Professional Development Documents: Introduction to Formative Assessment

In this packet you will find a set of handouts and support materials for the Introduction to Formative Assessment professional development module. These documents represent the work of the leadership of the Assessing with Learning Progressions in Science Project, a Math Science Partnership through the Northwest Educational Service District in Washington State. We encourage others to use these materials as part of their own professional development programs. The PowerPoint which contains presentation notes and instructions for use of these materials can be found on the professional development tools section of the ALPS project web page [www.nwesd.org/nwalps](http://www.nwesd.org/nwalps). For access to editable versions of these documents please contact Nancy Menard nmenard@nwesd.org.

Description of the Enclosed Documents

Frayer Model
The Frayer model document is used to elicit participant’s initial ideas about formative assessment and then becomes a touchstone for reflection and metacognition throughout the day.

FA Quote Cards
These short quotes about formative assessment from experts in the field are used as part of a jigsaw to deepen participants’ understanding. Each quote can be copied on a different colored piece of paper and cut into cards.

FA Vignettes
This is a formative assessment to gauge participants’ understanding of formative assessment and to facilitate discussion.

Sample Learning Progression
This provides an example of a learning progression, which is a graphical representation of a plan for formative assessment.
For starters, formative assessment is a process, not a test; moreover, it’s a *planned* process, not a spur-of-the-moment activity. During this planned process, evidence – collected through formal or informal assessments – is used to get an accurate fix on students’ current skills, knowledge, or affect. At that point, either teachers decide whether to adjust their instruction or students decide whether to adjust how they’re trying to learn something. The goal of formative assessment, therefore, is to supply assessment-elicited evidence by which teachers or students try to enhance learning.

*W. James Popham in “Seven Stepping Stones to Success”*
Another component, formative assessment, is an ongoing process used to inform instructional decisions made by the teacher and student. This process can be extended to encourage and promote further learning. Formative assessments, linked to the targets of daily instruction, provide continuous information… . Formative assessment happens while teaching is still underway, helping shape decisions about what needs to happen next to better prepare students for the summative assessment.

*Stephen Chappuis and Rick Stiggins in “Finding Balance: Assessment in the Middle School Classroom”*
The purpose of formative assessment is to provide feedback to teachers and students during the course of learning about the gap between students’ current and desired performance so that action can be taken to close the gap. To do this effectively, teachers need to have in mind a continuum of how learning develops in any particular knowledge domain so that they are able to locate students’ current learning status.

Margret Heritage in “Learning Progressions: Supporting Instruction and Formative Assessment”
Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited.  ~Black and Willam

Is It Formative?

Vignette 1: Thumbs Up and Thumbs Down

A high-school biology teacher frequently reads aloud a prepared biology-related statement, then asks students to hold their hands under their chins and signify whether the statement is true or false by showing a “thumbs-up” for true or a “thumbs-down” for false. Depending on the number of students who respond incorrectly the teacher may have students present arguments for both sides, he may pair students and ask them to discuss the concept further, or he may decide that he needs to present the same concept using a different representation or instructional approach.

Vignette 2: Classroom Quizzes

During a unit on photosynthesis, the teacher administers a weekly quiz that addresses all of the material covered for the week. The quizzes are supposed to motivate students to study for the summative unit as well as provide students with a sample of the types of questions they may encounter on the unit test.

Vignette 3: Building-Block Status

During any instructional unit taking more than three weeks to complete, Maria Sanchez tries to isolate the pivotal skills or bodies of knowledge she believes her students must master in order to achieve the instructional unit’s most significant learning target. Maria was trying to build the big idea that animals have different structures that meet their needs and respond to the environment. She came up with a list of three building blocks: 1) All animals have characteristics that perform certain functions; 2) Animals share some common features, yet vary in other ways; and 3) Animals have characteristics that help them survive in a wide variety of places. Maria developed brief assessments for each of the building blocks using multiple-choice or short-answer items. Based on her students’ responses on these during—the-unit assessments, Maria often—but not always—modifies her planned instructional activities so those activities mesh more appropriately with the students’ current levels of achievement.
Learning Progression
Formative Assessment: a process for making instruction more effective in order to improve student learning.

**Target:**
- Formative assessment is a planned process to determine current student learning.
- Teachers or students use formative assessment-based evidence to adjust instruction.

**Success Criteria:**
I can... distinguish between the use of formative assessments and the use of tests (summative assessments).

**Key question**
What are the essential characteristics of formative assessment?

**Building Block:**
Formative assessment is a planned process to monitor student learning.

**Success Criteria:**
I can... establish success criteria that define desired student learning.

**Key question**
What are the essential characteristics of formative assessment?

**Building Block:**
Formative assessment requires evidence of student understanding.

**Success Criteria:**
I can... plan formative assessments for a progression of concepts and skills.

**Key question**
What is the progression of skills and knowledge students need to master the unit target?

**Building Block:**
Formative assessment informs adjustment of a teacher’s current instructional practices.

**Success Criteria:**
I can... use evidence from formative assessment to adjust my current instruction and improve student learning.

**Key question**
What are my instructional next steps?

**Learning Target:**
Formative assessment informs modification of a teacher’s current instructional practices.

**Success Criteria:**
I can... suggest and facilitate a variety of learning techniques students can implement to improve their own learning.

**Key question**
What should the student understand about their own learning?

**Building Block:**
Formative assessment informs adjustment of a student’s current learning practices through feedback and peer and self assessment.

**Success Criteria:**
I can... suggest and facilitate a variety of learning techniques students can implement to improve their own learning.

**Key question**
What should the student understand about their own learning?

**Later big ideas that build on this big idea include:**
Formative Assessment is one piece of an assessment system that also includes other forms of assessment such as common assessments and summative tests.