



Standards-Based Education and Student Report Cards
Peter Robertson
Follow-up Activity 1
The Parachute Experiment

Objectives for today's session



- Explore the full implications of standards for the student report card and teacher grading practices
- Discuss practical ways to integrate standards-based instruction with student-involved classroom assessment and grading and reporting practices to improve teaching and learning

Outline of today's session



- Why standards-based grading matters
- Standards-based grading “don'ts”
- Building a standards-based grading system

The purpose of No Child Left Behind...



“Ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments.”

...reinforces the changing role of our schools



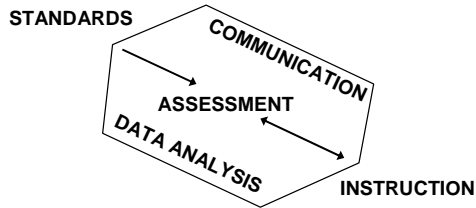
FROM:	TO:
Sorting students	Educating all students
Emphasis on what's taught	Emphasis on what's learned
School success doesn't predict life-long earnings	School success does predict life-long earnings

Clear standards and quality assessment foster equity

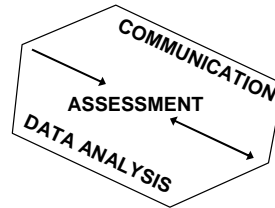


- Implicit standards foster inequity**
- Literacy tests used to deny voting rights
 - Hiring bias hidden in vague job requirements
 - Lending inequity resulting from informal practices
 - Educational access blocked by admission, grading, and promotion standards
- Quality assessment makes standards clear and provides data on what's been learned**

All accountability & improvement systems say the same thing



Formative and summative grading is the core of these systems



Descriptive Feedback
=
Grading & Reporting

Outline of today's session



- Why standards-based grading matters
- Standards-based grading "don'ts"
- Building a standards-based grading system
- Progress versus achievement
- Keeping anchored in a sea of testing

Standards-based grading "don'ts"



- Grading on a curve – Are you teaching or sorting?
- Implied or emergent expectations – When did you first draft the final exam?
- All assessment tasks and/or scores are equal – How do you treat first efforts?
- Including non-achievement factors – How can you give that trouble-maker an "A"?
- A composite, averaged course score – How valid is "Peter got 83%?"

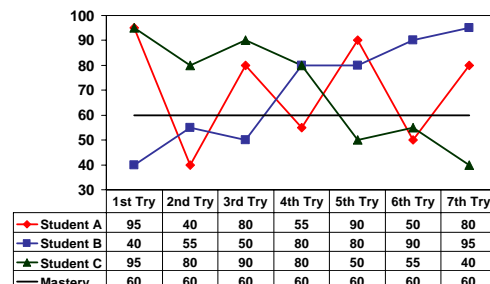
The Parachute Experiment



- We will now look at data presented concerning a parachute packing training program.
- You are part of the review team to assess the progress of these students



Which student would you choose to pack your parachute?



Adapted from How to Grade for Learning (O'Connor, 2002)

Discussion questions for the parachute packing case



1. Which student will you choose to pack your parachute? Why?
2. If these were scores in a typical teacher's grade book, which students would pass? Which students would fail?

Adapted from How to Grade for Learning (O'Connor, 2002)

Discussion questions for the parachute packing case



3. Is there any discrepancy between your answers to questions 1 and 2? If so, why does this discrepancy occur?
4. What are the implications of this for the way you calculate student grades?

If these are the grade book data for this student, what's his grade?



Learning Outcome	Weight for all scores	Summative Assessments (all have rubric scores of 1 – 4, chronological order)				
		#1	#2	#3	#4	#5
#1	15%	3	3	3	3	3
#2	25%	4	4	4	1	4
#3	15%	1	2	3	4	4
#4	10%	3	2	3	2	3
#5	25%	4	3	4	3	4
#6	10%	2	2	2	1	2

Adapted from How to Grade for Learning (O'Connor, 2002)

Discussion questions for calculating the student grade



- Adding up all scores yields a total/ possible of 86/120 or 71.7%. Is that the right basis for the grade?
- Adding up scores for each learning goal and weighting yields 76.5%. Is that the right basis for the grade?
- Are numerical calculations necessary?
- Should averages be used? Medians? Modes? How to handle trends over time?
- What should be reported out? Overall grade? Outcome scores? Progress or achievement?

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Building a standards-based grading system



- Build "assessment pacing guide" from academic standards and course expectations
- Outline assessment plan: assessment types, formative/summative balance, sampling plan, reference tasks, other tasks, timing, and task weighting
- Share plan, record-keeping system, and general principles with students & parents
- Analyze results, communicate, and adjust as you go

Build “assessment pacing guide” from standards



CMSD 4 th Grade Math Report Card Course Outcomes	Q1	Q2	Q3	Q4
Uses a variety of strategies to solve problems; communicates math ideas (1)	Y	Y		?
Uses place value to read, write, represent, compare numbers (2)	Y			?
Identifies and generates equivalent forms of fractions and decimals		Y		Y
Models operation properties and relationships; uses models and words to describe patterns and relationships in computation (3)	Y	Y	Y	Y
Demonstrates fluency in basic facts, counting, changing money (4)	Y	Y		?
Estimates/measures length, weight, volume, temperature, time, money, area, perimeter		Y	Y	?
Describes, classifies, compares, and models triangles and 2D and 3D shapes			Y	?
Identifies and models points, lines, planes, ordered pairs, transformations			Y	?
Graphs, interprets, predicts, analyzes, draws conclusions about data		Y		?
Conducts and interprets simple probability experiments		Y		?

Outline Assessment Plan



Outline of Assessment Plan for 1 st Quarter, 4 th Grade Math	O1	O2	O3	O4
Diagnostic assessment: Number, Number Sense, Operations	F	F	F	F
Mathematical inventory of my world	FS	FS		FS
Short-cycle assessment on place value and estimation (on-demand)		S		S
Real world problems independent project	S		S	
Short-cycle assessment on decomposing and computation		S	S	S
Mathematics journal sample	FS	FS	FS	FS
Short-cycle assessment on problem-solving & mathematical tools	S		S	S
Diagnostic assessment on variables and algebraic concepts	F		F	
Student presentations	S	?	?	?
End of quarter exam (NAEP reference items, on-demand)	S	S	S	S

F is formative, S is summative, FS is both – only the final draft is scored for grading

Keep good records of student results, including:



- Assignment description (name, type, whether used for grading, scoring method, target score, timing)
- Standards/outcomes assessed
- Student-specific results by assignment and outcome/standard

NOTE: This is 3 dimensions, more than regular grade books easily handle. Electronic grade books are recommended.

Some examples of standards-based grade book programs



- **MarkBook** markbook.com
- **GradeQuick** jacksonsoftware.com
- **Grade Machine** mistycity.com
- **GradeBook2** excelsiorsoftware.com

NOTE: This list is not based on product evaluations, and the options are constantly changing. If your district does not have a grade book, use a search engine to explore “standards-based grade books.”

Share the plan, records, and process in age appropriate way

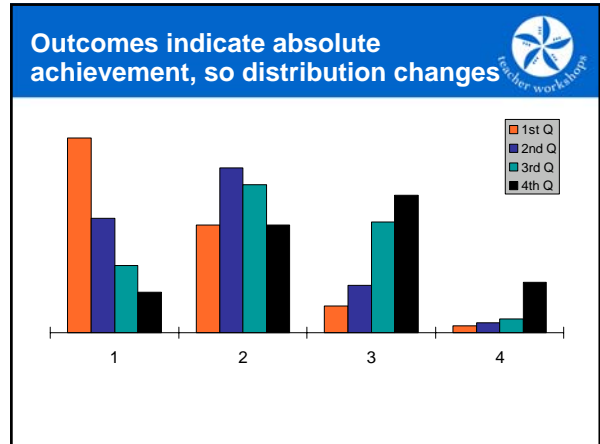
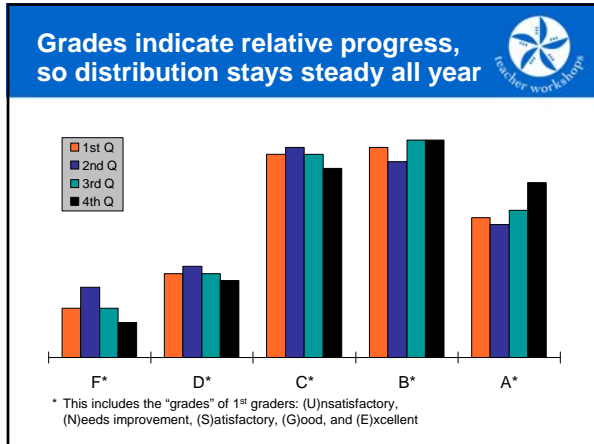


- Share the assessment plan upfront with students and parents
- Make examples of student work available where possible
- Build assessment rubrics and other scoring guidelines with students
- Share feedback and scores with students and encourage them to keep records
- Explain the process and principles to students and, where necessary, discuss

Summary guidelines for standards-based grading



- Grades must relate to academic standards and course expectations
- Public criteria and student work examples are reference points for grading
- Grades should be based only on individual academic achievement
- Sample student performance – do not include all scores in grades
- Keep records that can be updated easily
- Crunch numbers carefully – if at all
- Use quality assessments and properly recorded achievement evidence



This report card shows both progress and achievement

MATH GR-4 (ME4RIIA)	A	A	A
Uses a variety of strategies to solve problems; communicates math ideas	1	3	4
Uses place value to read, write, represent, compare numbers	1	4	4
Identifies and generates equivalent forms of fractions and decimals	1	3	4
Models operation properties and relationships; uses models and words to describe relationships in computation	1	3	4
Demonstrates fluency in basic facts, counting and changing money	1	4	4
Estimates/measures length, wt., volume, temp., time, money, area, perimeter	1	4	4
Describes, classifies, compares, and models triangles and 2D and 3D shapes	1	4	4
Identifies and models points, lines, planes, ordered pairs, transformations	1	3	4
Graphs, interprets, predicts, analyzes, draws conclusions about data	1	4	4
Conducts and interprets simple probability experiments	1	4	4

What's going on here?

MATH GR-4 (ME4RIIA)	C	D	F
Uses a variety of strategies to solve problems; communicates math ideas	1	1	2
Uses place value to read, write, represent, compare numbers	1	1	2
Identifies and generates equivalent forms of fractions and decimals	NA	NA	1
Models operation properties and relationships; uses models and words to describe relationships in computation	1	1	2
Demonstrates fluency in basic facts, counting and changing money	1	1	2
Estimates/measures length, wt., volume, temp., time, money, area, perimeter	1	1	2
Describes, classifies, compares, and models triangles and 2D and 3D shapes	NA	1	2
Identifies and models points, lines, planes, ordered pairs, transformations	1	1	2
Graphs, interprets, predicts, analyzes, draws conclusions about data	1	1	2
Conducts and interprets simple probability experiments	1	NA	2

Example of anchoring report cards to test scores: 4th Reading, Oct. '02

		Outcome Indicator			
		1	2	3	4
4OPT Level	Advanced	0%	1%	0%	
	Proficient	8%	10%	2%	0%
	Basic	21%	13%	2%	0%
	Below Basic	36%	7%	1%	

% The course outcome ("Comprehends beyond literal understanding to examine, predict, infer") and proficiency scores in these boxes are considered to be "aligned" (70% of 5,615 students for whom we have a matched pair)

Example of anchoring report cards to test scores: 3rd Reading, Mar. '03

Average course outcome	% Proficient
Less than 2	10%
2 to 3	41%
More than 3	70%

Some of the tools for implementing standards



Standards (Courses)	Grade-specific performance indicators K–12 course catalog, with course outcomes mapped to standards Assessment pacing guide for courses
Assessments	Aligned state/district assessment system Classroom assessments for courses Student work examples & “scoring camps”
Instruction	Lesson plans mapped to classroom assessments
Communication Analysis	Standards-based grades & report cards Student-specific assessment & related data Measures of report card “inter-rater reliability”

A “Theory of Action” context for this work



Assessment of learning vs. assessment for learning (Stiggins, 2002).

Assessments for learning are what students need to clarify educational goals, focus constructive feedback, and demonstrate student’s progress. Good classroom-based assessment improves performance more than other interventions (Black & William, 1998).

We are trying to cut through the high-stakes testing distractions of NCLB by using student grades to link assessment for learning to accountability.

A few resources for broader and deeper conversations



- Resnick, Lauren; *Principles of Learning CD-ROM*; Institute for Learning
- Stiggins, Richard J.; *Student-involved Classroom Assessment*; Prentice-Hall, NJ; 2001
- O’Connor, Kenneth; *How to Grade for Learning*; SkyLight Professional Development; Arlington Heights, IL; 2002
- Marzano, Robert J.; *Transforming Classroom Grading*; ASCD.org