Designing Quality Assessments

Erie 2-Chautauqua-Cattaraugus BOCES

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Essential Questions:

How do we know our students are learning?
How do I know my assessments are measuring that learning?

Guiding Questions:

When and how do we assess students to gather the data we need?
How do I document formative and summative assessments?
What are the attributes of quality assessments?
What tools do I need to develop quality assessments?

Session Outcomes

1. Participants will explore assessment and its relationship to student learning/achievement by:
   - Developing a "big picture" perspective of classroom assessment including defining formative vs. summative assessments
   - exploring a variety of strategies and devices for recording and reporting formative and summative assessments
   - considering where and how to implement formative and summative assessment in their lessons and units

2. Participants will explore the attributes of a quality assessment and design or refine an assessment for classroom use using the attributes of quality assessment

Agenda

Morning:

- Self-Assessment & Group List of Attributes of Quality Assessments
- What do we value in assessment?
- Types and Moments of Assessments
- Learning Targets

Afternoon:

- A "Content Free" Quiz – Writing Multiple Choice Questions
- Recording and Reporting Assessment Data
- Feedback
- Design Options

What is valued in assessment?

Administrators	Parents	Students	Teachers

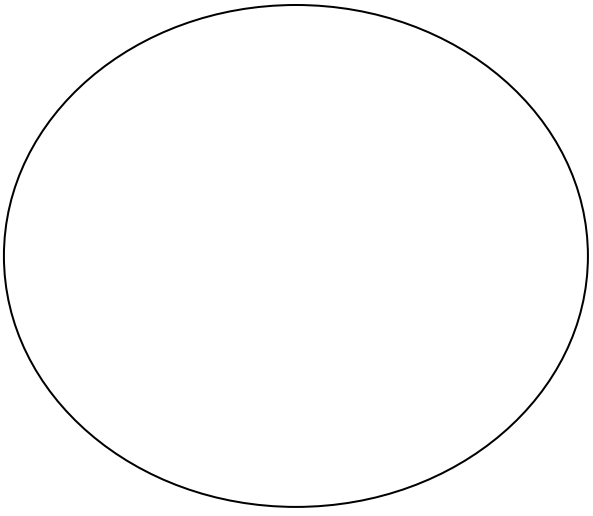
Data Collection

What types of assessment do you use?

When and how do we assess students to gather the data we need?

MOMENTS	STAKES	PURPOSES	EXAMPLES
DIAGNOSTIC or BASELINE (before teaching)	LOW stakes	to gather data so as to plan for instruction, place children, secure additional services	• Letter to teacher about new grade • Concept/topic map • On-demand task
FORMATIVE or PERIODIC (while teaching)	LOW stakes	to gather data so as to adjust instruction, services	• + or – suggestions on work in progress • Assignment checklist or rubric used while students are working • Reflection questions posed as students work • Talk through or "think aloud" while solving problems • Note cards/outlines on research work • Readiness questions: Are you ready to…? • Review for test • Conference on the draft of paper • Research proposal
SUMMATIVE or CULMINATING (after teaching)	HIGH stakes	to evaluate and make decisions regarding grades, promotion, graduation	• Test • Research paper • Exhibition • Portfolio submission • Oral presentation

Using the assessment moments above, create a graph of the types of assessments you use in your class.



ASSESSMENT: BALANCING THE NEEDS OF ALL USERS

Formative Assessment
Formal and informal processes teachers and students use to gather evidence for the purpose of improving the learning.

Assessment FOR Learning

*Use formal and informal classroom assessments to inform **teacher** decisions.*

Assessment FOR Learning

*Use assessments to help **students** assess and adjust their own learning.*

Summative Assessment
Assessments that provide evidence of student achievement for the purpose of making a judgment about student competence or program effectiveness.

Formative Uses of Summative Data

Use summative results to inform what comes next for individuals or groups of students.

Where am I going?

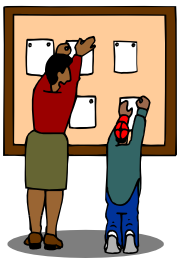
Where am I now?

How can I close the gap?

Adapted from *Classroom Assessment for Student Learning: Doing It Right – Using it Well.* (2006) Stiggins, Arter, Chappuis, & Chappuis. Portland, OR : ETS.

Diagnostic, Formative or Summative?

Exit tickets	
DIBELS	
Document Based Question	
Student Portfolios	
NYS Assessment in ELA	
Anticipation guide on textbook chapter	
Weekly spelling quiz	
Learning Styles Inventory	
True/False test	
Concept Map	
Writing Assignment Using Rubric	
Chemistry Regents exam	



What are we trying to measure when we assess students?

Review the cluster of assessment types below and try to determine what we are trying to measure when we use these assessments.

Multiple choice

True/False

Fill in the blank

Short answer

measures

Poster
Research report
Essay
Lab report
Sculpture
Model

measures

Oral presentation
Debate
Role play
Skit
Basketball game

measures

Journal
Learning Log
Think Aloud
Verbal Reflection

measures

Assessment Types

TYPE	EXAMPLES	My Assessments
INFORMATION RECALL (What students can REMEMBER or RECOGNIZE)	multiple choice T/F matching fill-in short answer	
PRODUCT (What students CREATE/PRODUCE)	Poster research report essay sculpture lab report model	
PERFORMANCE (What students PERFORM)	oral/panel presentation role play debate skit oral reading basketball game	
PROCESS (HOW students THINK, LEARN, WORK, WRITE, PROBLEM SOLVE)	journal verbal reflection logs think alouds	

REFLECTION:

Revisit the Data Collection activity on page 3 of this handout. What are types of assessments are you using? Is there a balance of assessment types?

Congruence in Assessment

Assessment is congruent if it is aligned with and supports specific curriculum, instruction, and assessment targets. Identify the most appropriate type of assessment for each of the examples on the left-hand side.

	Objective/Instructional Target	Recall	Product	Performance	Process
1.	Identify 2 continents on a blank map				
2.	Create a map that goes from the class to the main office				
3.	Use a map to find a specific place in the neighborhood				
4.	Explain how you decided the best route for a map you developed				
5.	Identify the titles of songs				
6.	Describe how you created the song				
7.	Play the song you wrote				
8.	Write a song using a specific composer's style				
9.	Demonstrate operations using manipulatives				
10.	Know mathematics facts				
11.	Write a lesson plan aimed at teaching a mathematics operation				
12.	Explain how you solved a mathematical problem				
13.	Deliver a presentation on a book you read				
14.	Recall parts of a book you read				
15.	Write a book review				
16.	Describe what was confusing about a book you read				

What do you notice about the connection between the verb in the target and the corresponding activity?

Identifying Learning Targets

	What we measure	Examples from your classroom
KNOWLEDGE	**Factual (content)** e.g. specific geographic features, structure of a cell, Macbeth, musical notation	
	Conceptual e.g. justice, genre, energy, beauty, change	
	Procedural e.g. how to: add, balance a checkbook, with a literary critique, dribble a basketball	
	Meta-Cognitive e.g. knowing your own approach to learning, understanding demands of cognitive tasks, attitudes and dispositions towards self, others and schools	
SKILLS and ABILITIES	**Thinking Processes** e.g. drawing inferences, making analogies, comparing, synthesis, analysis, questioning	
	Subject-specific e.g. playing a musical instrument, keyboarding, graphic design, math problem solving, using the scientific method, writing a five paragraph essay discussing the theme of a novel, publish speaking	

Are we measuring what we think we are measuring?

A math teacher has the following learning target for an upcoming unit:

Students will use newly acquired mathematical skills to solve multi-step problems.

The chart below lists the assessment activities planned for the unit. Analyze the activities and rank their alignment to the target.

Strong Alignment	the assessment clearly aligns to the target and you can confidently infer or conclude student learning
Moderate Alignment	the assessment address the target but you may need an additional data point to infer student learning
Weak Alignment	the assessment touches on the target but without multiple additional data points, you cannot be confident of student learning

Assessment Activity	Type of Assessment	What is the activity measuring?	Alignment?
1. Students respond to true/false questions about the best procedures to follow in solving multi-step problems.			
2. Students work individually to solve a familiar multi-step problem involving manipulatives. The teacher observes and judges their efforts and work.			
3. Students are given a multistep problem they have never seen, then are asked to solve it in their workbook and describe how they did it.			
4. Students are given a multiple choice test that asks them to identify the right answer for 5 different problems.			
5. Students are asked to identify the errors in a solution to multi-step problems.			

What are the attributes of quality feedback?

Identify a time when you received quality feedback that moved your learning forward. What were the attributes of that feedback?

Think about a time when you have received feedback that did not help you or support you. What are the attributes of such feedback?

Discuss the attributes with your table.

Based on your reflection, how would you refine the list on the next page?

Checklist of Qualities of Effective Feedback in Responding to Work

Content

- ☐ Related to specific and shared criteria and expectations
- ☐ Prioritized
- ☐ Specific
- ☐ Purposeful
- ☐ Descriptive
- ☐ Options for next steps
- ☐

Tone

- ☐ Respectful
- ☐ Encouraging
- ☐ Suggestions made in such a way that author maintains ultimate control over work
- ☐
- ☐

Value

- ☐ Immediately usable
- ☐ Viewed as important by both the giver and the receiver
- ☐ Supports revision and learning
- ☐ Helps to make connections between teaching and product
- ☐
- ☐

Timing

- ☐ Ongoing
- ☐ Consistent
- ☐ Timely
- ☐
- ☐
- ☐

How do you currently structure feedback to your students?

Check, circle or underline the specific strategies you use to give feedback to students. (Work in the columns labeled "Documentation Format" and "Strategy").

DOCUMENTATION FORMAT	STRATEGY	TIMING	ASSESSOR
rubric	▪ Highlighting or marking descriptors ▪ Writing comments in a "notes" column ▪ Conferencing to set goals and plan around next steps	During any stage of a process, as long as there is time to revise work as a result of what is learned or planned	▪ Learner/Self ▪ Peer ▪ Others who have a clear understanding of the criteria
checklist	▪ Checklist marked in a "draft," "self," or "peer" column ▪ Comments, question or suggestion area for draft ▪ Reflection space for planning tomorrow's work based on today's feedback	During any stage of a process, as long as there is time to revise work as a result of what is learned or planned	▪ Learner/Self ▪ Peer ▪ Others who have a clear understanding of the criteria
feedback post-it	▪ +/-/? with related comments placed on a post-it attached to the paper. This Post-it can be dated and transferred to a student's file as documentation	During any stage of a process, as long as there is time to revise work as a result of response	▪ Learner/Self ▪ Peer ▪ Others who have a clear understanding of the criteria
annotations	▪ Notes written directly on work. The work itself becomes the documentation	During any stage of a process prior to the "final draft"	▪ Learner/Self ▪ Peer
reflection	▪ Space on rubric, checklist, the work itself or in a journal - for identifying strengths/needs, setting goals and/or articulating next steps	During any stage of the process, as long as a link is made to possible implementation of next steps	▪ Learner/Self
conference logs	• Notes made immediately after a conference, documenting focus, learning, goal setting, next steps, etc.	During any stage of the process	▪ Learner/Self ▪ Peer ▪ Others who have a clear understanding of the criteria
anecdotal records	▪ Notes made as a result of reviewing work – to document recommendations, needs, strengths, learning, etc.	During any stage of the process	▪ Learner/Self ▪ Peer ▪ Others who have a clear understanding of the criteria

Thinking About Feedback Structures

Read the following descriptions of formative feedback related to the same unit of study in an English class. Rank them from most effective to least effective with respect to the quality of feedback the students are getting. Please be able to justify your ranking.

Scenario A: As the teacher progresses through a unit on short story, he uses electronic clickers to assess the students' understanding of concepts and ideas. He models their use after Eric Mazur's Peer Interaction model where the students independently give initial responses, talk about their answer with a peer that gave a different response than theirs, and then reenter their responses to the question. Dependent on the responses, the teacher will reteach/ further discuss the concept or continue to the next part of the lesson.

Scenario B: The teacher asks the students to complete a three, two, one reflection on a text-based discussion of "The Lottery". Three insights that were gained; two connections to other concepts taught; one question. She reads over the responses after class and addresses the students' questions with the whole group at the beginning of class the following day.

Scenario C: About one third of the way into the short story unit, the teacher gives the student a quiz on what has been taught up to that point. She scores the quiz and returns it to the students.

Scenario D: At the beginning of the unit on short story, the teacher shares the learning targets with the students. Intermittently through the unit of study, the teacher gives the students bell work where the students have to answer ten questions about the content learned. The students immediately are given the answers and a "test map" that shows the alignment between given learning targets and test questions. Using the test map, they identify the targets with which they struggle. The teacher takes notes on who is struggling with what. During the class the next day, she works with small groups to refine their understanding related to the learning targets in need to refinement. She extends the learning for those who understood.

Scenario E: The teacher asks the students to write a short story employing the style of one of the authors they read. After a drafting, the students are asked to complete a reflection on the strengths and weaknesses of the draft and to identify where the teacher should focus the feedback. The teacher reads through the stories and conferences with small groups of students. The groups are based on the type of feedback the students need.

When should feedback occur?

Read through the performance task below from a 7th grade classroom. This teacher has 150 students, extracurricular responsibilities and a family of three. Spending too much time giving feedback is definitely a concern for her. Given the outcomes, revise this plan to give appropriate formative feedback from the teacher or peers. Work with a partner to identify the following:

- The places where you would build in opportunities for feedback
- The outcomes the feedback will support
- Why you would choose to give feedback at that point
- Who would give the feedback
- How would the feedback be given

Be prepared to share your plan with another pair to similarities and differences in approaches. Which plan is more appropriate given the learning targets? We will ask one pair to share out their plan to be reviewed by the whole group.

Performance Task: Power Point Presentations on Genetic Disorders (7th Grade Science)

Learning Targets:

- Understand the cause of a given genetic disorder, its implications, and how it is being treated
- Read scientific text for understanding
- Use technology to support an oral presentation

Students have just completed and introductory unit on genetics and heredity. The teacher wants to give the students an opportunity to apply what they have learned to developing an understanding of a genetic disorder/condition that interests them. The teacher shares a list of common genetic disorders and then asks the class to add to his list any other disorders they are curious about because they know someone who has been affected by them. In pairs, the students select a disorder to research. Their job is then to create a power point presentation about the disorder that will teach their classmates the basics of the disorder.

Student Goal Setting: Sample Self-Assessment

Source: From *Classroom Assessment for Student Learning: Doing It Right—Using It Well*, by R. J. Stiggins, J. Arter, J. Chappuis, and S. Chappuis, 2004, Portland, OR: Assessment Training Institute.

Figure 1. Student Self-Assessment Form

My Strengths and Areas to Improve

Trait(s): _____

Name: _____

Name of Paper: _____

Date: _____

My Opinion

My strengths are _____

_____

What I think I need to work on is _____

_____

My Teacher's or Classmate's Opinion

Strengths include _____

_____

Work on _____

_____

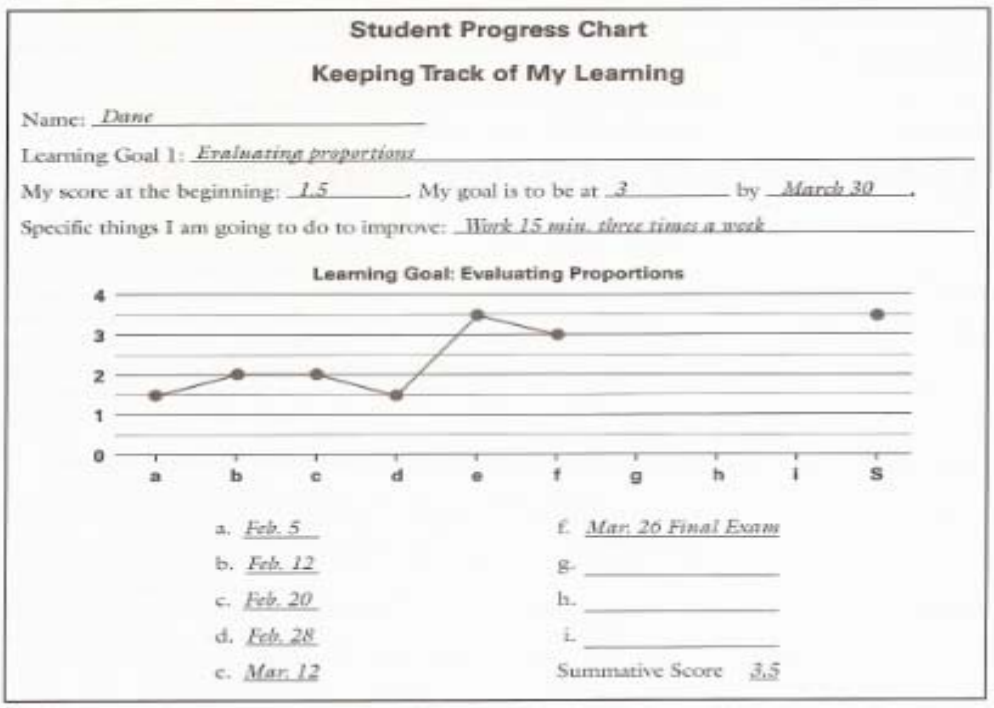
My Plan

What I will do now is _____

_____

Next time I'll ask for feedback from _____

_____



Marzano, Formative Assessment

What I Did Well and What I Need To Improve

NAME: _____ ASSIGNMENT: Marven of the Great North Woods DATE: 12/09/08

Look at your corrected test and mark whether each problem is right or wrong. Then look at the problems you got wrong and decide if you made a simple mistake or if you really did not understand the problem. Mark the column.

Problem #	Learning Target	Right?	Wrong?	I Made a Simple Mistake	I Didn't Understand This!
1.	Vocabulary				
2.	Vocabulary				
3.	Vocabulary				
4.	Vocabulary				
5.	Vocabulary				
6.	Fact/ Opinion				
7.	Cause/ Effect				
8.	Author's Purpose				
9.	Cause/Effect				
10.	Draw Conclusions				
11.	Sequence				
12.	Fact/Opinion				
13.	Main Idea				
14.	Unfamiliar Words				
15.	Compare/Contrast				
16.	Main Idea & Details				
17.	Draw Conclusions				

From "You Be George" e-portfolio samples (https://sites.google.com/a/wvde.k12.wv.us/resa-ii-can-e-portfolio-showcase/Home/showcase/you-be-george-samples)

Pulling It All Together

1. Consider the attributes of a quality assessment process:

   - Identifying clear learning targets
   - Defining criteria for success
   - Developing effective learning and assessment opportunities
   - Using evidence-based feedback
   - Goal setting and monitoring progress
   - Involving students in the process

2. Define the elements of the assessment process that are present in the task below.

In an integrated ELA/Social Studies unit, students are reading Across Five Aprils. The teacher is using text-based seminars for as a tool for helping the students gain a deeper understanding of the text and has introduced them to the students by having them critique a text-based seminar from one of the teacher's former classes. The critique focused defining the characteristics of active participation in the seminar. The students decided that building off of other's ideas, asking clarifying questions, paraphrasing, eye contact, and body language were all characteristics of active participation.

*The first seminar for the text was a whole group seminar. The teacher posed three open-ended questions that might guide the seminar. The students selected the one they thought would be the most interesting to discuss. As the students discussed the first question, the teacher paused at appropriate points to point out what the students were going well related to the criteria. For example, after one exchange the teacher responded, "**Did you notice just after the first response, Jake built on Sophie's idea by adding another piece of supporting evidence. Sam asked a clarifying question to Sophie about the evidence she used. Jamie gave evidence that contradicted the initial response and invited other people to offer a chance to contribute additional evidence to support his point. This is an example of developing a deeper understanding of text through discussion. You are questioning, tapping into different perspectives, exploring ideas and backing up your thinking using evidence."***

3. Consider what else needs to surround this component to increase its formative assessment value. Be prepared to share your refinements with the rest of the group.