Miscue Analysis v. DIBELS: A Tale of Resistance

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I tapped the stack of second- and third-grade DIBELS (Dynamic Indicators of Basic Early Literacy Skills) progress-monitoring booklets on my desk with my pencil, reached for a large sticky note, and wrote, “I’ll be using a modified miscue analysis within our reading conferences to monitor the progress of these children, as I’ve been doing all semester. I don’t bother with scores, but if you need something that can be graphed, I can easily provide them.” On my way out of the building, I stuffed the booklets into the mailbox of our instructional coach.

The next morning, to my dismay, the booklets were in my own mailbox with a different sticky note attached: “If you don’t do these, I will.”

Previously, at our September family-teacher conferences, I had informed the parents of students I was required to monitor of their children’s failure to meet the benchmarks on the DIBELS Oral Reading Fluency (ORF) and Comprehension Fluency (CF) subtests, as required by state law. At the same conferences, I invited the parents into a conversation about their students’ progress toward proficient reading as seen through the lens of miscue analysis and the reading conferences I routinely hold with the children. In this way, I was able to give the parents a much more thorough view of the children’s progress as readers and the strategy work we were doing together in our literacy-rich, meaning-centered, whole language classroom. The parents could easily see the limits of DIBELS as an assessment tool. “Fast reading isn’t always good reading” and “It has to sound like real language and make sense” were regular chants in our classroom. I was not prepared to risk my career over a silly test, but I needed to advocate for myself, for a more holistic and realistic view of reading, and most importantly, for my students, who already saw themselves as competent readers. I decided to turn this unwelcome mandate into an inquiry study comparing DIBELS and miscue analysis.

The intent of this article is to contrast the insights gleaned through the process of analyzing miscues with information obtained from the DIBELS one-minute oral reading assessment with regard to how well the two strategies effectively addressed the literacy needs of my students. I will also discuss how DIBELS misidentifies some students as needing interventions while it fails to identify some readers who struggle.

What Is DIBELS?

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) were developed at the University of Oregon starting in the late 1980s. They are based on earlier research for...
Curriculum-Based Measurement (CBM) that was carried out through the Institute for Research and Learning Disabilities at the University of Minnesota in the 1970s–80s. According to Good and Kaminski (n.d.), DIBELS “were developed to be economical and efficient indicators of a student’s progress toward achieving a general outcome.” The assessment consists of sets of one-minute fluency measures that are used to identify children experiencing difficulty with early reading skills, as determined by the Oregon study, and to monitor their development from kindergarten through sixth grade. The measures include assessments of phonemic awareness, alphabetic principle, accuracy and fluency of oral reading, comprehension, and vocabulary.

My personal opinion of DIBELS as an incomplete way to assess reading was formed during my training. For the phoneme recognition assessment, children were supposed to identify the initial sound of words associated with particular pictures. A child I tested gave me the names of the letters that started the words rather than the initial sounds of the words. His responses were considered incorrect, rather than important information about what he already knew about reading. When I questioned why a student in the training film received credit for comprehending a text when the tester had told her most of the nouns and verbs, as directed by the testing protocol, my question wasn’t answered.

Ultimately, our school formed a committee of trained testers, mostly teaching assistants and certified teachers without classroom assignments, to administer the initial, mid-year, and end-of-year DIBELS assessments. At least, I thought, I won’t be personally responsible for subjecting my students to testing that contradicts what they have been learning about reading process. At that time, progress monitoring was not a district or state requirement, although it became one a few years later. From that point on, the DIBELS team did the periodic testing, while progress monitoring responsibilities fell to the classroom teachers.

This DIBELS-trained committee tested my students using the ORF subtest, counting the number of words read correctly in one minute, and the CF subtest, counting the number of words spoken during a one-minute retelling. During the one-minute reading, the testers are instructed to tell the students any word they do not say within three seconds. The grading scale on the CF rates the “quality” of the retelling from 3, meaning the reader included detailed information from the text, to 1, indicating that the reader mentioned only the gist of the text.

It’s not my intent in this article to offer a comprehensive critique of DIBELS, as this has already been done by many noted authors (Allington & Pearson, 2011; Coles, 2004; Kamii & Manning, 2005; Manning, Kamii, & Kato, 2006; Tierney & Thome, 2006; and Wilde, 2006). Pressley, Hilden, and Shankland (2005) examined the correlation between DIBELS and what we can learn about readers using other measures and concluded that DIBELS “at best is a measure of who reads quickly without regard to whether the reader comprehends what is read” (p. 2). In the anchor chapter of the book The Truth about DIBELS: What It Is,What It Does, Goodman (2006) critiques “what DIBELS intends to measure, what it does measure, and how well it does what it intends to do” (p. 33) and concludes that DIBELS “is an absurd set of silly little one-minute tests that never get close to measuring what reading is really about—making sense of print” (p. 39). As a teacher who considers research findings against the background of my own experiences, observations, and classroom-based research, I could not agree more.

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What Is Miscue Analysis?

Beginning in the late 1960s, Kenneth Goodman recognized that the language and thinking that readers bring to a text affects their attempts to create meaning. What Goodman came to call miscue analysis created a procedure that allowed researchers to gain a “window on the reading process” (as cited in Goodman, Watson, & Burke, 1987, p. 3), a way to consider how readers interact with text, creating meaning while engaged in the act of reading. In 1987, Goodman, Watson, and Burke published the first edition of their Reading Miscue Inventory. In this edition and in a newer one published in 2005, the authors outline procedures that researchers and teachers can follow to record readers’ miscues, analyze their strengths and weaknesses, plan instructional strategies, and evaluate reading material. I took a miscue analysis course with Yetta Goodman at the time of the first publication of the Inventory, and it forever changed the way I listened to readers and thought about my students as readers, as well
as the kinds of instructional engagements I offered in my classroom.

Since then, I have administered hundreds of miscue analyses with my students. I engage them in discussions of their miscues and of the strategies that proficient readers use to construct meaning as they read, a process known as Retrospective Miscue Analysis. My students learn that a miscue is any unexpected response that differs from the text, and that all readers miscue. They take particular delight in discovering my miscues during read-alouds. They learn that the quality of miscues matters, that good miscues maintain language sense and meaning, and that miscues that disrupt meaning need to be corrected. They understand that the further into a text they read, the fewer miscues they are likely to make; therefore, stamina in reading is important. The students all participate in regular reading conferences using a modified miscue procedure called Over-the-Shoulder Miscue Analysis (Davenport, 2002). During a conference, the student is asked to read aloud to me for five to ten minutes from a self-selected text or sometimes one I choose. Following the reading, the child is asked to retell the story just read. If not much detail is included, or I suspect some misunderstanding, I will probe for further information using open-ended questions. This retelling procedure is recommended in the Reading Miscue Inventory (Goodman, Watson, & Burke, 1987/2005). The patterns generated by my markings on this form allow me to see at a glance the kinds of strategies, such as rereading and making meaningful substitutions that my students are using. This information provides valuable insights for future instruction. I routinely hold these reading conferences with my students, monthly for students who are progressing well and more often for readers who seem to be struggling.

Additionally, our classroom literacy curriculum includes small-group and whole-class lessons that serve to deepen comprehension through the practice of making connections to the text, creating mental images, inferring, questioning, and determining importance, strategies described in Mosaic of Thought (Keene & Zimmerman, 1997) and Reading for Meaning (Miller, 2002).

The Fall DIBELS Assessments

When the DIBELS team administered the first DIBELS assessments of the school year, ten of the twenty-six students in my multi-age second-/third-grade class did not meet the ORF test benchmarks of 52 correct words in a minute for second graders or 70 words for third graders. Because they read so little of the text in one minute, they also had little to say for the CF subtest. Some of the students were current English language learners (ELLs) or students newly reclassified as fluent English speakers who I have not included in this article. Although I was required to monitor the ELL students as well and I continued to hold regular reading conferences with them, their reading assessments and miscues necessitate a deeper discussion of second-language influences that is outside the scope of this article. Here I present five students as examples, four of whom were among the group of ten students who did not meet the benchmark on the initial DIBELS assessment. Two of the students, Alex and Sarah, both third graders, were instrumental in my decision to compare DIBELS to miscue analysis because their DIBELS scores stood in contrast to what I knew about them as readers from our miscue conferences. Alex, a quiet, intelligent student, read in a monotone voice, rarely self-corrected, and had little to say in response to reading anything. In contrast, Sarah was a fun-loving, articulate, and outspoken leader in the classroom, always willing to share her thinking. She loved to read and often laughed out loud while reading or stopped in the middle of a reading conference to express some opinion about the story. She read with lots of expression, despite frequent miscues and a tendency to slow down in an attempt to self-correct.

Initial Reading Conferences

Alex

In the first reading conferences of the year, I usually ask children to choose a text that they feel they can read comfortably. Alex said he did not know what to choose, so I offered him a selection of stories from Developmental Reading Assessments (DRA) that I use only when I need a cold text for a reader. He chose Thin as a Stick (Vaughan, 2006), a story slightly below beginning third-grade level as determined by DRA. Alex read quickly, miscued frequently, and rarely self-corrected. He tolerated non-words and made mostly word-level substitutions that highly resembled the text. In his retelling, he misconstrued the characters’ actions at times and missed other important details in the story. I developed spider charts (Wohlwend, 2012) to visually represent the ways in which these readers used cueing systems—syntactic and semantic cues, graphophonic cues, and meaning change. I
share the spider charts with my students during our reading conferences so that they can see for themselves which strategies are working effectively for them and which ones may need more attention. From Figure 1, it was easy for Alex to see that he over-relied on graphophonic cues and “sounding out” as a strategy.

Alex exceeded the benchmarks for the first DIBELS assessment of the year and was therefore deemed not in need of any interventions. So while Alex did not require bimonthly monitoring using DIBELS, I did provide strategy instruction for him through small-group lessons and individual reading conferences throughout the year.

Her spider graph (Figure 2) reveals her balanced use of cueing systems.

Sarah, despite her many strengths as a reader, did not make benchmarks on the first DIBELS assessment, nor on the December DIBELS assessment, and was marked for Intensive Intervention. Over the next few months, I administered the DIBELS progress monitoring with Sarah every two weeks. At no time did she ever meet the benchmarks, but her miscue scores consistently represented her ability to attend to language sense and meaning.

Sarah

Sarah, in her first reading conference, chose a complex text that she had just checked out of the classroom library for her independent reading time: Sideways Stories from Wayside School, by Louis Sachar (2004). She selected “Mrs. Gorf” as the chapter to read and mentioned that she had not yet read it. From the first sentence, Sarah struggled with words like tongue and caught, and the unusual names of the characters. Her stamina was impressive as she made repeated, and often successful, attempts to self-correct. She made complex miscues across sentence boundaries, and her retelling was sequenced, extremely detailed, and included dialog from the story. At times during her reading, she stopped to make inferences and express opinions. This particular story is a wonderful way to assess how well students are making meaning as they read. Students who are not attending to meaning do not understand the ironic ending. Sarah does.

The Progress Monitoring

Because DIBELS painted a picture of my students that differed so much from what I knew about them, I regarded the time spent administering the bimonthly ORF assessments as time wasted. Somehow, I needed to be sure DIBELS did not take precedence over our usual literacy routines. The protocol I adopted in the mandated progress monitoring sessions consisted of having the students read for one minute, as required by DIBELS assessment guidelines, stop to retell for one minute, and then continue reading the same text to the end and retelling again. I considered this continued reading of the text beyond the one-minute cut-off a miscue analysis, scoring at the sentence level for syntactic acceptability, semantic acceptability, meaning change, and graphophonic similarity. The retelling for the extended section was untimed and always began as an unaided retelling. The students’ progress was monitored twice a month, from January to the end of March, when the focus of test-
ing shifted to preparation for the state standardized tests. I expected that given a chance to read the entire text with time for self-corrections, my students would focus more on effective strategy use and meaning instead of the reading speed and accuracy required by DIBELS.

**Adrian**

Adrian was a second grader being raised bilingually by his parents, although like many bilingual children in second-generation immigrant families, he preferred English and used it exclusively in school. His progress was monitored beginning in January after failing to meet the benchmark of 72 words per minute on ORF for the December assessment. During the next three months of regular literacy routines in the classroom, Adrian’s miscue scores rose from the 70s for syntactic and semantic acceptability in January to 90% or above in March, the last month of progress monitoring, as reflected in Figure 3. Despite the dramatic improvement in his use of effective strategies such as monitoring and self-correcting and making appropriate substitutions, he never did reach the benchmark of 85 words per minute for ORF during any of the progress monitoring or on the final DIBELS assessment of the year.

![Adrian's miscue graph.
](image)

**Alyssa**

Alyssa was also a second grader. A quiet child with a passion for horses, Alyssa moved through life at her own pace. She would not, nor could not, be hurried, even on DIBELS. Her January ORF score was a very low 37, and it dropped to as low as the 20s for some progress monitoring. By the last progress monitoring of March, she was reading 68 words per minute. As one might expect, she fell far below the benchmark on the last DIBELS assessment of the year. During these months, she participated in small-group reading strategy lessons and our regular reading conferences. Despite never even getting close to benchmarks on the DIBELS ORF assessment, her miscue scores for syntactic and semantic acceptability rose from the 50s to above 80%, and at times were in the 90s and once even 100%. She routinely gave insightful retellings and could often provide a theme statement in her untimed retellings. Her balanced use of reading strategies is reflected in her spider graph. (See Figure 4.)

![Alyssa's miscue graph.
](image)

**Victor**

Victor was a second grader who had received reading interventions in pull-out, small-group contexts and weekly progress monitoring with DIBELS since the beginning of first grade. By the December DIBELS assessment, Victor was almost meeting the ORF and CF benchmarks, so he was dropped from the intervention group and his progress monitoring fell to me. It was clear from my first progress monitoring with him in January that speed was a concern to him. He ended almost every progress monitoring session by asking about his score and how many words he read. None of the other children that I was monitoring showed any concern for the one-minute reading score. In the first progress monitoring we did together, Victor was very close
to the ORF benchmark of 72, but had miscue scores of just 75% for syntactic and semantic acceptability and 100% for graphophonic similarity. As we focused more and more on using language sense during our reading conferences and reading strategy lessons, Victor’s miscue scores actually declined to a low of 59% for his use of syntax and meaning, while his scores for graphophonic similarity remained high. Throughout these months, before and after every progress monitoring session, Victor and I talked about the importance of monitoring and self-correcting, of maintaining language sense and building meaning. By the end of the progress-monitoring period, Victor was doing a better job of using syntactic cues, but his scores for semantic acceptability were still low and his retellings revealed some misunderstandings and little detail, as revealed in Figure 5.

![Figure 5. Victor’s miscue graph.](image)

All of the children in the study improved their ORF scores during the spring semester. However, Victor was the only one of the progress-monitored students to make the benchmark for ORF on the last DIBELS assessment of the year. Despite his DIBELS success, he had the lowest scores for syntactic and semantic acceptability and the poorest-quality retellings of all the students in the progress-monitoring group. And let us not forget Alex, who was never identified by DIBELS as needing any kind of reading intervention; and Sarah, identified through miscue analysis as the strongest reader of the group based on her overwhelming concern for language sense and meaning, who did not make benchmarks on DIBELS in any progress monitoring or assessments. Thankfully, Sarah cared little about the results and continued to read for the pure enjoyment of time spent with a good book.

At the end of the school year in my classroom, we hold portfolio parties, events at which families listen as the students share examples of work that they feel demonstrates their growth over the year. Several of the students in the DIBELS progress-monitoring group chose to include their reading conference record sheets. As they presented to their families, they commented on their ability to use effective reading strategies and even pointed out the changes in their miscue patterns over the course of the year. None of them chose to include their DIBELS scores or progress monitoring.

Clearly, for the students in my classroom, DIBELS did not do a good job of identifying who was in need of intervention and who was developing proficient reading strategies. If we rely on DIBELS to mark the path for instruction, children who are not in need of interventions can be targeted, at times in pull-out programs where instruction is guided and learning measured by DIBELS, leaving even less time for meaningful instruction of proficient reading strategies and independent reading. On the other hand, children who are in need of more support might not be identified by DIBELS, a situation that is not necessarily a disadvantage, provided the teacher is attuned to the students’ strategy use. If Victor is typical of students who are subject to repeated progress monitoring using DIBELS over months or years, these children may end up receiving the wrong kind of support, reinforcing the view that good reading can be measured by speed and accuracy instead of an emphasis on proficient strategy use.

I have found DIBELS to be an exercise in futility. In its one-minute exercises, little attention is given to comprehension. These assessments are based on an outdated view of reading as word recognition that is deemed successful only if the reading is fast and accurate. Students who take time to self-monitor their reading, who self-correct...
their miscues, and who vary their reading pace to reflect the meaning conveyed to them by the text are penalized for their proficiency as readers. Children who skip every word they do not recognize and who do not bother self-correcting while waiting for someone to tell them the word are considered “good readers” by DIBELS. In the end, we are using an assessment that is inadequate and inaccurate for the task and taking the results far too seriously. Instead of DIBELS as an acronym for Dynamic Indicators of Basic Early Literacy Skills, I would propose the acronym stand for Dubious Indicators of Bogus Early Literacy Skills.

Unfortunately, in my state, we do not have much of an out. DIBELS is one of three assessments approved for state-required initial screenings of students at the beginning of each school year, kindergarten through third grade. It is the screening instrument of choice because of its relatively low cost. Along with ongoing progress assessments, which are not specified in state statute, these measures are to be used to plan instruction and intervention. More recently, state statute has tied teacher evaluations to test scores, and because primary students do not take state tests, DIBELS is the measure used to label not only students as “in need of intervention,” but teachers, too. Since the 2013–2014 school year, DIBELS also has become a factor in our state’s Move On When Reading law. Under this piece of legislation, students who do not at least meet the benchmark of “Approaching the Standard” on the reading subtest of the third-grade state exam are retained in grade, regardless of their reading progress as determined by other measures or their achievement in other areas of the curriculum. Three weeks into kindergarten, after the initial DIBELS screening, children who fail to meet the beginning-of-the-year benchmark on the fluency measures for phonemic awareness, alphabetic principle, and nonsense word fluency are identified as needing intervention. Their parents receive a state-mandated letter informing them that their children are at risk of being retained in third grade if they don’t make adequate progress. For these children, their identity as readers is set for them before they have ever really had the chance to acquire literacy. Sometimes even children who are already reading in kindergarten fail the DIBELS assessments. In other words, there is a whole lot riding on these “silly little tests.”

When our teachers’ association and the district proposed using DIBELS to determine eligibility of teachers for additional monies if, as schools, we reached certain growth goals, I wrote an impassioned letter to the district administration and the school board. I shared research on value-added measures and DIBELS, including my own, and suggested that other measures be considered. It’s been over two years since then, we are now using DIBELS to evaluate teachers and school progress, and I am still waiting for a response.

The following school year, the instructional coach was gone, moved to a different city. When I found the new stack of progress monitoring books in my mailbox following the initial, beginning-of-the-year DIBELS assessment, I pressed my case again, this time with the principal. Armed with my data from the previous year, I pushed the booklets across the table to her and said, “I know too much about reading to do this to my students.” She listened and agreed that I could monitor the students’ progress through our regular reading conferences and miscue analysis, in part, because all of the previous year’s third graders, including the children who failed the last DIBELS progress assessment of the year, met or exceeded the benchmark on the state exam. I knew, and I think the principal did, too, that those outcomes were the result of our strategy lessons and reading conferences, informed by over-the-shoulder miscue analysis and the rich, literacy experiences that characterized my classroom, not DIBELS progress monitoring.

Now I am in my second year working outside of the classroom in a resource position at my school. I am taking advantage of the opportunity to talk with teachers about the rich information that miscue analysis can provide, information that truly informs instruction and honors what children know about reading.

References


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