and Practice, 10*(1), 35-36.
- Brookhart, S. M. (2011). Starting the conversation about grading. *Educational Leadership, 69*(3), 10-14.
- Brookhart, S. M., Guskey, T. R., Bowers, A. J., McMillan, J. H., Smith, J. K., Smith, L. F., Stevens, M. T., & Welsh, M. E. (2016). A century of grading research: meaning and value in the most common educational measure. *Review of Educational Research, 86*(4), 803–848. <https://doi.org/10.3102/0034654316672069>.
- Campbell, R., Clark, D., & O'Shaughnessy, J. (2020). Introduction to the special issue on implementing mastery grading in the undergraduate mathematics classroom. *PRIMUS, 30*(8-10), 837-848. <https://doi.org/10.1080/10511970.2020.1778824>
- Clough, M., & Kruse, J. (2010). Conceptual change: It's not just for learning science. Editorial for *Iowa Science Teachers Journal, 37*(1), p. 2-3.
- Cox, K. B. (2011). Putting classroom grading on the table: A reform in progress. *American Secondary Education, 40*(1), 67-87.
- Cross, C. H., & Frary, R. B. (1999). Hodgepodge grading: Endorsed by students and teachers alike. *Applied Measurement in Education, 12*(1), 53–72.
- Fergus, S., and Smith, C. P. (2022) Characteristics of proficiency-based learning and their impacts on math anxiety in the middle grades. *RMLE Online, 45*(4), 1-19, DOI: 10.1080/19404476.2022.2045810.
- Frankin, A., Buckmiller, T., & Kruse, J. (2016). Vocal and vehement: Understanding parents' aversion to standards-based grading. *International Journal of Social Science Studies, 4*(11), 19-29.

- Friedman, S. J., & Frisbie, D. A. (1995). The influence of report cards on the validity of grades reported to parents. *Educational and Psychological Measurement*, 55(1), 5–26.
- Great Schools Partnership. (n.d.). *Beliefs and practices of proficiency-based learning*. https://www.greatschoolspartnership.org/wp-content/uploads/2018/03/Beliefs_and_Practices_of_Proficiency_Based_Learning_2018-1.pdf.
- Guskey, T. R. (2001). Helping standards make the grade. *Educational Leadership*, 59(1), 20–27.
- Guskey, T. R. (2009). *Practical solutions for serious problems in standards-based grading*. Thousand Oaks, CA: Corwin Press.
- Guskey, T. R. (Ed.). (2011). *Practical solutions to serious problems in standards-based grading* (pp. 9–26). Corwin Press.
- Guskey, T. R., & Bailey, J. M. (2010). *Developing standards-based report cards*. Corwin Press.
- Guskey, T., & Jung, L. (2009). Grading and reporting in a standards-based environment: Implications for students with special needs. *Theory Into Practice*, 48(1), 53-62.
- Guskey, T. R., & Jung, L. A. (2013). *Answers to essential questions about standards, assessments, grading, and reporting*. Thousand Oaks, CA: Corwin Press.
- Guskey, T. R., & Link, L. J. (2019). Exploring the factors teachers consider in determining students' grades. *Assessment in Education: Principles, Policy & Practice*, 26(3), 303-320. DOI:10.1080/0969594X.2018.1555515.
- Guskey, T. R., Townsley, M., & Buckmiller, T. M. (2020). The impact of standards-based learning: Tracking high school students' transition to the university. *NASSP Bulletin*, 104(4), 257-269. DOI: 10.11778/0192636520975862.
- Hany, K., Proctor, M., Wollenweber, J., & Al-Bataineh, A. (2016). Teacher perceptions of standards-based grading: Implication and effectiveness. *Journal of Teaching and Education*, 5, 749-765.
- Harsy, A. (2020). Variations in mastery-based testing. *Primus*, 30(8-10), 849-868. <https://doi.org/10.1080/10511970.2019.1709588>.
- Hill, G. R. (2018). *Impact of teacher attitudes on implementation of a standards-based grading system* (Doctoral dissertation). Available from ProQuest Dissertations and Theses. (13426348)

- Hiss, W. C., & Franks, V. W. (2014). *Defining promise: Optional standardized testing policies in American college and university admissions*. Arlington, VA: National Association for College Admission Counseling.
- Huey, M. E., Silvey, P. R., Vaughn, A. G., & Fisher, A. L. (2022). Assessing the impact of standards-based grading policy changes on student performance and practice work completion in secondary mathematics. *Studies in Educational Evaluation, 75*(101211), 1-10.
- Iamarino, D. L. (2014). The benefits of standards-based grading: A critical evaluation of modern grading practices. *Current Issues in Education, 17*(2), 1-13.
- Jung, L. A., & Guskey, T. R. (2007). Standards-based grading and reporting: A model for special education. *Teaching Exceptional Children, 40*(2), 48-53.
- Jung, L. A., & Guskey, T. R. (2020). Standards-based grading and reporting: A model for special education. *Council For Exceptional Children, 40*(2), 48-53.
- Kelly, J. S. 2020. Mastering your sales pitch: selling mastery grading to your students and yourself. *PRIMUS 30*(8-10), 979-994. <https://doi.org/10.1080/10511970.2020.1733150>.
- Knight, M, & Cooper, R. (2019). Taking on a new grading system: The interconnected effects of standards-based grading on teaching, learning, assessment, and student behavior. *NASSP Bulletin, 103*(1), 65-92.
- Lekholm, A. K., & Cliffordson, C. (2008). Discrepancies between school grades and test scores at individual and school levels: Effects of gender and family background. *Educational Research and Evaluation, 14*(2), 181–199.
- Levine, E., & Patrick, S. (2019). *What is competency- based education? An updated definition*. Aurora Institute.
- Lewis, D. (2022). Impacts of standards-based grading on students' mindset and test anxiety. *Journal of the Scholarship of Teaching and Learning, 22*(2), 67-77.
- Link, L. J., & Guskey, T. R. (2022). Is standards-based grading effective? *Theory Into Practice, 61*(4), 406-417.
- Marzano, R. (2000). *Transforming classroom grading*. Alexandria, VA: ASCD.
- McMillan, J. H. 2009. Synthesis of issues and implications for practice. In *Practical solutions for serious problems in standards-based grading*, ed. T. R. Guskey, 105–20. Thousand Oaks, CA: Corwin.
- Miller, J. J. (2013). A better grading system: Standards-based, student-centered assessment. *The English Journal, 103*(1), 111-118.

- National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards for English language arts and literacy in history/social studies, science, and technical subjects*. Washington, DC: Authors.
- O'Connor, K. (2009). *How to grade for learning, K-12* (3rd ed.). Thousand Oaks, CA: Corwin Press.
- O'Connor, K. (2018). *How to grade for learning: Linking grades to standards* (4th ed.). Thousand Oaks, CA: Corwin.
- Peters, R. & Buckmiller, T. (2014). Our grades were broken: Overcoming barriers and challenges to implementing standards-based grading. *Journal of Educational Leadership in Action*, 2(2). Retrieved from <https://digitalcommons.lindenwood.edu/cgi/viewcontent.cgi?article=1070&context=ela>.
- Peters, R., Kruse, J., Buckmiller, T., & Townsley, M. (2017). "It's just not fair!" Making sense of secondary students' resistance to a standards-based grading. *American Secondary Education*, 45(3), 9-28.
- Pollio, M., & Hochbein, C. (2015). The association between standards-based grading and standardized test scores as an element of a high school reform model. *Teachers College reord*, 117(110302), 1-28.
- Quinton, S., & Smallbone, T. (2010). Feedback forward: Using feedback to promote student reflection and learning - a teaching model. *Innovations in Education and Teaching International*, 47(1), 125–135. <https://doi.org/10.1080/14703290903525911>.
- Reeves, D. B. (2010). *Transforming professional development into student results*. Alexandria, VA: Association for Supervision & Curriculum Development.
- Reeves, D. B., Jung, L. A., & O'Connor, K. (2017). What's worth fighting against in grading? *Educational Leadership*, 74(8), 42-45.
- Scarlett, M. H. (2018). "Why did I get a C?": Communicating student performance using standards-based grading. *Insight: A Journal of Scholarly Teaching*, 13, 59–75. <https://doi.org/10.1080/108014703290903525911>.
- Schimmer, T. (2016). *Grading from the inside out: Bringing accuracy to student assessment through a standards-based mindset*. Bloomington, IN: Solution Tree Press.
- Spencer, K. (2012). Standards-based grading: New report cards aim to make mastery clear. *Harvard Education Letter*, 28(5), 4-10.
- Steward, R. J., Hill, M. F., Neil, D. M., Pritchett, T., & Wabaunsee, A., (2008). What does GPA in an urban high school actually mean? *Educational Considerations*, 36(1), 11-16.

- Swan, G. M., Guskey, T. R., & Jung, L. A. (2014). Parents' and teachers' perceptions of standards-based and traditional report cards. *Educational Assessment, Evaluation and Accountability, 26*, 289-299. doi:10.1007/s11092-014-9191-4.
- Tierney, R. D., Simon, M., & Charland, J. (2011). Being fair: Teachers' interpretations of principles for standards-based grading. *The Educational Forum, 75*(3), 210–227. <https://doi.org/10.1080/00131725.2011.577669>.
- Townsley, M. (2018). Mastery-minded grading in secondary schools. *School Administrator, 75*(2), 16–21.
- Townsley, M. (2019). Considering standards-based grading: Challenges for secondary school leaders. *Journal of School Administration Research and Development, 4*(1), 35-38.
- Townsley, M. (2020). Grading principles in pandemic-era learning: Recommendations and implications for secondary school leaders. *Journal of School Administration Research and Development, 5*(S1), 8-14.
- Townsley, M., & Buckmiller, T. (2020). Losing As and Fs: What works for schools implementing standards-based grading? *Educational Considerations, 46*(1). <https://doi.org/10.4148/0146-9282.2204>.
- Townsley, M., Buckmiller, T., & Cooper, R. (2019). Anticipating a second wave of standards-based grading implementation and understanding potential barriers: Perceptions of high school principals. *NASSP Bulletin, 103*(4), 281-299.
- Vatterott, C. (2015). *Rethinking grading: Meaningful assessment for standards-based learning*. Alexandria, VA: ASCD.
- Wormeli, R. (2006). Fair isn't always equal: Assessing & grading in the differentiated classroom. Stenhouse Publishers.
- Wormeli, R. (2011). Redos and retakes done right. *Educational Leadership, 69*(3), 22-26.
- Wormeli, R. (2014). Motivating young adolescents. *Educational Leadership, 72*(1), 26–31.

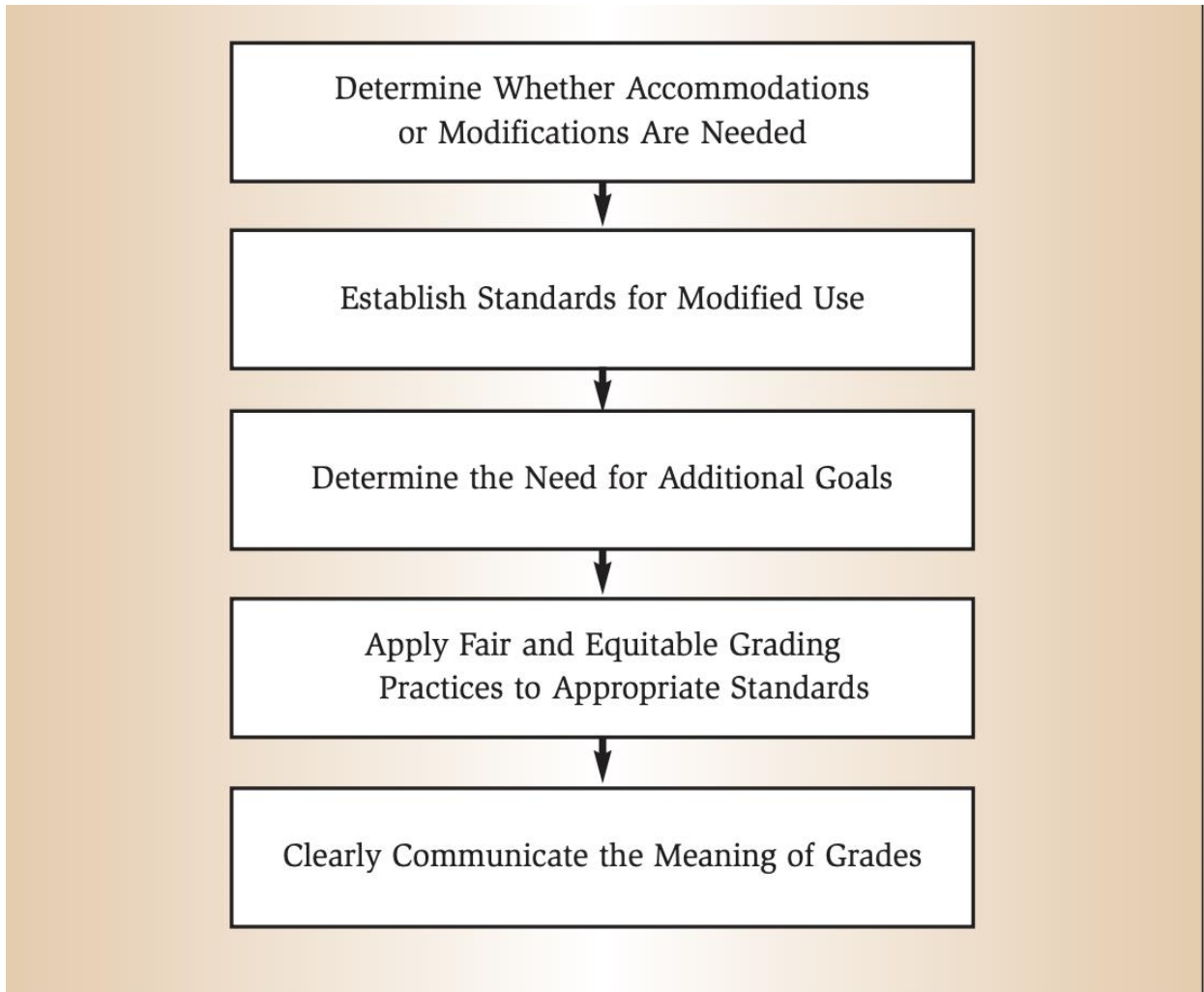
Additional Resources

- For school leaders: [Susan Brookhart's \(2011\) practical steps](#) for starting the conversation about grading
- On SBG in inclusive settings: Jung & Guskey's (2007) article, [Standards-Based Grading and Reporting: A Model for Special Education](#).

- For math teachers: Pollio & Hochbein's article (2015), [The Association Between Standards-Based Grading and Standardized Test Scores as an Element of a High School Reform Model](#), and Fergus & Smith's (2022) article, [Characteristics of Proficiency-Based Learning and Their Impacts on Math Anxiety in the Middle Grades](#).
- For ELA teachers: Miller's (2013) article, [A Better Grading System: Standards-Based, Student-Centered Assessment](#).
- A book: [Fair Isn't Always Equal: Assessment and Grading in the Differentiated Classroom. Second Edition](#) by Rick Wormelli.

Appendix A:

Inclusive Grading Model



From Jung, L. A., & Guskey, T. R. (2007). Standards-based grading and reporting: A model for special education. *Teaching Exceptional Children*, 40(2), 48-53.

Appendix B

Explanation of SBG Grading System in ELA

FIGURE 1. Explanation of Grading System

Students earn points for engagement in the process of learning and for progress toward mastery of standards as demonstrated by the student's written and spoken performance and as documented by the student's log and portfolio. In addition, each marking period, there will be one or two reading exams that combine an essay prompt with objective questions about texts, literary terms, and conventions of print. Each marking period will conclude with a student-teacher conference based on log, portfolio, exam, and a reflective essay called State of the Student. Students are expected to be active participants in the evaluation process. Students earn points for progress toward mastery of each standard:

- 10 points = Documented mastery
- 9 points = Major documented progress
- 8 points = Documented progress
- 7 points = Documented attempt

Each student's progress toward mastery of standards is then converted into a conventional grade percentage derived from the number of points earned out of the total possible:

Performance Standards	150 possible points (10 each for 15 standards)
Collaboration Standards	80 possible points (10 each for 8 standards)
Reading Exams	50 to 100 possible points
State of the Student	50 possible points
<hr/>	
Total	330 to 380 possible points

From Miller, J. J. (2013). A better grading system: Standards-based, student-centered assessment. *The English Journal*, 103(1), 111-118.