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It's All About to Change: Implications of Reforming Grading & Assessment within a Public School District

Abstract

Calls to reform grading systems and other assessment practices have been growing for several decades. There is consensus among many educators that grading and assessment practices that have been traditionally accepted as good practice are at best ineffective and at worst have a negative impact on raising achievement. Consequently, there is no single solution or methodology for grading that has emerged as the best practice. A variety of contemporary grading approaches have gained widespread popularity in recent years, typically being referred to as standards-based grading, standards-referenced grading, proficiency-based grading, or competency-based learning. A challenge, however, is that different school districts define these terms differently and models vary widely in their implementation. Although there is no single grading model that is the panacea for all of the ills of past practices, the researchers identified the common ground about what an effective system for grading and assessment should include. Even though further study is needed, the resounding evidence indicates that contemporary grading practices such as standards-based grading are a preferred model if the goal of grading is to accurately communicate student learning and achievement.

Keywords

grading reform, assessment, grading systems, student learning

Disciplines

Education | Educational Assessment, Evaluation, and Research | Teacher Education and Professional Development



IT'S ALL ABOUT TO CHANGE: IMPLICATIONS OF REFORMING GRADING AND ASSESSMENT

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ABSTRACT

Calls to reform grading systems and other assessment practices have been growing for several decades. There is consensus among many educators that grading and assessment practices that have been traditionally accepted as good practice are at best ineffective and at worst have a negative impact on raising achievement. Consequently, there is no single solution or methodology for grading that has emerged as the best practice. A variety of contemporary grading approaches have gained widespread popularity in recent years, typically being referred to as standards-based grading, standards-referenced grading, proficiency-based grading, or competency-based learning. A challenge, however, is that different school districts define these terms differently and models vary widely in their implementation. Although there is no single grading model that is the panacea for all of the ills of past practices, the researchers identified the common ground about what an effective system for grading and assessment should include. Even though further study is needed, the resounding evidence indicates that contemporary grading practices such as standards-based grading are a preferred model if the goal of grading is to accurately communicate student learning and achievement.

INTRODUCTION

When I started teaching thirteen years ago, my classroom at South Western looked like any other typical classroom: I graded homework, thought tests should represent the majority grade, and penalized late and missing work with zeros. Students needed to be taught responsibility and using their grades as a reward/punishment system was an impactful way to do just that. This exact reason was why I graded homework as well—if there was a grade, my students were more likely to complete it.

~Thoughts from high school teacher at onset of assessment and grading reform

Grading reform has been a common, and yet one of the more controversial, topics of conversation in K-12 education for the past two decades. A plethora of literature and research has been produced articulating the inaccuracies of traditional grading practices for assessing student learning and the need for changes on how to measure and report student performance.

Many researchers and experts emphasize the need to change the methods in which schools measure student grading through traditionally accepted grading scales and calculations towards methods that more accurately measure students' current level of mastery of specific standards or learning targets that rely less on averaging scores across a period of time and that eliminate one overall omnibus course grade that is an average of scores for all assignments for all content during a specified period of time (Guskey, 2013; Marzano, 2000; Marzano & Heflebower, 2011; Miller, 2013; O'Connor & Wormeli, 2011; Reeves, 2011). Other works advocate for eliminating grading practices considered to have negative impacts on learning outcomes, or that are considered toxic, such as giving "zeros" for late or missing assignments, not allowing students to retake tests or redo assignments, giving extra credit for tasks not directly aligned to intended learning outcomes, giving points for non-academic factors such as behavior or motivation, and grading assignments and tasks that are more formative in nature and meant to allow students to practice and develop their skills (Fisher et al., 2011; O'Conner & Wormeli, 2011; Reeves, 2004; Schoen et al., 2003; Townsely & Buckmiller, 2016; Wormeli, 2011). Finally, others point to a need for improved assessment literacy among educators and improved assessment design, including an increase in more authentic, performance-based, assessments (Guskey, 2005; McTighe, 2018; Stiggins, 2004). Assessment literacy is not only necessary for teachers but for all stakeholders (Davison, 2013). The purpose of assessment must be to clearly connect assessment literacy with key responsibilities of each stakeholder (Popham, 2009). Stakeholders have different needs which demand different levels of assessment literacy, therefore, the most critical factor contributing to failure of assessment reform is the misconceptions (Davison, 2013). These misconceptions lead to poor implementation as simply changing the assessment practices of teachers will reform the assessment process, whereas, the district need to establish a strong assessment reform culture with all stakeholders across all levels of the district (Davison & Leung, 2009).

Although there is consensus among many educators that grading and assessment practices that have been traditionally accepted as good practice are at best ineffective and at worst have a negative impact on raising achievement, there is no single solution or methodology for grading that has emerged as the best practice. A variety of contemporary grading approaches have gained widespread popularity in recent years, including standards-based grading, standards-referenced grading, proficiency-based grading, and competency-based

learning. A challenge, however, is that various organizations define these terms differently and models that are implemented in school organizations vary widely. Although there is no single grading model that is the panacea for all of the ills of past practices, there is some common ground when it comes to beliefs about what an effective system for grading and assessment should look like, including the beliefs that (Pollio & Hochbein, 2015; Peters & Buckmiller, 2014):

- Assessment and grading should enhance learning, not just measure it. Teachers, students, and others should be able to utilize assessment results to identify learning misconceptions and needs and inform next steps for instruction and learning.
- The primary goal of grading assessments is to communicate student achievement and learning. Grades should be an accurate portrayal of a student's current level of their mastery towards identified desired learning outcomes.
- In order to accurately reflect what students know, understand, and are able to do, grades should only reflect progress towards standards and learning outcomes, and not reflect non-academic factors such as attitude, effort, and behavior.
- Students should be involved in the assessment process through means such as having choice in assessment methods, self-evaluation and self-reflection, and through monitoring and tracking their own progress towards a learning goal.

Although calls to reform grading systems and other assessment practices have been growing for several decades, the field lacked empirical studies into the impact contemporary approaches to grading, such as standards-based systems, had on achievement and learning outcomes. Most recently, however, more studies are being conducted on grading practices providing evidence on the effectiveness of contemporary grading models, as well as the characteristics and practices within these systems that impact their level of effectiveness.

Standards-Based Grading; Evidence of Effectiveness

Research is still minimal on the direct impact contemporary grading practices such as standards-based grading has on student achievement, and evidence is emerging that suggests such approaches do provide a more accurate representation of student achievement and performance. Pollio and Hochbein (2015) note that most of the available research on grading describes teachers' perceptions of grading practice absent a rigorous examination of the influences of classroom grades on learning.

In a recent study of high-needs high schools in Kentucky which implemented standards-based grading practices, stronger correlations between standardized test scores and course grades were more evident than they were prior to switching to a standards-based system (Hochbein & Pollio, 2016). An earlier, unrelated, study also conducted in Kentucky, Guskey et al. (2011) found that teachers in schools where standards-based report cards were implemented overwhelmingly agreed that a standards-based approach provided better and clearer information about students' learning. This same study found that parents and families also favored the standards-based approach over the traditional model.

Because of the fact that standards-based approaches to grading often do not rely on a mean score of student work, rather implement a formula for median or mode to calculate a final grade, they are often considered more subjective than traditional grading practices (Pollio & Hochbein 2015). Supporters of

contemporary grading practices dismiss this as a false reality, pointing to what they consider toxic practices that are commonplace in traditional grading practices that lead to more subjectivity, such as allowing some students to complete extra-credit, giving points for behavior and effort, etc. O'Conner (2011) concedes that because grading involves human judgment, there will always be subjectivity in grading, and that even calculated grades are subjective ratings that give the appearance of an objective measurement. Recent studies have shown that teachers' informed professional judgments yield a higher reliability and more consistency in determining grades than computer-based programs that produce scores based on statistical algorithms (Guskey & Jung, 2016). Subjectivity is expected in grading so long as the grading decisions can be defensible, meaning that they are supported by credible evidence.

Although the impact these grading systems have on their own on learning and achievement may not be clear, having measures that are a more accurate measure of learning can help to support practices and strategies in which the research shows a clear positive impact. In a meta-analytic synthesis of studies conducted on the impact of various instructional strategies, tracking student progress through the use of scoring scales was found to have the most significant impact on achievement, resulting in a 31% gain (Haystead & Marzano, 2009). Effectively tracking student progress requires accurate measurements of students' current level of learning which the research has indicated standards-based approaches are better equipped to provide than traditional grading models.

Although further study is needed, the resounding evidence is indicating that contemporary grading practices such as standards-based grading are a preferred model if the goal of grading is to accurately communicate student learning and achievement. The pursuit of an accurate system to measure learning has caused many districts and schools to investigate, develop, and implement new grading and assessment practices. The Mustang Coral School District, was one of these districts, which has resulted in a multi-year process of reimagining and redesigning their district practices and policies in regards to grading and assessment. The authors of this study worked on the district's grading and assessment committee and included a district administrator, a high school mathematics teacher, and a parent.

Redesigning a Grading System; One District's Process

The grading and assessment change initiatives began as a grass roots effort within the Mustang Coral School District. In actuality, the genesis of these efforts originated with a group of educators getting together for a different purpose all together, unwittingly laying the ground work for what would lead to district-wide grading and assessment reform. During the 2007-2008 school year, a group of high school teachers and administrators began meeting to discuss best practices the topic of mid-term and final exams. This group was delving into questions such as "If students demonstrate mastery throughout a course, should they be required to take a final exam?, How much should a final exam be weighted, or should it be weighted at all?" as well as other related questions. As this group grappled with these questions and shared information with district leaders, it became apparent that there was a greater need than simply addressing mid-term and final exam expectations, and that the district needed to take a deeper and wider look into all of its practices involving assessment and measurement of student learning.

This identified need gave rise to the formation of a district-wide "Grading and Assessment Committee" beginning in the 2008-2009 school year. Over the next several years, this group engaged in exploring effective grading and assessment practices through participating in book studies, reviewing research reports and articles, and conducting site visits to districts that were implementing standards-based grading systems or other contemporary grading practices. The committee then came to consensus on the following list of belief statements about grading and assessment that were adopted by the district:

- 1. The purpose of assessment is to improve learning.
- 2. Teachers will use assessment and grading practices that accurately measure student performance.
- 3. Grades will reflect what students know, understand, and are able to do.
- 4. Grades will be based on a variety of high-quality common summative assessments.
- 5. Students should be involved in the assessment and grading process.

In order to bridge these beliefs into classroom and instructional practice, the district also developed the following comprehensive list of best practices which served as non-negotiable expectations:

Developing and Utilizing Assessments

- Align assessments to clearly defined learning targets.
- Base learning targets on state or national standards and anchors.
- Use frequent and varied, collaboratively developed common summative assessments to measure students' knowledge and skills accurately.
- Provide multiple opportunities for students to show understanding, after re-teaching and/or remediation.
- Continually review and revise all assessments for curriculum alignment and quality.

Using Assessment Results

- Collaboratively review assessment results to plan and prioritize future instruction.
- Use feedback to move students forward in their understanding.
- Communicate to students what was done well and what should be done to improve.
- Give feedback on both formative and summative assessments.
- Use assessment results to prioritize future differentiated instruction.
- Use evidence from summative assessments to determine course grades.

Reporting Academic Achievement

- Report behavior, effort, and participation separately from academic achievement.
- Base grades on summative assessments and tasks.
- Base report card grades on the most current evidence based on the attainment of learning target.
- After reassessing, record the most current summative assessment score as the grade.

Responding to Late Assignments

- Score late work for achievement, not punctuality, which should be reported separately.
- Record incomplete work as "Incomplete" until it is made up.
- Use available resources to get students to complete missing/late work.
- Communicate with parents when students are not completing work.
- Set a specific deadline for incomplete work to be made up; until the work is completed, use appropriate consequences to encourage work completion and to change future behavior.
- If the work is not made up by the set deadline, record the grade based on existing evidence of the student meeting the learning goal. Lack of evidence may result in no credit earned.
- In extreme cases, teachers should refer students to the student concerns process.

Utilizing Homework as Formative Assessment

- Use homework as practice, previewing, or extension of material and/or skills, with the purpose of providing information/feedback to students.
- Base the amount and type of homework on the age and needs of the students.

Involving Students in the Assessment and Grading Process

- Students should be expected to take ownership of the process through tracking their own progress, goal setting, self-assessment, and requesting opportunities to be retaught and retested.
- Students should be taught to use formative assessment results to improve and adjust their approaches to learning.

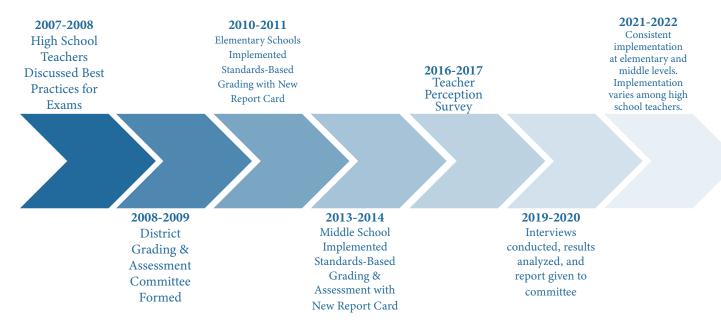
The district believed that in order for teachers to be able to successfully transition their practices to align with these new expectations, there would need to be substantial professional development and support. Peters and Buckmiller (2014) reported that successful implementation of any grading reform should be purposeful and well communicated, and include a high level of support including professional development and collaboration. Professional development efforts throughout the district focused primarily on grading and assessment during these initial years of implementation.

In addition to adopting these identified best practices, beginning in the 2012-2013 school year the district elementary schools (K-5) implemented a standards-based grading system and report card. The district's intermediate school (6-8) followed suit the next year, in 2013-2014. The key features of this new grading system at both levels were that (a) students no longer received a single course grade, but a grade for different standards categories identified for each grade level and course based on clusters of standards; (b) for each reporting category, students would be graded on a 4-point scale (see appendix) instead of the traditional 100-point scale A, B, C, D, F model; (c) final grades for each category were to be based on students' current level of mastery determined by the teacher's analysis of multiple pieces of evidence, no longer an average of scores from a designated reporting period; and (d) in addition to standards-based grades based on academic conduct, students received a separate 'Habits of Learning' grades which measured factors such as motivation, participation, and communication.

As is with many district grading reform efforts, challenges at the high school emerged and eliminated the possibility of an effective implementation. These factors included trust, early involvement, due diligence (Foos et al, 2006), personal interest, shared values (Dhanaraj et al., 2004), intrinsic motivation (Osterloh & Frey, 2000) and a fit in the Mustang Coral School District's secondary curriculum (Kippers et al., 2018). Reflecting on the lack of change at the high school, it was clear that the faculty did not identify and adopt the philosophical changes that would move the assessment practices to a standards-based-grading process. Therefore, the high school became the place where standards-based-grading died. The faculty prefers the traditional 100-point 'A, B, C, D, F' grading scale. Several factors, including parent and community support, and perceived barriers such as a negative impact on college admissions and scholarship opportunity have presented challenges that have contributed to the high school from making such a transition.

During the 2016-2017 school year, the district's grading and assessment committee determined that there was a need to gage teacher perceptions on the grading in order to identify professional development needs related to assessment literacy and effective grading practices, and to identify potential revisions to district grading policies and practices. In order to elicit the most valid and reliable feedback possible, district administration and the grading and assessment committee partnered with the principal investigator, the parent, to develop a qualitative study that focused on teacher perceptions of the district's grading and assessment practices. A summary of the work can be seen in Figure 1.

FIGURE 1 *Timeline for Study*



CURRENT STUDY

Throughout the past eight years, Mustang Coral School District created an active, dynamic Grading and Assessment Committee. This committee includes faculty from all levels (elementary, middle, and high schools), administrators, board members, and parents; meeting monthly to reconstruct the grading practices, report cards, and assessment tools. Recently, it has become apparent that not all stakeholders embrace the same understanding of assessment literacy. This lack of a common understanding resulted in obstacles that include misguided grading practices, differences in the reporting of grades, and inconsistent assessment practices. The committee identified a need to complete a gap analysis of assessment literacy, so that the committee could move forward to ensure student learning and growth. The faculty responses will help the committee to capture the quality of process/product within the area assessment literacy so that the committee can support all stakeholders by providing a consistent definition, proper professional development, and clear communication.

METHODS

District Demographics

The Mustang Coral School District serves approximately 4,500 students in grades K-12, and is comprised of four elementary schools (K-5), one intermediate school (6-8), and one high school (9-12) in a rural area. The student population is made up of 87.7% students identifying as Caucasian, 4.7% Hispanic, 2.5% African-American, and 1.8% Asian. Approximately 32% of district students come from economically disadvantaged families, with individual schools ranging from 24.3% economically disadvantaged to as high as 45.5%. The district's graduation rate is 96.2%, with approximately 78% of students going on to post-secondary education upon graduation.

The district teaching staff is comprised of 309 full-time faculty members. South Western's faculty includes individuals with a wide range of experience, with 16% of faculty having less than five years of experience, and 23.1% having 20 or more years of experience. Across the district, 82.7% of faculty members hold a masters degree or higher.

PARTICIPANTS

The committee solicited interest for participation in the study through an interest survey. Based on the number of responses from each school and the amount of time the interviewer had to conduct individual interviews, the researcher used a stratified random sampling process to invite 100 teachers to participate. After multiple invitations, 81 teachers agreed to participate in the interviews. Each interview was conducted by the researcher at one of the four elementary schools, middle school and high school. Each building administrator secured a quiet rooom where the interview could be conducted with minimal distractions. The interviews lasted on average twenty minutes, ranging from 15 minutes through 55 minutes. In order to ensure that teachers felt safe and non-evaluated; the principal investigator conducted each interview, she is not employed by the district but represents parents on the committee. The interviews were audio-recorded then transcribed. Across the district there were 293 teachers who administer student grades and therefore were eligible to participate in the study. To ensure fair representation of teachers from grades and content areas, the researcher used a stratified random sampling process. The researcher sent a total of 146 invitations to teachers in the

district. Of these 146 invitations, 26 warranted no response, 42 teachers declined to participate leaving 81 willing to participate. The participants included 39 elementary teachers, 21 middle school teachers and 21 high school teachers. There were 60 female and 21 male teachers. Their years of teaching experience ranged from one year to 33 years. Their degrees ranged from a bachelors to multiple masters degrees.

Process

Once teachers agreed to participate, by signing an informed consent form, each participant scheduled an interview using an online scheduling tool indicating the researcher's availability. Interviews were recorded, transcribed and then read by each researcher and coded to identify common themes. The researchers discussed their individual coding to identify common themes of relevance. Transcriptions were reread by each researcher and coded with identified themes to ensure inter-rater reliability. The identified themes, gathered across all interviews, were organized into two categories; assets and challenges.

FINDINGS

The identified assets included: *meeting student needs*, *specific feedback*, and *student reflection / goal-setting*. The first asset, *this assessment process meets student needs*, was identified by 100% of the elementary teachers, 92% of the middle school teachers, and 81% of high school teachers. The most common comments are captured below:

- Look at individual child instead of the whole class, know my students more with less grading, spend more time focusing on each child.
- Challenge my belief that grading is more about learning and not behavior. Behavior is subjective.
- Can meet individual student needs.
- Identifies students' growth.
- Mastery perspective is more aligned with customization, but report card does not reflect this.
- I now know exactly what students do well.
- Can provide more personalized learning.

The second asset, *specific feedback*, can be defined as the opportunity to provide specific feedback identifying student strengths and areas of concern. This asset was identified by 85% of the elementary teachers, 67% of the middle school teachers, and 67% of high school teachers. The most common comments are captured below:

- [Student] obstacles are managed through conversations.
- Separating behaviors from academics was at first an obstacle, now a benefit.
- $\bullet\ Narrative\ feedback\ I\ provide\ on\ assessments\ should\ be\ transferred\ to\ report\ card.$
- Would like to add space on report cards for comments in all subjects.
- I provide more specific feedback for students.
- It's about the ability now and not the grade.
- This model pushes teachers to give specific, constructive feedback.

The third asset, *student reflections and goal setting*, included the opportunity for students to review their assessments to identify what they knew and what they did not know. Once the students complete their review, they reflect and then write their goals. This asset was identified by 56% of the elementary teachers, 14% of the middle school teachers, and 29% of high school teachers. The most common comments are captured below:

- Trying to get students to look at what they learned instead of what they earned.
- Better [student] reflection of what was learned, since students see the behavior separated.
- Students write goals, work toward goals, and achieve goals.
- Goal writing is working!
- Students are self-motivated to work on goals.
- Cover sheets help students reflect and then set goals.

The first challenge across all grades and subjects was the time involved to transition into the new grading and assessment process. This challenge was identified by 67% of the elementary teachers, 76% of the middle school teachers, and 71% of high school teachers. The most common comments are captured below:

- Spent much personal time redeveloping tests and how projects are graded and assigned.
- Remediation time is a struggle need intervention periods.
- Where do I find the time to re-assess/reteach?
- Turn around time to re-teach and reassess is too short.
- Time intensive to create and complete the cover sheets.
- I sacrifice instructional time to reteach.
- This is definitely more work.

The second challenge identified was the drop in student motivation. This challenge was identified by 45% of the elementary teachers, 95% of the middle school teachers, and 81% of high school teachers. This challenge was most significantly shared among teachers in grades 4 through 12. The most common comments are captured below:

- Big dip in student motivation, see that a 2 is "okay grade", parents have checked out and don't put as much pressure on children.
- Students are not motivated to take on this work.
- Students are not motivated, students don't experience failure, where is the accountability?
- Motivation is less now "I'm a 2, I'm proficient."
- Natural consequences are a great teacher, we are stripping our children of these. This removes the urgency for learning and motivation. Developing a failure model for work ethics and removes parental responsibility.

In the end, the biggest challenge faced by teachers across all grades was the level of inconsistency from what a "2" looks like and the implementation expectations. This challenge was identified by 45% of the elementary teachers, 95% of the middle school teachers, and 81% of high school teachers. The most common

comments are captured below:

- Consistency of what a "2" is, is very subjective.
- What does the grade really mean since there is no consistency?
- Consistency is a struggle; narrative feedback is missing should be added to report card.
- Inconsistencies in the reteach, reassess practices.
- Inconsistency accountability with administration.
- What does a "2" look like across departments, classes, grades, schools?

The researchers sifted through the data further to identify any overlap between the greatest challenge and the greatest asset. Seventy-two of the eighty-one teachers shared that even though there is inconsistency in the process this process is meeting the students' needs as evident in student learning.

DISCUSSION

The researchers first shared the data with the district administration team, then the grading and assessment committee and most recently the board of education. During each presentation, the stakeholders agreed that time and professional development is necessary to move the process in the right direction. Knowing that this process meets the students' needs and in turn accelerates learning through customization, the district will support the teachers through professional development opportunities as well as create a clear statement to share with parents knowing that the process is asking teachers to make a practical and philosophical shift.

In practice, this includes that the district allows retests, as long as students have fully prepared for the first test but simply did not understand the concepts yet. As one teacher tells her students, retesting is not a "get out of jail free" card. Students must study and put forth their best effort on the test, but if they do not yet understand the material, they can spend more time outside of class talking, explaining, and eventually retesting. Also, teachers do not penalize late work with grades or give zeros for missing assignments without displaying due diligence in trying to obtain these assignments through assigning of intervention periods and parent contact. Teachers only grade summative assignments but frequently use formative assignments to assess learning which means we do not grade homework. Teachers do not believe in extra credit nor do they believe in behavior-based grades.

This was not an easy, overnight process of change. It involved years of conversations within the committee, schools and across the district that were grounded in research. Often, these conversations ensued conflict as expectations and implementation varied across the district. There have been, and still are, heated conversations about what a specific belief looks like in practice and if a specific structure or behavior is actually best for the students. But, from these challenging and frustrating conversations have bloomed effective practices and ideas. The district created a senior level English class, *Survival of the Fittest*, that allows students to choose a main theme, such as surviving an earthquake or a zombie apocalypse, and create a blog informing strategy, sharing first-had survivor accounts, and describing a how-to survive process. They developed a new social studies class, *Social Problems and Issues*, in which students now choose an important social issue in our area, talk to experts, and explain and propose solutions to these ideas. Their academic statistics class is structured as *Project Based Learning*, focusing on student-driven real world data analysis and issues. There

are upper level art classes that are gradeless and the focus is on the learning and identity of the created pieces instead of the score that is earned. As a result, there is an increase in students taking honors and AP level courses and more students are willing to take risks as they think in global terms.

CONCLUSIONS

It is clear that there is work to be done so that the district's assessment and grading approach is consistently implemented across all buildings, grades, and subjects. Many faculty, mostly secondary faculty, need to move from the basic questions; "What is the difference between a 93% and a 94%? What is the difference between an 89% and a 90%, or more importantly, what is the difference between a B and an A?" Teachers across all buildings continue discuss consistency and sustainability. Also, as teacher turnover becomes a more apparent challenge, the district will need to identify how to educate new staff that has not been through this process during the past ten years and how to hold the reluctant faculty accountable to implement the effective changes in all classes. The district will also need to support the faculty who have already transformed their assessment practice and adapted their course content to add relevance, whether this is a change in approach to project-based learning, a better incorporation of performance tasks, or allowing students more voice and/or choice in the products or topics they research and produce; these teachers need support.

The few faculty who have successfully transformed their assessments to align with a standards-based grading system agree that a student's grade should reflect his or her understanding of the material and not his or her behavior and that it does not matter when a student learns as long as he or she learns the material. These faculty focus on learning, rather than grading. It is evident that embracing a growth mindset ensures that teachers believe that all students can learn with the right amount of time and scaffolding. By sharing the results of this study, the researchers hope that tough conversations between faculty will challenge one another's practical and philosophical approaches to learning and assessment, and lead to a more productive, district-aligned system of assessment and grading so that student learning is accelerated.

Now, my classroom is incredibly different. In my academic statistics class there are no more tests. Project-based learning, with larger open-ended projects designed to meet specific learning targets have replaced tests. Students no longer need to memorize rules and formulas but rather, using their notes, need to show me that they can apply these concepts to unique and highly intriguing data sets of their own choosing. Quizzes, assessing specific content concepts, are open-note because again, the focus is on the application of ideas and not the memorization of statements. At the end of each project students conference with me, and with a previously self-evaluated rubric, they explain to me where they think they scored in each of four categories: application, presentation, communication, and reflection. We discuss these scores together before I determine a final grade with their input. If the students do not complete an assignment, it is not a zero but rather it goes in the gradebook as a "dnc" (did not complete yet) and students are assigned intervention periods, parents are contacted, and the work is eventually completed.

~Thoughts from high school teacher after reforming her assessment and grading

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APPENDIX

ACADEMIC GRADING SCALE GRADES K-5

- Your child demonstrates a thorough understanding of this skill as presented this trimester. He/she is able to perform this skill consistently and independently.
- Your child demonstrates an understanding of this skill as presented this trimester. He/she needs assistance and/or practice to perform this skill consistently and independently.
- Your child is in the process of building his or her understanding of this skill. He/she is not yet able to perform this skill consistently and independently.

ACADEMIC GRADING SCALE GRADES 6-8

- 3 Student demonstrates a complete understanding of the skills presented in this reporting period. He/she is able to perform these skills independently, and may be partially successful at making inferences and applications that exceed expectations.
- 2 Student demonstrates an understanding of the skills presented in this reporting period. He/she needs additional support and practice to perform independently.
- Student is in the process of building his or her understanding of the skills presented in this reporting period. He/she is not yet ready to perform independently

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