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Education Reform and the Transition to Standards-Based Grading in the United States

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Abstract

This literature review provides a history of education reform in the United States along with the basis for a transition to standards-based grading. The educational system is a complex network of intertwining parts that work together with the goal to mold a child into a valued member of society. Continual passage of educational laws has helped develop education reform within the United States. Adoption of federal and state laws helps create consistency amongst schools. Grades are held with high regard and deserve accurate representation within an unbiased grading system. Many components are encompassed in the transition to a standards-based grading system. Standards-based grading reflects the recurring need for change and reform adapting to and using new strategies such as formative and summative assessments.

Keywords: standards-based grading, education reform, assessment

Education Reform and the Transition to Standards-Based Grading in the United States

The United States educational system is a highly complex system that must continuously adapt to social, political, and economic practices. The intent of government laws, regulations, and policies related to education is to ensure consistency in instructional standards, expectations, and accountability in a safe and inclusive environment. Due to the vast array of student physical, mental, and social-emotional needs, educational reform attempts to encompass equal educational opportunities for a diverse population.

Educational reform includes local, state, and federal decisions regarding the structure and operation of schools. Regulations offer the chance to continue the responsiveness of enacted laws, move the development of the field of education, and most importantly progress the accomplishments and successes of students (Daly et al., 2006). Significant educational reform regulations include the Elementary and Secondary Education Act, National Assessment of Educational Progress, No Child Left Behind Act, Common Core State Standards, and Race to the Top. One of the most recent changes includes the 2009 adoption of the Common Core State Standards. The adoption of these standards has greatly influenced the grading system in the United States.

Assessments provide guidance for teachers, students, and parents regarding student achievement. The way in which students are assessed can have a lasting impact on their academic experience and future. A consistent grading process allows students to understand academic expectations, which in turn provides opportunities to be successful. The process should be transparent with open communication of expectations throughout the entire learning progression and grading framework.

In recent years, school districts across the country have changed the way in which they report student scores and final grades. Many have started or are in the middle of a transition to standards-based grading. Administrators, teachers, students, and parents may be forced to change their mindset concerning grading practices throughout the transition to standards-based grading.

Grading methods affect not only students, but administrators, teachers, parents and even college admissions counselors. One of the challenges with the traditional grading system is that the purpose for a grading system is not clearly defined (Hooper & Howell, 2014). For schools adopting a standards-based grading system, the process needs to be transparent for students and parents. Having access to the criteria of the grading system is key for the system to have a positive impact. Standards-based grading came about based on the idea that teachers should have defined academic goals for students, determine if they have met the goals, and communicate grades to students and parents (Spencer, 2012). The creation of the standards provided a baseline for teachers to consistently teach core concepts.

Knowing that grades can have long-term consequences for students, teachers across the nation have voiced concerns about being fair in the grading process. However, teachers' interpretations of fairness vary and are sometimes contradictory (Tierney et al., 2011). The use of defined rubrics with specific outcomes helps negate teacher bias and inconsistency in evaluating student performance.

Standards-based grading has an effect on teachers, students, and parents. A letter grade is no longer earned with standards-based grading. Students earn a number, typically from 1-3, on a proficiency scale, with 3 being proficient. The use of formative and summative assessments has an effect on standards-based grading because homework is used for practice and not calculated in a student's final grade as it was in a traditional grading system.

The purpose of this literature review is to identify legislation that changed the education system; review the history of grading in American education; explain the rationale and systematic implementation of standards-based grading; highlight the impact standards-based grading has on students, teachers, and parents; and deepen the understanding of how the shift in grading allows for more concrete understanding for students.

Literature Review

Laws and regulations set forth by the federal, state, and local governments are integral pieces to the foundation of the United States education system. This foundation sets the stage for the teaching and grading practices used in the classroom which directly affect administrators, teachers, students, and parents. Educational reforms are an attempt on the part of the federal government to fix problems; they are also part of an ever-growing federal role in K-12 education (Greer, 2018).

Due to the No Child Left Behind Act legislation, the Department of Education in the United States created an accountability system to track and evaluate student proficiency levels (Swan et al., 2014). Other legislation, such as the Elementary and Secondary Education Act, National Assessment of Educational Progress, Common Core State Standards, and Race to the Top, have played major roles in recent education practices. These integral pieces of legislation directly affect what is happening in classrooms across the country.

Nearly all states have developed common school report cards based on state standards. However, schools have been left on their own to develop standards-based student report cards to communicate information about the achievement and performance of individual students to parents, guardians, and others (Swan et al., 2014). This work is daunting when looked at as a big picture. Schools need time to implement the changes to ensure they are done with fidelity and understood by all stakeholders.

Education Reform

On a national level the federal government became involved by setting the agenda for education reform. The term standards-based reforms was used for accountability measures which individual states wanted to establish higher standards (Chatterji, 2002). Numerous segments

were important for the instruction methodical change which come from Goal 2000. The

Governor's Summit in 1989, the passage of the seven National Education Goals (now known as

"Goals 2000"), and the reauthorization of Title I programs as a fiscal means to move schools and

school districts to achieve Goals 2000 were all monumental influences to standards in

educational reform (Cohen, 1995). Parts of the change were: establishing challenging standards

that would provide guidelines as to what students should know and be able to do; coordinating

curriculum and instruction, assessment and accountability, and teacher certification and

professional development; revitalizing of school structures, allowing schools and teachers greater

freedom to achieve high standards of student performance (Chatterji, 2002).

Despite the fact that state plans and actions aligned with the intent of Goals 2000 there

seemed to be a lack of regularity in the way changes occurred (Chatterji, 2002). These reform

movements helped to make remarkable changes in the role of the federal government in the

education system. Most of the

Elementary and Secondary Education Act

The Elementary and Secondary Education Act was passed in 1965 as part of President

Johnson's War on Poverty (Greer, 2018). The purpose of the Elementary and Secondary

Education Act was to provide educational services for the at-risk students. As the first federal

education law of its kind, its purpose was to compensate public schools that had a significant

number of children from low income families (Greer, 2018).

Within the first year of the act, $1.3 billion was given to states and school districts via

Title I programs (Greer, 2018). In order to be considered for a Title I program, measures need to

be met by the school district. Two variables decide a Title I status: the number of students whose

families earned an annual income of $2,000 or less, and the number of students whose families

received aid-to-dependent-children (McKay, 1965). School districts were given discretion in using the money that they received from the Elementary and Secondary Education Act. The funds could be used in a number of ways as long as they clearly addressed the needs of low-income students (Greer, 2018).

Secretary of Education Arne Duncan created a vision for a new Elementary and Secondary Education Act in 2015. Duncan's vision was to expand funds to create high-quality preschool; guarantee that annually teachers and parents receive student progress reports; give administrators and teachers the resources needed; encourage innovation and problem-solving skills; commit to investing in poverty-stricken school districts; and guarantee appropriate measures will be implemented when students need academic support (Brenchley, 2015). The Elementary and Secondary Education Act still provides funds to school districts with a Title I program in order to best serve student's educational needs.

National Assessment of Educational Progress

The National Assessment of Educational Progress laid the groundwork for what is now referred to as standardized testing. First administered to students in the United States in 1969, the goal of the National Assessment of Educational Progress was to evaluate educational progress in the United (Messick, 1985). In about 30 years, the role of the National Assessment of Educational Progress matured from simply providing outcomes to paving the way to reform and improvement (Greer, 2018). The National Assessment of Educational Progress has produced important findings.

Since the creation of the assessment, the way in which the test is administered has changed, but the reason for the assessment has not. The original test was administered in 10 different content areas (reading, writing, science, mathematics, literature, social studies,

citizenship, art, music, or career development). It was first given to only United States students ages 9, 13, and 17, but has since changed and is now given in grades 4, 8, and 12. The testing format included performance tasks, short answers, and multiple choice questions to create validity as well as specific easy, moderate, and difficult questions.

The United States has made a commitment to monitor progress in education using the National Assessment of Educational Progress. The assessment is administered to a representative sample of students. Results are reported for groups of students with similar characteristics (e.g. gender, race and ethnicity, school location), not individual students. Despite some concerns about procedures, the assessment has provided data about changes in student accomplishments. Achievement progress came with demographic change in public schools. An increase of Black and Hispanic children led to lowered expectations rather than intensified achievement for the nation's youth (Jones, 1996).

The impact on the Common Core State Standards from the National Assessment of Educational Progress is apparent. Standards focus on informational text, text complexity, and argumentative and informational writing (Greer, 2018). The National Assessment of Educational Progress's utilization of criterion-based, rubric-scored practices forecasted the use of credible assessments (Lapointe & Koffler, 1982). The National Assessment of Educational Progress has been used as a guide for what students should be able to do in the form of a standardized test. The National Assessment of Educational Progress website states the organization has introduced new technical innovations for test designs, statistical analysis, psychometrics, and modern computing that have provided the needed changes in education based on productivity and reliability.

No Child Left Behind Act

Principles of the No Child Left Behind Act date back to *Brown v. Board of Education*, when the United States Supreme Court outlawed racial segregation in public schools. It was determined that the "separate but equal doctrine" was unconstitutional (*A Guide to Education and No Child Left Behind*, 2004). The No Child Left Behind Act of 2001 was signed into law by President George W. Bush in January 2002. It is noted as one of the most significant federal education policy initiatives (Daly, et al. 2006).

During the creation of the No Child Left Behind Act there was pushback from many state legislators. The act passed with support, but administrators, teachers, and politicians see a need to reevaluate it (Aldridge, 2003). The final votes were 87-10 in the Senate and 381-41 in the House (*A Guide to Education and No Child Left Behind*, 2004). The pressure put on schools from the No Child Left Behind Act has led to a push for standardized test preparation. Administrators and teachers want students to perform well in order to meet requirements of adequate yearly progress as outlined in the Act.

Legislators thought the No Child Left Behind Act would lead to greater accountability; more flexibility with federal funds; more extensive education offerings; and an emphasis on research-based instructional strategies (Aldridge, 2003). The inspiration driving this framework is improved public school performance; it likewise gives motivations to schools to focus educational resources on the marginal student rather than on ability (Krieg, 2008).

There are many different focuses within the No Child Left Behind Act, with students being at the center of most. The objectives of the No Child Left Behind Act include expanded responsibilities for student performance, extended parental alternatives, attention on teacher capabilities, financial flexibility, and an emphasis on using effective strategies (Daly, et al.

2006). Another major focus of the No Child Left Behind Act is to close student achievement

gaps by providing all children with a fair, equal, and significant opportunity to obtain a high-

quality education (*A Guide to Education and No Child Left Behind*, 2004).

Many of the accountability features of the education agenda became laws with the

signing of the No Child Left Behind Act (Linn et al., 2002). Accountability to follow these laws

falls onto the schools themselves. An accountability measure taken by school administrators is

performing teacher evaluations. The evaluation process is designed to identify progress towards

state standards.

Even though the No Child Left Behind Act was enacted as a federal law, states still have

some power. States set their proficiency levels because content and performance standards vary

from state to state. The "proficient" level is determined based on assumption that students are

inspired to make satisfactory progress and to gain proficiency toward a learning objective. It

could be unreasonable to anticipate that all students should achieve proficiency because the level

is set so high (Aldridge, 2003). While some states had the power to make decisions, it created a

sense of panic for them to meet an acceptable annual progress mark. States began using

standardized tests without careful consideration of the standards (Aldridge, 2003 b). The quick

creation of the standardized test without taking a deeper look at the learning standards, is another

reason why the No Child Left Behind Act should be revised since its implementation 19 years

ago.

Content standards, the rigor of tests, and performance standards vary greatly among

states. Consequently, the percentage of students who score at the proficient level or higher on the

state assessments varies radically from state to state. Some states have farther to go than other

states to meet the mandated target of 100% proficiency within 12 years (Linn et al., 2002). As

the stakes continue to rise, so do the consequences. The No Child Left Behind Act imposes

sanctions on schools if proficiency on standardized tests falls below a designated pass rate

(Krieg, 2008).

In response to the consequences, states began lowering standards, which is worrisome

(Aldridge, 2003 b.) This is the opposite of the intentions with the passing of the No Child Left

Behind Act, which was designed to promote stronger accountability for results, more freedom

for states and communities, proven education methods, and more choices for parents. The United

States Department of Education emphasizes the four pillars within the bill. The four pillars are

accountability to ensure those students who are disadvantaged achieve academic proficiency,

flexibility which allows school districts to improve student achievement using federal education

funds, research-based education practices which emphasize educational programs that are proven

effective through scientific research, and parent options which increases the choices available to

parents of students attending a Title 1 school (*Four Pillars of NCLB,* 2004)

The No Child Left Behind Act continues the legacy of the *Brown v. Board of Education*

decision with an education system that's inclusive, fair, and responsive (*A Guide to Education

and No Child Left Behind*, 2004). The passing of the No Child Left Behind Act allows for

flexibility, accountability, and federal support in the education system.

Common Core State Standards

The National Governors Association and the Council of Chief State School Officers did

not approve of the variation of educational standards between states. Therefore, with the

monetary support of the Bill & Melinda Gates Foundation and the political help of the United

States Department of Education a task force was formed in 2009. The task force welcomed each

state to participate with the end goal to set Common Core State Standards (Peterson & Kaplan,

2013). By funding the construction of standards and securing critical political support across the United States, the foundation also convinced state governments to make changes that were systemic and costly (Kendall, 2018).

The purpose in creating the Common Core State Standards was to outline what students should know and be able to do at each grade level. The content focuses on mathematics and literacy. Once created, the next step was to get states to adopt the standards so that every state would have a consistent structural framework for student learning expectations for grades K-12.

To encourage states to adopt the Common Core State Standards, the United States Department of Education provided incentives (Peterson et. al, 2016). One incentive was grant money from the Race to the Top initiative. Another incentive was a waiver from the No Child Left Behind Act requirements.

The adoption of the Common Core State Standards allows students living across the nation to be provided the same basic education. Replacing 50 sets of state standards with one set of content standards creates a uniform educational system (Marrongelle et al., 2015). Uniformity creates opportunities for educational equality.

With the development of the Common Core State Standards comes controversy and questions. Some states decided to increase the rigor of the Common Core State Standards and create their own set of additional standards. Other states have chosen to withdraw their participation. Regardless of the controversy, in 2015, 45 states formally embraced the Common Core State Standards, pledging high regard to commonality in education (Peterson & Kaplan, 2013). Assessing the new standards at a high level of rigor was a concern.

The history of the Common Core State Standards is significant to the overall reform of education as it was influenced by a movement for improved educational opportunities.

(Wadham, 2013). Conversations regarding standards continue to play a major role in education reform (Hooper & Cowell, 2014). Continued discussions centered around the Common Core help keep students at the center of decisions.

The objective is to set standards and proficiency bars at attainable levels matching those set by international organizations. This allows students in the United States to achieve levels accomplished by students in other countries (Peterson & Kaplan, 2013). When states could set their own proficiency bars, many chose to set them low so that more students achieve the goal. This made it easier for states to comply with the No Child Left Behind Act requirement, but it was not an honest reflection of each state's student proficiency level (Peterson & Kaplan, 2013). Data from state to state was not comparable because of the inconsistencies in proficiency bars. Therefore, a national proficiency could not be easily calculated.

Increased proficiency standards could allow schools to meet goals at a more noteworthy level and could internationally increase that ranking of the United States if Common Core State Standards work as expected (Peterson, et. al 2016). The rationale behind the Common Core State Standards and student success is anchored in the idea that students will be able to master a specific set of standards. Implementation of the standards proved to be a challenge.

Race to the Top

The Race to the Top initiative was created to stimulate the adoption of specific education reforms. President Obama signed the American Recovery and Reinvestment Act of 2009 into law in February of 2009. This legislation was designed to stimulate the economy; support the creation of jobs; and invest in critical sectors, including education (Howell, 2015). Race to the Top is about two things: allowing innovation for state education reform and helping build administrative responsibilities to effectively implement strategies (McGuinn, 2012). The

education reform came from allocating funds to states based on specific criteria and applications from states.

The initiative is not the first federal educational grant program, but it is the largest. In the American Recovery and Reinvestment Act, nearly $100 billion was set aside for education. Of that money, $4.35 billion was used to start the Race to the Top initiative; the initiative is intended to urge states to support educational training with a grant program competition (Howell, 2015). With such a large amount of funds from the American Recovery and Reinvestment Act going towards education, the U.S. Department of Education exercised considerable power over the design and operation of the Race to the Top initiative.

To ensure compliance, President Obama's administration picked policies that would be rewarded, and by how much; the number of states that would receive financial rewards and in what amount; and what oversight would be used (Howell, 2015). With many restrictions around Race to the Top funds, the Department of Education had control with the creation and disbursement of funds. Three ideas shape an understanding of the design and impact of Race to the Top. Those three ideas are the enormously difficult task of driving systemic change in a fragmented and decentralized education system, the newness of and political opposition to federal efforts to push systemic education reform on the states, and the weakness of state and federal administrative capacity in education (McGuinn, 2012).

The Race to the Top initiative had three different phases where states could compete to receive funds. Phases 1 and 2 were both based around evaluations of current practices in the state. The Department of Education offered technical assistance and training materials to help states draft and submit applications (Howell, 2015). There were 40 applications turned in from states as well as the District of Columbia.

According to the United States Department of Education website, applications submitted by states were graded on a 500-point scale. Criteria for the scale included rigor of the proposed reform and coherence with development of common standards and assessments, improving teacher trainings, evaluation, and retention, and creating better systems to interpret data. The criteria for a state to win and be awarded grant money was a long process monitored by the Department of Education.

In March 2010, Phase 1 winners were announced. Tennessee and Delaware were among these winners and awarded roughly $500 million and $120 million. This prize money equaled a significant percentage of the state's education budget for a single year (Howell, 2015). After the winners were announced the application process for Phase 2 of Race to the Top began. Thirty-five states and the District of Columbia submitted applications. Ten states (Florida, Georgia, Hawaii, Maryland, Massachusetts, New York, North Carolina, Ohio, Rhode Island, and Washington) and the District of Columbia were awarded grant money in Phase 2. The awarded prize money was between $75 million and $700 million (Howell, 2015). After the completion of Phase 2, the funds from the American Recovery and Reinvestment Act had been depleted. This created a dilemma for the continuation of the Race to the Top initiative.

President Obama sought additional support for Race to the Top in 2011 from Congress. In the spring, Congress set aside more funds to support a third phase of Race to the Top. Only losing states from Phase 2 were allowed to participate. (Howell, 2015). Many more states were awarded prize money in Phase 3, but the funds received were significantly lower than in both of the previous phases. The Department of Education announced Phase 3 winners On December 23, 2011; the winners were awarded between $17 million to $43 million (Howell, 2015). Through all

three phases there were 19 winning states and the District of Columbia, 28 losing states, and four that chose not to participate (Howell, 2015).

The money was deliberately given to cash-strapped states allowing for an increase in the public profile of the educational policies. President Obama was able to stimulate reforms that had been previously halted at the state level, had no support in Congress, and could not be accomplished with one-sided support (Howell, 2015). This was true for many states that participated in the Race to The Top initiative. States that participated were more likely to adopt the policies (Howell, 2015).

For example, Illinois submitted an application in all three phases before they were awarded any grant money: Its biggest policy accomplishments, however, happened well before it received any funds from the Department of Education. The rapid enactment of Race to the Top policies in Illinois reflected a concerted effort by the state government to strengthen its application in each competition. Before the state even submitted its Phase 1 application, Illinois enacted the Performance Evaluation Reform Act, a law that significantly changed teacher and principal evaluation practices. After losing in Phase 1, Illinois went on to adopt several other Race to the Top policies prior to submitting Phase 2 and Phase 3 applications. The competition served as a clear catalyst for education reform in the state (Howell, 2015).

Two of the main achievements of Race to the Top are more robust data systems for student achievement and the selection assessments based on state standards (McGuinn, 2012). Race to The Top has proved to propel education reform in the United States with states adopting policies and enacting new legislation. The relatively small program has demonstrated a promising new approach to federal education policy with the use of an ambitious grant program,

and developed a sizable amount of state policy change in a short time (McGuinn, 2012). Race to the Top helped states move forward with reform.

History of Grading

Grading is defined as the symbols used to reflect student work towards a specific set of criteria or student performance on report cards (Brookhart et al., 2016). Initially, the purpose of grading was to move students to the next grade level (Spencer, 2012). Grading student work has always been a major part of the education process. However, through all of the changes in education, one thing remained stagnant, the way in which students are graded.

Grading and reporting are foundational elements in the educational system. Grading represents teachers' evaluations of student work, either formative or summative. Reporting is the process of communicating the results to students and parents (Munoz & Guskey, 2015). Teachers must ensure the grading practice used meets criteria for validity and reliability. Teachers should ensure that both grading and reporting are meaningful, accurate, and fair (Munoz & Guskey, 2015).

Policies related to classroom assessment have changed in educational systems as a result of standards-based reform (Tierney et al., 2011). The earliest research on grading mostly looked at the reliability of the grades teachers assigned to students' work. At one time, student progress was communicated orally to students and parents during a home visit (Brookhart et al., 2016). Eventually the oral progress reports were abandoned, and teachers moved to a narrative of student progress on specific skills.

In a traditional grading system, student work is graded with points or percentages. All scores are averaged together to calculate a final grade (Knight & Cooper, 2019). A majority of schools in the United States adopted the A–F grading scale by the 1940s (Brookhart et al., 2016).

This grading scale is still the most common scale used today. Concerns about grading emerged because of teacher practices, and lack of coherence increased (Tierney et al., 2011). Many school districts have adopted standards-based grading practices alongside the traditional grading system, but the standards-based grading system should replace the traditional point-based grades used (Scriffiny, 2008).

Elementary schools typically maintain detailed descriptions of student performance while high schools tend to favor the use of percentage grades. Percentage grades are less time-consuming than detailed descriptions even though percentage grades do not reflect what students know and are able to do (Trumbull & Farr, 2000). High schools tend to stay with norm-referenced grades to accommodate the need for ranking students for college admissions. Some elementary school teachers switched to mastery learning and then standards-based grading (Brookhart et al., 2016).

The traditional grading system comes with some weaknesses. One imperfection is the inability to communicate a student's proficiency on established standards if assessments and grading hinge on the number of assessments instead of assessment type (formative or summative). Another shortcoming is the uncertainty and vague comments about student learning when an average is used as a final grade (Hooper & Howell, 2014). These shortcomings of the traditional grading system are proof that grading reform is necessary.

Standards Selection

Standards provide direction by describing what students are expected to learn and what skills should develop at each grade level (Guskey, 2009). The standards align multiple ways, horizontally and vertically. The horizontal alignment allows for teachers in the same grade level

to consistently teach the same concepts. The vertical alignment creates a learning progression throughout a student's academic experience.

Using both vertical (e.g., elementary, middle, high school) and horizontal (e.g., all fifth grade teachers) standards-based classroom instruction encompasses the goal of standards-based grading reform. The standards should be both vertically and horizontally aligned. This alignment will ensure every student is receiving the same high quality education no matter what variables are present.

Grading and reporting need to reference specific standards. Referencing specific standards encourages student learning (Guskey, 2009). Standards should be defined and must identify the specific knowledge, skills, and abilities that students will gain through interactions in the classroom (Guskey, 2009).

In order for a school to make the transition to standards-based grading, they will need to clearly identify the standards taught in each grade level. These specific standards are labeled as power standards. Each grade level should identify a specific set of power standards. Usually, three to five standards are sufficient (Guskey & Bailey, 2001).

Standards bring much-needed focus to curriculum enhancement efforts and provide new ways to assess student proficiency in a given content area (Guskey, 2009). The power standards are the main focus of the academic year. A majority of instructional time is needed to teach and assess power standards in order to reach mastery. These standards are recorded and appear on student report cards.

Once power standards are identified, the behind-the-scenes work of transitioning to and implementing standards-based grading can begin. It is important to work collaboratively as a school district to make decisions for standards-based grading before the implementation process

is made public. The creation of a coherence map between grade levels creates consistency for a

school district's power standards. This provides a solid foundation and understanding for all

members of the district who can then give consistent information to students and parents.

Standards-Based Grading Implementation

Roadblocks to successful and systematic implementation exist once a school district has

made the decision to adopt standards-based grading (Peters et al., 2017). The transition to a

standards-based grading system should be a well thought out and inclusive plan to create a

smooth transition with all stakeholders having a deep understanding. The actual process of

implementing standards-based grading can be a significant challenge (Hooper & Cowell, 2014).

The implementation process is quite slow with a majority of the work being done behind-the-

scenes by administrators and teachers prior to full implementation. Competing the work towards

implementation prior to rolling out the new system can prevent confusion for students and

parents.

Traditional grading systems can create barriers to full implementation of standards-based

grading (Guskey, 2009). Five common school policies that are obstacles to the implementation

of standards-based grading include the following: grading "on the curve", selecting

valedictorians, using grades as a form of punishment, using zeros in grading, and combining

multiple aspects of learning into a single grade or "hodgepodge grading" (Guskey, 2009)

In a standards-based grading system, teachers base grades on explicit learning criteria

from standards (Swan et al., 2014). It is important that teachers distinguish product, process, and

progress criteria (Guskey, 2006). With the use of product criteria, teachers typically base grades

entirely on final exam scores. The product criteria could be a student report, project, or

presentation. Teachers who believe that product criteria does not provide a comprehensive

account of student learning tend to accentuate process criteria. Teachers with this mindset believe that grades should reflect the final result along with how a student arrived at the final result. Teachers who recognize responsibility, effort, work habits, attendance, and class participation when assigning grades use process criteria. Progress criteria is used to show learning from experiences. Other names for progress criteria include learning gain, improvement scoring, value-added learning, and educational growth (Munoz & Guskey, 2015).

Grading is used to describe student performance on learning goals and determine what skills they have gained. (Munoz & Guskey, 2015). A grade should be an accurate representation of student achievement, so non-achievement factors need be reported separately (Tierney et al., 2011). Multiple criteria are included when calculating a final grade for a student. Accurate grades can be ensured by using multiple assessments with careful combination. The weighting of the assessments needs to reflects the learning expectations (Tierney, Simon, & Charland, 2011).

The best designed curriculum, standards aligned assessments, and standards-based grading and reporting system would have little impact if policies stand in the way of implementation (Guskey, 2009). Schools need support from all administrators and teachers to implement standards-based grading to make the shift meaningful. The shift to a standards-based grading system can be successful with the support.

Grading Concerns

Because standards-based grading in the education system as a whole is new, many concerns arise when reporting grades. One concern is the way a student's final grade, or true score, is determined (Hooper & Howell, 2014). A final grade should be recorded based on student progress towards a specific content standard.

Another concern with standards-based grading is consistency. There is considerable variation in grading practices, with little consistency across different schools and even with teachers in the same school (Guskey, 2009). Autonomy in the classroom is important, but not when it comes to grading.

The patchwork nature of grades shows that teachers' grading practices vary (Brookhart, 1991). Grading practices begin with the structure of the school day and core classes taught and assessed. Structural, academic, and social variances across grade levels, may assume a great deal of variance in grading practices (Randall & Engelhard, 2009).

Traditional elementary schools use a system in which students remain with one academic lead teacher throughout the day. Often, students have to travel to more specialized classes such as art, music, and physical education. Students travel as a cohort and spend the majority of their days with one lead teacher who teaches social studies, science, mathematics, and language arts.

The transition from elementary to middle school can be a challenge for many students. In a traditional middle school core classes are taught differently. Students routinely move from class to class receiving instruction from teachers who specialize in a specific academic subject. Students rarely spend more than 90 minutes in one class and do not transition from class to class as a cohort but intermix with students. The differences between elementary and middle school play a factor in the way in which students earn grades.

Structural, academic, and social variances across grade levels can cause inconsistencies in grading practices at different grade levels (Randall & Engelhard, 2009). Middle and high school teachers often do not consider improvement when grading compared to elementary school teachers who often do (Randall & Engelhard, 2009). Therefore, it is important to grade consistency to alleviate grading concerns.

Grading Inconsistencies

When the purpose of grading is to report on student achievement, grades should be references to the curriculum objectives or learning expectations (Tierney et al., 2011). This foundational idea of standards-based grading was not always true in the elementary setting. Elementary school teachers were more likely pass students regardless of their earned grades. They also based grades less on content mastery and more on student ability (Randall & Engelhard, 2009).

Grades are viewed as important in the American culture and can cause undue stress between teachers and students at the elementary and middle school levels (Randall & Engelhard, 2009). Studies of teachers' grading practices, opinions, and beliefs include these five themes. The themes are teachers use measures of achievement, primarily tests, as major determinants of grades; teachers believe it is important to grade fairly; teachers include non-cognitive factors in grades, including ability, effort, improvement, completion of work, and other student behaviors; grading practices are not consistent across teachers, either with respect to purpose or the extent to which non-cognitive factors are considered, reflecting differences in teachers' beliefs and values; and grading practices vary by grade level. (Brookhart et al., 2016).

As schools adopted standards-based grading, tensions grew. This is partly due to not understanding the grading process and not communicating grades to all stakeholders. Schools changing their grading systems deal prior beliefs, perceptions, and practices. This can result in a implementation dip because of resistance and lack of understanding (Randall & Engelhard, 2009). The confusion or lack of understanding that lingers around standards-based grading practices is the opposite of the intent with standards-based grading.

In the standards-based grading literature, a lack of understanding and/or support by community members is identified as one of the most problematic areas (Randall & Engelhard, 2009). For a successful standards-based grading system to operate, it is vital to have support from administrators, teachers, students, parents, and the community. To gain support, it is necessary to clearly communicate the basis of standards-based grading so that grades are justified and their meaning is understood by administrators, teachers, students, and parents (Tierney et al., 2011).

Standards-based grading determines grades based on students' proficiency on a chosen set of skills. A goal is to clearly communicate both strengths and weaknesses to students and parents via detailed learning criteria (Scriffiny, 2008). Many teachers stress the need for fairness in their grading practices, but determining what is fair is a challenge. Teachers indicate the need for fairness and accuracy, not just accomplishment. Grades appear to be more fair if they are lowered for lack of effort or participation, and grading needs to be consistent (Brookhart et al., 2016). Teachers should reconsider grading practices that may distort achievement or falsely reduce differences in value (Gordon & Fay, 2010). To ensure fairness in grading practices, common assessments and scoring rubrics are vital.

Determining a student grade uses a different set of criteria with standards-based grading than the traditional percentage calculations. Surveys have been used over the past 20 years to record how teachers use evidence and their own judgment to determine grades (Brookhart et al., 2016). Grading practices vary by subject area, and non-achievement factors are often included in students' grades (Tierney et al., 2011). When teachers assign grades, they usually combine achievement with other sources of information related to students' behaviors, attitudes, work habits, attitudes, and effort (Swan et al., 2014). It is highly unlikely to totally normalize the idea

of teacher judgement in the grading process (Guskey, 2009). Grading inconsistencies are expected due to the nature of teacher autonomy but can be easily managed in a standards-based grading system with uniform assessments and grading criteria.

Standards-Based Assessments

Assessments used in a standards-based grading system serve multiple purposes. A formative assessment is used to determine student progress towards the standard. Formative assessments are data collection pieces teachers use to alter daily instruction to fit the needs of the diverse learners in the classroom. A specific percentage of the class should be able to demonstrate mastery on a formative assessment before moving on to a new skill or are given a summative assessment on the current skill.

Formative assessments show the learning progression of a student. Formative assessments can be graded but are more often used as an evaluation of understanding and are not factored into final grades. The focus is on assessing student understanding and teaching effectiveness (Dixon & Worrell, 2016). Formative assessments are recorded to show student growth but do not get calculated into the students final score.

A formative assessment can be either spontaneous or planned. A spontaneous formative assessment often happens naturally within the classroom during instruction. A spontaneous formative assessment can simply be when a student raises their hand to provide an answer to a question in class. Based on the student answer, the direction of the lesson may change (Dixon & Worrell, 2016). The teacher is able to get a real-time representation of student understanding from the lesson.

A planned formative assessment could be an exit ticket, quiz, or piece of homework that has been designed to assess student progress from a lesson covering a specific standard or skill.

An exit ticket consists of the teacher posing a question to students at the end of a lesson. Students write or verbalize their response to the question. The teacher then reviews the responses for student understanding and determines the starting point for the next day's lesson.

Formative assessments are used as tools that provide feedback to teachers or students to help students learn (Dixon & Worrell, 2016). The use of formative assessments in the classroom create powerful student conversations and directly impact student learning. Formative assessments also provide information about students who may need additional services, such as an intervention to provide them learning with a lower grade level skill.

Summative assessments reflect the end learning of a unit and determine the students' final score for a standard. Summative assessments are typically graded, occur less frequently, and are given at the end of instruction with a given standard (Dixon & Worrell, 2016).

A goal in a standards-based educational system is that all students can show mastery of a standard. Therefore, retakes should be allowed to show the change in student learning and growth. This concept is difficult for many stakeholders to understand if they do not have a deep rooted foundation with standards-based grading. Retakes are not typically offered in a traditional grading system. Wormeli describes retakes with an emphasis on a real-world application. In the real world, adults learn by repeated practice; they are not judged during the learning process, but only when it's time to demonstrate final proficiency or become fully certified (Wormeli, 2011).

The use of formative and summative assessments are integral parts of a standards-based learning system. The information gathered from formative assessments gives the teacher direction for the student progress and information as to when a summative assessment should be administered. A standards-based grading system needs to correctly implement both formative and summative assessments.

Future Research

After reviewing scholarly journal articles dedicated to the topics of education reform and standards-based grading, a number of subject areas stood out for future research. Future research should examine the role that federal, state, and local governments play in the education system. Because laws, rules, and regulations pertaining to education are established and enforced by all levels of government in the United States, it is necessary to understand the jurisdiction that each entity covers to determine overlap or gaps in policies. This would allow for better education reform.

Future research in the area of grading inconsistencies and bias should also be examined. While 48 states and the District of Columbia have adopted standards-based grading, two states have not. Therefore, inconsistencies exist in grading but to what extent? Teachers are expected to assign grades in an unbiased manner; however, bias does exist.

As the results from the 2020 Census are yet to be released, administrators, teachers, students, and parents, may be curious about the demographics of those in the United States education system. Having information about the makeup of the student population now and projections for the future may play a vital role in preparing for subsequent years.

Conclusion

Change is inevitable in life, and the educational system in the United States has incorporated many aspects of reform within its history. Change is often met with resistance, but it is imperative that the system be open to continual reform as the needs and diversity of teachers, students, and parents evolve. Individual needs are important and must be addressed and protected under educational law. Therefore, the federal, state, and local governments play a key role in providing funding and guidance pertaining to education. Funding has allowed schools to be more innovative than ever before.

Coordination between administrators, teachers, students, and parents foster a system that is devoted to student development. Everyone must work together to understand a complex grading system in order for students to be successful. Because we place so much value on grades as a society, the grading system needs to accurately reflect a student's performance. In order for students to be successful, all stakeholders must put considerable effort into understanding the basis of the transition to standards-based grading. Teachers are important and have a large impact on the level of student success. Teachers have a responsibility to educate students using established criteria without bias.

While no system is perfect, the United States education system has the power to unite a community. Working together and supporting one another can help solve global issues. The system as a whole needs to be able to recognize challenges and respond.

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