Assessment Work Sample Method

An Innovative, Practical Approach to Formative Assessment Using Student Work

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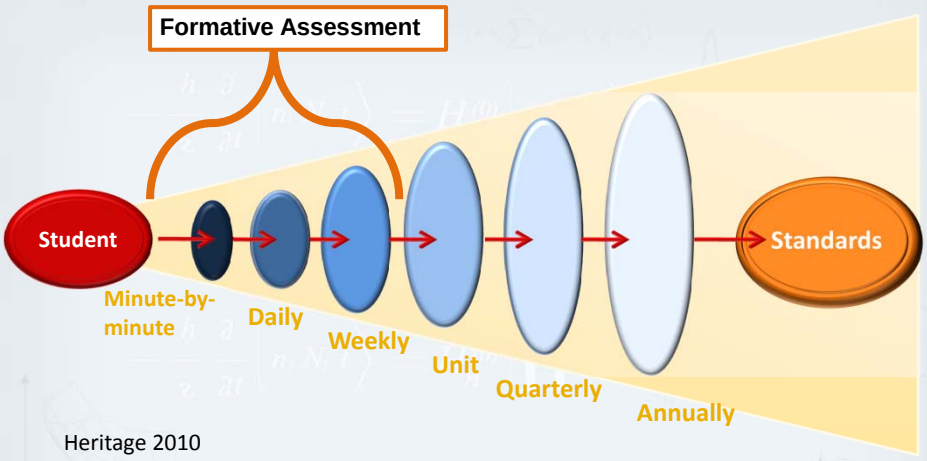
McREL

Understanding Formative Assessment



Heritage 2010

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Formative Assessment Strategies

- Setting and communicating clear learning targets in student-friendly language
- Communicating success criteria
- Using ungraded practice assignments
- Grouping students for instruction based on assessment results
- Providing written and oral descriptive feedback on rich tasks
- Supporting student self and peer assessment

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Why Formative Assessment?

Despite the promise of formative assessment suggested in the research literature, high-quality formative assessment practice remains an underused technique in most classrooms.

Even, 2005

Why do you think this is true?

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Our Challenge

Develop PD experiences that focus on *showing* rather than *telling* teachers why and how to implement high-quality formative assessment practices in mathematics

Action Plan

Authentic work samples

Collaborative teacher teams

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What Is AWSM?

The *Assessment Work Sample Method* (AWSM)

A job-embedded PD program that that incorporates student work samples to help teachers learn about and implement high-quality formative assessment practices

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What's a Work Sample?

Work samples include:

- A teacher cover sheet – this provides background information about the student assignment
- Examples of student work – two samples that achieved the intended learning goal and two samples that did not achieve the intended learning goal

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Research Questions for Investigation

1. To what extent can AWSM be **implemented** with fidelity in an authentic education delivery setting?
2. To what extent does AWSM show promise for improving **teacher practice** of mathematics formative assessment?
3. To what extent does AWSM show promise for increasing **student achievement** in mathematics?

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AWSM Overview

- Funder: U.S. Department of Education (IES) Development grant
- Grant Timeline: September 2011-August 2014
- Year 1: Material development—Gathered work samples and McREL prepared participant guides

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AWSM Overview – Years 2 - 3

- Year 2: Pilot PD conducted in one middle school—13 PD sessions started with a half-day overview; PLC time was used for the other twelve sessions; sessions were video recorded for further review and use.
- Year 3: Scale-up to six field test middle schools.

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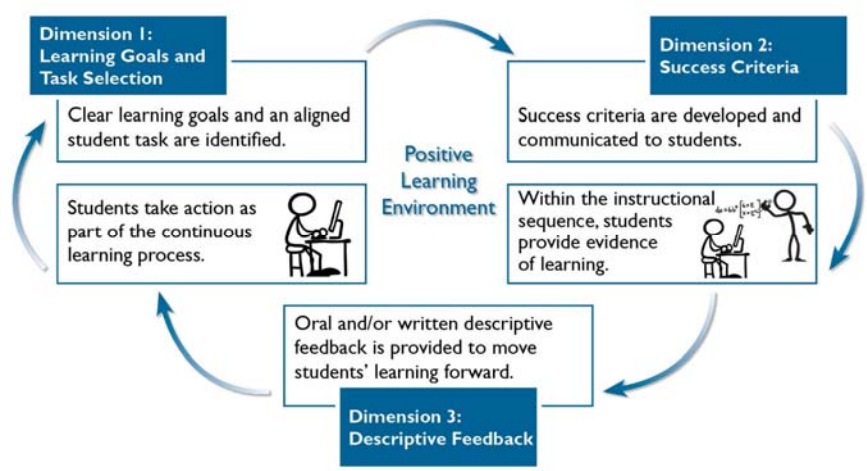
AWSM Formative Assessment Process



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Establishing a Positive Learning Environment

- Social-emotional factors
- Physical classroom structures
- Individual accountability
- Strategies
  - Explicit modeling
  - Norms for interactions
  - Clear communication of learning goals and success criteria

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Person-Centered Teaching

In classes with person-centered teachers, there is more engagement, more respect of self and others, there are fewer resistant behaviors, and higher achievement outcomes.

Hattie, Visible Learning, p.119

Teacher-Student Relationships (ES = 0.72)

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Teacher Clarity (ES = 0.74)

Teachers must clearly understand learning expectations and must communicate the intentions of the lessons and the notions of what success means for these intentions.

Visible Learning – p. 125

How does this relate to AWSM's Dimensions?

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Dimension 1 – Learning Goals and Task

5. What were your learning goals for the students for this assignment? In other words, what skills, concepts, or facts did you want students to learn, practice or demonstrate understanding of as a result of completing this assignment? (Students will know and understand that:…..) Students will be able to extend a linear pattern, create a graph, and explain (in their own words) the meanings of slope and y-intercept.

6. Check the type of learning goal/target this assignment addresses (check all that apply):

- ☐ Knowledge (facts/details to be memorized)
- ☐ Skill (algorithmic procedures)
- ☒ Conceptual Understanding (reasoning, generalizing, explaining, etc.)
- ☐ Problem Solving with a Context (multiple procedures; solution strategy)

Work Sample: Aligning Learning Goals and Task

Achieved Objectives

At Benchmark #4 - Linear Equations

Name: [redacted]
Date:
Rot:

Open Response

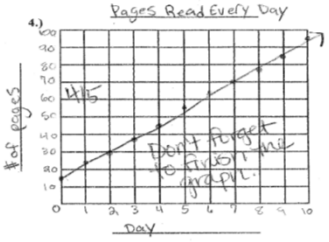
Bryan is reading a long novel for Language Arts class. He has already read 14 pages. From now on he plans to read 8 pages every evening. If he continues everyday at the same pace, answer the following questions.

1.) Complete the table and graph to show how many pages (p) he reads per day (d).

d	p
0	14
1	22
2	30
3	38
4	46
10	99

54 62 70 78

4.) Pages Read Every Day



2.) What is the slope of this line? What does it mean in terms of pages and days?

The slope of this line is 8. It means that 8 pages are read every day. It is just the move.

R ✓ A ✓ P ✓ P ✓ This is a perfect answer!

3.) What is the y-intercept of this graph? What does it mean in terms of pages and days?

The y-intercept of this graph is 14. It means that 14 pages were read before Bryan started reading 8 pages a day. It is the beginning.

R ✓ A ✓ P ✓ P ✓ Great understanding of linear equations!

Dimension 2 – Success Criteria

Success criteria are -

- Ways that students express their understanding of the learning goal. Students provide evidence of where they are in relationship to the learning goal (able to say, do , think, present, solve, calculate, explain or reason, etc.
- Used as a check on learning

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Quality Success Criteria

Characteristics:

- Clear
- Aligned with learning goals
- Fair and unbiased
- Communicated to the learner
- Made explicit through examples
- Include a range of responses

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Success Criteria

11. a. **How was this assignment assessed?** If there is a rubric, student reflection, etc., please attach it. If you are not attaching a rubric, please explain your criteria for determining if students met the learning goal of the assignment.

Before working on the assignment the class solve an equation together and developed statements of what shows mastery. They said there should be evidence of 5 things: ① Simplifying both sides, ② Eliminating the variable from one side, ③ using inverse operations, ④ getting the variable by itself, ⑤ checking the solution.

11. b. **Did you share these criteria with the students?** [X] Yes [ ] No

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Dimension 3 – Descriptive Feedback

Quality feedback is clear, descriptive, criterion-based feedback and indicates to students where they are in a learning progression, how their response differed from that reflected in the desired learning goal, and how they can move forward. (Black & Wiliam, 1998; Butler & Neuman, 1995; Kluger & DeNisi, 1996.)

(Heritage, 2008)

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Descriptive Feedback

Comments include:

- What is good about the work relative to the learning goal,
- Where the work differed from the desired learning goal (and success criteria), and
- Suggestions for how they can move forward and improve.

Descriptive Feedback

Teacher to Student

Peer to Peer

Student to Self

Why Peer Assessment?

"Research shows that the people providing the feedback benefit just as much as the recipient, because they are forced to internalize the learning intentions and success criteria in the context of someone else's work, which is less emotionally charged than one's own."

- Wiliam, 2006, p. 6.

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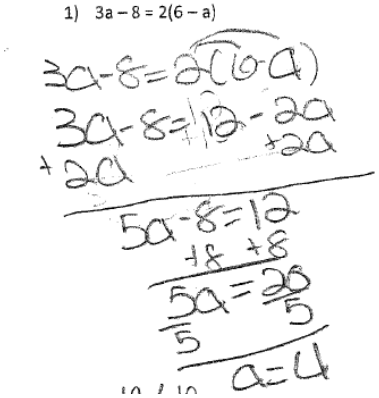
Solve problem 1 first. Then switch papers with someone and give two stars and a wish in the space provided. Return the papers, read the feedback and then solve the second problem.

1) $3a - 8 = 2(6 - a)$



Student feedback

☆ - I like how you showed all of your work.

☆ - You were very clear on what you were doing.

wish - You could have gone and checked to make sure your answer was correct.

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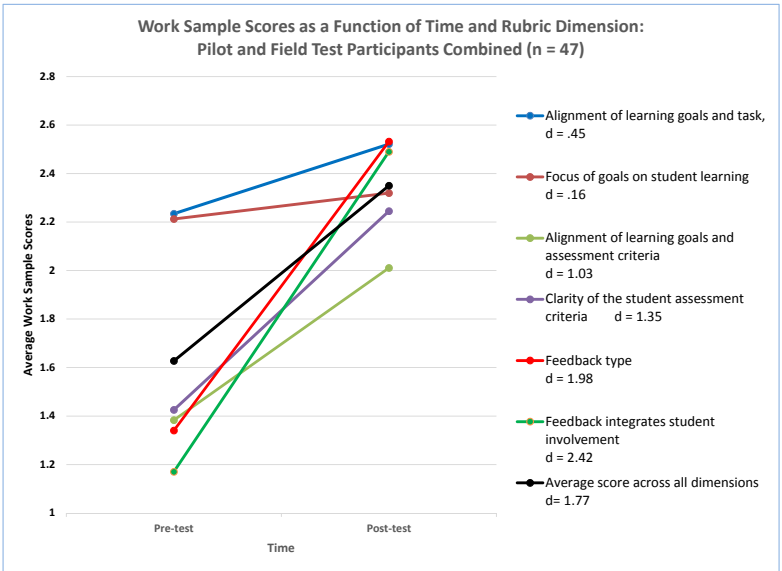
Teacher Practice Results: Pretest to Posttest



Average effect size = 1.77 (Cohen's *d*)

What Teachers Say

- "I used to think formative assessment was about the teacher knowing where students are in the learning process. Now I know that formative assessment must include students so that they understand how to improve their own learning."
- "I used to think I had to grade everything. Now I know I can provide descriptive feedback and allow students to take action."

What Teachers Say

- "It's the dimensions of clear learning goals and success criteria that have most impacted my instruction. I think I was always clear about what was being learned, but I needed to be more explicit about sharing this with my students."
- Regarding peer assessment: "When you walk around the room and you listen to their discussions, they're really good discussions. Sometimes they can point something out to another student that's at their level better than I can."

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Questions?

Thanks for attending this session!

For further information contact
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