

Dynamic

Indicators of

Basic

Early

Literacy

Skills

DIBELS (Dynamic Indicators of Basic Early Literacy Skills)

The **Dynamic Indicators of Basic Early Literacy Skills (DIBELS)** are a set of procedures and measures for assessing the acquisition of early literacy skills from kindergarten through sixth grade. They are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills.

DIBELS were developed to measure recognized and empirically validated skills related to reading outcomes. Each measure has been thoroughly researched and demonstrated to be reliable and valid indicators of early literacy development and predictive of later reading proficiency to aid in the early identification of students who are not progressing as expected. When used as recommended, the results can be used to evaluate individual student development as well as provide grade-level feedback toward validated instructional objectives.

History of DIBELS

DIBELS were developed based on measurement procedures for Curriculum-Based Measurement (CBM), which were created by Deno and colleagues through the Institute for Research and Learning Disabilities at the University of Minnesota in the 1970s-80s (e.g., Deno and Mirkin, 1977; Deno, 1985; Deno and Fuchs, 1987; Shinn, 1989). Like CBM, DIBELS were developed to be economical and efficient indicators of a student's progress toward achieving a general outcome.

Initial research on DIBELS was conducted at the University of Oregon in the late 1980s. Since then, an ongoing series of studies on DIBELS has documented the reliability and validity of the measures as well as their sensitivity to student change. The DIBELS authors were

motivated then, as now, by the desire to improve educational outcomes for children, especially those from poor and diverse backgrounds. Research on DIBELS continues at Dynamic Measurement Group (DMG) and at numerous universities and research institutions around the world.

Which skills do the DIBELS measures assess?

The DIBELS measures were specifically designed to assess the Big Ideas of early literacy: **Phonological Awareness, Alphabetic Principle, Fluency with Connected Text, Vocabulary, and Comprehension**. The measures are linked to one another, both psychometrically and theoretically, and have been found to be predictive of later reading proficiency. Combined, the measures form an assessment system of early literacy development that allows educators to readily and reliably determine student progress.

Measures of Phonological Awareness:

- **Initial Sounds Fluency (ISF)**: Assesses a child's skill at identifying and producing the initial sound of a given word.
- **Phonemic Segmentation Fluency (PSF)**: Assesses a child's skill at producing the individual sounds within a given word.

Measure of Alphabetic Principle and Phonics:

- **Nonsense Word Fluency (NWF)**: Assesses a child's knowledge of letter-sound correspondences as well their ability to blend letters together to form unfamiliar "nonsense" (e.g., ut, fik, lig, etc.) words.
- **Oral Reading Fluency (ORF)**: If accuracy is less than 95%.

Measure of Accuracy and Fluency with Connected Text:

- **Oral Reading Fluency (ORF)**: Assesses a child's skill at reading connected text in grade-level materials.

Measure of Comprehension:

- **Oral Reading Fluency (ORF) and Retell Fluency (RTF)**: Assesses a child's understanding of verbally read connected text.

DIBELS as Indicators

The role of DIBELS as indicators is described in Kaminski, Cummings, Powell-Smith, and Good (2008) as follows:

DIBELS measures, by design, are *indicators* of each of the Basic Early Literacy Skills. For example, DIBELS do not measure all possible phonemic awareness skills such as rhyming, alliteration, blending, and segmenting. Instead, the DIBELS measure of phonemic awareness, Phoneme Segmentation Fluency (PSF), is designed to be an *indicator* of a student's progress toward the long-term phonemic awareness outcome of segmenting words. The notion of DIBELS as *indicators* is a critical one. It is this feature of DIBELS that distinguishes it from other assessments and puts it in a class of assessments known as General Outcome Measures.

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progress toward achieving an important outcome. Although DIBELS materials were initially developed to be linked to the local curriculum like CBM (Kaminski & Good, 1996), current DIBELS measures are generic and draw content from sources other than any specific school's curriculum. The use of generic CBM methodology is typically referred to as General Outcome Measurement (GOM) (Fuchs & Deno, 1994).

General Outcome Measures (GOMs) like DIBELS differ in meaningful and important ways from other commonly used formative assessment approaches. The most common formative assessment approach that teachers use is assessment of a child's progress in the curriculum, often called mastery measurement. End of unit tests in a curriculum are one example of mastery measurement. Teachers teach skills and then test for mastery of the skills just taught. They then teach the next set of skills in the sequence and assess mastery of those skills. Both the type and difficulty of the skills assessed change from test to test; therefore scores from different times in the school year cannot be compared. Mastery-based formative assessment such as end of unit tests addresses the question, "has the student learned the content taught?" In contrast, GOMs are designed to answer the question, "is the student learning and making progress toward the long-term goal?"

In much the same way as an individual's temperature or blood pressure can be used to indicate the effectiveness of a medical intervention, GOMs in the area of education can be used to indicate the effectiveness of our teaching. However, the powerful predictive validity of the measures does not mean that their content should become the sole components of our instruction. In other words, unlike mastery based assessment in which it is appropriate to teach the exact skills tested, each DIBELS indicator represents a broader sequence of

skills to be taught. (For an example of sequence of skills related to and leading to the goals, please see the Curriculum Maps). DIBELS measures are designed to be brief so that our teaching doesn't have to be.

Why use DIBELS?

Teaching with the *odds in your favor*.

The purpose of the DIBELS Benchmark goals is to provide educators with standards for gauging the progress of all students. The Benchmark goals represent minimum levels of performance for all students to reach in order to be considered on track for becoming a reader. The DIBELS goals and cut scores are research-based, criterion-referenced scores. They indicate the probability of achieving subsequent early literacy goals. Benchmark goals for each measure and time period were established using a minimum cut point at which the odds were in favor of a student achieving the next benchmark goal. For a score to be considered a benchmark goal, at least 80% to 85% of students in the sample with that score at that point in time had to achieve the next goal. So, for a child with a score at or above the benchmark goal at a given point, the probability is high for achieving the next goal; the probability of need for additional support to achieve the next goal is low.

In addition to these goals, DIBELS also include cutoff scores where the odds against achieving subsequent literacy goals are indicated. These cutoff points represent scores at which 20% or fewer students typically achieve subsequent goals. Students with scores at or below these cutoff points are extremely unlikely to meet subsequent early literacy goals unless additional instructional support is provided.

A unique feature of the DIBELS benchmark decision rules is the inclusion of a zone where a clear prediction is not possible. Scores that fall between the benchmark goal and the cutoff score represent patterns of performance where approximately 50% of students achieved subsequent literacy goals. Students with scores in this category require strategic planning on the part of educators to determine appropriate strategies to support the students to meet subsequent early literacy goals.

If your child is just beginning to learn to read

At home you can help your child by...

- *Practicing the sounds of language.* Read books with rhymes. Teach your child rhymes, short poems, and songs. Play simple word games. *How many words can you make up that sound like the word "bat"?*
- *Helping your child take spoken words apart and put them together.* Help your child separate the sounds in words, listen for beginning and ending sounds, and put separate sounds together.
- *Practicing the alphabet by pointing out letters wherever you see them and by reading alphabet books*

If your child is just beginning to read

At home you can help your child by...

- *Pointing out the letter-sound relationships your child is learning on labels, boxes, newspapers, magazines and signs.*
- *Listening to your child read words and books from school.* Be patient and listen as your child practices. Let your child know you are proud of his reading.

If your child is reading

At home you can help your child by...

- *Rereading familiar books.* Children need practice in reading comfortably and with expression using books they know
- *Building reading accuracy.* As your child is reading aloud, point out words he missed and help him read words correctly. If you stop to focus on a word, have your child reread the whole sentence to be sure he understands the meaning.
- *Building reading comprehension.* Talk with your child about what she is reading. Ask about new words. Talk about what happened in a story. Ask about the characters, places, and events that took place. Ask what new information she has learned from the book. Encourage her to read on her own.

Nonsense Words

The ability to blend together the sounds represented by letters to make words is an important skill in learning to read. This skill helps children in kindergarten, first and second grade to use their knowledge of the relationship between letters and sounds to read unfamiliar words. Children are shown a page of make-believe words, like "tob" or "miv," and asked to read them by saying the individual sound of each letter in the word or the whole word itself. It takes only one minute to give this test.

Oral Reading

This is a measure of how fluently and accurately children can read passages written at their grade level. This is given throughout the first, second, and third grades. Children are given three passages and asked to read each one aloud for one minute. Children who read accurately and fluently are better able to understand what they read.



Letter Naming

Kindergarten and first grade students are given a page with letters and asked to name each one. This test tells us if the child is likely to struggle or be a successful reader in the future. It only takes one minute to give this test.

Initial Sounds

By the middle of kindergarten, children should be able to say or recognize the beginning sounds in words automatically. To measure this with DIBELS, students are given a page with four pictures. They are asked to find the picture that starts with a particular sound or to say the beginning or initial sound in a word. It takes about three minutes to give this test.

Phoneme Segmentation

This is a measure of children's awareness of the many sounds that make up words we speak. It is given to kindergarten and first grade students and is a skill that should be mastered by the end of kindergarten. The child is told a word like "cat" and asked to say all of the sounds in the word. There are three sounds in "cat" it takes only one minute to give this test.