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| CCSSO, 2017  *Digital Library—Professional Learning Activity* | Smarter Balanced Digital Libary  The Digital Library is focused on embedding the formative process in classroom instructional practices. This resource has been adapted for use in Digital Library. It can be used as a starting point for those new to the formative assessment process, and it can also be used as a resource for experienced educators who wish to deepen their understanding and implementation of the formative process in the classroom. |

**Group Jigsaw Reading Protocol**

# adapted from Expeditionary Learning

# <https://www.engageny.org/sites/default/files/resource/attachments/jigsaw_protocol.pdf>

## Purpose:

This Protocol allow small groups to engage in reading and discussion of longer text. Having each participant select and read one page, they can divide the text and become an expert on one section to share/teach the group. Participants will hear oral summaries and discussions of the other reading selections and will gain an understanding of additional information.

## Materials:

Copies of selected text for reading, highlighters, post-its, & notebook/computer for journal reflection.

# Procedure:

1. **Participants select a section of the text to read**. For this group jigsaw activity on the formative assessment process using the [*2017 CCSSO Formative Assessment Process for Students with Disabilities*](http://www.ccsso.org/sites/default/files/2017-12/Formative_Assessment_for_Students_with_Disabilities.pdf) there are 8 sections to choose from—since there may be more sections than participants, each group member should select a different text based on his/her depth of understanding and learning need. If using this resource in a PLC or with a full staff, it is suggested to start with the beginning/foundational understanding text selections in one session, and then follow up with a second session using the deepening understanding text selections.

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| Beginning/Foundational Understanding | Deepening Understanding |
| The Role of Universal Design  What is Formative Assessment  What Formative Assessment is Not  The Foundations of Formative Assessment | Evidence for Connecting FA and SWD  Sharing Learning Targets and Success Criteria  Formative Feedback  Additional FA Strategies |

1. **Establish length of time to read text and purpose for reading**. Provide additional time depending as needed, depending on the task. For example, to read the text and identify a quote to share provide 2 minutes for reading and a minute for each participant to share out followed by 2 minute for self-reflection. When asking participants to summarize, synthesis, or connect the reading to classroom practice allow 4-5 minutes of time for reading, 2-3 minutes for sharing, and 3 minutes for self-reflection.
2. **Write/reflect** after the discussion. It is important to plan time for reflection into the jigsaw activity. On a Post-it, participants will identify one action/goal that resulted from discussion.
3. **Shares action/observable** with at least one other person for accountability.

# Debrief:

Have participants share insights and discoveries. Did this activity help participants gain an understanding of the whole text? What worked well for the group? Are there discussion skills the group could improve? Are there any lingering questions or misconceptions about the topic?

# The Role of Universal Design

The goal of Universal Design is to improve access to instruction and assessment for all students by removing barriers. The overall concept is that well-designed instruction and assessments benefit all learners universally — not just those with disabilities. Universal design is a concept that originated in architecture with the idea that good design benefits all and reduces the need for accommodations. For example, cuts in the curbs in sidewalks provide access to individuals in wheelchairs, but the cuts also benefit parents pushing strollers and people with sore knees who find the curbs cumbersome. Similarly, closed captioning was developed for individuals who are hard of hearing, yet many people use it — think of the last time you were at the airport or in a noisy restaurant that had a television (CAST, 2012; Thompson, Thurlow, & Malouf, 2004).

The National Center on Universal Design for Learning (CAST, 2012) identified three principals of universal design for learning (UDL):

• Principle I: Provide multiple means of representation (the “what” of learning)

• Principle II: Provide multiple means of action and expression (the “how” of learning)

• Principle III: Provide multiple means of engagement (the “why” of learning)

Formative assessment practices and procedures that are more universally designed can also play an important role. Formative assessment designed right from the beginning to allow the participation of individuals with a wide range of characteristics minimizes the need for accommodations. It can also help ensure that all students can participate and that the assessment measures what is intended and provides instructionally useful information. Thompson et al. (2004) identified several characteristics of well-designed assessments that are inclusive of all students:

• Precisely designed constructs

• Accessible, nonbiased items

• Amenable to accommodations

• Simple, clear, and intuitive instructions and procedures

• Maximum readability and comprehensibility

• Maximum legibility

# What is Formative Assessment

Formative assessment is a process. Formative assessment happens when students and teachers get evidence of student thinking — from a variety of methods — and use that evidence to further student learning. That means formative assessment has motivational benefits as well as cognitive (learning) benefits. The process begins with giving students (or co-creating) a clear vision of what students are trying to learn. We’ll have more to say about that below.

Formative assessment is used by teachers and students. Some people call an assessment “formative” if the teacher can use the information to adjust instruction without reference to students. Adjusting instruction is not a bad thing, but formative assessment is much more. Learning in schools is certainly managed by teachers, but it is the students who do the learning, and formative assessment helps students generate and use evidence within the learning process. According to our definition, if students are not involved in the process, it is not formative assessment.

Formative assessment improves student achievement of intended instructional outcomes. While some people count as formative assessment any assessment during learning, whether it is used or not, the FAST SCASS definition implies that the formative assessment information is intended to improve learning. The information needs to be used with the intention of improving learning (Black & Wiliam, 1998) and inform the learning process, whether learning improves directly or whether evidence suggests further work.

Students who experience the formative assessment process strive to answer three questions (Hattie & Timperley, 2007; Sadler, 1989): Where am I going? (What am I trying to learn?) Where am I now? (What progress have I made toward my learning goal?) What do I need to do next? (What next steps will take me closer to my learning goal?) They do this by generating and evaluating evidence of their own learning.

This kind of formative assessment is part of learning. When formative assessment is used regularly in the classroom, the lines between instruction, assessment, and learning blur (Hayward, 2015). When students, for example, are aiming to learn to write persuasive pieces, and during the writing process they get feedback they use to revise their work, is the feedback assessment or part of their instruction for that lesson where they revise? And are the insights students receive from the feedback as they read it and apply it to their work during the revision part of assessment, or is that learning? Well – yes and yes. True formative assessment blurs the lines between assessment, instruction, and learning.

Finally, as the old saying goes, “Knowledge is power.” The evidence of learning that students and teachers get during formative assessment creates a mandate to do something about it – and at the same time yields information that helps learning happen. Teachers who use formative assessment feel a need to differentiate instruction in a way they hadn’t before (Brookhart, Moss, & Long, 2010). Students who use formative assessment and thus know what they need to do next, in terms that are understandable and seem do-able, feel more in control of their learning and feel competent (Butler & Schnellert, 2015). That feeling of control is motivating. It fuels self-efficacy for learning and self-regulation of the learning process.

# What Formative Assessment is Not

With all of these good things claimed for formative assessment, it’s no wonder that the concept has attracted some misconceptions and overgeneralizations. Like a snowball rolling downhill collects rocks and sticks, formative assessment has found some things “stuck” to it that don’t belong there.

If formative assessment is a process, then it is not a set of assessment tools. If you hear something like, “We use formative assessments in our school,” using “assessments” in the plural, chances are the speaker is not referring to formative assessment in the way we define it here. There are many formative assessment strategies and tools that one can use, and we will describe some of them in this paper. But the strategies and tools are not what make the assessment formative — it’s how the strategies are used.

Formative assessment strategies can be used in very teacher-centered ways (Furtak et al., 2008; Jonsson, Lundahl, & Holmgren, 2015). When they are, they do not lead to any improvement of learning beyond that supported by conventional teaching and assessing. In fact, you can’t tell by looking if an assessment – a test, a performance assessment, or an informal assessment – is formative or summative. (Summative assessment is assessment summarizing what has been learned; in most school contexts this means graded work.) You have to look at how the assessment is used. If students and teachers use the assessment evidence to figure out what students are supposed to be learning, where they are in relation to that intended learning, and what they need to do next to make progress, then the process is formative. If any single one of these components is missing, the process is not formative.

Any “formative assessment strategy” can be twisted and become a de facto summative assessment. For example, exit tickets are a popular formative assessment strategy. Exit tickets are supposed to involve students reflecting on what they learned and what they still need to learn. Students can use this information to inform their further study and teachers can use this information to adjust instruction if needed. The basic format is this: teachers give students a reflection question or a content area question at the end of the lesson. Students write their answers on a small piece of paper, which is their “ticket” out of the class. However, we once observed a teacher giving students a five-question “exit ticket” assignment, collecting them, and using them as a quiz grade. No matter what the teacher intended, that is summative assessment.

# The Foundations of Formative Assessment

Descriptions of formative assessment differ in how they list the strategies that can be used in the formative assessment process (Heritage, 2010; Heritage et al., 2012; Moss & Brookhart, 2009; Wiliam, 2012). However, they all have several basic, foundational aspects in common. First, clear learning goals and criteria for success should be communicated to students. It’s not just a matter of teachers having learning goals for students; students must understand them and actively aim for them. Recall the first formative assessment question, “Where am I going?” It’s not, “What directions did my teacher give me that I have to follow?” The student is the subject of the sentence. The student owns the learning.

The learning goals and criteria form the basis for collecting evidence of student learning. Teachers can find out how their students are thinking by asking questions like, “What are you trying to learn?” The learning goals, sometimes called “learning targets,” communicated to students should be small, achievable sub-goals derived from broader curricular goals and grade-level, state content standards. Content-area, standards-based learning progressions help teachers figure out student-friendly, learning-target-sized “chunks” appropriate for students to aim for and that add up to larger standards. Learning progressions provide curricular pathways that can guide teachers as they assist students in accessing and achieving academic standards for their grade level.

Clear learning goals are the foundation on which formative assessment rests. A student receiving “feedback” without knowing what she is trying to achieve is basically just receiving directions. Questions or exercises meant to elicit student thinking, without the directional pull of a learning goal, are just chat. Some of you remember class “discussions” like this from your own school days.

A second foundation of formative assessment is feedback, which again is mentioned in every description of formative assessment. Hattie (2009, p. 173) suggested students needed “heavy dollops of feedback,” while noting that of course it had to be the right kind of feedback, focused on student work on the task, the student’s process, or the student’s self-regulation and pitched at or just above the level on which the student is working. Another important aspect of feedback is that it has to be part of a feedback loop or “formative learning cycle” (Moss & Brookhart, 2009) where students get timely opportunities to use the feedback and see the results. Without such opportunities, feedback delivered with the intention it will be used “next time” is unlikely to be effective.

# Evidence for Connecting Formative Assessment and Students with Disabilities

Black and Wiliam (1998) reviewed 250 studies and reviews of studies of formative assessment. They report that some, but not all, of the studies showed formative assessment helped lower achievers more than others, in effect narrowing the achievement gap while raising achievement overall (Black, Harrison, Lee, Marshall, & Wiliam, 2003). Their review described several studies as examples, including a study of disadvantaged kindergarten students (Bergan, Sladeczek, Schwarz, & Smith, 1991), and a meta-analysis of 21 studies that primarily addressed of the use of formative curriculum-based evaluation for children with disabilities (Fuchs & Fuchs, 1986). The success of formative assessment in these studies serves as “proof of concept” that formative assessment can work with low achievers and students with disabilities.

Brookhart, Moss, and Long (2010) worked with six Title I reading teachers on professional development in formative assessment. The students of these six teachers were in an Extended Day Kindergarten program or were receiving remedial reading assistance while mainstreamed into regular elementary classrooms. The teachers found they became more mindful of their own instruction, involved students more, gave more specific feedback, kept more useful records of observations of students, began to focus on student motivation as well as achievement, and came to see formative assessment as part of good instruction. The teachers were very positive about their changes in practice and excited about the changes they saw in their students. Student achievement rose in first grade, compared with similar students of teachers who were not using formative assessment. Teachers also said they observed an increase in general reading achievement, motivation, time on task, and student engagement.

Promoting learning autonomy may be an especially important support for students with disabilities who have poor executive functioning. Butler and Schnellert (2015) suggest that teachers create a classroom environment that supports learning autonomy when they set tasks that give students opportunities for planning, thinking, and learning over time, and managing their learning. These opportunities promote students’ metacognition, motivation, and strategic action. Some students with disabilities, Butler and Schnellert point out, will need routines and structures to support such work, clear learning goals, feedback, and involvement in the assessment process. These are exactly the qualities featured in formative assessment. Shute’s (2008) review of literature on feedback similarly finds that low-achieving students benefit from immediate feedback and feedback that provides scaffolding and support, focused on the learning goal. These supports and the self-regulation they engender will help all students, including students with disabilities, move away from some of the unsuccessful routines they may have developed, for example, conceiving of tasks as following directions instead of making meaning, and seeing schoolwork as a series of isolated assignments that require mostly recall and drill.

# Sharing Learning Targets and Success Criteria

Sharing learning targets and criteria for success with students is the foundational formative assessment strategy. Everything else flows from it, and without it, no strategies can be “formative.” Students need to know what they’re aiming for or they can only comply with directions, not pro-actively regulate their learning. The formative assessment paradigm begins with the student deciding, “What am I trying to learn?”

Two common misconceptions about learning targets for teachers of students without identified disabilities are especially critical for teachers of students with disabilities. Many teachers think of a learning target as an “I can” statement, often written on the board for students to read. An “I can” statement does not constitute a learning target, and it’s not the teacher who “has” the target. A lesson has a functioning learning target if students can tell you “what I am trying to learn.” It takes more than a statement for students to reach that point; it takes a set of strategies that make the learning target live in the lesson.

A second misconception about learning targets is that a long-term learning goal is sufficient, for example, “I can write a descriptive paragraph.” While it is true that students need a long view of where they are going, every lesson should have its own learning target. Students should be aware of what they are trying to learn in every lesson. Students should know how each lesson’s learning builds on previous learning and leads to future learning. This is especially critical for some students with disabilities (as well as other students) who need short-term goals to keep them on track.

Effective teachers use the following general strategies for sharing learning targets and refer to the learning target before, during, and after each lesson. First, they share the learning target with students and make sure they understand it. Second, they have students do, make, say, or write things that produce evidence about their status on the learning target as they work. Third, they share success criteria with students, things to look for in their work that become the yardstick by which they will assess their own evidence to decide where they are and what they need to do, study, or understand next. To repeat, all of these strategies must be enacted in order for students to be truly able to answer the question, “What are you trying to learn?” It is vital to consider which strategies are working as intended, and which may not be taking students to the next step.

# Formative Feedback

**Teacher feedback.** Feedback that students can use to move their learning forward must be based on the learning target and criteria for success. Otherwise, it’s not “formative assessment,” it’s just more directions for students to follow. Effective feedback describes — as opposed to evaluating or grading — student work based on the same criteria for success that students have been targeting. For example, “Good job!” is an evaluative comment; it does not describe what is good. Contrast this with “Effective topic sentence” given for the same work, and assuming the learning target was to learn to write an effective topic sentence.

Effective feedback is delivered in a timely fashion and contains a “just right” amount of information. Interpret the evidence of learning to focus on where students should turn their attention next rather than delivering a blanket critique of everything one could say about the work. Comments, whether written or oral, should be clear, specific enough for the student to take action, but not so specific the work is done for the student. Comments should be stated in language that implies the student is the owner of the learning, not the executor of teacher’s directions. All students benefit when feedback is linked to desired learning targets, processes, and outcomes. For some students, extra care may be needed to ensure that feedback is provided in a way that is accessible, useful, and actionable.

Feedback should be an episode of learning for both the student and the teacher — they both should learn something. The teacher should learn something about how the student is thinking, not just whether or not she is “correct.” The student, of course, should learn more about where she is in her quest to hit the learning target and be able to envision what she should do next. Questions such as “Where am I going?” and “Where am I now?” can help elicit good student feedback.

**Self-assessment.** Effective self-assessment begins with students setting, or at least understanding, a learning goal and understanding the criteria they will be looking for in their work, then applying the criteria to monitor and adjust their work. This needs to be taught; it does not come “naturally.” Checklists or rubrics are useful tools. They codify the criteria and give students a way to note and explain their self-assessments. For paper and pencil work, students can use highlighters to match aspects of their work with the performance descriptions. A key part of the strategy is having students explain — to each other, to the teacher, or in writing — their assessment of their work against the criteria and the implications for what they should do next. Students who are less proficient sometimes find it more difficult to accurately assess their work — though they benefit greatly when they learn how to use input from self-assessment. Students also need to feel safe to accurately self-assess. Teachers play a key role in helping struggling learners develop the self-regulatory processes, and in creating the safe environment, needed for honest and accurate self-assessment.

**Peer assessment.** Peer assessment functions in a slightly different manner from self-assessment. The peer may or may not give useful feedback, and the student may or may not wish to modify the work because of it. Peer assessment can be successfully used with students with disabilities who have many different characteristics and needs, including students who have intellectual disabilities. Some research suggests students benefit most from peer assessment if their behavior is normative, and that students who struggle with behavioral issues may not be good candidates for peer assessment (Topping, 2013). Students who are aggressive or have disruptive behaviors, and those who are withdrawn, are less likely to be accepted by their classmates and more likely to get lower peer evaluations than other students.

# Additional Formative Assessment Strategies: Helping Students Gather, Interpret, and Use Evidence of Learning

**Student goal setting and keeping track of their own work.** When success criteria are presented in rubrics or checklists, or are visualized as learning progressions, students can set goals and monitor their progress using these tools. It’s important to remember that the tools — whether a rubric or some other device — are not what is formative, and they are not the strategy. Formative assessment comes when students and teachers use tools that organize criteria and make them easier to apply to evidence of student learning, and then use the results to improve learning.

**Asking strategic questions that make student thinking visible**. The most effective formative assessment gives students and teachers insights into their thinking (and sometimes skill development), not just correct answers. One strategy for teacher questioning is to ask open-ended questions, where multiple good answers are possible. Another questioning strategy for making student thinking visible is to ask students to explain their reasoning, whether the question they are answering is open-ended or not. A third questioning strategy for making student thinking visible is the “reflective toss,” where the teacher asks a question based on a student’s own statement (van Zee & Minstrell, 1997). There are many other questioning strategies, and in all cases, the aim is to elicit responses from students that present a window on their thinking. Then, teachers and students can interpret the thinking and push further learning.

Managing classroom discourse as students answer the teacher’s questions or questions from other students is important, too. Calling methods should ensure that every student is thinking about an answer. This means either using all-student response systems or calling on students randomly or at least non-systematically, and calling the student’s name after you ask the question, not before.

**Using techniques for all students to respond.** When teachers can see the responses of all students, not just those who are called on, they get a sense of the distribution of understanding in the class. Common ways to do that include electronic every-student response systems (“clickers”), whiteboards, and letter cards (typically cards labelled A, B, C, and D, which students hold up in answer to multiple choice questions). Teachers also use hand or body signals as answers to questions, for example, “Thumbs up if you think the cork will float; thumbs down if you think it will sink.” Other variations include whole-hand voting (for example, “On a scale of one to five, hold up the number of fingers that indicate how confident you are that we will be able to make our river safe for swimming again”) or indicating by movement (for example, “Go to that corner if you think Billie Jo is mostly responsible for the fire, and to that corner if you think Bayard is mostly responsible for it”).

**Self-reflection methods**. We hope it is clear that all formative assessment methods include an element of student self-reflection, by definition, as students experience the formative learning cycle and are guided by the formative assessment questions: Where am I going? Where am I now? What do I Need to do next? Some formative assessment strategies offer intentional tools or methods for making self-reflection explicit and concrete. Methods include keeping learning journals or learning logs, affixing sticky notes to annotate work, using traffic lights or other red/yellow/green indicators to express confidence in one’s understanding, and so on. All these methods are ways to compel student self-regulation of learning and yield external indicators of what often is an internal process. Once this thinking is visible, both students and teachers can interpret it and take action to improve learning.