Formative Assessment & Standards-Based Grading

Hosted by:

Dr. Robert Marzano & Dr. Tammy Heflebower



cutting-edge researc

ncrete etratenies

A few logistics please....

- Electronic devices in manner mode
- Restrooms--Misery is optional
- Lunch from 12:00-1:00 (provided for you)
- End formal presentation around 3:00
 - Allows for small group, team, and specific questions for Dr. Marzano and myself
- Electronic copy of our handouts on our website www.marzanoresearch.com under "free resources"

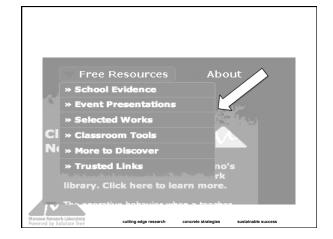


cutting-edge research

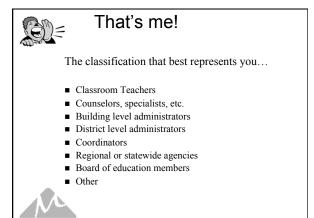
oncrete strategies

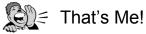
sustainable success

Marzano Research Laboratory Powered by Solution free In one Products Products Profusional Development Research Research Laboratory Powered by Solution free In one Products Profusional Development Research Research Laboratory Research Research Research Laboratory Research Research Laboratory Research Research Laboratory Research Research Laboratory Research Research Research Laboratory Research Res



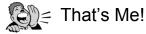






- Your number of years of experience in education
 - **1**-3
 - **4**-10
 - **11-15**
 - **16-20**
- You traveled more than 100 miles to be here





- Level(s) where you primarily work
 - Primary elementary educators (grades preK-2)
 - Intermediate elementary (grades 3-5)
 - Middle school (grades 6-8)
 - High school (grades 9-12)
- You have yet to consume your fill of caffeine ©



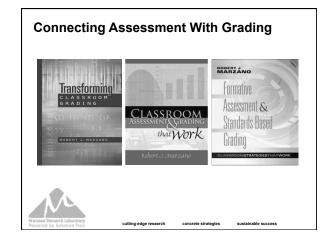
2



Agenda

- Grading Specifics
 - How accurate?
 - How consistent?
 - How are students engaged?
- Proficiency Scales
 - Connect scales to interventions
 - Review scales and add sample tasks
- Standards-Based Systems
- Other Two Critical Commitments

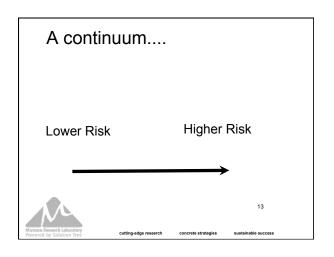




Please Consider

■ Please think of a grading situation as a teacher, parent, or student that just didn't "feel" right.





Grading and Feedback

- Successful feedback was task specific and descriptive.
- Unfortunately, the grade "trumps" the comments if used together.



Butler, D. L., & Nisan, M. (1986). Effects of no feedback, task-related comments, and grades on intrinsic motivation and performance. *Journal of Educational Psychology*, 78, 210-216.

cutting-edge research

concrete strategies

sustainable success

What We Know About Grading

- Feedback is essential to learning yet grading is
- Grading is complex.
- Grading is subjective.
- Grading sends messages to students about capabilities.



Adapted from O'Connor, (2009). How to grade for Learning, Thousand Oaks, CA

cutting-edge research

concrete strategies

sustainable success

Some questions to consider

- Are grades precise (valid)?
- Are grades consistent (reliable)?
- Do our grades engage students in the learning process?



cutting-edge research

concrete strategies

Are our grades precise?

 Grades based upon scales (identified knowledge and skills) rather than compared to other students



cutting adap research

concrete etrategies

oueteineble euecee

Is it possible for all students to receive an A in your classes?

This is different than asking if they are all likely to get an A.



cutting-edge research

concrete etratenies

sustainable success

	The Scale
4	In addition to exhibiting level-3 performance, in-depth inferences and applications that go BEYOND what was taught in class
3	No major errors or omissions regarding any of the information and/or processes (SIMPLE OR COMPLEX) that were explicitly taught
	The Learning Goal: What you expect the student to know and be able to do
2	No major errors or omissions regarding the SIMPLER details and processes BUT major errors or omissions regarding the more complex ideas and processes
	The simpler or foundational knowledge that is necessary as a step to mastery of the score 3.0
1	With HELP, a partial knowledge of some of the simpler and complex details and processes
0	Even with help, no understanding or skill demonstrated

Consider a redesign in your reporting system reflect the "learning", not the "work".



cutting-edge research

ncrete strategies sustainable su

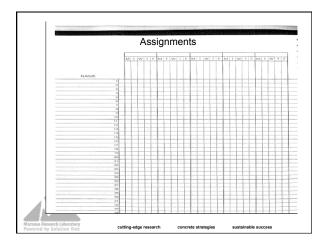
Typical Grading Plans

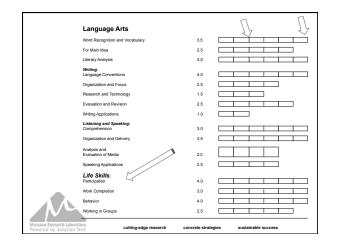
Traditional plan:

- Weighed by points or percentages: Tests, quizzes, labs, homework
- Based on methods of assessment rather than learning components

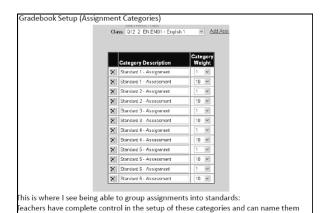


cutting-edge research concrete strategies sustains

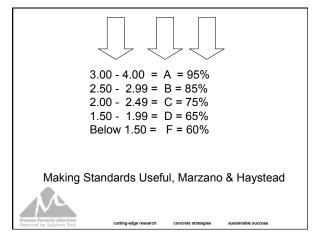


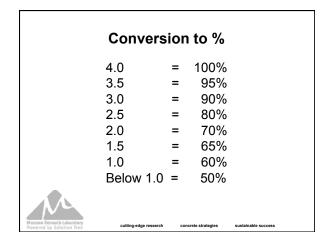


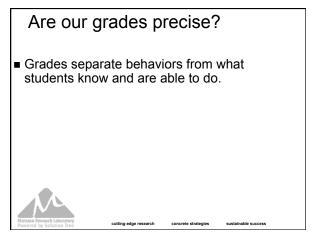
- and community and			311	ident									
					Ach	eve	men	t Ev	iden	ce			
Assessments	9/9 Test	9/12 PA	9/18 PA	9/23 PA	9/25 Test	9/30 PA	10/5 Test	10/8 PA	10/12 Test	10/	10/	10/	S U E
Standards *	100		I'A	-	rest	- A	rest	I'A	rest	PA	PA	Exam	5
Numeration/ Number Sense		1	2		11/ 20 (1)		16/ 20 (3)			2	2	7/10 (2)	c
Computation/ Estimation	30	-											NI
Measurement	19/ 20 (4)	4			18/ 20 (4)			4				10/ 10 (4)	^
Geometry/ Spatial Concepts	15/ 20 (2)	2				2				2		14/ 20 (2)	c
Data Analysis and Statistical Concepts		1		2		3	20/ 20 (4)			4		19/ 20 (4)	^
Algebraic Concepts	Torses 5/13	9/8 9/8	1			1		1	8/ 15 (1)		2	6/ 10 (1)	D
Comments:					Actr	6.4.6	aven	S ELA	registration of				
Summer	Used	with p	ermissi	ion	5		achie	t cons	istent I	evel c	of iderat	ion	

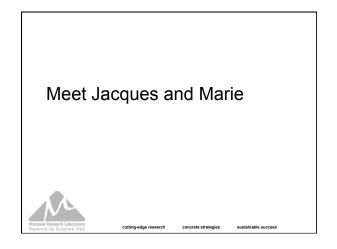


anything they want. The category weights can be any whole number: $1 \le n \le 100$

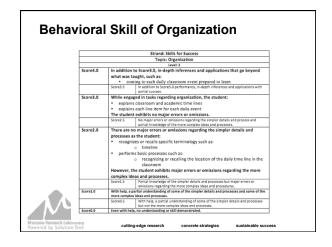


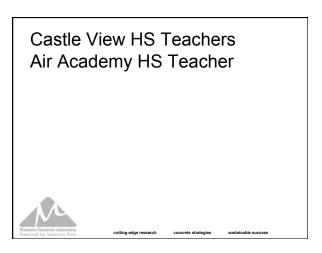






		nty School Distric		
Indicators	Consistently exceeds expectations	Consistently meets expectations	Inconsistently meets expectations	Does not meet expectations
Completes work Punctuality Neatness Makes up work	Is punctual or early turning in assignments and goes beyond the stated requirements relative to neatness and adherence to conventions.	Is punctual in turning in assignments and meets the stated requirements relative to neatness and adherence to conventions.	Is not punctual in turning in assignments or does not meet the stated requirements relative to neatness and adherence to conventions.	Is not punctual in turning in assignments and does not meet the state requirements relative to neatness and adherence to conventions.
Is prepared to learn On time Has materials	Always in class on time. Brings needed materials to class and is always ready to work.	Very few tardies. Almost always brings needed materials to class and is ready to work	Some tardies, Usually brings needed materials but sometimes needs reminders and redirection.	Frequent tardies. Often forgets materials and rarely ready t get to work. Often does no accept redirection.
Participates in learning Works well with others Shares ideas	Routinely shares information or ideas when participating in discussion or groups. A definite leader who contributes consistent effort.	Usually shares information or ideas when participating in discussions or groups. Often is a leader.	Sometimes shares information or ideas when participating in discussion or groups. Exhibits few instances of leadership. Does the minimum required.	Rarely shares ideas. May refuse to participate. I groups, relies on the work o others.
Follows classroom expectations On task Follows rules	Consistently stays focused on the task and what needs to be done. Very self directed. Always has a positive attitude.	Focuses on the task and what needs to be done most of the time. Works independently. Often has a positive attitude.	Focuses on the task and what needs to be done some of the time and needs to be reminded to keep on task. Usually has a positive attitude.	Rarely focus of the task and what needs to be done. Lets others do the work. Needs reminders to perform classroom work. Often





What about colleges accepting?

■ Employers and college admissions like it as it gives more detail. Transcripts become a more robust document with better information (Adelman, 1999).



cutting-edge research

oncrete strategies

Are our grades precise?

Grades must be connected quality assessments



cutting-edge research

e strategies sustair

Helping to Ensure Quality Assessments: Six Quality Criteria

- Are matched to the standard
- Offer an opportunity to learn
- Are free from bias
- Are at appropriate levels
- Are they reliably judged
- Provide appropriate mastery levels



— Nebraska Department of Education and Buros Center for Testin

cutting-edge researc

concrete strategies

sustainable success

Reliability and Validity

- Neither reliable nor valid
- Reliable but not valid
- Both reliable and valid



Marzane Research Laboratery Powered by Solution Tree

cutting-edge research

concrete strategies

Action Planning—How might you take back the grades being precise conversation to staff?



cutting-edge research concrete strategies sustainable succe

Are our grades reliable (consistent)?

- Consistent among colleagues
- Figured carefully and thoughtfully



cutting-edge research

rete strategies susta

sustainable success

McREL Study

- Two teachers teach a course as a team.
- Class was 26 students
- Teachers assigned grades without consulting each other.
- They considered only achievement on tests, quizzes, and homework.
- No non-achievement skills

Marzane Research Laboratory

- Marzano, Transforming Classroom Grading, (200

cutting-edge research

concrete strategies susta

Results

- One student differed by three grades
- Two students differed by two grades
- Eight students differed by one grade
- Fifteen students had no difference: 57.7% agreement (15/26)



-Marzano, Transforming Classroom Grading, (2000

cutting-edge researe

concrete strate

Do grades support learning and communication?

■ Provide clear information to students and parents—no more, "So what's a B mean?"



cutting adap research

oncrete strategies

euetainable eucceee

Measures of Central Tendency



cutting-edge research

concrete strategies

sustainable success

Median Mean Mode **100** 100 **100** 100 100 **100 100** 100 **100 100** 90-**9**0 **9**0 80 ■ 80 **80** 80 ■ 80 78.57 ■ 80 **=** 0 -VerMaas, ESU 6

What About the Use of Zeros?

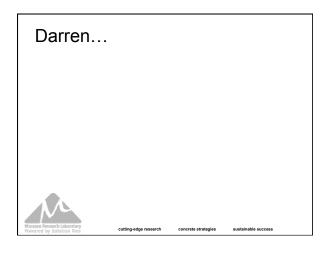
- Zeros have a large effect when the mean is used to measure central tendency.
- The use shows lack of proportionality between 0 and the 60-to-70% passing score. Other grading ranges have smaller scales.
- Zeros often convey inaccurate information. Was work poor, or was it missing? Are you sure the student knows nothing?
- It typically doesn't work in creating student responsibility. It de-motivates most students.



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

cutting-edge researe

concrete strate



What Instead?

- Use incomplete grade.
- Convert the zero to the failing cut, such as 50
- Require the student continue until proficiency level is obtained.
- Consider modules for the content missed.



cutting-edge research

oncrete strategies

sustainable success

Jason Ritter, Legend High School, Douglas County Public Schools—Castle Rock, CO

■ 50% and use of the zero



ting-edge research concrete strategies

sustainable success

Do our grades support learning?

■ Re-teaching & retesting



■ How are students involved in the process?



cutting-edge research

concrete strategies

What About Changing Grades

- People take courses to learn. What they did not know at the beginning should not be held against them.
- People learn at different rates. Who says that because I'm a certain age I must be ready for a certain grade?
- Use the most recent information whenever possible and appropriate.



cutting-edge resear

concrete strategies

euetainable eurceee

Practical Considerations for Reassessment

- Re-teaching, review, or reassessment is at teacher's discretion. It should be a philosophical belief.
- Students prove they have taken corrective actions (study, peer tutoring, or reviewing sessions) before a second opportunity.
- Some schools use an 8th period for learning (work) not completed
- Some schools use a weekly 90 minutes (HS 1x/week/ beginning of day)
- Saturday school=meaningful time for learning demonstration



cutting-edge research

concrete strategies

sustainable success

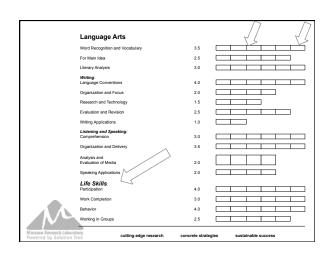
"The consequence for a student who fails to meet a standard is not a low grade but rather the opportunity—indeed, the requirement—to re-submit his or her work."

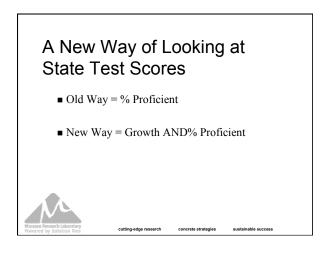
-Douglas Reeves, 2000

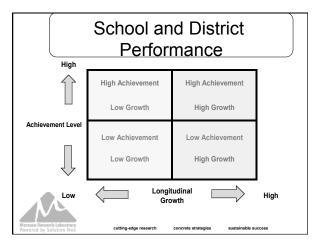


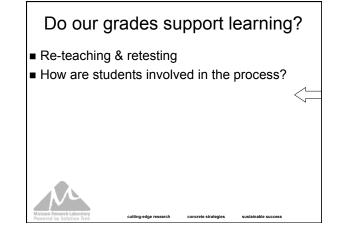
cutting-edge researc

concrete strategies











How to involve students and relinquish ownership to students...

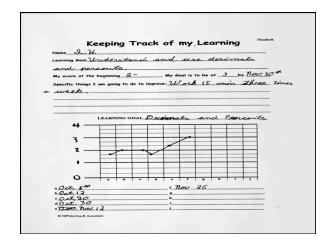
- Confidence rating on assignments or exams
- Lesson feedback—(Ticket out the door)Students lead conferences and communicate their progress.
- Discussions are about "the learning" rather than "the work".

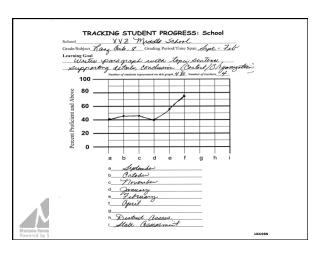


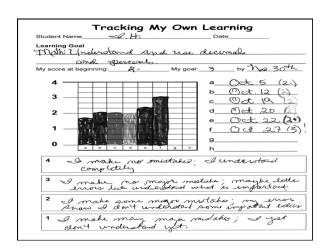
How to involve students and relinquish ownership to students...

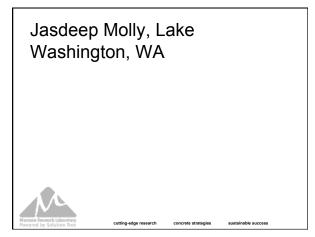
- Students track their scores and achievement graphically
 - (high ES for achievement.)
- Students use such information to make goals and work toward personal achievement.

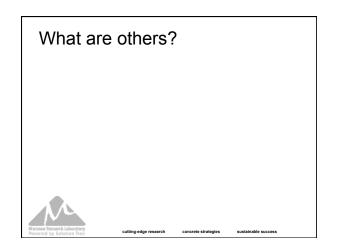


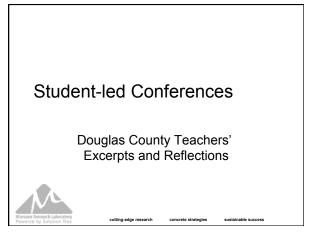


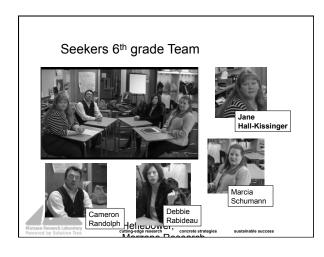










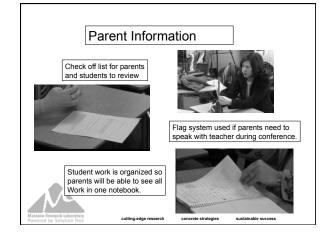


Middle School

What are the benefits of Student Led Conferences versus the traditional conferences?

- Students are familiar with this type of conference coming in from the elementary school.
- Student ownership.
- Students are able to show their best work to their parents, and also to let them know what they are struggling with. Portfolios have all of the students work and accomplishments so parents can see their progress.
- Best Practices.
- Students are coached in how to talk to parents about their school work.





Middle School

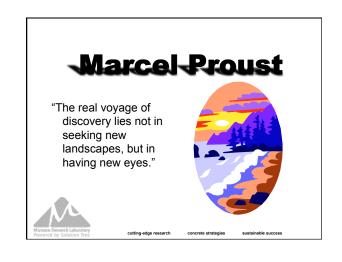
How much preparation goes into this type of conference?

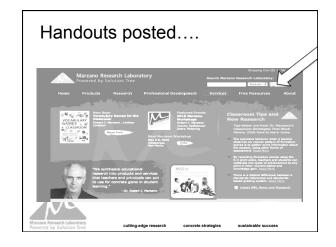
- There is more work involved with Student Led Conferences **before** the actual conference is held.
- Students plan and prepare their portfolios so parents can see the progression of their work.

 The wing area is used, and each classroom is set up so parents and students can have more privacy.



Middle School Are there any issues that are involved with this type of conference; and if so how do you handle these? Parents often want grades to compare their student accomplishments, with the portfolio the parents can see the work first hand and not just a grade in a grade book. Some questions or conversations can be too confidential to discuss in front of student or in open area. We encourage parents to view the parent portal and also to set a separate conference up at a later date.







If you're not quite ready to use only scale scores for your grading consider beginning this...

Separate academics from behaviors.

Consider most recent evidence—allowing for reteaching and reassessing.

Consider most recent evidence—allowing for reteaching and reassessing.

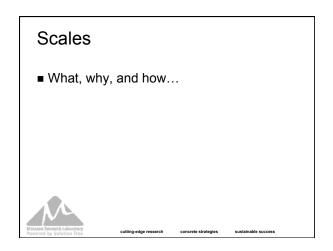
Vary the measure of contral tendency based upon the data sets.

Use referenced measures

Rethink the use of zeros, and use a fairty-weighted grading scale.

Jeff Flygare, Colorado Springs

Jason Ritter, Legend HS, Parker,
CO

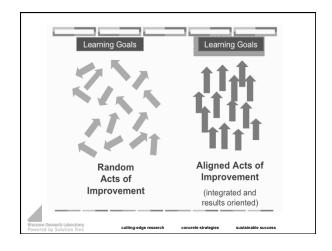


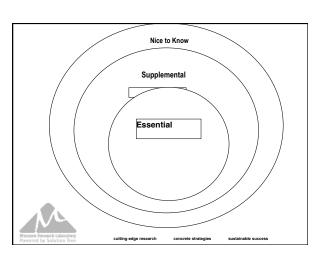


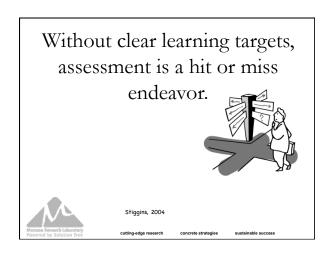
Design learning goals in all subject areas Marzae insert Libertiny Country by College Research Concrete strategies sustainable success

"You've got to think about 'big things' while you're doing small things, so that all the small things go in the right direction."

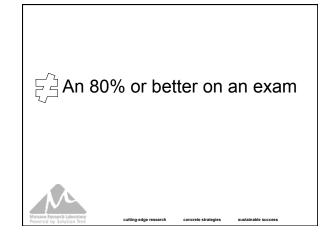
Alvin Toffler

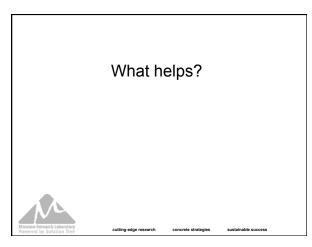


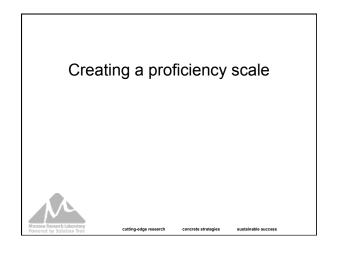


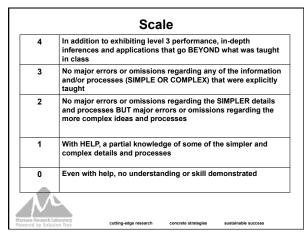


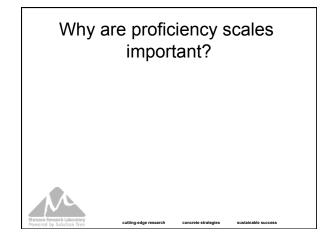


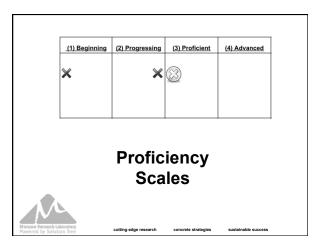


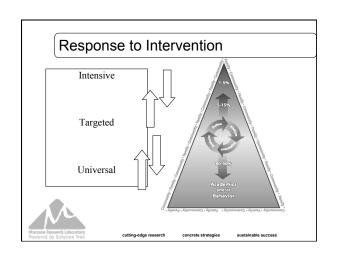


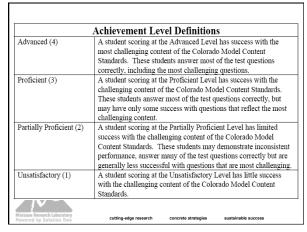




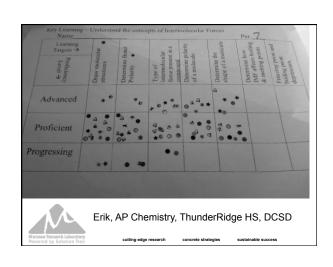


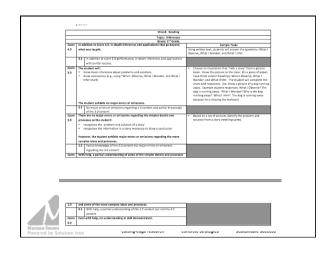


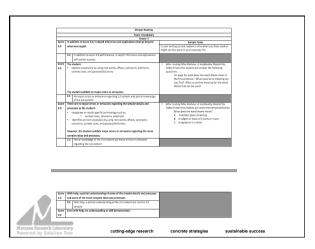


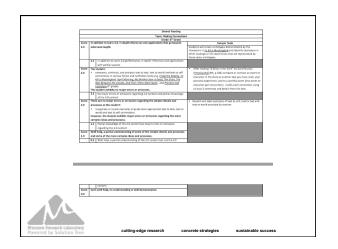


Beginning	mathematics), and designing and at Progressing	Proficient	Advanced
Uses algebraic manipulation to solve one-step equations	Uses algebraic manipulation to solve two-step equations	Uses algebraic manipulation to solve multi-step equations	
Identifies slope in a given equation	Finds the slope of the line given two points on the line	Interprets the meaning of slope and intercepts in the context of a given situation	
Evaluates a function for a given set of values; graphs a line given a table of values	Uses function notation to evaluate a function; graphs a function	Represents functional relationships using written explanations, situations, tables, equations, and graphs and describes the connections among these representations	
	Solves a system algebraically	Uses a variety of methods to solve systems, estimates reasonableness of solutions, models real world phenomena related to linear functions, and relates the solution to pairs of lines	Given a real world situation, the student generates data and presents this data in a variety of ways







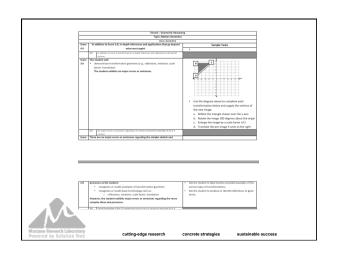


Review a Proficiency Scale

- If you are elementary and/or math or science content areas, please review an existing scale and create sample tasks for levels 2 and 3.
- If non math and science, you will simply create a scale. Begin by using a unit of study you will teach between now and end of the year. Please create levels 2 and 3.



utting-edge research concrete strategies sustainable



Peer Review

- After you have a draft scale, give it to another attendee near you....
- Review for clarity, considerations for how you might measure what they have identified, and key vocabulary.
- Provide any "critical friend" feedback.
- Thanks!



tting-edge research conc

sustainable success

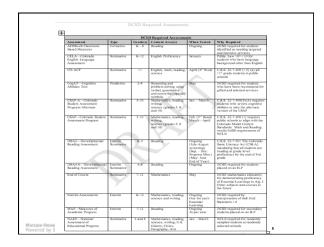
A Balanced Assessment System Large Scale Mid-Scale Small-Scale (Assessment of) (Assessment for) (Assessment for) Questioning Summative Formative Day by day, minute by minute (Wiliam) Norm referenced (ticket) · Criterion referenced Aptitude Often teacher or district made Achievement Achievement · Achievement **Essential Question:** Essential Question: Essential Question: What have students How can we help students learn more? How can we help students learn more? already learned?

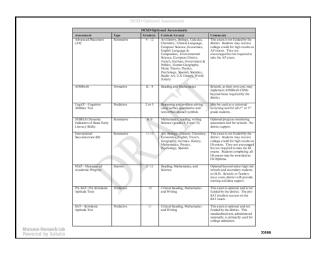
Assessment Plan

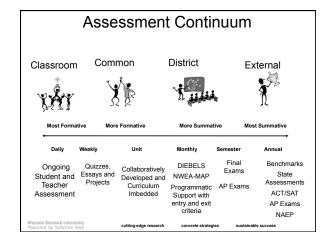
- · National assessments
- · District assessments
- · Common team assessments
- · Classroom assessments

Marzane Research Laboratory Powered by Solution Tree cutting-edge research

rete strategies sustaina







Assessment name	Grade level (s)	Purpose	When given	Results provided	Results used to
DRA II	K-3	Determine reading proficiency	3x year	To students, parents, school	Assist with student placement
ACT	11 or 12	College predictor	Spring	To student	College placement
		p. T. S. G.			Postment

Forms of Assessment

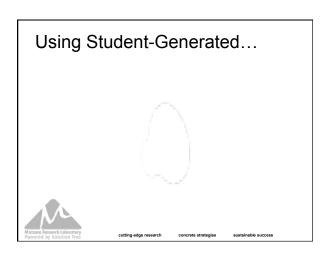
Obtrusive

Unobtrusive

Student-Generated



utting-edge research concrete strategies sustai



Assessments can come in many forms in a rigorous scale-based system.

- Paper and pencil (obtrusive)
- Projects (obtrusive)
- Probing discussion (obtrusive)
- Observations (unobtrusive)
- Examples shared by students in class discussions (unobtrusive)
- Re-working a problem with explanation (student generated)



cutting-edge research

concrete strategies

sustainable success

Uses of Assessments

Formative Scores

Summative Scores (Grades)

Instructional Feedback



cutting-edge research

concrete strategies

You can never rely on a single assessment.



cutting-edge research

concrete strategies

austainable sussess

All assessments have a measurement error

Observed score = true score + error



utting-edge research

concrete strategies

sustainable success

Why is this so difficult?

- Varied levels of difficulty...
 - On one test, items might be "easy" and students receive high scores.
 - On the next test, items may be more difficult and students receive lower scores.
 - Teachers often weigh assessment items differently from one another on identical content.



cutting-edge researc

concrete strategies

		Strand: Reading			
		Topic: Genre			
		Level: 10			
Score4.0	In addition to Score3.0, in-depth inferences and applications that go beyond				
	what was	taught such as:			
		comparing and contrasting literature from various genres, from the			
		same time period			
	Score3.5	In addition to Score3.0 performance, in-depth inferences and applications with			
		partial success.			
Score3.0		aged in tasks regarding level-appropriate reading tasks, the student			
		ites an ability to identify and analyze literature genre by:			
		ying different genres of literature as they relate to specific time periods			
		pic poetry in the classical period, drama in the Renaissance, poetry in			
	the Romantic period, the novel in the Victorian period)				
		nt exhibits no major errors or omissions.			
	Score2.5	No major errors or ornissions regarding the simpler details and process and partial			
		knowledge of the more complex ideas and processes.			
Score2.0		no major errors or omissions regarding the simpler details and			
		as the student:			
	 recogn 	izes or recalls specific terminology such as:			
		o classical, renaissance, romantic period			
	 perform 	ns basic processes, such as:			
		 making basic connections between major genres and major time 			
		periods			
	However, the student exhibits major errors or omissions regarding the more				
		leas and processes.			
	Score1.5	Partial knowledge of the simpler details and processes but major errors or omissions			
Score1.0		regarding the more complex ideas and procedures. partial understanding of some of the simpler details and processes and some of the			
Score1.0		partial understanding of some of the simpler details and processes and some of the x ideas and processes.			
	Score0.5	With help, a partial understanding of some of the simpler details and processes but			
		not the more complex ideas and processes.			
Score0.0	Even with be	lp, no understanding or skill demonstrated.			

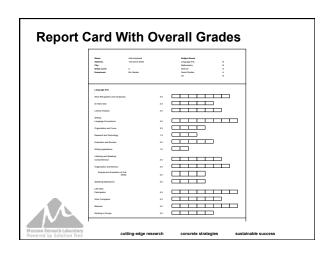
How Much Sufficiency Is Sufficient?

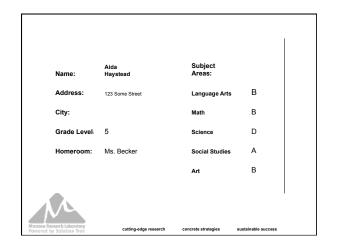
- Depends on data use.
- Low stakes: Multiple assessments to make decisions about groups of students
 - 3 items per level = 12 total
- High stakes: One assessment to make decisions (e.g., graduation, retention) about individual students
 - 6-8 items per level = 24-32 total

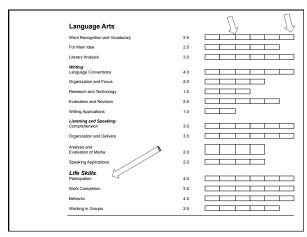
-Buros Center for Testing

Ensure your questioning and activities are aligned to your goal (s).

Be the change you wish in this world. Ghandi



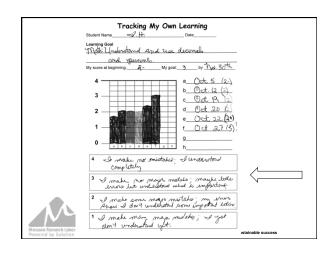


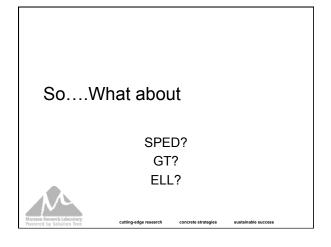


If an individual teacher really wants to, he or she can be standards-based in the classroom, even within the context of a traditional system.



utting-edge research concrete strategies sustainable success





Considerations...

- Review each standard---are accommodations or modifications needed?
- 2. Create a new scale for modified areas
 - All modified scales link to IEP goal, yet some IEP goals may not be connected to grade on report card (Guskey,2009.)
- 3. Determine the need for any additional goals for SPED (behavioral, physical)
- 4. Apply equal grading standards to unmodified standards.
- 5. Communicate the grade clearly

ane Research Laboratory

edge research

euetainahla eurcaei

Legal considerations

- The notation on the **transcript** must not identify a student as receiving special education services.
- It can read such on the report card, as long as that report card is private.
 - Cannot read "special education goals" or "IEP goals"
 - Can use the term "modified standards"



cutting-edge researc

concrete strategies

sustainable success

James Baldwin:

For these are all our children. We will all profit by or pay for whatever they become.



cutting-edge research

concrete strategies

