


Generating Topic Scores & Final Grades




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.....becoming a highly reliable school organization

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Tight on.....student learning



Let's Recap!

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Commitment # 1: Standards-based reporting and formative assessment

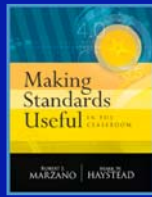
- Trim down content in state standards documents.
- Identify reporting topics for both academic and non-academic content
- Create a scale – with specific learning goals - for each reporting topic at each grade level.
- Design common assessment items for level 3 & level 2 knowledge in the scales.
- Assess students and keep track of their progress in a formative way.

...and then there is all the tracking grading reporting

We are here

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Resources for this session:

Classroom Assessment & Grading That Work


Making Standards Useful

4

Assessing students and keeping track of their progress

Our Focus Today:

- ★ Final scores for topics
- ★ Overall course/subject grade
- ★ Policy issues.....or not



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Just a reminder!

Formative assessments are defined as any activity that can be used to “provide information to be used as feedback to modify the teaching and learning activities in which [students] engage.”

(Black and William as quoted in

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Marzano & the Research

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Like most things in education, classroom assessment enhances student achievement under certain conditions only (Marzano)
The Conditions (hmm – criteria):

- # 1. Feedback from classroom assessments should provide students with a clear picture of: - their progress on learning goals, and
- # 2. Feedback from classroom assessment should encourage students to improve.
- # 3. Classroom assessment should be formative in nature.
- # 4. Formative classroom assessments should be quite frequent.

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Condition # 1

Feedback from classroom assessments should provide students with a clear picture of:

- their progress on learning goals, and
- how they might improve

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Which Assessment/Feedback works Best?

Fuchs & Fuchs 1988		
# of studies	Characteristic of Feedback from Classroom Assessment	Percentile Gain/Loss
49	Evaluation by Rule logic)	32

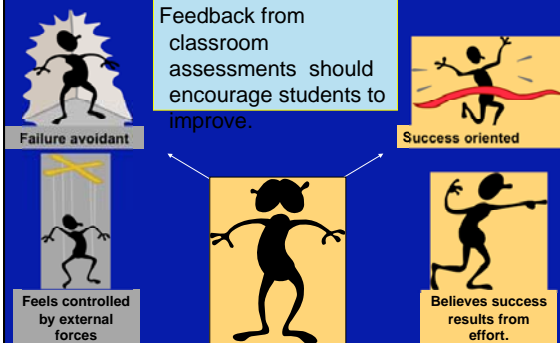
And the Winner is!

Uniform way of interpreting results of classroom assessments using a tight logic

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Condition # 2

Feedback from classroom assessments should encourage students to improve.



Condition # 3

Frequen

Condition # 4

Formative



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Marzano & the Research

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Confirmed by our experiences

Some things just make intuitive sense!

Picture this... **13**

Some Generalizations from the Research on Learning

- Students learn in different ways
- Students learn in different times
- Mistakes are inherent in the learning process.
- Success breeds success and influences esteem, attitude, and motivation



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SINCE
 "Mistakes are inherent in the learning process,"
THEN:

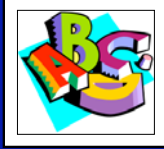
.....what grading practices should we **STOP** doing ?

&

.....what grading practices should we **START** doing?.

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Assigning FINAL SCORES for TOPICS



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1. Average

Topic:

Assessment

Assessment

Assessment

Assessment

/ 4

The Research "Test"
 What is the degree to which this practice:

.....encourages students to learn?

.....supports that....mistakes are inherent in the learning process?

.....supports that....mistakes are inherent in the learning process?

.....supports that....mistakes are inherent in the learning process?

2. Weighted Average

Topic:

Assessment x 2

Assessment

Assessment

Assessment

/ 5

The Research "Test"
 What is the degree to which this practice:

.....encourages students to learn?

.....supports that....mistakes are inherent in the learning process?

.....supports that....mistakes are inherent in the learning process?

.....supports that....mistakes are inherent in the learning process?

3. Assessment Event

Topic:

Assignment/Assessment x 0

Assignment/Assessment x 0

Assignment/Assessment x 0

Assignment/Assessment x 0

Assessment Event

The Research "Test"
 What is the degree to which this practice:

-encourages students to learn?
-supports that.....mistakes are inherent in the learning process?
-supports that.....

4. Trend Score (Power Law)

Topic:

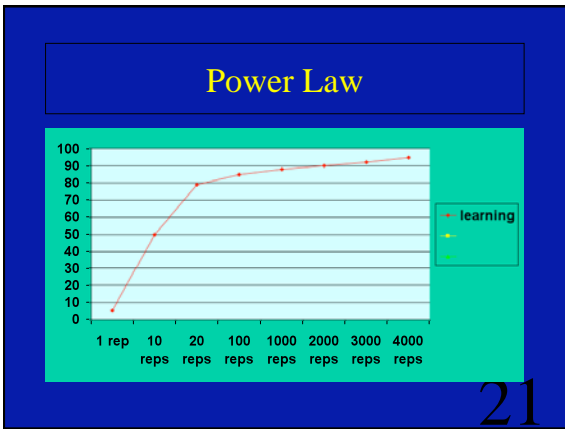
Assessment

Assessment

Assessment

Assessment

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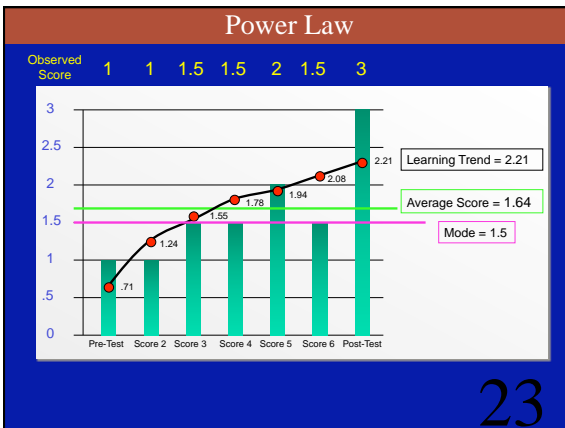
In Search of the "True Score"

Observed Score = True Score + Error

Remember?? Standard Error of Measure (SEM)

SAT SEM = 30

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Topic Scores for 3 Students

	Student 1	Student 2	Student 3
2.0	3.0	2.0	
1.5	2.0	1.0	
2.0	2.0	1.5	
3.0	2.5	2.0	
2.5	3.0	2.0	
3.0	2.0	2.5	
3.0	3.0	3.0	
2.5	2.5	3.0	
3.0	3.0	3.5	
3.0	3.0	3.0	
Average	2.55	2.60	2.35
Trend Score	3.00	2.71	3.00

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4. Trend Score (Power Law)

Topic:

Assessment:

Assessment:

Assessment:

Assessment:

Assessment:

The Research "Test"
 What is the degree to which this practice:
encourages students to learn?
supports that...mistakes are inherent in the learning process?
supports that...learning process?

5. Growing Preponderance of Evidence

Topic:

Assessment:

Assessment:

Assessment:

Assessment:

Assessment:

Student #1

1.0	3.5
1.5	3.5
2.0	
2.5	
3.0	

7 assessments

Student #2

2.5	
3.0	
3.5	

3 assessments

Student #3

3.5	
4.0	

2 assessments

Marzano:

For any given student you use...

as many or as few assessments as are needed to make a valid and reliable judgment.

5. Preponderance of Evidence

Topic:

Assessment 1.5

Assessment 2.0

Assessment 2.5

Assessment 3.0

Assessment 3.0

The Research "Test"
 What is the degree to which this practice:

-encourages students to learn?
-supports that.....mistakes are inherent in the learning process?
-supports that.....

Decision Time!

Who decides which method is used to determine FINAL SCORES for TOPICS?

- Individual teachers?
- School policy?
- District policy?

Assigning FINAL Course or Subject

Compensatory Approach

Conjunctive Approach

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Assigning FINAL Course or Subject

Compensatory Approach

Performance on one measurement topic can "compensate" for

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".....isolated overall letter grades (or overall percentage scores or even average rubric scores) are extremely deficient because they cannot provide the level of detailed feedback necessary **TO ENHANCE STUDENT LEARNING**. This inherent weakness of overall or omnibus grades and scores has been recognized and discussed by a number of assessment researchers." *My emphasis here*

....an overall grade is relatively meaningless from a measurement perspective. However, overall grades will probably be the norm in most schools for some time to come."

from: Marzano....Classroom Assessment & Grading That Works

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The Weighted Average

Measurement Topic	Final Topic Score	Weight	Quality Points
Probability	3.5	2	7.0
Data Analysis & Distributions	2.5	1	2.5
Central Tendency & Dispersion	2.5	2	5.0
Measurement	1.5	1	1.5
Problem Solving	3.0	2	6.0
Patterns & Functions	2.0	1	2.0
Work Completion	2.5	1	2.5
Participation	2.5	1	2.5
Behavior	3.5	1	3.5
TOTALS	n/a	12	32.5

32.5 divided by 12 = 2.71 (the student's sum)

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Converting Scaled Scores to Letter Grades

3.00 - 4.00 =
A

2.50 - 2.99 =
B

2.00 - 2.49 =
C

1.50 - 1.99 =

Just an example!

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**Converting Scaled Scores to Letter Grades
.....and then to Percentages**

Just an example!

3.00 - 4.00 =
A

4.00.....
100

3.80 - 3.89.....
99

3.70 - 3.79.....
98

3.60 - 3.69.....
97

3.50 - 3.59.....
96

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Assigning FINAL Course or Subject

Conjunctive Approach

One score does not "pull up" another. Rather, overall grades are determined by score patterns across the

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One Example of a Conjunctive

Grad	Score Pattern
A	No topic score below 3.0
B	No topic score below 2.5
C	No topic score below 2.0
D	No topic score below 1.5
F	Some topic scores below 1.5

What are the pluses and minuses of this score?

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Another Example of a Conjunctive System

Grad	Score Pattern
A	No topic score below 2.5 and the majority 3.0 or above
B	No topic score below 2.0 and the majority 2.5 or above
C	No topic score below 1.5 and the majority 2.0 or above
D	No topic score below 1.0 and the majority 1.5 or above
F	Some topic scores below 1.0 or the majority no above 1.5

What are the pluses and minuses of this score?

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Decision Time!

1. Which approach will you use to determine final course grades?

Compensatory Approach?

Conjunctive Approach?

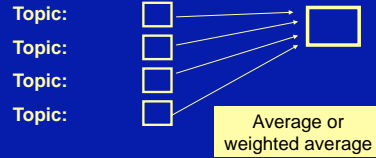
2. Who decides this? Individual teachers? School policy? District policy?

Assigning FINAL SCORES
for TOPICS and
NON-ACADEMIC

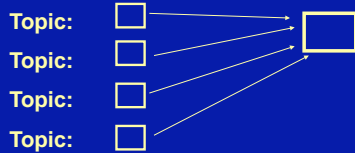


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Academic Grade:



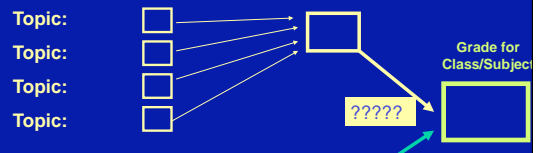
Academic Grade:



NonAcademic Grade:



Academic Grade:



NonAcad. Grade:



Decision Time!



Some teachers will want student performance on these factors averaged back into the overall grade for the subject or course; others will not.

Should this be a district or school decision or should each teacher





Decision Time!



Some teachers will want to be able to take "credit" away from students or lower the grade for behavioral infractions.


Should this be a district or school decision or should each teacher decide?

 **Decision Time!** 

Some teachers will want to be able to give zeroes for work not passed in.

Should this be a district or school decision or should each teacher decide?

Examples of:
Middle School Report Card
High School Report Card
Gradebook



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Blatchley Middle School
681 Salmon Crest Road
Sitka, AK 99835
(907) 747-1212

Standards Report Card

School Year: 2002-2003
Grade: 8th

Student: **Smith, Jane** Page 1 of 2

Course	Teacher	Performance Over Time			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Social Studies	Mr. Prosch	C	C		
Places and Regions		1.00	3.00		
Role of the Citizen		4.70	3.10		
Using Geography		2.90	2.20		
Historical Skills and Processes		1.70			
Life Skills Grade		3.1	3.8		
Work Ethic		2.8	3.1		
Participation		3.4	3.7		
Courtesy Respect		3.0	3.2		
Absences		0	0		
tardies		0	0		
Teacher Comments: Too many uncompleted assignments.					
Science	Prof. Plem	B	C+		
Cultural Heritage and Traditions of Community		3.50	3.50		
Diversity		1.30	3.20		
Relationships to the Environment		2.50			
Environmental changes		2.70			
Use science to describe the local environment		3.00	3.70		
Molecules to Ecosystems		3.00	3.00		
Life Skills Grade		3.3	2.8		
Work Ethic		3.5	3.0		
Participation		3.0	2.6		
Courtesy Respect		3.5	3.0		
Absences		0	0		
tardies		0	0		
Teacher Comments: Child to have year child in class. Not completing assigned projects.					

Sitka High School
1000 School Street
Sitka, AK 99835
(907) 747-1212

Standards Report Card

School Year: 2002-2003
Grade: 10

Student: **Smith, Jack** Page 1 of 2




Course	Teacher	Performance Over Time			
		Qtr 1	Sum 1	Qtr 2	Sum 2
IND & TEAMSPOR	Mr. Jordan	A	A	A	
Content (75% of Final Grade)					3.8
Personal Behavior		3.00	3.70		
Physical Activity-Knowledge		3.00	3.00		
Social Behavior		4.00	4.00		
Movement Concepts and Motor Skills		3.70	3.00		
Life Skills (75% of Final Grade)					3.8
Work Ethic		4.0	4.0		
Participation		3.7	3.7		
Courtesy Respect		3.5	3.7		
Absences		0	2	2	
tardies		0	0	0	
Teacher Comments:					
ENGLISH 10 0110	Ms. Wilson	C-	C-	C-	
Content (75% of Final Grade)					2.4
Speaks well for variety of purposes and audiences		2.00	2.00		
Comprehends text		3.30	3.30		
Analyzes and evaluates themes					
Analyzes literary elements		3.30	3.30		
Writes compositions					2.30
Writes for a variety of purposes and audiences		2.60	2.70		
Uses conventions of English		1.80	1.80		
Class sessions					3.30

Standards Based Gradebook with Non-Achievement Factors

Standards:	Precipitation	Ocean Currents	Measurement of Temperature	Reading Tables	Estimation	Effort	Behavior	Attendance	Assessment Key:												
									A: Quiz, Sept. 10	F: Unit Test #1, Sept. 22	K: Quiz, Oct. 8	B: Homework, Sept. 10	G: Performance Task, Sept. 24	L: Homework, Oct. 11	C: Homework, Sept. 15	H: Homework, Sept. 29	M: Homework, Oct. 13	D: Homework, Sept. 17	I: Quiz, Oct. 1	N: Quiz, Oct. 15	O: Unit Test Performance Task, Oct. 5
Student: Carson Walker																					
A	1.5		1.0			2.0	2.5	3.0	4.0												
B	2.0			1.5			1.0	3.0	4.0												
C	1.5				2.0		2.5	3.0	4.0												
D	2.0						2.5	3.0	4.0												
E	1.5	1.5				2.0	2.0	3.0	4.0												
F	2.0		1.5	1.5			2.0	3.0	4.0												
G	2.5		1.5	1.5	2.0		1.0	3.5	4.0												
H		2.0					3.0	3.5	4.0												
I		2.0					1.0	3.0	4.0												
J			2.0	1.5			2.0	2.5	4.0												
K		2.0		2.0			2.5	3.0	4.0												
L		2.0					1.0	3.0	4.0												
M		2.5					2.0	3.5	4.0												
N		2.5					2.5	3.5	4.0												
O	2.5	2.5	2.0	2.0			1.0	3.5	4.0												
Final Topic Score	2.25	2.5	1.75	1.75		2.0	1.9	3.1	4.0												

Figure 5.6. Standards-based Grade Book with Non-Achievement Factors.

REFLECTING on the DAY

An idea I had... A feeling I experienced... A step I will take...

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