Purposeful Practice: Formative Assessment in Reading Recovery

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Introduction

Fittingly, the word assessment comes from the Latin assidere which means “to sit with.” Every day, Reading Recovery teachers sit with children in one-to-one lessons to observe children’s reading and writing of continuous text closely in order to accelerate literacy development. Each day running records and recorded teacher observations are analyzed to design a series of unique lessons for individual children having difficulty learning to read or write. These lessons are a working example of the power of the formative assessment process, a well-documented process lauded by educational reformers across the globe (Williams, 2015). This article explores the definitions and research behind formative assessment and then demonstrates how typical Reading Recovery lessons utilize the principles of formative assessment as purposeful practice.

Assessment Types

Because of limitations of existing assessments used to measure ability or achievement available at the time, Clay (2013) designed An Observation Survey of Early Literacy Achievement, a set of six literacy tasks that is used to inform instruction as well as measure achievement over time. The Observation Survey, itself a formative assessment tool, has been reviewed and rated by both the National Center on Intensive Intervention (NCII, 2018) and the former National Center on Response to Intervention (NCRTI). Both independent government agencies gave the highest ratings on the tasks of the Observation Survey in terms of classification accuracy, generalizability, reliability, and validity — making this particular assessment tool helpful to literacy, classroom, and special education teachers and to school psychologists who need to use evidence-based screening tools to identify at-risk students.

Importantly, the effective use of Clay’s observation tasks requires specific training. Before formal Reading Recovery training classes begin, new teachers complete “a minimum of 24 hours of assessment training” (Standards and Guidelines of Reading Recovery in the United States, 2017, p. 20) to learn about the six specific observation tasks, their administration, scoring, and interpretation. The goal of this training is to ensure that “the information produced by systematic observation reduces our uncertainties and improves our instruction” (Clay, 2013, p. 3).

Clay presents her rationale for an alternative to standardized assessment tools as follows:

I have come to regard normative, standardized tests as having a place in education, but only as an indirect way for teachers...
to obtain information about students’ learning. When compared with the observation of learners at work, test scores are mere approximations or estimates that do not provide good guidance to the teacher of how to teach a particular child. At times those scores present results stripped of the very information that is required for designing or evaluating sound instruction for individual learners. Standardized tests need to be supplemented at the classroom level with systematic observations of children who are in the act of responding to instruction, observations that are reliable enough to compare one child with another, or one child on two different occasions. (2013, p. 2)

Beyond the Observation Survey, Clay also argued that the close observation of students, occurring on a daily basis as they read and write continuous texts, is paramount to good instruction in Reading Recovery and in classroom settings. Elements of Clay’s other views on assessment, which are outlined in the Observation Survey, detail three broad categories—assessment that measures outcomes, assessment that measures ability, and assessment that guides our teaching (2013, pp. 4–7). In fact, this type of assessment—the kind that guides teaching based on systematic, detailed observations—is also known as formative assessment.

Formative Assessment as a Process
With the 1998 publication of “Inside the Black Box,” Paul Black and Dylan Wiliam thrust the term formative assessment into the vernacular of American education experts, administrators, and teachers. Though the concept itself was not new, Black and Wiliam illuminated the power of formative assessment reflected in educational research. According to their now famous meta-analysis, formative assessment practices yielded student results that showed impressive effect sizes between 0.4 and 0.7 on standardized tests, effects larger than most educational practices or interventions. These effect sizes of 0.4 and 0.7 are substantial and are equated to mean gains of between 1 and 2 years of school (Black & Wiliam, p. 3). Furthermore, their research illuminated the fact that formative assessment had the greatest impact for students who struggled, thus offering a real potential for narrowing achievement gaps. Because formative assessment involves a process conducted during the learning of new content (to modify teaching and learning), it appears to have greater potential to improve student learning and performance. (For definitions of formative assessment that appear in the current literature, see Table 1.)

Since the publication of Black and Wiliam’s article, more research has confirmed the positive effects applying the practices of formative assessment on student achievement (Hatie, 2009; Zimmerman, 2008; Hatie & Timperley, 2007; Dweck, 2006; Costa & Kallick, 2004; Assessment Reform Group, 2002). The implications of these and other findings caused the Council of Chief State School Officers (CCSSO) to assemble the Formative Assessment for Students and Teachers State Collaborative on Assessment and Student Standards (FAST SCASS). This group of nationally recognized assessment experts and interested parties was organized to develop resources for American educators to be able to learn about and employ formative assessment practices in educational settings, though many American

<table>
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<th>Table 1. Definitions of Formative Assessment</th>
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<td>• Assessment for learning is the process of seeking and interpreting evidence to determine where learners are, where they need to go, and how to get there. (Assessment Reform Group, 2002, pp. 1–2)</td>
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<td>• Assessment for learning involves teachers using an assessment process to advance, rather than just check on, student learning. (Stiggins, 2002, p. 5)</td>
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<td>• Formative assessment is defined as assessment carried out during the instructional process for the purpose of improving teaching or learning. (Shepard et al., 2005, p. 75)</td>
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<td>• Formative assessment is a planned process in which assessment-elicited evidence of students’ status is used by teachers to adjust their ongoing instructional procedures or by students to adjust their current learning tactics. (Popham, 2008, p. 6)</td>
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<td>• A misunderstanding is to think formative assessment as a one-time event, rather than a process. It is an ongoing, day-to-day classroom-assessment process to give teachers and their students the information needed to understand what comes next in the learning. (Stiggins, 2015, pp. 4–5)</td>
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classroom teachers and instructional interventionists remain uninformed about the power of formative assessment. Sadly, a preponderance of American educators remain confused about formative assessment as a process, not a type of test, and therefore bent towards summative assessment practices.

So what are these formative assessment practices that are so powerful? Black and Wiliam (1998) determined that effective formative assessment is not a standalone event or test but, instead, is a process that involves teachers collecting in-the-moment data to make adjustments to teaching in order to give students feedback about how to improve. It also engages students in the process through peer- and self-assessment.

In efforts to address the need for American educators to understand formative assessment as a process, FAST SCASS—which has considerable influence on state departments of education—has recently revised their definition of formative assessment so that those elements are included in the definition to emphasize that formative assessment is a process:

Formative assessment is a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding…and support students to become self-directed learners. (2018, p. 2)

To further illustrate this, the new definition includes a list of practices to embed which include:

- using learning goals and success criteria within a progression of learning,
- eliciting and analyzing evidence of student thinking,
- providing actionable feedback,
- engaging students in self-assessment and peer feedback, and
- using evidence to move learning forward by adjusting learning strategies, goals, or next instructional steps. (2018, pp. 2–3)

We will now examine these five elements as they pertain to Reading Recovery practices and lessons.

**Clarify learning goals and success criteria within a broader progression of learning**

The terms *learning targets* and *success criteria* from formative assessment researchers are not used directly by Reading Recovery professionals or by Marie Clay in her writings. Yet, many parallels exist. Although Clay rejected the idea of stages of development in literacy learning because her research concluded that children come to literacy in a variety of ways, her studies of proficient readers and writers influenced her to describe the attributes of successful readers and writers. In essence, these descriptions serve for Reading Recovery professionals as learning targets — where we aim to be with children. Furthermore, Clay’s frequent descriptions of self-extending systems—a processing system sufficiently sophisticated enough to continue to grow on its own without the need for specialized intervention—also serve as success criteria. Clay was careful, however, to delineate how such progressions should be used:

If there is any description of progressions in literacy learning it belongs not in the activities, not in a curriculum sequence, but in the heads of teachers, and it guides their every interaction with a learner or a group of learners. Whether the activity helps or hinders children’s learning depends on the tentative judgments and reflective practice of teachers who know how to open doors to learning, and are able to recognize when a door is beginning to close for a particular child. (2016, p. 44)

Rather than marching through a curriculum or program that is designed on a particular progression, a concept popular among many other interventions, Reading Recovery teachers are more formative in their thinking. Guided by current theoretical perspectives on literacy development, the learning progressions of reading and writing development, and by classroom and school expectations, Reading Recovery professionals employ the concept of learning targets to know where they want children to end up. Teachers are clear in their minds about targets and work appropriately to ensure that students are likewise aware of where they are headed in daily lessons. Predictions of progress...
are one example of the use of learning targets for children in Reading Recovery. Teachers set very specific learning targets both based upon what will be expected at the end of a series of lessons, but also across the next few weeks using Clay’s suggested format (2016, pp. 28–29) illustrated in Table 2.

In this way, teachers outline possible progressions of learning based upon their extensive knowledge of literacy development, assessment data, daily observations and running records, and knowledge of a child’s strengths and needs which serve as learning targets for their instruction. Such targets are often shared with children informally when teachers give rationales for their work in statements such as, “We leave spaces so that others can read our messages” or “It is important to notice when it doesn’t make sense and try something” or “You tried to help yourself on that part by…” Such statements can be heard frequently in Reading Recovery lessons which indicate the direction of the current work with which a student is engaged.

Eliciting and analyzing evidence of student thinking
Eliciting evidence of student thinking happens daily across lesson components in various ways. One important example of this is the call from Clay to engage in brief conversations about books read after familiar reading, running records, and the new book, as a way to elicit information and to develop comprehension — the purpose of reading:

Attend to the meaning of the story. A brief conversation after the reading can achieve a variety of things. You might ask what the child thinks about a character or event in the book or invite him to make links to his own experience. Authentic questions give the message that the whole story was the point of the reading activity. The child’s responses let the teacher know what he has attended to and understood. An open-ended question can reveal a wealth of understanding and can also reveal misunderstanding or confusion. Meanings can be negotiated in a brief but helpful conversation. (Clay, 2016, p. 119; see also p. 113, p. 121)

At other times, during reading or writing, teachers might elicit information from students about their problem solving. Occasionally a teacher might check on accurate word solving by asking, “How did you know?” or “Were you right?” or “How did you know it was…?” Questions like these invite “…the child to examine his own behaviors after he has successfully carried out some operation” (Clay, 2016, p. 141). But, these types of questions are used sparingly only when teachers need more information to understand what is happening so as to not interrupt reading and writing (Clay, p. 141).

Such interactions and other teacher observations are recorded as notes on lesson records both to document learning and to record insights of possible needs to explore. These informal notes are recorded across all lessons and are an important source for analysis in designing individual lessons. Similarly, classroom teachers also use questions and take anecdotal notes to record student responses, behaviors, and progress.

Another, more formal means to elicit student thinking (i.e., strategic activity) used by both classroom and Reading Recovery teachers is a daily running record. This formative tool captures reading behaviors—what students do—as they happen, i.e., evidence of strategic processing on the run. They are used in-the-moment to identify needs that will be addressed in teaching points or feedback given immediately after the reading has ended. Adept teachers are able to do this based upon the progressions that exist within the teacher’s head and a quick analysis of the most powerful examples related to current learning targets for students. Beyond this, the running record is further analyzed to discover and document what sources of information students were using or neglecting, how accurate the reading is, how fluent the reader sounded, and to see what evidence of self-monitoring and

Table 2. Predictions of Progress for Gregory

- At the end of the lesson series he will need to know how to…use visual information in a variety of ways in order to solve unknown words effectively and efficiently in reading.
- In the next few weeks he will need to know how to look sequentially at letters and clusters of letters to make an attempt at a word.
- Extra work will be needed to check visual information against other sources “Does that word look like _____ ? And is that what they are doing in the picture?”
- I will need to pay special attention to opportunities in both writing and reading to reinforce effective letter/cluster solving.
self-correcting can be found. In fact, Clay directly confirms the formative nature of running records by saying, “this record will be carefully analyzed before the next lesson with this child to guide your teaching” (Clay, 2016, p. 121).

Providing actionable feedback
Lev Vygotsky (1978) argued that children develop self-regulation largely from external and social interactions with a “more knowledgeable other” who engages the child in cooperative and collaborative dialogue. In effect, this dialogue provides the language which forms the basis of what

the child will internalize and use to guide and regulate her own performance. Therefore, the language of feedback interactions between teacher and student must be clear and purposeful. And, for the student to be able to act on the feedback, it must happen with immediacy. But, feedback does not just happen after something is completed; it is often more powerful when it comes during a task or even before in the form of feedforward. Feedforward is little more than feedback given before needed and is based on the idea that people develop best when they focus energy and attention on what they can change, not on something that is already done (Hirsh, 2017, p. 6).

In Reading Recovery, feedforward and feedback take shape in demonstrations, teacher examples, or prompts that happen before, during, and after reading or writing. Feedforward includes Clay’s concept of anticipating unwanted behaviors, particularly around confusions, and ‘discretely blocking’ them before they can happen (Clay, 2016, p. 52). About the writing portion of the lesson, Clay states, “One way to approach writing and spelling errors is to anticipate a child’s difficulty and offer help before errors occur” (Clay, p. 84). Likewise in reading, feedforward is utilized in the form of the book introduction. Teachers anticipate which concepts, language structures, unfamiliar names, or vocabulary words might be difficult and embed these in the introduction to call attention to something before it is needed. “When feedback provides models, cues, or hints to support improvements in learning, it is operating as an instructional scaffold” (Heritage, 2010, p. 84).

Classroom teachers must work continuously to develop effective prompting for feedforward and feedback because there are many challenges related to skillful use of prompts. Prompting that interrupts the child too often, or that has too much teacher talk, or that isn’t specific enough are examples of challenges to us. Also challenging is the appropriate timing of prompts — when to interrupt and when to let the learner engage in ‘productive struggle’ to foster problem-solving development. Equally, teachers across settings are challenged to judge the level of support given in prompting that will be most helpful to the learner — not too little; not too much. And, even when the teacher has correctly measured and matched the support level needed, she must be ready to lessen the current level of support over time in order to foster independence.

Reading Recovery teachers are likewise challenged with these factors and use some of the following as guidance from Clay (2016):

- The teacher needs to be very clear about her reason for selecting a particular prompt. What type of information does she want the child to use, and what kind of processing is being fostered? (p. 140)
- A prompt is a call to action to do something within the child’s control. When he must attend to something, or pull several things together in his reading or writing, the teacher’s prompts should be short, clear and direct. Too much teacher talk interferes with the child’s solving of a problem; short prompts give the child a maximum of information using the fewest words. (p. 36)
- Each change in the child’s control calls for an adjustment in the teacher’s level of support. (p. 84)
- Give thoughtful attention to the level of help the child needs and decide when you are prompting for processing or when you should be sup-
plying information which the learner does not have.
(p. 118)

- The teacher helps the child to get information from print to facilitate the reading of the story in several different ways. She must be tentative: she can never be certain what kind of support is needed.
(p. 118)

Providing appropriate feedback is a tricky business. By anticipating a need beforehand or by closely observing in-the-moment for opportunities to support, teachers attempt to select the precise example, prompt, or demonstration that could have the most impact to move learning forward. This is responsive teaching: the ability to provide direct, explicit teaching actions around the most-helpful moves for the learner to make in order to construct a strategic processing system (Anderson & Kaye, 2016, p. 545). It is not for the faint of heart!

**Engaging in self-assessment and peer feedback**

*Author’s Note: Because Reading Recovery is a one-to-one setting, for the purposes of this article I will only focus on how engaging in self-assessment is fostered and carried out across Reading Recovery lessons.*

The term self-assessment may seem unstimulating to many teachers who might be inclined to interpret this as simply asking students to tell whether or not they did something because this would not be likely to have impact on learning per se. Asking a student, “Did you remember to look for parts?” would likely get a cursory ‘yes’ or ‘no’ without inspiring much thinking. However, if we thoughtfully ask for self-evaluation—judging one’s own performance against a standard or criterion—more learning is likely. Questions such as, “How did your reading sound?” or “Did your reading sound like you were talking?” requires the child to go beyond a simple answer because more is being asked of the learner. He must first recall all or some aspects of what the standard is (reading smoothly, making adjustments, reading in phrases with intonation like a conversation) and then weigh how his reading sounded in relation to this standard. This carries a substantially heavier cognitive load.

But there is even more behind the deceptively unassuming concept of self-assessment. In the words of leading formative assessment expert, Margaret Heritage (2010), “the skills of monitoring and assessing one’s own learning are essential to self-regulation which...is a hallmark of an effective learner” (pp. 93–94). There are two metacognitive activities of self-assessment which support self-regulated learning: (a) self-monitoring one’s own thinking and (b) deciding on the appropriate strategic behavior to use to make progress.

Heritage’s thinking about self-regulation as a hallmark of effective learners is important because it implies that without self-assessment—the ability to evaluate how well one is doing in terms of expectations—self-regulation may not develop. Additionally, because self-assessment is predicated on the metacognitive actions of self-monitoring to find problems and then decision making to evaluate effective ways to solve the problem, this concept is highly relatable to Reading Recovery professionals.

In her 1991 book, *Becoming Literate: The Construction of Inner Control*, Clay was obviously attuned to the idea that self-regulation was important, as evidenced by the subtitle of her work. She was influenced by the works of David Wood, Jerome Bruner, and Lev Vygotsky related to the concept of inner control or self-regulation and wrote extensively about the importance of self-monitoring as it related to reading and writing. Of particular interest to Clay was the action of self-correction which she held as critical evidence of self-assessment. “In correcting the error, the child practiced monitoring, searching, generating, checking and choosing processes and they were all reinforced because success was contingent upon them” (1991, 2015, p. 303). In Reading Recovery, we work hard to foster self-assessment in the form of self-corrections (and in a myriad of other ways, too) because we recognize self-evaluation as a foundational element for producing self-extending and self-regulating literacy learners.
self-assessment in the form of self-corrections (and in a myriad of other ways, too) because we recognize self-evaluation as a foundational element for producing self-extending and self-regulating literacy learners. (See Table 3 for examples of prompts from *Literacy Lessons* that support self-assessment.)

**Adjusting instructional strategies or next instructional steps**

Adjusting instructional strategies, goals, and instructional steps is paramount to ensuring learning and student growth. This final element in the view of formative assessment as a process was recently illustrated in an independent research study entitled *Reading Recovery: An Evaluation of the Four-Year i3 Scale-Up* (May, Sirinides, Gray, & Goldsworthy, 2016). Originally designed to determine the effectiveness of Reading Recovery (see later discussion), the researchers noted that nearly all Reading Recovery students outperformed control students, while some students seemed to make especially large gains which led the researchers to further examine why this might be (May et al., p. 83). The researchers recorded interviews, met with various stakeholders, and observed and coded lessons and records and they concluded, not surprisingly, that “…teachers’ instructional strength ultimately rose above all other findings… as the most important issue in the effectiveness of lessons” (p. 90). They went on to categorize their findings about the most effective teachers in terms of deliberateness and instructional dexterity where “deliberateness is understood as an encompassing commitment to thoughtful practice; instructional dexterity is defined as the flexible application of deep skill” (p. 91). These findings mirror the research on formative assessment in that deliberateness involved eliciting and analyzing evidence from records and observations to plan instruction while dexterity involved making in-the-moment decisions that draw upon prior understandings and real-time observations to adjust instructional steps. The researchers also noted that “the extent to which a teacher exhibits the flexibility to make on-the-run adjustments in response to subtle observations depends both on her level of experience and on the depth of her knowledge about her students, about literacy learning, and about the instructional strategies at her disposal” (p. 98).

In summation, the deliberate and dexterous Reading Recovery teachers used all facets of formative assessment aforementioned because they

- analyzed evidence of student thinking,
- utilized learning goals about students and about literacy development from prior knowledge,
- provided actionable feedforward and feedback,
- adjusted instructional steps and goals in-the-moment based on student performance, and
- simultaneously engaged the student in self-assessment in order to produce self-regulating and self-extending learners.

The routine and deliberate use of formative assessment principles in Reading Recovery also explain its unique and well-documented success among all other early reading interventions, most recently highlighted in 2016 in two important ways: an international meta-analysis of Reading Recovery and the groundbreaking study of Reading Recovery conducted by the Center for Policy in Research and Education (CPRE).

In their 2016 meta-analysis, D’Agostino and Harmey related that there are over 200 primary studies of Reading Recovery and at least four other quantitative syntheses conducted to ascertain the impact of Reading Recovery on student literacy achievement, making it one of the most-researched early literacy interventions. “The four prior quantitative analyses have yielded overall effect sizes of .39, .40, .66, and .70” (p. 30), while D’Agostino and Harmey’s meta-anal-

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**Table 3. Feedback Prompts for Self-Assessment**

- Were you right?
- How did you know it was …?
- Was that okay?
- Why did you stop?
- What did you notice?
- This word could be ___ or ___. Which one is it? How do you know?
- How did you know it was right?
- You solved the tricky part. How did you do that?
- Which is it? What do you think?
- How did you know you were right?
- Did your reading sound good?
- What could you check?
- Which do you need here, a capital or lowercase?
- How should we start?
- What could we write about that?
ysis estimated an equally impressive effect size of .59. The authors further indicated that for U.S. studies alone, the estimated effect size would be .61, a fact which would place Reading Recovery at the 91st percentile of all early literacy interventions reviewed by the What Works Clearinghouse (p. 40). Recalling Black and William’s conclusions about interpreting effect sizes for formative assessment, there seems to be credence to viewing Reading Recovery as both highly effective because it produced similar effect sizes in all five analyses and to viewing Reading Recovery as one example of formative assessment processes in motion.

Further support for this conclusion about the effectiveness of Reading Recovery was demonstrated under the original intent of the 4-year i3 scale-up study. The authors concluded that Reading Recovery’s effects were 2.8 times greater than the reading outcomes of other instructional interventions and that Reading Recovery had effect sizes that were 3.5 times larger than average effects of Title I programs reviewed (May et al., 2016, p. 43). This study also documented impressive effect sizes commensurate with those of formative assessment but more importantly, these effect sizes were replicated four times in each successive year of the study, an accomplishment that makes the findings even more substantial.

Conclusion
Reading Recovery is based, at is core, on formative assessment processes; it is not a lock-step or scripted program, but rather, a framework designed around current research that is adjusted to fit the needs of individuals in order to accelerate their literacy learning.

David Wood, who calls the type of work teachers do contingent teaching reflects that this “…is a description of an ideal that is almost impossible to achieve in practice because the complexities and the intellectual demands on the [teacher] are immense” (2003, p. 18). He further notes, however, that in Reading Recovery lessons these things happen routinely:

In Reading Recovery, of course, …you adapt and adjust the demands of reading and writing tasks to fit your records and knowledge of each child. You don’t work children through a single program or expose all to the same learning sequence. You adjust and adapt the demands you place on the learner in an effort to achieve a level of challenge that is appropriate to each: you are contingent, or you strive to be. (Wood, 2003, p. 29)

Tantamount to the accelerated learning demonstrated by Reading Recovery students and the success of Reading Recovery teachers is formative assessment. Clay understood the power of formative assessment conducted by teachers as learners engage in literacy tasks, coupled with ongoing, close observations, and the engagement of learners in self-evaluation as powerful supports of effective interventions. The practices designed by Clay and provided daily by Reading Recovery teachers exemplify the current calls for extended use of formative assessment.

References


About the Author

Jeff Williams is a K-12 literacy coach, as well as a Reading Recovery/Literacy Lessons teacher leader for Solon City Schools in Ohio. He currently is president of the Reading Recovery Council of North America.

About the Cover

Talie Daniels’ contagious smile shows her love for her teachers, classmates, and school. In first grade, she worked hard in Reading Recovery and made great gains, especially as a writer. Now in second grade, she continues to have a love of reading and writing. When writing, she shows much creativity and her illustrations add many details. Talie says that when she grows up, she would like to be a veterinarian.