Finding Versus Fixing: Self-Monitoring for Readers Who Struggle

Nancy L. Anderson, Elizabeth L. Kaye

Readers who struggle with literacy learning must learn to self-monitor text reading. This article describes their unique needs and proposes three critical aspects of teaching for self-monitoring.

Consider the following examples from a small-group reading intervention lesson using The Chick and the Duckling by Mirra Ginsburg (1972) with four children:

Text: “A duckling came out of the shell.”

Child 1: “A chick came out of the shell.” [keeps reading]

Child 2: “A duckling cracked out of the shell.” [stops, making a quizzical expression]


Each child responded differently to the same line of text. What do the responses tell you about how the child is processing the information in text? How would you respond to each child in the context of a reading intervention? How do you make decisions when observing children reading texts during a reading intervention?

As teachers of children who struggle with reading, the moment we notice a child’s hesitation, error, or appeal for help, we consider how to take action and teach. The attempts in the example illustrate unique ways readers might engage in a hallmark of early reading: self-monitoring. Behaviors such as stopping after an error, making a comment about an error, and rereading are signs of self-monitoring (Almasi & Fullerton, 2012; Clay, 1982; Lee & Schmitt, 2014; Lyons, 2003; Schwartz, 2005).

In this article, we aim to help teachers understand, notice, and supportively respond to children who struggle with self-monitoring during text reading. First, we define self-monitoring and explain how it is different from comprehension monitoring processes taught to more proficient readers. Next, we explain the difference between finding an error and fixing an error for readers who struggle. Then, we put forth three critical aspects of teaching for self-monitoring that build extensively on the important works of Johnston and Clay:

2. Noticing and naming (Johnston, 2004)
3. Agency and becoming strategic (Johnston, 2004)

Finally, we invite readers to engage in conversations around observing and teaching for self-monitoring through a series of questions and examples.

Self-Monitoring and Comprehension Monitoring

The terms self-monitoring and comprehension monitoring, often used interchangeably, differ in nature. Antecedents for both terms lie in cognitive monitoring. Cognitive monitoring is a broader term for higher order cognitive functions that are part of the development of self-regulatory processes (Cartwright, 2012; Meadows, 2006).

“Cognitive monitoring is one of the hallmarks of successful strategic reading” (Almasi & Fullerton, 2012, p. 2). Self-monitoring is a critical component, or the bud of self-regulation as it relates to literacy processing (Gonzales, 2007). For the purposes of this article, we define the mental activity of cognitive monitoring...
monitoring as self-monitoring, a term used by Clay in her groundbreaking work Becoming Literate: The Construction of Inner Control, originally published in 1991 and revised in 2015. Self-monitoring in reading means being aware when you successfully construct the author’s message and when you notice something is amiss with meaning, structure, or graphophonic information.

Self-monitoring for early readers (Clay, 2015) differs from comprehension monitoring (Almasi & Fullerton, 2012). Essentially, more proficient readers have already developed a strategic processing system that supports constructing messages from texts with all sources of information. Proficient readers may make errors that reveal issues with graphophonic information, but they are more able to detect and correct the error. Therefore, a major strategic activity for proficient readers is to monitor for understanding and take action when they experience dissonance. Thus, the term comprehension monitoring is often used interchangeably with self-monitoring.

Early readers and those who struggle are still constructing a processing system and differ qualitatively from more proficient readers. Readers who are in construction have yet to learn to integrate semantics, syntax, and graphophonic information as they monitor for understanding. As children begin to read books, their initial actions are driven by an innate need to make sense of their environment, or what Bruner (1973) called means–end readiness.

Because children are born with means–end readiness, they work toward meaning making as they begin to move their eyes left to right across the printed page. The left-to-right movement pattern, combined with the need to construct meaning, drives the formation of mental subroutines (Lyons, 2003). Subroutines are the cognitive pathways formed through engaging the senses and shifting perceptual systems involved in reading. The subroutines are initially conscious and require working memory, but through successful use, they become unconscious and integrated into a complex system of strategic mental activity.

Therefore, the tentative actions on text, such as stopping because the reading does not make sense, may not initially be conscious or intentional. Rather, drawing children’s attention to the act and lifting it up to awareness shifts the act to become a strategic process. Clay (1988) described this process of unconscious acting to conscious decision making as the child moving from acts to awareness. These actions on text exemplify how early self-monitoring differs from descriptions of comprehension monitoring of skilled readers. Comprehension monitoring is more conscious, whereas early monitoring begins with the actions on text and then shifts to become a strategic activity.

The roots of readers’ later strategic activity may be found in the very first actions intended to construct meaning from text. Child 2 and child 3 in the opening examples illustrate early readers’ self-monitoring. Although child 2 made an error, he has initiated an action that indicates self-monitoring (the quizzical look reflecting that he probably noticed the error) but had yet to internalize the process enough to free up attention to self-correct (fixing the error). Child 3 made no error, but the rereading indicates that she was probably checking on herself, a sign of self-monitoring.

**Finding Versus Fixing: Research and Practice on Self-Monitoring**

Self-monitoring and self-correction appear frequently in research records of young readers making strong progress and less frequently for those making slow progress. Most research on self-monitoring addresses comprehension monitoring (Palincsar & Brown, 1984; Paris & Myers, 1981; Strasser & del Rio, 2014). Research describing self-monitoring illustrates a variety of ways to examine reading performance. The methods of investigation include the use of wordless picture books and verbal story recall (Strasser & del Rio, 2014), words on cards in isolation (Cartwright, Marshall, Dandy, & Isaac, 2010), and interviews or inventories where children talk about their thinking or strategic processing (Lee & Schmitt, 2014; Martin & Kragler, 2011). Research on self-monitoring children’s reading of continuous text is sparse. We include historical and current research studies that document close observation of children’s processing when reading texts.

Clay (1982) found that high-progress readers in their first year of school self-corrected one in three errors. This stands in sharp contrast to children.

**PAUSE AND PONDER**

- How do readers who struggle differ from more proficient readers?
- How do you define self-monitoring for readers who struggle?
- How do you respond when a child makes an error while reading text?
- How does your response relate to the child’s decision making?
in the low-progress group who corrected one in 20 errors (Clay, 1982). In a study of first graders in a one-to-one tutoring setting, McGee, Kim, Nelson, and Fried (2015) found that children who ended the year reading on level monitored 52.3% of their errors and self-corrected 40.9% of their errors. In contrast, the children in this study who did not end up on grade level monitored 15% fewer errors and self-corrected 17% fewer errors.

Phillips and Smith (1997) studied children who, after a year of schooling, had received an intensive literacy intervention yet had not caught up to their peers. These children had the opportunity for a second, more intensive intervention, during which most of the children progressed to average levels of reading and writing. However, analyses for those who did not make good progress revealed that their teachers seldom supported these children to self-monitor. Instead, the teachers’ focus frequently appeared to be on finding the error for the child or working to fix it.

Thus, when teachers combine finding the error for the child with fixing it, learning may be difficult. Merging the finding of an error with the fixing of the error may require too much attention; thus, neither process becomes part of the child’s strategic repertoire. Furthermore, teachers may unknowingly deny a child the opportunity to self-monitor when asking the child to fix an error he or she has not had the opportunity to find. In the opening examples, child 2 and child 3 illustrate the finding, detecting, or self-monitoring. Child 4 shows the finding of the error and its subsequent fixing, or self-correcting.

Reflect on potential teaching moves that support self-monitoring. Child 2 makes a quizzical expression after making the error cracked for came. A teacher might ask the child what he is thinking or what he noticed, sensitive to the student’s apparent confusion. This type of question lets the reader know that it’s helpful to notice, or self-monitor, as he or she is reading. In response, the student is likely to point out that something was not quite right. Thus, the action on the text is more likely to form a helpful subroutine.

In contrast, teacher actions might get in the way of learning to self-monitor. Child 1 illustrates the error chick for duckling. If the teacher points to duckling and says, “You were close here, but it’s not quite right. What does the word start with?” the teacher did the finding, or monitoring of the error, for the child.

If this type of interaction becomes a pattern, the child may unintentionally learn that the teacher will detect errors, so he or she does not need to.

Teachers may unknowingly build a cycle where they detect the error and then help the child fix it, thus keeping children from building up the capacity to self-monitor. The cycle leads to dependence as opposed to independence.

Teaching readers who struggle requires responding carefully to behaviors in action while reading text. Responding in the moment requires a knowledgeable teacher who observes children as they read text. The responsive teacher provides direct, explicit teaching actions around the most helpful moves to make in order to construct a strategic processing system (Clay, 2005; Mooney, 1995; Schwartz, 2005). In the next section, we describe how responsive teachers can teach for self-monitoring and independence.

**Critical Aspects of Teaching for Self-Monitoring**

We argue that three critical teaching moves support the development of self-monitoring: observing and hypothesizing (Clay, 2001, 2005), noticing and naming (Johnston, 2004), and agency and becoming strategic (Johnston, 2004). We explain each and then provide an example.

**Observing and Hypothesizing**

Our experience as teacher educators reveals that teachers often feel like they have to do a lot of talking or else they are not teaching. However, one characteristic of an expert teacher is close observation (Clay, 2005) or kidwatching (Goodman, 1985). “Observing reading behaviour informs a teacher’s intuitive understanding of cognitive processes and her teaching improves” (Clay, 1996, p. 232). Choosing not to talk can be a powerful teaching decision when it gives room for observing children.

Furthermore, Snow (Snow, Griffin, & Burns, 2007) and Darling-Hammond (Darling-Hammond & Bransford, 2007) argued that teachers who are adaptive experts observe and form tentative ideas or hypotheses about how the child is working to inform their teaching. These tentative hypotheses are drawn from careful observations of children as they read.

Observing also gives the teacher time to make teaching decisions and gives children time for critical independent decision making. So, powerful teaching actions might, on the surface, look like nothing is happening, although the opposite is true. For example, young children frequently need to read to the end of the sentence before realizing that an initial
attempt is incorrect, as with child 2 in the opening examples. By listening quietly and observing rather than jumping in after an error, teachers allow children the opportunity to notice errors.

Observing gives teachers the opportunity to see and mentally highlight patterns in students’ reading, which makes productive teaching decisions clearer. It is helpful to consider which errors are important for the child to notice at a particular point in his or her learning. If a substitution has little graphophonic similarity to the word in text or results in a sentence that does not make sense, the error may be easier to notice and easier to fix. If teachers insist that every incorrect attempt is noticed and fixed, children may assume that perfection is the teacher’s goal and become reluctant to read for fear of being wrong.

Return to child 1 in the opening examples: “A chick [text says duckling] came out of the shell,” and the child keeps reading. Focus on the actions the child took rather than the error. The child searched for and monitored with meaning and structure and seemed to neglect to monitor for graphophonic information. Chick makes sense, and it sounds like written language structure or syntax. The first part of the word presents a graphophonic mismatch. Rather than focusing on the mismatch, focus on the child’s decision-making process. The child searched and monitored with meaning and structure—an important self-monitoring action.

Readers often display a pattern of behavior that helps a teacher hypothesize which information the child uses to self-monitor and which information he or she tends to overlook. In the following excerpt, Madeline (pseudonym) reads two pages of Herman Henry’s Dog by Ada Evelyn (1995). Where Madeline’s reading differs from the text, we use brackets to indicate the author’s actual wording.

Herman Henry and his family live [lived] on a farm. They have [had] cows, sheep, a goat, and a pig. But they don’t [didn’t] have a dog. “Mom,” said Henry [Herman], “Can I have a dog? Please? I really, really want a—one [one]. I want to walk it every day.”

Reflecting on Madeline’s reading, we hypothesize that she consistently self-monitors for meaning and syntax in her initial attempts, as well as graphophonic information toward the beginning of words (e.g., live/lived, have/had, don’t/didn’t, Henry/Herman). Madeline made one self-correction that shows she found and fixed a mistake (a/one). Although a made sense in the sentence to that point, perhaps she noticed that the sentence could not end that way; the syntax was not viable: “I really, really want a.” Another possibility is that she realized the graphophonic mismatch of a for one. In either case, the self-monitoring led her to self-correct. However, Madeline does not consistently self-monitor the graphophonic information toward the middle and end of words, so this is an area her teacher might focus upon to fine-tune Madeline’s self-monitoring.

### Noticing and Naming

“Through our noticing and naming language, children learn the significant features of the world, themselves, and others” (Johnston, 2004, p. 20). The critical aspect of the initial act of teaching for self-monitoring is what Johnston termed noticing and naming. Through observing, hypothesizing, and then recognizing the pattern of responding, teachers learn what to notice and name. Noticing and naming is drawing the child’s attention to the pattern via language and/or movement (i.e., pointing to the text in some way). Through the interaction, teachers influence children’s attention and action. Thus, noticing and naming helps create the mental decisions or strategic actions children make about text while reading.

Given that we have perceptual bias to notice the incorrect (Johnston, 2004), our aim in this article is to directly help teachers learn how to notice the patterns of partially correct responses and begin to explicitly name them to children—in other words, to help teachers notice the finding before the fixing. Noticing and naming monitoring is not naming an error or pointing out that the reader gets a word wrong or right. Rather, monitoring is named when teachers show joy at children’s discoveries, regardless of the accuracy of the reading.

Comments such as “Why did you stop?” “What did you notice?” and “I’m glad you stopped” give young readers the idea that noticing their errors is a good thing to do, and this behavior should continue. Similarly, a statement such as “I like how you tried to work that out” will reinforce a child’s monitoring even if she did not arrive at a correct solution.

We find it particularly hard to notice and name the processing in an error when the word is incorrect. Return to the example of child 1: “A chick [text says duckling] came out of the shell,” and the child keeps reading. As described earlier, the child searched for and monitored with meaning and
structure. Thus, it’s important to notice and name that action or behavior. Rather than saying something like “Does chick start with a d?” where the teacher monitors the error, noticing and naming the error helps the child understand what is working: “Wow, you checked to make sure it made sense and sounded right.”

**Agency and Becoming Strategic**

Agency is about how children come to understand that intentional actions influence their world (Johnston, 2004). Children learn that they can change their world via their decisions and subsequent actions. Essentially, children learn, “I can act to accomplish my goals.” How we help children make decisions around texts and take subsequent action is teaching for agency and becoming strategic.

If nothing else, children should leave school with a sense that if they act, and act strategically, they can accomplish their goals. I call this feeling a sense of agency….The spark of agency is simply the perception that the environment is responsive to our actions. (Johnston, 2004, p. 29)

Noticing and naming is woven together with agency and becoming strategic, even though we separate the two in this article. The teaching acts are not linear but rather may occur alone or together. Teaching children to self-monitor means directing attention to the helpful sources of information (graphophonic, semantics, and syntax) available in the text so they can begin to self-monitor. Stopping after an error, showing dissatisfaction, and rereading are signs that the child might be noticing information that was previously overlooked. Again, this is not about helping the child get the word right. Rather, this is about teaching the child to begin to notice new features and then stop.

A teacher may choose to explicitly demonstrate or prompt children to take further action to begin to independently self-monitor. Teaching for agency and becoming strategic are the direct actions the teacher takes to help the child develop a sense of independence by learning to problem solve text.

Consider child 1 again: “A chick [text says duckling] came out of the shell,” and the child keeps reading. The teacher may begin to teach for the action of self-monitoring for graphophonic information without asking the child to fix the error. The hard bit is not focusing on getting the child to say duckling and thus correct the word (fixing). Rather, the teacher should help the child learn how to notice the discrepancy (finding).

Teaching a child to notice information in text is the central act of self-monitoring. A teacher might say, “It’s important to check that it looks right. Try it again and check to see if something doesn’t look right.” Another way of responding might be to give the child more information and cue him or her to the first letters of a word. “Check to make sure the first part looks right when you read. Stop if you notice something doesn’t look quite right and I’ll help.”

In summary (see Figure 1), we observe and give children room to initiate problem solving, resulting in patterns of response from the child. As we observe, we construct a hypothesis of the patterns based on our understanding of literacy processing and the child’s actions. Then, we make important teaching decisions to notice and name specific patterns that we observe. While noticing and naming, we support the child’s construction of agency and a strategic decision-making system around text by explicitly demonstrating or giving the child enough information to strategically problem solve.

**Key Questions for Conversations About Self-Monitoring**

Adopting a tentative stance that considers individual children’s pattern of responses means that teachers have purposeful conversations about children’s reading behavior. In Table 1, we provide five examples guided by key questions.

1. **Observing and hypothesizing:** Does the student have a pattern of making attempts when she approaches something difficult? If so, she is searching for and using particular information. Is it meaningful, syntactically appropriate, or graphophonically similar to the word in the text? Describe what you notice.

2. **Noticing and naming:** How will you notice and name this productive reading behavior? Does the student notice the error because it does not make sense (meaning), because it does not sound like we would say it (structure/syntax), or perhaps because the sounds in the word he said do not correspond well with the letters of the word in the text (graphophonically similar)? Write down how you might clearly tell the child the productive moves that he made.
3. **Taking action and hypothesizing:** Was the child aware of the self-monitoring? If not, how can you make her aware or support her efforts to notice more information? Let go of getting the word right and think about how you can help the child be more aware of her responses and move toward finding or self-monitoring without your support. The aim is independent strategic processing that builds agency. Once the self-monitoring response is firmly established, you then move toward fixing the error, leading toward self-correction; however, with readers who struggle, tread lightly, observe closely, and try to see the text through their eyes. What information does the child need to notice, and how can you direct her attention to the information?

Table 1 illustrates how teachers may use the questions to observe and form a hypothesis about a potential pattern of responses, then notice and name the response. The teacher may decide to stop there or move on to helping the child develop agency and become strategic. The text is provided, and examples and intended outcomes are shown. Although, in a real situation, a teacher would need to observe more to form a hypothesis, we abbreviate the potential pattern to show a range of examples.

### Figure 1
**Summary of Teaching for Self-Monitoring**

| Observing and Hypothesizing | The child searched and monitored for meaning and structure; neglected to monitor for graphophonic information.
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Noticing and Naming</td>
<td>“You checked that your reading made sense and sounded right.”</td>
</tr>
<tr>
<td>Agency and Becoming Strategic</td>
<td>“It’s important to check that it looks right. Try it again and check to see if something doesn’t look right.”</td>
</tr>
</tbody>
</table>

### Closing
As teachers of children who struggle with literacy learning and teacher educators who aim to support teachers’ learning, we argue that it is important for teachers to notice and respond to children’s reading in ways that support self-monitoring. Self-monitoring differs in young children from what is often termed comprehension monitoring in older children and is a critical process for young readers’ progress. We built on the important theories put forth by Clay and Johnston and explained three critical teaching acts that support

### TAKE ACTION!

1. Consider how you respond as children read text. Do you give them time and space to self-monitor, or do you tend to jump in to help them fix the error?
2. Analyze formative and summative literacy assessments for self-monitoring or finding behaviors. Write down your hypothesis.
3. Construct a plan to notice and name and help children become strategic as they read text.
4. Reflect on your language and teaching by recording and listening to how you respond to children as they read.
Table 1

Examples of Teaching for Self-Monitoring

<table>
<thead>
<tr>
<th>Child’s reading response</th>
<th>Teacher’s hypothesis</th>
<th>Noticing and naming</th>
<th>Agency and becoming strategic</th>
<th>Intended outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text: “The moon is big, and the turtle comes out of the water.”a</td>
<td>Accurate reading. The child is constructing meaning and monitoring for meaning, structure, and graphophonic information.</td>
<td>“You made it make sense! Here comes the turtle!”</td>
<td>“I’m interested in what happens to the turtle! Keep making sure it makes sense! That is really helpful.”</td>
<td>Support efficient processing system and searching and monitoring of meaning.</td>
</tr>
<tr>
<td>“The moon is big, and the turtle comes out of the water.”</td>
<td>The child monitored that the -ig she saw in big matched her verbal response of pig at the expense of meaning. It is important that she checks that her reading is meaningful, but it is also important that the teacher acknowledges the child’s processing. The hesitation at the end may indicate that the child is beginning to monitor for meaning.</td>
<td>“You seem to be checking that it looks right. That can help you. You stopped right here. What did you notice?”</td>
<td>“Does that make sense? If it doesn’t make sense, you can reread and try to make it make sense and look right.”</td>
<td>The child is aware of the importance of meaning and uses it as a feedback system.</td>
</tr>
<tr>
<td>“The moon it big, and the turtle comes out of the ocean.”</td>
<td>The child monitored that the i in it matches the i in it. This response does not fit structure but is meaningful and somewhat matches graphophonic information. It is important that he checks that his reading sounds right.</td>
<td>“You’re checking that it makes sense.”</td>
<td>“Try it again and make sure it sounds right.” “Does that sound right?” “Can we say it that way?”</td>
<td>The child will evaluate his response to check whether it fits structure and detect the error.</td>
</tr>
<tr>
<td>“The moon is big, and the turtle comes out of the ocean.”</td>
<td>The child monitored for meaning and structure at the expense of graphophonic information. The letters and sounds in ocean do not match water in the text.</td>
<td>“You made it make sense and sound right.”</td>
<td>“Does that look right? If it doesn’t, you can try again.”</td>
<td>The child will check the graphophonic information in the sentence she read and notice the mismatch.</td>
</tr>
<tr>
<td>“The moon is big, and the turtle walked…” [hesitates but keeps going] “out of the water.”</td>
<td>The child monitored for meaning and structure at the expense of graphophonic information. The hesitation might indicate that the child is beginning to monitor for graphophonic information.</td>
<td>“You made it make sense and sound right, but you stopped right here for a bit. What did you notice?”</td>
<td>“You noticed it didn’t look right. What else can you try?”</td>
<td>Capitalize on the child noticing the error and begin to encourage self-correction.</td>
</tr>
</tbody>
</table>

the development of self-monitoring. Through our ongoing conversations with children and teachers, our theories and understandings continue to grow and change. We encourage our fellow teachers to explore and expand on the information in the charts as a way of beginning an ongoing dialogue about how to support self-monitoring in beginning reading.

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