

Changing Assessment and Grading: Why and How

Albemarle County Public Schools
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What Do These Terms Mean?

MARK(S)/SCORE(S) (marking/scoring)

the number (or letter) "score" given to any student test or performance

<u>7</u>	4
10	3
	2
	1

GRADE(S) (grading)

the number (or letter) reported at the end of a period of time as a summary statement of student performance

A	91	4	E
B	78	3	G
C	64	2	S
D	57	1	N
F	42		

“Why . . . Would anyone want to change current grading practices?”

The answer is quite simple: grades are so imprecise that they are almost meaningless.”

“ . . . (grading) practices are not the result of careful thought or sound evidence, . . . rather, they are used because teachers experienced these practices as students and, having little training or experience with other options, continue their use.”

Guskey, Thomas R. (Editor), *Communicating Student Learning: The 1996 ASCD Yearbook*, ASCD, Alexandria, VA, 1996, 20

Result - inaccurate and inconsistent grading practices.

What has changed since you were in high school?

For example, does your dentist use the same equipment as when you were in high school?

For those in employment, what has changed in your job?

For parents, what has changed about parenting since you were being parented?

1995 Gradebook for a High School Science Course.

Task	Score/total possible	Percentage
<i>Tests (50%)</i>		
Symbols	16/20	80
Matter	0/68 (absent)	0
Reactions	35/50	70
<i>Daily Work (25%)</i>		
Assignment	10/10	100
Homework	9/10	90
Homework	9/10	90
Atom quiz	9/10	90
Moles quiz	5/8	62.5
Homework	9/10	90
<i>Lab Work (25%)</i>		
MP/BP	18/20	90
Superation	20/24	83.3
Reactions	7/10	70
Periodicity Check	10/10	100

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Grade 68.8%

2021 Science Standards-based Gradebook

Student:

ACHIEVEMENT EVIDENCE								
Standards	Assessments						Strengths, Areas for Improvement/Observations	Grade
	9/15 Test	9/22 Lab	9/30 Lab	10/02 Test	10/8 Lab	10/12 Test		
Structure and Properties of Matter (HS-PS1-2)		1	2		2	2 (14/20)		2
Explaining Reaction Rates (HS-PS1-5)		M		M	1			I
Properties and Periodicity (HS-PS1-1)	3 (8/10)				1			NA
Chemical Systems and Equilibrium (HS-PS1-6)		1	4 (20/24)			4 (19/20)		4
Mole Calculations (HS-PS1-7)		1	2	M	4	4 (20/20)		4
Scientific inquiry (HS-PS1-3)	4 (8/10)	2	3	M	4	4 (5/5)		4

Comments: **Overall Grade: I**
M = Missing; IE = Insufficient Evidence; NA = Not Assessed; I = Incomplete
N.B. Ken Mattingly, science teacher at Rockcastle County (KY) Middle School provided advice to the author on the Next Generation Science Standards and classification for this gradebook.

“The most dangerous experiment we can conduct with our children is to keep schooling the same at a time when every other aspect of our society is dramatically changing.”

—Professor Christopher Dede, Harvard Graduate School of Education

What has Changed about the Why?

1. Purpose of School
2. Purpose of Classroom Assessment
3. Purpose of Grades
4. Knowledge about Motivation
5. Technology

1. The Purpose of School

Although schools serve a wide variety of purposes, decades of research has shown that the most commonly mentioned purposes of K-12 schooling tend to focus on *three core elements*:

- * Civic development

- * Emotional development

- * Cognitive development = **Learning**

= knowing, understanding, being able to do more and/or better over time

Source: Wesleyan University “Purpose of School” website

<http://www.purposeofschool.com> accessed on 5/24/17)

- * Now for all, not just a select few.

Albemarle County Public Schools Strategic Plan

Learning for all.

Vision

Our *learners* are engaged in authentic, challenging, and relevant *learning experiences*, becoming lifelong contributors and leaders in our dynamic and diverse society

Mission

Working together as a team, we will end the predictive value of race, class, gender, and special capacities for our children's success through high-quality teaching and *learning for all*. We seek to build relationships with families and communities to ensure that every student succeeds.

We will know every student.

2. Purpose of Classroom Assessment

“ . . . the primary purpose of classroom assessment is to inform teaching and improve learning, not to sort and select students or to justify a grade.”

McTighe, J. and Ferrara, S. *Performance-Based Assessment in the Classroom*, Pennsylvania ASCD

The Evolution of Assessment

Its about how it is used

Traditional Use



When - After instruction.

Purpose – Grading, reporting achievement levels.

Main Players - adults.

Impact – Ranking and sorting students, limited evidence of what was learned, but no impact on future learning.

The PLC – Informing Instruction



When – Embedded as a part of instruction.

Purpose - Answering the second question of PLCs. How do the adults know the students learned the targeted outcomes?

Main Players – Collaborative adults who plan and teach.

Impact - Clear evidence of learning, who learned and how much, leading to next steps of instruction, changes to instruction and intervention.

Fostering Student Investment



When – Embedded in the learning structure of the class AND the learning practice of the student – self-assessment.

Purpose – Helping the student to become an invested and self-regulated learner. Building confidence and motivation by understanding what success looks like and how to get there.

Main Players – The student and teacher in collaboration.

Impact – The student takes control of the their own learning.

What Can We Learn from COVID-Era Instruction?

Independent Learners - and Empowered Teachers – Succeeded

In virtual and hybrid classrooms, **those who were most likely to succeed were students with higher self-regulation skills**, whereas those most dependent on the teacher - or *those who had teachers who over-orchestrated their classes struggled the most. . . .*

3. Purpose of Grades

“the primary purpose of . . . grades . . . (is) to communicate student achievement to students, parents, school administrators, post-secondary institutions and employers.”

Bailey, J. and McTighe, J., “Reporting Achievement at the Secondary School Level: What and How?”, in T. R. Guskey, (Ed.) *Communicating Student Learning: ASCD Yearbook 1996*, ASCD, Alexandria, VA, 1996, 120

4. Knowledge about Motivation

Drive by Daniel Pink

Motivation 1.0 - the ancient drive to survive

Motivation 2.0 - rewarding good work with pay, benefits and promotions

- centres on "Type X behavior"

where people are motivated mostly by external rewards.

Motivation 3.0 - the main motivators are the freedom to do what you want, the opportunity to take a challenge and fulfillment by the purpose of the undertaking

- what Pink calls "Type I behavior"

Motivation

“All kids start out as curious self-directed Type I’s. But many of them end up as disengaged, compliant Type X’s. . . .

If we want to equip young people for the new world of work - and more important, if we want them to lead satisfying lives - *we need to break Motivation 2.0’s grip on education and parenting. . . .*

Unfortunately, as with business, there is *a mismatch between what science knows and what schools do. . .*

We’re bribing students into compliance instead of challenging them into engagement.”

Motivation

According to Pink, the keys to Motivation 3.0 are:

Autonomy

Mastery

Purpose

Motivation

Pink believes it is time for a "full scale upgrade" to Motivation 3.0 - intrinsic rewards that play to the intrinsic satisfaction of the activity.

Source- review by Richard Eisenberg in USA Today, January 25, 2010

Motivation

Responsibility – “the state or fact of being responsible, answerable, or accountable for something within one’s power, management or choice.” (Dictionary.com)

Compliance – “a. the act or process of complying to a desire, demand, proposal, or regimen or to coercion; b. conformity in fulfilling official requirements.”

(Merriam-Webster Online Dictionary)

Motivation

“No studies support the use of low grades or marks as punishments. Instead of prompting greater effort, low grades more often cause students to withdraw from learning.”

Guskey, T. R. and Bailey, J., *Developing Grading and Reporting Systems for Student Learning*, Corwin Press, 2001, 34-35

Motivation

Maximize *intrinsic* motivation.

and

Minimize *extrinsic* motivation.

5. Technology

Fresh Grade

Seesaw

Google Docs

Email

Skype

Voxer

And many, many more

The Essential Question

How confident are you that the grades students get in your district/school are

CALM:

- Consistent
- Accurate
- Learning-focused, and
- Meaningful?

Purpose of the ACPS Grading Policy: Three Pillars

1. Accurate

“Our grading must use calculations that are mathematically sound, easy to understand, and correctly describe a student’s level of academic performance,” (Feldman, 2019).

2. Consistent

Grades should be calculated in a way that is similar across schools, courses, departments, and teachers.

3. Support Student Learning

“The way we grade should motivate students to achieve success, support a growth mindset, and give students opportunities for redemption” (Feldman, 2019).

Grading and Reporting FOR Learning

1. Excluding extra credit from grades
2. Eliminating grades for practice
3. Eliminating the use of zeros
4. Removing behavior from grades

ACPS Guideline 1:

Excluding Extra Credit from Grades



Why: Extra credit distorts grades; it is not an indication of what a student knows, understands, and is able to do

What it means: Students shall not be awarded extra credit for behaviors, attendance at outside events, bringing items to school, or bonus questions on tests

Strategies that Support Teaching & Learning:

- Allow students to redo in order to demonstrate learning
- Don't use bonus questions to “cover up” student learning

What ACPS knows about Extra Credit

- Extra credit is not an **accurate** reflection of what students know, understand, or are able to do
- Extra credit is not applied **consistently** across classes, courses or schools
- Extra credit does not **support student learning**
 - Extra credit for bringing in items or attending events exacerbates inequity
 - Allowing bonus questions can hide student (mis)understanding

Letter to the Editor

Harrisburg, PA, *Patriot News*. November 21, 2003

“Recently it was “Dress like an Egyptian Day” at my school. If we dressed like an Egyptian we got extra credit. When we didn’t (which the majority of the kids didn’t) our teacher got disappointed at us because we just “didn’t make the effort.” . . .

One of the most frustrating things in my mind is that we get graded on something that has no educational value. I would very much like to discontinue these childish dress-up days.”

JENNIFER STARSINIC

Hummelstown

Bonus Questions/Points

- ▶ mathematical distortion, inappropriately inflates student achievement, e.g., 28 out of 25.
- ▶ bonus questions usually conceptual, higher order thinking questions.
- ▶ bonus points hide weaknesses

Guideline #2

Eliminating Grades for Practice

- **Why:** If practice is truly practice, it should not be counted in a grade.
 - Practice leads to mastery; mastery is based on predetermined goals; grades are based on final learning, not while learning
 - Meaningful practice **supports student learning**
 - Ungraded practice promotes a growth mindset
- Grading practice decreases the **accuracy** of grades
- Teachers are **inconsistent** with including practice in grades

What does this mean: Eliminating grades for practice means students have the opportunity to practice in order to improve learning. This practice builds on growth mindset principles and allows students to engage in authentic practice without impact to a grade.



Formative Assessment

Formative assessment is a planned process in which assessment-elicited evidence of students' status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics.

Popham, J. *The ABC's of Educational Testing*. Corwin. 2017. 95 in O'Connor, K. *How to Grade for Learning*. Fourth Edition. Corwin. 2018. 123

For-ME-tive

(Greg Woolcott)

“The ongoing interplay between assessment and instruction, so common in the arts and athletics, is also evident in classrooms using practices such as non-graded quizzes and practice tests, the writing process, formative performance tasks, review of drafts and peer response groups. The teachers in such classrooms recognize that ongoing assessments provide feedback that enhances instruction and guides student revision.”

McTighe, J., “What Happens Between Assessments,” *Educational Leadership*, Dec. '96-Jan. '97, 11

“There is well-researched evidence that grades on student ‘work’ do not help in the same way that specific comments do. The same research shows that students generally look only at grades and take little notice of the comments if provided.”

Atkin, J. M., P. Black, and J. Coffey (Eds.) *Classroom Assessment and the National Science Education Standards*, National Research Council, Washington, D.C., 2001, 39 citing work by Butler, R., “Task-involving and ego-involving properties of evaluation: Effects of different feedback conditions on motivational perceptions, interest, and performance.” *Journal of Educational Psychology*, 1987, 79(4), 474-482, and others

Purposes of Homework

- introduces material presented

PREPARATION - These assignments aim to help students learn new material when it is covered in class.

PRACTICE - to reinforce learning and help students master specific skills.

EXTENSION - asks students to apply skills they already have in new situations.

INTEGRATION - requires students to apply many different skills to a large task, such as book reports, projects, creative writing.

Impact Story – Rutherford High School

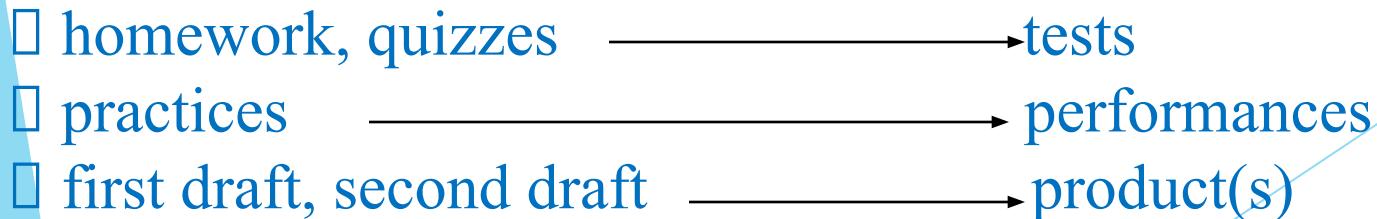
In a panel discussion of how the grading system has impacted them, the students made the following points:

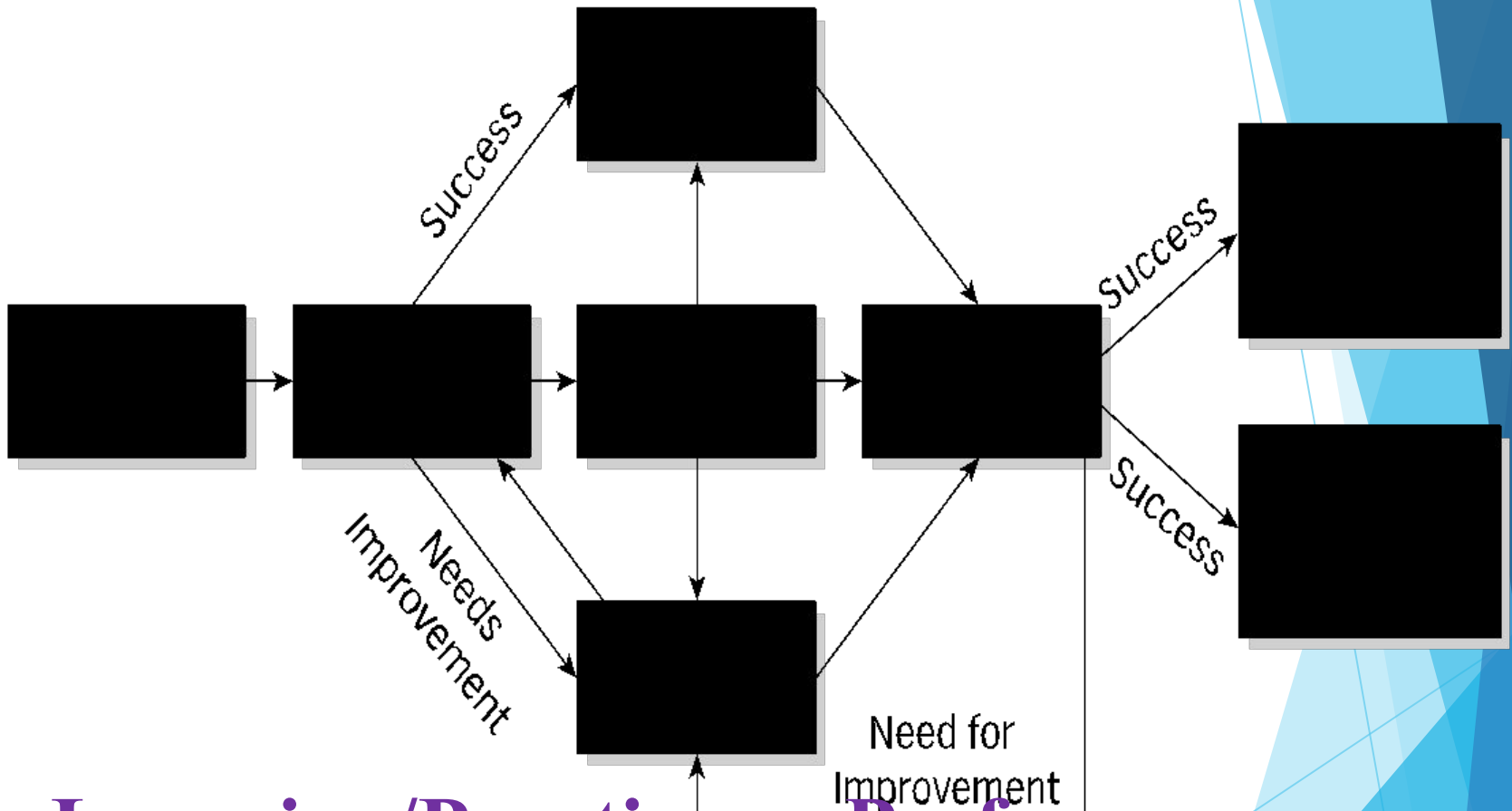
1. We have to actually learn the material now since there is no extra credit work to bring up the grade in the end. I like it better when I didn't have to work so hard to learn the material.
2. The tests are less stressful because we have practiced the material until we know it, and we know we know it before the test. **(Confidence)**
3. We have more fun in class because there is no grade attached to the formative exercises. We are expected to mistakes that help us learn. **(Relax and learn)**
4. The formative assessments show us the format the test will take so there are no surprises.
5. Knowing that I can retake the test if I do poorly takes some of the stress away.
6. It is obvious that the teacher wants us to learn. **(Wow!)**
7. I like the points that are added on at the end as if they are free, even though we earned them ahead of time with the practice work.
8. I always know what I have to do to make my grade better.

Source: Sandy Wilson, Rutherford HS, Bay District Schools, FL

An ASSESSMENT PLAN should start with the

- desired results (learning goals, standards, etc), then the
- summative assessments that are going to be used to determine whether the student ‘knows and can do,’ next should be the
- diagnostic assessment(s) that are going to help to determine the what and how for teaching and learning, then should come the
- formative assessments that are going to help students achieve the learning goals and that are going to cause the teacher to adjust teaching and learning activities.





--- Learning/Practice --- Perform

SOURCE: Adapted from Guskey and Bailey (2001, p. 98).

O'Connor, K., *How to Grade for Learning*, Fourth Edition. Corwin, 2018, 130

Guideline #3

Eliminating Zeros



Why:

- Grades should communicate what students know;
- Zeros are the ultimate outlier on a 100 point scale and they distort the **accuracy** of grades.
- Zeros are used **inconsistently** across schools and classes
- Zeros don't **support student learning**
 - * Zeros aren't motivators; in fact experts say it does the opposite
 - * Zeros/grades shouldn't be a behavior management tool
 - * Zeros don't represent what students know, understand and can do. (KUD)

Guideline #3

Eliminating Zeros

What does this mean:

- Minimum grading - no scores lower than 50% creates a mathematically correct equal difference 10 point scale

What does it look like in the gradebook:

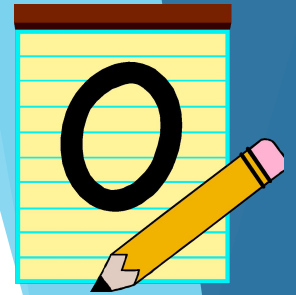
- Enter the MISSING for assignments not submitted (calculates as a 50 + missing flag)
- When a teacher enters any score less than 50, the grade will automatically be calculated as 50% in the overall grade.

Strategies to support Teaching and Learning:

- Expectations when a student doesn't show proficiency – relearning, reassessment
- Students aren't allowed to opt out of submitting essential evidence of learning; use Incomplete or Insufficient Evidence
- Students not turning in essential evidence of learning - learning contract, conference, intervention/remediation time

Problems with zeros

- Philosophical
- Mathematics
- Motivation.



“If we think about grades on an equal-interval basis, each grade band is worth an equal value of 1. An F is 0, a D is 1, C is 2, B is 3, and A is 4. If we make each grade band equal, then failure isn’t disproportionately weighted. If we still have to use the 0–100 scale (which is mathematically skewed to failure), then we have to hack the traditional grade book and convert that 0–4 equal-interval scale into a 50–100 scale. Essentially, this makes 50 the new zero. We redefine the floor of our grading system to make it more mathematically accurate and less punitive. I’m not giving them something for nothing. I changed the narrative to redefine the floor at 50, so that failure isn’t worth more than success.”

Tamony, A. The Case Against Zeros in Grading, *Edutopia*. October 6th, 2021

Accessed at <https://www.edutopia.org/article/case-against-zeros-grading> on 10/16/21

“To recover from a single zero in a % grade system, a student must achieve a perfect score on a minimum of nine other assignments.

.....

A single zero can doom a student to failure, regardless of what dedicated effort or level of performance might follow.”

Guskey, T.R. 2013. “The Case Against Percentage Grades.”
Educational Leadership. September. 71

“The use of an I or “Incomplete” grade is an alternative to assigning zeros that is both educationally sound and potentially quite effective.”

Guskey, T. R. and Bailey, J. *Developing Grading and Reporting Systems for Student Learning*, Corwin Press, 2001, 144

Grading Guideline #4

Removing behavior from Grades

Why:

- Grades that include behaviors are **inaccurate**
 - Grades should measure student achievement, solely
 - Behaviors include effort, attendance, participation, compliance, organization, etc.

Grading participation/behavior is **inconsistent** across the division, schools, teachers

- Grading behavior doesn't reflect **student learning**
 - Work habits are a measure of *how*, not *what* students have learned
- Grading behavior/work habits is **inequitable**
 - It rewards students who “do school” well
 - Grading behaviors exacerbates biases

“. . . grades often reflect a combination of achievement, progress, and other factors.

. . . this tendency to collapse several independent elements into a single grade may blur their meaning.”

Bailey, J. and McTighe, J., “Reporting Achievement at the Secondary School Level: What and How?”, in T. R. Guskey, (Ed.) *Communicating Student Learning: ASCD Yearbook 1996*, ASCD, Alexandria, VA, 1996, 121

FIGURE 0.13 Sum Total of Everything Students Do in School/Classroom

Everything—or Almost Everything—Students Do in the Classroom

Representative Sampling of What Students Do

PROCESS

Assessment of Students Using Observation Over Time

- learning logs
- journals
- portfolios
- teacher observations/anecdotal notes

PRODUCT

Assessment Tasks

- performances
- presentations
- tests/quizzes/examinations
- culminating demonstrations

Attitude, Learning Skills, Work Habits

- enjoys learning
- questions/investigates
- participates in class
- works independently
- completes assignments
- completes research/projects
- cooperates with others
- respects others
- resolves conflicts
- attendance, punctuality
- reflects and sets goals

ACHIEVEMENT

Reporting Variables
(Desirable Behaviors)

Report Card

Grading Variables
(Standards)

SOURCE: Adapted with permission from the work of Ken O'Connor and Damian Cooper, President, Plan, Teach, Assess Consulting, Mississauga, Ontario.

Any other questions, comments, concerns